



United Nations Development Programme

Country: Uganda

PROJECT DOCUMENT



Project Title: Enabling Environment for SLM to overcome land degradation in the Uganda cattle corridor Districts.

UNDAF Outcome(s): Vulnerable segments of the population increasingly benefiting from sustainable livelihoods and, in particular, improved agricultural systems and employment opportunities to cope with population dynamics, increasing economic disparities, economic impact of HIV/Aids, environment shocks and recovery challenges by 2014.

UNDP Strategic Plan Environment and Sustainable Development Primary outcome: Local Capacity for mainstreaming Environment and energy provision into national development policies, plans and programmes

UNDP Strategic Plan Secondary Outcome: Markets transformed to support sustainable use of natural capital in national development

Expected CP Outcome(s): Selected institutions have capacity for Sustainable Environment and Natural Resources Management (ENRM) as well as Climate Change (CC) adaptation and mitigation

Expected CPAP Output (s) (1) Selected national and Local Government institutions have the capacity to develop key policies and systems for sustainable ENRM and CC adaptation and mitigation and (2) Selected Local Government (LG) and communities have the capacity to mainstream and pilot sustainable ENRM, CC adaptation and mitigation interventions

Executing Entity: Ministry of Finance, Economic Planning and Development

Implementing partner: Ministry of Agriculture, Animal Industry and Fisheries

Other partners: Ministries (Energy and Mineral Development, Lands, Housing and Urban Development, Water and Environment and Districts Local Governments of Nakasongola and Kamuli

Brief Description

- A. Constituting the country's rangelands, the Uganda Cattle Corridor covers an estimated area of 84,000 km², or 43% of the country's total land area, and is home to a population of 6.6 million people. The corridor is host to a mixed production system comprising of nomadic pastoralists, agro-pastoralists and subsistence farmers; all subsisting in the drylands with a production system characterized by five critical facts: unclear, insecure land and resource tenure, increasing demand for biomass energy, low levels of economic growth, high and growing population and uncertain climatic conditions. The corridor exhibits serious land and resource degradation driven by overgrazing, inappropriate agriculture and deforestation. Overall impact of degradation has been the disruption of ecosystem services, particularly provisioning services due to: habitat fragmentation that reduces complexity and diversity; soil erosion with consequent declining fertility and declining productivity; and, invasion by termites and nutrient loading of water bodies.
- B. There are three key barriers to the adoption of sustainable land management systems in the cattle corridor: weaknesses in the policy and policy implementation, weak capacity for the use of knowledge to guide land use planning and the lack of alternative income generating activities to support local economic development and sustainable land management.
- C. The overall goal of the project is "Sustainable Land Management" that provides the basis for economic development, food security and sustainable livelihoods while restoring the ecological integrity of the Cattle Corridor ecosystem. The objective of the project is to provide land users and managers with the enabling policy, institutional and capacity environment for effective adoption of SLM within the complexity of the cattle corridor production system, achieved through 3 major outcomes plus a project management component. These are: i) The policy, regulatory and institutional environment support sustainable land management in the cattle corridor (in particular policy and legislation for sustainable charcoal and the security of tenure strengthened); ii) Knowledge based land use planning forms basis for improving drylands farming and pastoralism for sustainable economic development (capacity for land use planning developed and utilized). iii) Local economic development facilitated through diversification and access to finance and insurance; iv) Project managed effectively and lessons used to upscale SLM in the cattle corridor districts and the country.
- D. This four year project and the UNDP Drylands Development SLM Capacity building project are a programme that forms one component of the Uganda SLM Investment Framework. Coordinated by the UNCCD Focal Ministry, the Framework seeks to integrate all country SLM initiatives under a harmonized platform to improve coordination among the different SLM stakeholders in Government, Development Partners, NGOs and Civil Society. The two UNDP projects will feed directly to the harmonized SLM country agenda. The immediate focus of this GEF project is the central area of the Cattle Corridor, in Nakasongola and Kamuli Districts. Partnerships formed and lessons learnt will be used to support SLM in the other districts in the corridor, through the DDC co-finance capacity project. The project total budget is US \$ 4,430,730 of which GEF contributes US \$ 1,830,734 (41%), UNDP US \$ 2,000,000 (45%) and GoU and the resource users in the corridor US \$ 600,000 (14%).

Programme Period: 4 years
 Proposal ID: 00058105
 Project ID: 00072031
 PIMS No: 3227
 Start date: Jan 2010
 End Date: Dec 2013
 Management Arrangements: NEX
 Virtual PAC Meeting Date: 8th - 30th Sept '09

Total resources require US\$	4,230,930
Total allocated resources: US\$	4,230,930
• Regular	
• Other:	
o GEF	1,830,730
o Government	100,000
o In-kind	100,000
o UNDP (DDC/CO)	2,200,000
In-kind contributions	

Agreed by (Executing Entity of Government): *Muhallami* Date/Month/Year *27/04/10*

Agreed by (Implementing Partner): *Armuti* Date/Month/Year

Agreed by (UNDP): *T. M. J. J. J.* Date/Month/Year *12/08/10*

Table of Contents

1. PART I: Situation Analysis	5
1.1 Environmental context and global significance	5
1.2 Social economic context:	6
1.3 Drivers of land degradation and loss of ecosystem services	7
1.4 Legislative, institutional, policy and programming context.....	13
1.5 Baseline Programs related to sustainable land management in the cattle corridor	17
1.6 Barriers to sustainable land management in the cattle corridor	19
1.7 Stakeholder analysis	22
2. PART II: Strategy	23
2.1 Project Goal, Objective, Outcomes and Outputs/activities	23
2.2 Project Indicators, Risks and Assumptions	31
2.3 Incremental reasoning and expected global, national and local benefits	35
2.4 Country Ownership: Country Eligibility and Country Drivenness.....	36
2.5 Sustainability:.....	36
2.6 Replicability	37
3. PART III: Management and implementation arrangements.....	38
3.2 Management Arrangements	38
4. Part IV: Monitoring and Evaluation Plan and Budget	43
4.2 Project start:.....	43
4.3 Quarterly.....	43
4.4 Annually.....	43
4.5 Periodic Monitoring through site visits:.....	44
4.6 Mid-term of project cycle:.....	44
4.7 End of Project:.....	44
4.8 Learning and knowledge sharing:	44
4.9 Legal Context	45
4.10 Audit Clause	45
5. SECTION II: STRATEGIC RESULTS FRAMEWORK (SRF) AND GEF INCREMENT	47

Acronyms

ADB	:	African Development Bank
ALD	:	Aid Liaison Department
APR	:	Annual Project Report
AWP	:	Annual Work Plan
CAADP	:	Comprehensive Africa Agriculture and Development Programme
CAHWs	:	Community Animal Health Workers
CAO	:	Chief Administrative Officer
CBEA	:	Community Based Extension Agent
CBO	:	Community Based Organization
CIG	:	Common Interest Group
CO	:	Country Office
CPAP	:	Country Programme Action Plan
DDC	:	Drylands Development Center
DDP	:	District Development Plan
DEAP	:	District Environment Action Plan
DLG	:	District Local Government
DPSC	:	District Project Steering Committee
DTPC	:	District Technical Planning Committee
DWD	:	Directorate of Water Development
FACE	:	Funding Authorization & Certificate of Expenditures
FAO	:	Food and Agriculture Organization of the United Nations
FI	:	Farmer Innovator
FIEFOC	:	Farm Income Enhancement and Forest Conservation Project
FY	:	Financial year
GEF	:	Global Environment Facility
GoU	:	Government of Uganda
HACT	:	Harmonized Cash Transfer
IDDP	:	Integrated Drylands Development Programme
IFAD	:	International Fund for Agricultural Development
IR	:	Inception Report
LC	:	Local Council
LGDP	:	Local Government Development Programme
LPAC	:	Local Project Appraisal Committee
MAAIF	:	Ministry of Agriculture, Animal Industry and Fisheries
MDGs	:	Millennium Development Goals
MEMD	:	Ministry of Energy and Mineral Development
M&E	:	Monitoring and Evaluation
MFPED	:	Ministry of Finance Planning and Economic Development
MLHUD	:	Ministry of Lands, Housing and Urban Development
MOLG	:	Ministry of Local Government
MOU	:	Memorandum of Understanding
MSP	:	Medium Sized Project
MWE	:	Ministry of Water and Environment
NAADS	:	National Agricultural Advisory Services
NALPIP	:	National Livestock Productivity Improvement Project
NAP	:	National Action Programme
NAPA	:	National Adaptation Programme of Action
NCSA	:	National Capacity Self Assessment
NEMA	:	National Environment Management Authority

NEPAD	:	New Partnership for Africa's Development
NEX	:	National Execution
NFA	:	National Forestry Authority
NGO	:	Non-Governmental Organizations
NORAD	:	Norwegian Agency for International Development
NPM	:	National Programme Manager
PC	:	Project Coordinator
PSC	:	Project Steering Committee
PEAP	:	Poverty Eradication Action Plan
PEAP	:	Parish Environment Action Plan
PEI	:	Poverty and Environment Initiative
PFI	:	Promoting Farmer Innovations
PIF	:	Project Implementation Framework
PMU	:	Programme Management Unit
PS	:	Permanent Secretary
PSC	:	Project Steering Committee
RDMC	:	Rangelands Development and Management Centre
SDP	:	Sub-county Development Plan
SEAP	:	Sub-county Environment Action Plan
SLM	:	Sustainable Land Management
TOR	:	Terms of Reference
TPR	:	Tripartite Review
UCSIF	:	Uganda Country Strategic Investment Framework
ULAMP	:	Uganda Land Management Project
UNCCD	:	United Nations Convention to Combat Desertification
UNDP	:	United Nations Development Programme
UNEP	:	United Nations Environment Programme
UNFCD	:	Uganda National Fund to Combat Desertification
WB	:	World Bank

1. PART I: Situation Analysis

1.1 *Environmental context and global significance*

1. The cattle corridor of Uganda is semi-arid transition zone across the centre of the country, between the wet forest / grassland mosaics to the south around Lake Victoria, and the arid grasslands on the Sudanese border in the north (Karamoja). The corridor runs in from the South-west to the North-east direction, from the Rwanda border to the Sudan/Somalia/Kenya borders. Constituting the country's rangelands, the corridor covers an estimated area of 84,000 km², or 43% of the country's total land area, and is home to a population of 6.6 million people. The cattle corridor has 39 districts with differing coverage of rangelands ranging from complete coverage in Moroto, Kotido and Soroti, to over 60% in Kiboga, Mubende, Nakasongola, Kamuli, Sembabule, Mbarara and Ntungamo to the very low levels in Kabarole and Mbale (Map of Uganda showing the cattle corridor is annex 1).
2. The cattle corridor exhibits most of the characteristics of rangelands; low and erratic rainfall regimes interspersed by frequent and severe droughts and fragile soils with weak structures which render them easily eroded. Rainfall ranges between 500-1000 mm annually. Rainfall is bimodal with peaks in March – June as well as August – November. The annual average rainfall is 1350 mm, while the monthly mean is 75 mm to 100 mm. The soil types in the cattle corridor are predominantly poorer than soils in the rest of the country.
3. **Soils:** Uganda is underlain by some of the world's oldest rocks which have been modified and altered by deep-seated tectonic activity. Although Uganda has relatively rich soils, the corridor soils are generally poor but level of richness varies somewhat between the districts. Nakasongola has predominant sandy clay loams and black clays with very low productivity while Kamuli has more volcanic soils with medium to low productivity. A recent assessment of the nutrient status of soils used for crop production in the corridor indicated that most soils had a high sand content (more than 60%), indicating susceptibility to leaching. The bulk density for all samples was above the critical value of 1.3g/cc-3; this is attributed to the trampling of the soil by livestock. Phosphorus levels were very low, with 87% of the sampled soil falling below 3g/mkg-3, way below the critical value of 15g/mkg-3 needed to support vigorous growth of both crops and vegetation. The low levels are attributed to the constant removal of vegetation by the livestock, burning, deforestation and erosion of the top soil.
4. The dominant vegetation type for the region was described as in 1948 as being dry Acacia savanna comprised of an Acacia / Cymbopogon / Themeda complex. The woody vegetation varied from 5 to 20 percent canopy cover consisting mainly of Acacia species. Acacia gerrardii was considered to be the dominant species derived from a thicket climax by burning and grazing. Other Acacia species included A. hockii and A. sieberiana. The grass layer was described as being dominated by Cymbopogon afronardus with abundant Brachiaria decumbens, B. platynota, Themeda triandra, Panicum maximum, Hyparrhenia filipendula, Chloris gayana and Loudentia kagerensis. Other common grasses included *Cymbopogon afronardus*, *Themeda triandra*, *Hyparrhenia filipendula*, *Loudentia kagerensis*.
5. Much of the vegetation today is however secondary, having succeeded the original forest cover as a result of farming, fuel harvesting and other forms of land use. In Nakasongola, Woodlands cover about 6.8% of district area (1276.9sq kms) with four central forest reserves in the district covering an area of 24.8 sq km (Katuugo, Kyalubanga, Kasagala and Wbisi- Wajala). Small-scale farmland which supports subsistence farming covers about 15.8% of the total land, including rural settlement. Livestock grazing activities are concentrated mainly in grassland and bush land areas, which make up together 35.8% of the land.
6. Like other drylands, the cattle corridor is a unique ecosystem: it is fragile yet resilient, and provides a unique set of ecosystem services to support the country's economic development and the environment. Being the

driest part of Uganda, the corridor represents the key drylands ecosystem and species for the otherwise generally high rainfall country. The corridor constitutes the catchment system for the Lakes Kyoga, Victoria and the Nile River. The wetlands in the cattle corridor play a key role in modulating water flow to the important water bodies, and in particular regulating flooding and preventing siltation.

7. Rangelands provide the cheapest form of nutrients for wild and domestic animals through grazing on the natural vegetation. Indeed the cattle corridor supports about 90% of the national cattle population, mainly kept by pastoral and agro-pastoral communities. About 85% of the total marketed milk and beef in the country is produced from indigenous cattle which thrive on natural rangeland pasture. Livestock constitutes a crucial part of Uganda's food production, accounting for roughly one third of the total value of agricultural output. At the turn of the century, the cattle corridor was home to a diverse group of wild animals, ranging from large ungulates to butterflies.
8. Land use activities in the corridor have led to land degradation in the form of soil erosion, declining soil fertility and deforestation, with serious disruption to the provision of ecosystem services for livelihoods, economic development and environmental management. The degradation in the cattle corridor mirrors land degradation at national level. According to the state of the environment report (SOER, NEMA, 2007), more than 40% of the country's land is degraded, the country is losing up to 250 tons of soil per year and the forest cover declined from about 5 million hectares in 1990 to 3.7 million hectares in 2005. Many more hectares of forests have undergone forest degradation and are less capable of sustaining ecosystem services. Although the 7.2 million hectares of arable land under crop agriculture is less than 50% of the potential arable land, the SOER suggests that with the current farming practices, arable land will run out in most parts of Uganda by around 2022.

1.2 *Social economic context:*

9. **Land-use:** Most of the cattle corridor was traditionally inhabited by pastoralists who communally grazed their herds on the range, mixed with limited rain-fed agriculture. Traditional pastoralism, which evolved over thousands of years, contained strategies for coping with the challenging physical, climatic and biological environment conditions in the drier lands. Under this system herds were moved continuously following no set pattern along pre-determined routes each year in search of water and pasture following the seasonal rainfall pattern. The management system was centered on the pastoralists' subsistence needs where a diversity of disease resistant livestock which could survive under stress of poor grazing conditions, high temperatures and constant movement: e.g. sheep and goats have high reproductive rates, lactate even in dry periods and goats feed on a wide range of vegetation.
10. The pastoral production system was therefore characterized by extensive grazing based on mobility of herds across rangelands. Today most pastoralists have become agro-pastoralists due to the changing social economic conditions in addition to deliberate government policies promoting sedentarization and land privatization. Ranching schemes were established in the 1960s that saw most of the area subdivided to create commercial ranches under the Ankole –Masaka Ranching Scheme, and displacing many of the indigenous pastoralists¹. The ranches were restructured in the late 1980s and many pastoralists acquired pieces of land for settlement and grazing.
11. Milk is the main product of the pastoral households but cattle are also kept for prestige, social and other cultural functions. Although production is still predominantly subsistence, there is an on-going shift from traditional subsistence to commercial enterprises. While the traditional beliefs of prestigious large herds, minimum input and respect for the various roles performed by cattle are still pertinent, there is increasingly a

¹ (Doornbos and Lofcie 1967)

strong desire to produce higher quality and more productive animals for the market. Many of the pastoralists express the desire to commercial operations, but lack the resources to do so.

12. Three types of criticisms have been leveled against nomadic pastoralists and used as the basis for the sedentization policy: economic, environmental and socio-political. Some economists still argue that mobile pastoralists have irrational economic practices, such as hoarding of livestock or refusal to engage in a market economy. Some environmentalists/ecologists still argue that pastoralism is inherently destructive to the environment and causes desertification because of the 'tragedy of the commons'. Some government officials consider mobility to be anarchic and pastoralists to be ungovernable, and advise that pastoralists be settled. There is however a growing realization amongst ecologists and economists that pastoralists are the best custodians of drylands environments, because pastoralism is the most sustainable production system in the drylands and one of the few production systems that is genuinely compatible with nature conservation. From an environmental perspective, pastoralism has also been clearly demonstrated to be sustainable and in many cases indispensable for effective land management. Traditional mobility is based on management of ecological heterogeneity, adapting to seasonal change, and sustainable use of key sites. Many drylands are dependent on animal impact to maintain ecosystem health and resilience, and additionally many pastoralists practice sustainable natural resource extraction based on a rich understanding of their natural environment. Adaptive strategies used include opportunistic mobility and tracking, wildlife / livestock integration, crop / livestock integration, traditional reserves and other forms of grazing control, sustainable medicinal plant harvesting, communal Water management, food diversity and security and risk management.
13. Despite these facts pastoralists stewardship of the land is undermined by inappropriate policies and planning and by fierce competition over their natural resources (from agriculture and conservation). Like in the rest of the world, the cattle corridor pastoralists are socially and politically marginalized, their livelihoods are undervalued, they receive inadequate public and private investment, and development in the corridor has often systematically weakened the production system and exacerbated land degradation. There is need to separate livestock mobility from settled people.
14. **Crop production:** Although most of the cattle corridor is generally too dry for crop production, rain fed agriculture has spread rapidly in the last two decades. Food crops dominate the sector and major crops include maize, bananas, groundnuts, cassava, beans, finger millet, sorghum and sweet potatoes. Maize and groundnuts are grown both as cash and food crops. In some districts rice is grown under irrigation, with the support of the Plan for modernization of agriculture. Subsistence farmers in the region have received widespread support and technical advice related to improving productivity under rain fed drylands agriculture but impacts are still limited, and productivity still very low (more detail on current improved agricultural practices can be found in the co-finance project, which focuses largely on this issue).
15. **Forest sector:** The present level of Uganda's forestland is just about 20% of the 1890 coverage². The major causes of deforestation are provision of wood fuel and clearing of land for agricultural activities. About 92% of Uganda's source of energy is biomass, mainly wood and charcoal. By 1986, Uganda was already in wood fuel deficit by 2.7 million cubic metres. Bush burning during the dry season is also increasing the extent of wind erosion, especially in the eastern districts of Katakwi, Moroto and Kotido.

1.3 Drivers of land degradation and loss of ecosystem services

16. The cattle corridor has experienced dramatic land and forest degradation driven by a combination of inappropriate land use (agricultural encroachment into forests and reserves) and the weakening of pastoralism as a production system. These are in turn driven by high population growth, high dependence on natural resources coupled with poor resource management, and poor economic development, poverty and more recently, climate change.

² State of Environment report, NEMA 2007

17. **A history of top down approach to land management that weakened pastoralism as a production system:** Opportunistic movement of livestock is today widely acknowledged as an effective technology for making optimum use of a highly varied ecosystem, increasing resilience and helping communities dependent on livestock to adapt to climatic variability. Curtailing this movement weakens not only the productivity of the ecosystem but also the food security of the people. Yet since colonial times, a policy of settling nomadic pastoralism has been actively pursued, based on misunderstanding of the role of pastoralism in optimal exploitation of drylands.
18. Past governments, both colonial and independent, have consistently been more interested in crop agriculture for both export and food production; intervention centered only on soil erosion as the main environment hazard. The concern was more on the preservation of the environment and increased crop production than on the well-being of the people. The pastoralists in particular were considered merely as agents of environmental degradation who interfered with cash and food crop production, rather than the custodians of the natural resources with vested interest in sustainable management and with systems that could be deployed to achieve multiple objectives.
19. Most crucially policy makers and technicians failed to recognize pastoralism as an economic activity that needed business skills and quick decision making mechanisms by the 'farmers'. Further they failed to separate livestock mobility, needed for ecological stability from peoples' mobility, perceived to be a pre-condition for a modern lifestyle. They therefore sort to change pastoralism, the production system rather than to support the people to increase productivity while pursuing modern lifestyles.
20. Government interventions of the pre-1980's were characterized by a "coercive" top-down approach that included gazettement of highly eroded land as "non-grazing" areas and forest reserves. Other interventions included forced de-stocking to reduce livestock population densities, limits to goat browsing in pastoral area, grass planting and afforestation in watershed areas and construction of dams in water catchment areas. In most cases, these efforts failed to control land degradation, or to improve livestock production or to improve the welfare of the population. Although there is a growing realization amongst ecologists and economists that pastoralism is the most ecologically sustainable production system in the drylands and one of the few production systems that are genuinely compatible with adaptation to climate variability, pastoralism continues to be undermined in the cattle corridor.
21. Traditional mobility has been limited by introduction of international boundaries, security problems and increasingly frequent droughts made worse by localized fencing of farms and wetlands. This has reduced the effectiveness of a key tool traditionally used by pastoralists: the management of ecological heterogeneity, adapting to seasonal change, and sustainable use of key sites. Although pastoralists have highly heterogeneous local systems with a strong sense of community that maintains the groups social capital necessary for effective utilization of the rangelands, their traditional systems have been undermined by the urge to transform socio-economic institutions governing rangelands under pastoralism to equate them with institutions governing other farming systems. This has weakened their stewardship of the land and allowed fierce competition over their natural resources (from agriculture and conservation).
22. Although some pastoralists still practice a pure form of pastoralism, many have settled to a form of "agro-pastoralism". In addition, the rangelands are under communal ownership; without security of tenure, the non-pastoral groups tend to treat this as free land for agricultural extensification. Agriculturalists tend to settle in the high potential rangelands that are very crucial fall-back areas for pastoralists, especially in draught years. The pastoralists are confined in ever smaller rangelands making current stock levels to exceed the rangelands' carrying capacity, resulting in reduction of forage below the biological minimum over time. The resultant overstocking has led to overgrazing and loss of grasslands, particularly around settlements and along water routes.

23. This problem is country-wide. Grasslands covered 21% of the country in 1998 (NEMA, 1998) with an estimated annual loss of 9%. The annual loss is however higher in the cattle corridor; a 2007 UNDP/NEMA assessment of the Kyoga basin revealed that grasslands in Nakasongola district declined from 78 100 to just 40 182 ha between 1990 and 2004, a total loss of over 50%. The situation is exacerbated by water scarcity in the cattle corridor due to the naturally dry climate. This reduces productivity and triggers conflict amongst the pastoralists and the farmers particularly during the dry season. Conflicts over resources are reported to be on the increase.
24. Bush burning has contributed to land degradation. Pastoralists often burn the standing grass at the end of the dry season. This practice is intended to break the cycle of the disease by killing off vectors such as ticks, as well as to invigorate the growth of grass. However, burning also decreases soil organic matter and increases volatilization of nutrients. Intense heat makes soil articles water repellent, increasing run off and water erosion. The resulting effects of overgrazing include soil compaction, erosion (particularly gully erosion) and emergence of low-value grass species and vegetation with subsequent decline in carrying capacity of the land and therefore even lower productivity. Bare plain slopes lose the ability to retain water, resulting in extensive erosion of fertile topsoil and siltation of the rivers that drain into Lakes Kyoga and Victoria.
25. **Inappropriate agriculture:** The drive to settle pastoralists was accompanied by a serious drive to replace cattle with crops. The governments (both colonial and independent) introduced cash crops (e.g. rice) whose acreage expanded rapidly and spontaneously as well as other subsistence crops through government sponsored special crop production schemes. The production was mainly increased through opening new land.
26. Crop production in the cattle corridor is characterized by three interrelated problems that tend to reinforce each other to exacerbate the vicious cycle of environmental degradation and poverty: these are low natural potential for supporting crop production, low investment in agriculture and low technology production system. Being largely in the semi-arid to arid lands, most of the corridor receives generally low and erratic rainfall with high incidents of prolonged drought. Subsistence farming is almost entirely rain-fed and therefore seasonal, except the cultivation along the rivers and lakes.
27. The growing demand for food in urban areas has supplied a steady market for food crops turning them into “cash crops”. A range of “high water demand” crops is grown including coffee, maize, groundnuts, beans, sweet potatoes and cassava. These crops are more suited to high rainfall areas and yields are often low, particularly as the average land holding for an average farmer is low; In Kamuli and Nakasongola for example, this is 2 and 4 hectares. This situation is exacerbated by the fact that there is limited investment in improved practices such as addition of inorganic or organic fertilizers or application of soil conservation measures.
28. Although simple technologies for increasing fertility and water retention in cropping systems abound, majority of the farmers in the corridor still have little knowledge or opportunities to learn about the technologies and adoption is very limited. PPG studies showed that less than 1% of farmers used chemical fertilizers and that despite the large quantities of livestock manure available in the local system only 36 percent of the farmers used it. Many grow the same crops on the same piece of land year after year, crop rotation or agro-forestry is hardly practiced and only 15 percent of the crop residues were used as compost or mulch in the fields.
29. Indeed, a negative link between energy poverty, environmental degradation and economic stagnation is starting to emerge in the corridor. Due to the high depletion of woody vegetation, many households are resulting to animal waste and crop residues for domestic energy (heating, lighting, cooking), further mining

the soils with the consequent soil fertility loss and declining productivity. This necessitates clearing of new fields for crop production where the whole cycle plays out over and over.

30. **Deforestation:** The major causes of deforestation are provision of wood fuel and clearing of land for agricultural activities. The National energy consumption by sources stands at 93% from biomass, 6% from petroleum and 1% from hydro power. Only 5 per cent of Uganda's population has access to electricity; a high percentage of the biomass energy is therefore consumed either as charcoal or wood fuel with a smaller proportion provided by animal waste and crop residues. The situation is exacerbated by high levels of inefficiency in conversion coefficients during carbonization and charcoal and wood use. Indeed by 1986, Uganda was already in wood fuel deficit by 2.7 million cubic metres (NEMA, 2007).
31. In the cattle corridor charcoaling is driven by both "push and pull" factors. Being close to large urban areas (Kampala and Jinja) the corridor has a ready market for both charcoal and fuelwood, whose demand is exacerbated by the current major electricity shortfall and high electricity tariffs, compounded by growing urban populations and growing urban poverty. The high dependence on rain-fed agriculture coupled with high levels of poverty increase the vulnerability of the cattle corridor population to natural disasters. The communities cope by diversifying livelihoods and sources of income through migration in search of work or by indulging in extractive use of land and natural resources such as charcoaling, fish smoking, brick making, sand mining, stone quarrying, etc.
32. In the sixties and seventies the strenuous charcoal production process was considered inferior to farming and cattle keeping and only employed a small section of the population living on the margins to the chronic poverty and vulnerability to drought. The situation has changed drastically in the last 3 decades. The percentage of chronically poor has increased considerably and demand for charcoal risen dramatically with increased urbanization and improved transport between rural areas and the urban centers. Exacerbated by the declining productivity of the land and unreliable markets for cattle and other alternative income generating activities such as honey, charcoaling has become the major coping strategy for many families, providing quick cash that helps people meet daily needs and ensure food security through the market.
33. Charcoal from the cattle corridor, particularly from Nakasongola is in higher demand due to its high quality (high energy content from *Combretum* and *Terminalia* spp). Indeed charcoaling recently overtook agriculture as the second most important economic activity in the district (after cattle trading). But the charcoal is being produced in highly unsustainable manner, thus leading to short term resource mining that has increased the overall vulnerability of the populations. The charcoal industry is largely unregulated and energy use highly inefficient. Carbonization is exclusively done using the inefficient traditional earth kilns, with conversion coefficient of often less 10%. They are however preferred by local producers because the technology is simple and entails little investments. In addition they are versatile and easily adaptable to relatively large-scale production.
34. **Insecure land and resource tenure:** From an economic point of view, secure tenure is critical to provide incentives for households and entrepreneurs to undertake land-related investments. If their ability to keep the benefits from investments is uncertain, people are unlikely to invest or exert effort. Land in the cattle corridor is owned and managed through four forms of land tenure, with two or three tenure types often overlapping. The confusing land tenure originates from the colonial history.
35. Like other former British colonies, Uganda's land policy is a problematic blend of formal English law and traditional African ownership systems. At the dawn of colonialism the British imperial authorities entered into a series of agreements with Buganda, Toro and Ankole traditional rulers that granted them a number of private estates, called Mailo in Buganda, and native freeholds in Toro and Ankole, that were broadly equivalent to the English freehold.

36. All land in the rest of Uganda was declared to be “crown land” and all land users became, at the stroke of the pen, tenants of the British crown. This mixed system persisted after independence but was changed in 1975 under the Government of President Idi Amin. A decree called ‘The Land Reform Decree was issued declaring all land as public land to be held by the State in trust for the people of Uganda, administered by the Uganda Land Commission. The decree abolished all freehold interests in land except where these were vested in the State in which case they were transferred to the Land Commission. It also abolished the Mailo system of land tenure and converted them into leasehold of 99 years where these were vested in public bodies and to 999 years where individuals held them. All laws that had been passed to regulate the relationships between landlords and tenants in Buganda, Ankole and Toro were also abolished. Elsewhere customary land users became tenants at the sufferance of the state.
37. The legal implications of the Land Reform Decree, though not fully felt on the ground, persisted until 1995 when a new Constitution was enacted. The new Constitution abolished the Land Reform Decree and restored the systems of land tenure that were in existence at independence. These were re-stated as customary land tenure, freehold tenure, leasehold tenure and Mailo tenure. A new system of land administration was set up consisting of Land Boards in every district, with the responsibilities of holding land in trust and allocating land not owned by any person or authority; facilitating the registration and transfer of interests in land; and, dealing with all other matters connected with land in the district in accordance with laws made by Parliament. Although the Uganda Land Commission was re-established, the Constitution made it clear that District Land Boards were to operate independently of that Commission and were not subject to the direction or control of any person or authority. They were, however, expected to take account of national and district council policy on land. A new land law was passed in 1998 and further amended in 2003.
38. Unfortunately none of the changes described above have provided security of tenure, particularly in the cattle corridor. The transition of land and resource tenure systems with the evolving institutional arrangements for resource governance has effectively weakened traditional resource governance without replacing them with credible or practical systems. The current tenure regimes especially the Mailo face the challenge of conferring this security. Central to this is the multiplicity of rights and overlapping rights over the same piece of land guaranteed by the Constitution. Currently, it is almost impossible to disentangle the respective values of the Mailo interest and the tenancy in occupancy. It clearly grants both registered landowners and tenants by occupancy rights to land in perpetuity, the condition for tenants being payment of annual ground rent to the registered owner. The rural poor continue to live in relative insecurity of what decision the largely absentee landlords will take and the consequences to them if the land is reclaimed or sold.
39. Under the confusing and insecure land and resource tenure, land users are guided by very short term objectives. For example the tenants (“squatters”) occupying mailo land are not allowed to undertake major developmental projects on such land, and have little incentive to sustainably manage the land. Most tenants are willing to buy themselves out but in most cases the mailo owners or their heirs cannot be traced. A new trend has emerged where absent landlords are selling the land from remote locations without consulting the present squatters. This has sparked off many land wrangles especially when the new owners attempt to occupy the land and vacate the squatters.
40. Almost in contradiction to the above, there is a perception that land is free or cheap and that access or “illegal” access for use was “easy”. In some places in Kamuli and Nakasongola districts, land was so accessible that it could be acquired through borrowing, gifts or leases. However, this is only true when a squatter is giving or selling or leasing land already owned by a mailo landlord. As no serious investment is made into SLM, this practice has resulted in misuse and abuse evidenced in overgrazing and indiscriminate felling of trees.
41. **Climate change:** The cattle corridor has always experienced great spatial and temporal variability in climate, accompanied by frequent cycles of drought and flooding. Climate change scenarios carried out by

Meteorology department of the United Kingdom in conjunction with Meteorology Department of Uganda predict little change in average rainfall, but they suggest much greater variability, fewer rain days and greater intensity of un-seasoned erosive storms. It is predicted that the frequency and intensity of extreme weather events will continue to increase with increasing climate change. Between 1991 and 2000, Uganda experienced seven droughts in a period of ten years (Records from the Meteorology Department). Vulnerability of local communities is therefore likely to increase, and populations will need greater risk averting and risk-coping strategies such as multiple resource use (e.g. cattle and mixed cropping), agro forestry, production of dry season livestock feeds, and cultivation of drought resistant crop varieties and establishment of woodlots.

42. The main indirect drivers of the adverse change in land use in the cattle corridor are rapid population growth, growing poverty and cultural beliefs. The population of Uganda increased from 16.7 in 1991 to 28.4 million in 2007; an increase of more than 70%. The population growth rate of 3.4 per cent is still one of the highest in the world with Uganda's population expected to exceed 50 million, and 127 million in 2025 and 2050 respectively. The cattle corridor has been subject to considerable in-migration from cultivators leaving the overcrowded south and pastoralists leaving the dry and war torn northern areas. This migration has been supported by the official policy and the population in the corridor has increased by more than 200% over the last thirty years.
43. In addition, economic factors such as low incomes and inadequate participation in the market economy have kept production at subsistence level, with minimal investment in improved practices. Cultural beliefs amongst the pastoralists and farmers that "nature is bountiful with infinite resources" have also contributed to the unsustainable practices. Thus, the major challenge continuing to face resource users and managers in the corridor is how to adapt the land use and production system to the increased population, changing lifestyles and climate, while also maintaining its ecological sustainability.
44. With individualization of land ownership in many areas, land for free range grazing has reduced, while unpalatable species for livestock are fast growing in some places. Hence the ability of the rangeland to support livestock has significantly dropped. Pastoralists keep fewer livestock than they would do under ideal conditions. This has also increased conflicts between herders, cultivators and conservationists. Increasing livestock-crop conflict is a major problem in most areas especially around watering points, migration routes, national parks and gazetted forests where there is rapid encroachment by cultivators. In particular, due to fewer watering points and dry season pasture points, there are frequent cases of livestock trampling and grazing on crops.
45. **Impacts of land degradation:** The intense land and environmental degradation has led to loss of the productive potential of the dry lands, Specific impacts of the land degradation include the following:
46. **Reducing complexity, diversity and distribution range of all ecosystems due to habitat fragmentation:** As cultivated areas expand the continuum of natural ecosystems has fragmented into smaller patches reducing the diversity of ecosystems and the species found in them. As the natural vegetation continues to be replaced by croplands, key species have migrated or have become locally extinct, giving way to the more common species (largely herbaceous weeds and pests). Many indigenous species, products of long-term evolution of the ecosystem, do not tolerate heavy land use by farmers, grazers and settlers.
47. Indigenous plant species are on the decline while exotic and common species are on the increase³. This means that availability of wild resources that people value, like food plants, medicinal plants, and other traditional plant resources are declining. In the corridor, land use change has significantly impacted the composition and spatial distribution of vegetation and the large herbivores. Indigenous tree species are giving way to *Accasia*

³ State of the environment report, NEMA 2007

spp as the later is more resistant to drought, fire and browsing. Indigenous wildlife species are becoming fewer. Thus the reduction in complexity has cascading effects on biodiversity and ecosystem resilience and alters fundamentally the interaction between local people and their environment

48. **Soil erosion, declining fertility and nutrient loading of water bodies:** Soil erosion has been on the increase in the whole corridor area besides the huge efforts to contain it. Yields from the cultivated land have been declining, and food insecurity is spreading. A secondary and important effect of soil erosion is the nutrient loading of water bodies. Sedimentation on the beds of lakes and rivers gradually reduces their water storage capacity and flow, reducing the economic value of the water bodies. The soil carried by water often ends up in the important water bodies of Lakes Kyoga, Victoria and the Nile River.
49. **Invasion by termites:** The reduction of forage trees and grasses has led to an invasion of termites, which attack gardens and the remaining trees further reducing the ground vegetation cover. PPG studies reported a loss of up to 60% in maize crop due to termites. Termite attack intensifies in the dry season when there is limited moisture in the soil. The moisture stress reduces the available alternative vegetation on which the termites could feed on, so they turn on crops and newly planted trees.

1.4 Legislative, institutional, policy and programming context

50. The constitution of Uganda requires the state to hold in trust for the people and protect important natural resources, including land, water, wetlands, minerals, oils, fauna and flora. Until recently the country's policy framework and legislation was largely of a sectoral nature where each line ministry developed a policy without adequate consultation with other key stakeholders. Recent challenges however have shown the need for a well coordinated policy framework and there have been a number of reforms in the last decade. The National Environment Action Plan (NEAP), a key policy instrument was the first to recommend an integrated national policy framework and legislation for sustainable maintenance, protection and exploitation of the environment and natural resources. The policy called for the integration of environmental concerns into economic, social and development plans, policies and programs in their sectors. This led to the National Environment Management Policy (NEMP) of 1994 which still remains the main policy statement on the environment for the country.
51. The overall policy objective of NEMP is to achieve sound sustainable development by reconciling economic growth and conservation of resources while spearheading social development. NEMP was legitimized by the constitution and a number of other sectoral laws that include; the national environment statute 1995, local government act 1997, Uganda Wildlife statute 1996, land act 1998, water statute, 1995 and fish and crocodiles act 1996. The sectoral laws address the main policy goals on environmental management in Uganda. These include the integration of environmental considerations in all sectoral policies, plans and programs, the requirement that all projects with potentially damaging effects on the environment be preceded by an environmental impact assessment, and that users and polluters of the environment pay for the use and/or pollution. Specific policies that affect land management in the cattle corridor are outlined below.
52. **Land:** The country is in the process of defining a national land use policy which is expected to provide clarity on land and resource tenure and to remove insecurity persistent in all other land policies and legislation, as described in section 1. The major thrust of the National Land Policy is to shift the debate on land from over-emphasis on property rights per se, to land's essential value in development. The Government of Uganda wants to see land positively contributing to the fight against poverty. That paradigm shift requires that the land sector should be fully integrated into the country's overall development planning through identification of effective linkages with other productive sectors.
53. The current policy development process is guided by the centrality of land in the economy and takes cognizance of the political, social and cultural complexity of the land question, as well as the importance of

land in the overall governance framework of the country. The current policy development process is designed in such a manner as to ensure that these parameters are fully integrated into the final product.

54. The following targets have been identified: to stimulate the contribution of the land sector to overall economic development and poverty eradication in Uganda; to rationalize and simplify the complex tenure regimes in Uganda so as to maximize their contribution to the development of the land sector; to create an enabling environment for equitable access to land and security of tenure; to reverse or mitigate adverse environmental effects at local, national, regional and global levels; to promote land use activities that ensure sustainable utilization and management of environmental, natural and cultural resources for national social-economic development; to ensure planned, environmentally friendly, affordable and well distributed human settlements for both rural and urban areas; and to upgrade and harmonise all land use related policies and laws, and strengthen institutional capacity at all levels of Government. A national legislative and regulative framework is expected to be in place soon and to be followed by District land use policies. Recognizing the special nature of drylands as habitat for wildlife and home to pastoralists, the draft land policy states tenure law must secure land for pastoral communities and calls for legislation that prevents further threats to pastoral resources and mitigates the severity of competition over them. It further suggests that such legislation should achieve the following:
- prescribes clear principles for the ownership, control and management of pastoral lands by designated pastoral communities and institutions as common property under customary law;
 - protects pastoral lands from indiscriminate appropriation by individuals or corporate institutions under the guise of investment;
 - maintains an equitable balance between the use of land for pasture, agriculture, and for wildlife protection;
 - establishes mechanisms for flexible and negotiated cross-border access to pastoral resources among clans, lineages and communities for their mutual benefit;
 - Establishes efficient mechanisms for the speedy resolution of conflict over pastoral resources.
55. **Energy** – In recognition of the critical importance of energy as a major driver for national economic development, the constitution states that “The State shall promote and implement energy policies that will ensure that people’s basic needs and those of environmental preservation are met”. The Poverty Eradication Action Plan (PEAP) recognizes energy as having a direct impact on poverty alleviation. The Energy Policy (2007) recognizes that the energy sector has bigger environmental impacts than most other economic sectors, and aims to provide guidelines to mitigate such impacts. The policy document also emphasizes the need for a long- term planning approach for energy development. Policy implementation is supported by a ten year Rural Electrification Strategy and Plan (RESP), aimed at increasing the rural electrification rate from the 2001 estimate of one percent to 10 percent by 2010. The strategy is focusing at several options of energy sources including geothermal, solar, wind and small-scale hydropower dams.
56. The country liberalized the energy sector and provided policy guidelines to encourage private sector participation in energy provision. The policy also recognizes the importance of developing compatibility with the global and regional energy policies. This is intended to make sure that local policy developments acknowledge international and regional energy trends, especially in areas of energy investment, pricing and global impacts.
57. **Forestry:** Uganda’s first forestry policy was written in 1929, and has undergone a series of changes since then, alternating between stricter conservation and more liberal economic use of forest resources. The recent review (2001) was done to correct the weaknesses in the previous policies. It recognized sustainable management of forest resources for poverty reduction and environmental management, provided better balance between production and conservation forestry and provided guidance on principles and strategies for management of forests outside the gazetted reserves. It also provided better guidance on the roles and

responsibilities of government, the private sector and rural communities in forestry, and the linkages with other sectors and land uses. It also linked the forest sector to the on-going national development initiatives such as public sector reform, decentralization to District Councils, the Poverty Eradication Action Programme (PEAP, 1997). The Plan for Modernization of Agriculture now includes forestry as one of the main sectors that contribute to the livelihoods of poor people, along with agriculture, fisheries and livestock.

58. Implementation framework for the forestry policy is provided by the National Forest Plan (2002) and the Forests and Tree Planting Bill, among other tools. Both instruments are poverty focused; the Plan's key objectives are to raise the incomes and quality of life of poor people through forestry developments; increase economic productivity and employment in forest sector, and to achieve sustainable forest resource management; there are pro-poor policies and activities in the Business.
59. **Livestock policies:** Uganda has several policies directed at improving the livestock sector. The principal objective of these policies is to enhance the production of livestock and increase the benefits accruing from use of livestock products.
60. **The Meat Policy (2003):** The Government put in place the National Meat Policy in 2003 to provide a conducive environment for attracting investment in the industry and to build capacity for the country to supply meat and meat products to domestic and export markets. The policy has three main objectives: a) promoting the sustainable production of quality meat and meat products; b) supporting processing, value addition and enforcement of standards in the meat industry; and c) improving marketing of meat and meat products.
61. **National Policy for the Delivery of Veterinary Services, 2001:** The National Policy for the Delivery of Veterinary Services, 2001 was put in place to improve the delivery of veterinary services with the overall goal of increasing production and productivity of livestock with cognizance of the factors of health and environment. The policy emphasizes four main areas; i) promotion of effective provision of veterinary services nationwide, including the more remote areas where the bulk of the animals are held and husbanded by pastoralists; ii) promotion and the development of an effective and efficient system of veterinary service delivery; iii) making the role of public services in veterinary service provision clearer, more efficient and more sustainable; and iv) enhancing the effectiveness of all cadres of veterinary service provided.
62. **National Veterinary Drug Policy, 2002:** Following the development of the policy on the Delivery of Veterinary Services, government found it important to regulate veterinary drugs as well, hence the formulation of the National Veterinary Drug Policy (2002). The policy covers 9 interrelated areas: Veterinary drug supply; Veterinary drug legislation and inspection; Licensing of veterinary drug outlets; Disposal of expired or unwanted veterinary drugs and veterinary waste material; Monitoring of drug residues in foods of animal origin; Quality assurance of veterinary drugs; Veterinary drug information management system; Research in veterinary drugs and ethno veterinary medicine; and correct and safe use of veterinary drugs. These policy areas, if implemented, are aimed at increasing livestock productivity for the economic benefit of those dependent on livestock without compromising health and environmental concerns.
63. **Animal Feeds Policy:** The aim of this policy is to facilitate development of an animal feeds industry that contributes significantly to improved animal production and productivity. Infrastructure, technology, information, weak market problems and access to finance are some of the constraints identified which the policy takes into account when seeking a solution.
64. **The National Livestock Development Strategy:** The national livestock development strategy aims at maximizing the potential of Uganda's livestock sub-sector by providing investment incentives to increase animal production and related agribusiness, supporting the development of efficient livestock production systems for increased productivity to meet the domestic demand, integrating production into the mainstream

monetary economy, and generating a surplus for export. The livestock development strategy focuses on the following:

- a. Establishing efficient meat, milk, poultry and other production systems based on cost
 - b. Recovery;
 - c. Achieving self-sufficiency in meat, milk, poultry and other livestock products;
 - d. Promoting and developing industrial linkages for livestock products including dairy, leather and meat processing;
 - e. Encouraging the export of livestock and livestock products;
 - f. Strengthening research in livestock breeding in order to upgrade the quality and productivity of the present livestock breeds;
65. Other key livestock sub-sector policies that have been developed or are being developed to increase or enhance socio-economic benefits of the livestock industry include; the Animal Breeding Policy; the Dairy Development Policy; the Draft Policy on Marketing Livestock and Livestock Products, the Draft Pasture and Rangelands Policy, the Draft Hides, Skins and Leather Development Policy, the Apiary Development Policy, the Draft Policy on the Control of Tsetse Flies.
66. **The Uganda Wildlife Policy (1999):** the Wildlife Act (Cap 200 of 2000) and the UWA Community Conservation Policy (2004) all recognize the contribution of wildlife to the well being of humanity and highlight the need to share benefits accruing from wildlife if wildlife conservation is to be meaningful. Wildlife use rights was envisaged as an incentive to promote the conservation of wildlife outside Protected Areas (PAs) and eliminate the negative perception by some people who still regarded wildlife as Government property and of benefit to only foreign tourists. Sharing of benefits from wildlife is also important in promoting positive attitudes, knowledge and change of behavior of the neighboring communities and the general public towards wildlife conservation in general. Section 29 of the Uganda Wildlife Act (Cap. 200 of 2000) further provides six wildlife use right classes under which the general public can benefit from wildlife.
67. **Climate Change:** Concern over climate change in Uganda emerged about 15 years ago, when talks began in the Department of Meteorology to prepare for Uganda's participation in the Second World Climate Conference in 1990. A national policy allowing government funds to address national concerns is yet to be formulated. The first official document directly addressing climate policy is the 'Initial National Communication to the UNFCCC' (Department of Meteorology, 2002). In the Communication a number of measures are suggested to institutionally strengthen Uganda's capabilities to formulate national policies and address the implementation of the UNFCCC and the Kyoto Protocol. These include plans to expand the National Focal Point hosted by the Department of Meteorology into a National Climate Change Secretariat dealing with both mitigation and adaptation issues, and the need to use the country's longer-term development framework as the bedrock of the new climate change policy (such as Vision 25, the Poverty Eradication Action Plan (PEAP), and the Plan for Modernization of Agriculture (PMA)).
68. In spite of the absence of a comprehensive policy on climate change, the government is addressing climate change through other policy instruments. Leadership on climate change issues is vested in the Ministry of Water and Environment, through the Department of Meteorology. Its key mandate is to monitor the weather and climate and to disseminate the information widely and in a timely manner for decision making by other sectors of the economy, particularly the farming community. In its capacity as host for the National Focal Point for the Climate Change Convention, the department represents the Government of Uganda in international climate negotiations.

Institutional context

69. The National Environment Management Agency (NEMA) has the overall responsibility for coordinating, planning and monitoring of environmental matters. However implementation of sectoral policies is the responsibility of the relevant ministries. Consequently, the Ministry of Energy and Mineral Development

(MEMD) is responsible for the sector, dealing specifically with energy policy formulation, implementation and monitoring; the ministry of Agriculture, Animal Industry and Fisheries is responsible for all agriculture, including livestock; the Ministry of Land, Housing and Urban development is responsible for land related matters while the Ministry of Water and Environment is in charge of the environment and climate change.

70. The constitution of Uganda acknowledges decentralization as one of the major efforts for state (re) building after the long period of civil war and social turmoil especially for the middle of the 1970's to the 1980s. The local Council (LC) is the building block of decentralization and provides an important forum for local people to interact with authorities. The LC system has five levels ranging from district (LC5), county (LC4), sub-county (LC3), parish (LC2) to village (LC1). The political leaders of each level are elected by local population and are responsible for overall planning and implementation of development activities, including environmental conservation. The LC system enjoys political autonomy and its decisions made are usually respected by the central government. The only drawback is that they are still financially dependent on the central government, which inevitably affects their autonomy in real sense.
71. The Section 15 of the National Environment Statute mandates the establishment of District Environmental Committees (DECs). The role of the DEC is to ensure that environmental concerns are integrated into activities carried out by each district in accordance with the national environmental policy. In most of the district, there is a District Environmental Officer (DEO), who is responsible for overall planning and management of environmental concerns. Their tasks include creating environmental awareness, incorporating environmental activities in schools and other activities, monitoring economic activities which may have adversarial impacts, building data base on environmental issues in each district, and supporting implementation of environmental actions within the district.
72. At the grassroots level, the LC system is valuable as a forum for consultation, but local residents do not necessarily consider it as an effective problem-solving institution. At this level, there is no legal requirement for establishing committees for environmental management, but in limited places the communities have been formed. Accordingly, the structure of decentralized environmental initiatives is now in place.

1.5 Baseline Programs related to sustainable land management in the cattle corridor

73. The government, with support from NORAD through the UNDP Drylands Development Center is about to start implementation of a co-finance project which has three specific objectives: Mainstreaming of priority SLM interventions in the District Development Plans and budgets with enhanced capacity for decision making; Implementation of innovative priority SLM interventions; and, Strengthening the capacity of UNCCD/NAP Focal Point to support SLM Country Programs. The DDC/Norway support is also in line with UNDP's corporate initiative of scaling up support to countries for preparing strategies for implementing the Millennium Development Goals (MDGs). This project will therefore contribute to the achievement of MDGs in Uganda by investing increased resources for on-the-ground activities in the "cattle corridor" districts.
74. The government of Uganda (Ministry of Energy and Mines) with support from various bilateral donors and UNDP have implemented a project on Charcoal production improvement in Luwero and Nakasongola (SEUHI) with a budget of 150,000 US\$ over three years. The project piloted the formation of charcoal producer associations, formulation of constitutions and bye-laws to regulate charcoaling as well as registration of the associations at parish, sub county and district levels. This was done to improve the bargaining power of the group in order to regulate charcoal selling and to obtain better prices. The group members were provided with training and sensitization on group dynamics, operations and benefits.
75. In addition, it invested 0.5 million US \$ over four years supporting production and promotion of improved stoves in institutions such as prisons and army barracks (in West Nile). The Industrial Research Institute has also invested a modest amount of 50,000 US\$ over three years experimenting on charcoal taxation. Although

the scale of the three investments was too low to make in-roads into the complex charcoaling industry, they provide key lessons for the current project, amongst them:

- a) Two key lessons were i): that charcoal production has been given little attention in the current energy policy and it is marginalized by the District Councils. This made it difficult to enforce by-laws by the associations. ii): that currently investing in improved charcoaling technology does not pay unless there is an additional income stream attached to it. This was because the charcoal buyers simply bought cheaper charcoal from producers not involved with the associations or from other districts. There is therefore need to identify an additional income flow for the charcoal being produced by the associations without increasing their returns. This can be provided through the sale of carbon credits obtained from combining the concept of sustainable charcoal with improved technologies.
 - b) Other lessons were that charcoal producers tend to be individualistic and nomadic - largely being driven by the availability of the biomass resource and moving on when they exhaust it in a particular area - and typically they don't own land where they exploit the charcoal. This makes it difficult to mobilize them individually, hence the importance of organizing them into Associations and then providing them with capacity building and other project interventions. It also underscores the importance of bringing landlords on board in the sensitization process, especially with regard to their role in environment conservation, and to get to know the value attached to charcoal production.
 - c) The importance of the involvement of the political leadership right from the beginning of the project, which contributed to effective mobilization of the target groups
 - d) Communities confirmed that they engaged in charcoal production due to lack of alternatives and the inadequacy of extension services provided by the government. They emphasized the need to diversify from sole production of charcoal to activities such as fish farming, livestock, poultry and tree planting.
76. **The Karamoja Integrated Disarmament and Development Programme 2007-2010:** The overall goal of the programme is to contribute to human security and promote conditions for recovery and development in Karamoja. The programme aims to strengthen local institutions for effective administration of justice and governance in the district through which it will implement a comprehensive and coordinated disarmament programme to enhance peace building and development. Weapon collection activities are undertaken within the context of peace-building programmes, where efforts to remove weapons from society are linked to initiatives that address the root causes of conflict, including targeted development interventions on poverty reduction.
77. The Programme is implemented through seven components: Provide and ensure adequate security for the people of Karamoja; Establish law and order in Karamoja; Support the Provision and Delivery Basic Social Services to the People of Karamoja; Support the Development of Alternative Means of Livelihood; Undertake Stakeholder Mobilization, Sensitization and Education; Enhance the Coordination, Monitoring and Evaluation Systems; Crosscutting Issues.
78. **The Marketing and Agro Processing Strategy (MAPS):** This strategy is part of the Plan for Modernizing agriculture. The aim of this strategy is to enable farmers to benefit from efficient markets and local level value addition. To achieve this, the government intends to develop transport and other infrastructure, enhance market information and awareness, promote value addition and create a favorable regulatory framework. The commodity exchange and the warehouse receipts system are to be put in place to help farmers get better prices and a ready market. Farmers are expected to sell their produce to this warehouse on a receipt system that will enable them to access cash on demand from a financial institution. This arrangement is seen as a real opportunity for private sector led development. The arrangement is expected to help farmers get a ready

market for their products at reasonable prices. The process is envisaged to eliminate the middlemen whose actions distort the market. The major problem with the strategy is lack of funding for implementation.

79. **Promotion of Goats and sheep export project - 2004:** Sponsored by the President the project aimed to promote the export of the small stock to respond to the growing demand for small ruminants in the Middle East. The project intervention envisaged improving the breeds and volumes of production so that the animals could be exported either live or processed. About 135 commercial farmers were earmarked as nuclei of production. The project set targets of 500 metric tons for 2006 and 2,000 metric tons annually by 2009. Project reports however state that only a few consignments have made it to the Middle East to date, adding that the initial export deliveries were unsustainable and the project was poorly implemented.
80. **Community Wildlife Project:** Under the Uganda Wildlife Authority, the project piloted the use of community based sport hunting as a wildlife management tool under the wildlife use rights. In August 2001 UWA in collaboration with Rurambiira Community Wildlife Association, a community-based organization signed an agreement with Game Trails (U) LTD (a company licensed by UWA to undertake a pilot professional sport-hunting program) to implement a one-year sport-hunting pilot project on ranches around Lake Mburo National Park. The specific objectives of the project were to provide incentive to landowners to manage and protect wildlife on their land by giving wildlife as a resource an opportunity to demonstrate its economic value to landowners; to contribute towards reduction of the human-wildlife conflicts among the people surrounding Lake Mburo National Park; to positively change the attitude of residents on ranches towards wildlife and conservation; to provide lessons and information that would guide UWA management in developing guidelines and procedures for implementation of Class A (hunting) wildlife use right as a wildlife management and conservation tool outside protected areas.
81. The initial pilot project ended on 31st July 2002 and an internal evaluation was carried out and revealed very positive results. Animal numbers went up and community attitudes towards wildlife conservation and park management improved tremendously. Based on the results of the internal evaluation, a one-year bridging phase was agreed within which guidelines and mechanisms for the extension of the pilot sport hunting project to cover a wider area were developed. In November 2003, the pilot project was extended for three years to cover three blocks of Rurambiira, Rwakanombe and Nyakahita. The extension of the pilot project resulted in three new contract agreements between UWA, Game Trails (U) Ltd and each of the three Wildlife Associations. There are plans to upscale the initiative by extending it over an expanded area.

1.6 *Barriers to sustainable land management in the cattle corridor*

82. There are three key barriers to the adoption of sustainable land management systems in the cattle corridor: weaknesses in the policy and policy implementation, weak capacity for the use of knowledge to guide land use planning and the lack of alternative income generating activities to support local economic development and sustainable land management. These barriers are described briefly below.
83. **Barriers related to policies:** Although the country has embarked on an aggressive policy improvement drive for all the sectors in the last decade, the effectiveness of these progressive national policies is weakened by several factors. Key amongst them is weak, outdated or absent legislation coupled with weak connectivity of national institutions to the local governance structures. For example while it is laudable that the rural development interventions are being guided by the PMA and its seven constituent pillars, the effectiveness of the approach has been constrained by the omission of National Agricultural Advisory Services (NAADS) structures from the Local Government restructuring programme. The new land and energy policies have no legislative framework for local implementation. Details below:
84. **Energy policy barriers:** In the past, the energy sector in Uganda has overly laid emphasis on policies that predominantly address energy supply side issues, particularly for the commercial sources of energy. This

approach has favored the urban population which is the major user of commercial fuels, while marginalizing the energy needs of the majority of the population who live in the rural areas and depend on biomass. This is despite the fact that the rural areas contain the largest proportion of the poor population in Uganda

85. Although the policy and its strategies are truly innovative, the institutional framework for its implementation is still a barrier to its effective implementation. The country has set itself ambitious targets for improving energy access and improving efficiency of use by 2017. District Energy and Forestry Services have been proposed but have not yet been created; it is therefore unclear how the policy will be implemented at the local level. The charcoal sector in particular still operates within a complex and multi-layered regulatory context. From field to kiln to kitchen, the materials, processes and people involved in producing, selling and using charcoal are still regulated by several government bodies, policies and laws. The legal status for charcoal is still not clear and there are no programmes in place to achieve the targets established for improving adoption of technology for higher efficiency in carbonization and utilization.
86. Although charcoal is a multi-billion dollar industry, it is not subject to taxes like other energy industries except a license fees charged to tree fellers and urban vendors. The tax treatment has skewed the playing field in favor of charcoal, and denied the governments a source of revenue of several million dollars a year. Deforestation and forest degradation are unlikely to be significantly reduced in Uganda without the practical and effective implementation of the new renewable energy policy, and in particular the adoption of sustainable charcoal. The poorly financed governments extension systems could benefit from the revenues lost through non recognition of the charcoal industry.
87. **Land policy and provision of security of tenure:** Uganda has embarked on a radical land policy but like other sector policies, the legislation and institutional arrangement to implement this policy effectively is not yet in place. Although the land policy recognizes the important role of communal land tenure, it also has an emphasis on private land ownership. However private land ownership with clear land titles is unlikely to be achieved in the near future. By 2003 only 12% of Uganda's land was under private title with a target of 17% expected by 2008. The State of environment report (2007) reported that the indicative annual cost of setting up and running institutions required under Uganda's land bill is US\$ 400 million; adding that this large amount imposes a huge financial burden on the government that could prevent an otherwise good law from being implemented.
88. Overall, there are weakness related to contradictions in sector policies. For example, some policies emphasize the settling of nomads for development, despite ecological evidence that limiting livestock movements in the dry lands has been a key driver of land degradation. Others support the continuation of mobility as a technology for managing drylands.
89. **Weak capacity and inadequate use of knowledge to guide land use planning:** Technical methods for improved agricultural productivity and livestock management under pastoralism are generally available. In particular there is a wide ranging suite of methods for increasing yields under dryland rainfed agriculture. In range management too, it is well understood that the key to sustainable use is to strengthen, not weaken the traditional nomadic pastoralism. The primary challenge lies not in management of individual fields and gardens by individual cultivators or individual herds by pastoralists, but in the management of the whole natural landscape as an integrated production system by the communities that are responsible for and dependent on it.
90. This is caused by the inadequate application of knowledge to support integrated management of natural resources at landscape level. Resource users are grappling with knowledge gaps on the biophysical and socio-economic conditions, making it difficult to harmonize the competing demands on the natural resources in the cattle corridor and the target districts. For example while the PMA states clearly that modernization of agriculture will be based on the adoption of appropriate and improved land and water management practices

adapted to the various agro ecological zones, there is no evidence that a knowledge based land use planning programme has guided agricultural expansion yet.

91. The State of the Environment Report (2007) acknowledges that most of the environmental degradation problems would be solved if the National Land Use Plan was completed and harmonized with the District Land Use Plans. Although the District Land use plans are pending the completion of the National Land use Plan, there are institutional barriers hindering the coordination of integrated resource planning at the district level. Land degradation is highly cross-sectoral in nature, encompassing socio-economic, biophysical and environmental issues as well as livelihood options in the dry areas of the country. However, many of the institutions have limited capacity for fulfilling own mandates or collaboration, and therefore tend to address issues of land degradation in an uncoordinated manner.
92. For example the district land tribunal has huge backlog of unresolved land dispute cases due to staff shortage and limitations of the circuiting system; there's limited sensitization and mobilization of the public or communities on matters of the land law and the need for them to declare registerable interests (title certification) in customary land to the district land board due to shortage of staff. As a result, there is some confusion about the land dispute process with the land board being perceived to be responding to multiple power-centers without coordinating advice or responses on land matters.
93. Stakeholder participation in planning is limited and many politicians and land users/managers use short-term planning horizons. The PPG assessments found that majority of the politicians hesitate to engage in planning that is longer than the five year political term and that the longest plan people tended to have is for one year. Told to plant trees that are going to mature in two decades they worried pointing out that they will not live long.
94. The extension service has not recovered from the disruption caused by the attempt at privatization during the 1980's (under the Structural Adjustment Programs), which only exacerbated the problem of coping with a rapidly expanding constituency of farmers and land managers against a stagnant government service. Many of the soil and water conservation practices such as strip cropping and the use of terraces have disappeared as the different regimes of extension services have changed.
95. **Barriers related to limited sustainable economic development options at local level:** The cattle corridor exhibits a clear example of high dependence on natural resources driving poverty and further environmental degradation. In addition to traditional barriers such as poor infrastructure and limited markets, economic development at the local level is hindered by problems of accessing micro-finance to support the high risk production in both livestock and dryland agriculture, low levels of adoption of improved technologies in energy use and inability to engage in the emerging carbon-finance due to lack of information and facilitation.
96. **Micro-finance:** PPG studies showed that the poor in the cattle corridors, especially the pastoralists have had very limited interactions with micro-finance programmes due to perceived difficulties in targeting micro-finance to pastoralists. Their economy and society is little understood by micro-finance providers: herders are mobile, and do not have conventional collateral and there is little experience of micro-finance for herders in other countries to guide planners.
97. **High risks involved in production without insurance:** small scale farmers and herders face several types of risk to their production. Although the use of insurance as an adaptation technique is increasing, there are still very few examples of its use in the livestock sector, and it is not used in the cattle corridor at all. Insurance for small scale agriculture has been tested in several places (e.g. Malawi) and several important lessons generated. The most widely cited example is the successful case of the compulsory livestock insurance in Mongolia under the command system. However, the scheme collapsed at the onset of a liberalized economy.

It is not yet clear whether the collapse was part of the rejection of the command economy, or a rejection of the insurance concept. A weather based index insurance scheme being piloted by the International Livestock Research Institute (ILRI) in Northern Kenya has not yet started providing results or lessons (too early). However, Article 4.8 of the United Nations Framework Convention on Climate Change (UNFCCC) and Article 3.14 of the Kyoto Protocol call upon developed countries to consider actions, including insurance, to meet the specific needs and concerns of developing countries in adapting to climate change. The Hyogo Framework for Action calls for the development of risk sharing mechanisms, particularly insurance and reinsurance against disasters (UNISDR, 2005). There is still no clear model for providing insurance to the pastoral or livestock systems, particularly in Uganda.

98. **Low rates of adoption of improved technologies in biomass energy:** Although there are several proven technologies for renewable energies and improving energy efficiency in biomass, wide scale adoption in rural areas has been very limited due to a combination of interrelated factors: low affordability (poverty), poor distribution and marketing outlets and inadequate home-based research and development. Over 90% of charcoal producers use inefficient earth kilns and burners. Civil society has a long history of investment in improved charcoal technologies in Uganda. However, large scale uptake has been hampered by lack of incentives from the government, and there is limited adoption. To sustain improved charcoaling, key stakeholders must be provided with capacities for to engage effectively. Due to the illegal status of charcoal, there is no capacity for sustainable production or local governance structures to oversee it. Forest departments have no extension package on charcoaling and the land and resource managers have no experience in handling the issue.
99. PPG studies identified lack of capital and insecurity of tenure at local level as the major barriers to adoption of improved technologies. For example wood to charcoal conversion rates could be substantially raised from <10% to 25% through simple adaptations to the use of the existing earth kilns. This would include more thorough drying of wood prior to burning and better stacking in the kiln; slowing down the burning in the kiln; and the use of a simple chimney.
100. The set of barriers described above are compounded by the inability to identify emerging opportunities and to utilize them to provide financing for SLM at the local level. Providing financing for improved SLM is a major barrier for the rural areas where the level of economic returns in investing in SLM is so low that household and national budget expenditure is difficult to justify. Yet with the emergence of the carbon economy, there are opportunities to access carbon finance from the Land use and Land Use Change (LULUCF), the CDM and other Payment for Ecosystem services. However being new and fast growing areas, few technical officers in the Districts or land users have the means to keep up with the complexity of requirements in the fast growing private sector instruments and modalities in order to practically access funding. Although it is now a common belief that the “carbon economy” will overtake regular international aid, Uganda, like many other countries has not prepared its communities and technical staff adequately to engage with the private sector financing, which will require a very different mode of engagement.

1.7 Stakeholder analysis

101. The key stakeholders relevant to the promotion of SLM include natural resource users (farmers and pastoralists); Community Councils; local government, chiefs; several GOU Ministries; the National Environment Management Agency (NEMA); TerrAfrica and its partners; Non Governmental organizations operating in the area such as CARE; NGOs; parastatals; and development agencies. The matrix in Annex 3 summarizes their capacity and relevance to this project’s SLM objectives; their potential interests, and conflicts that might arise; and the roles they are likely to play in execution of the project.
102. To effectively incorporate SLM issues into the district plans and budgets there is need to ensure broad stakeholder discussion of these issues in a consistent way within the typical development planning processes.

The bottom up planning processes will produce the documentary materials that will communicate SLM, in an appropriate manner and in planning processes ensuring that the SLM agenda is widely embraced as one strategy to cope with looming desertification in the cattle corridor of Uganda.

103. SLM is best considered in a cross-sectoral context, especially for purposes of development planning, as overseen by a national coordinating body. Support to the NAP Focal Point is therefore crucial to monitor in a coherent manner activities of the various institutions which have an interest in issues related to land degradation. At a minimum, the NAP Focal Point should coordinate activities in lead ministries of environment, energy, agriculture, disaster preparedness, gender and finance. Research institutions, educational institutions, private sector and civil society all have important roles in mitigating the impacts of land degradation and desertification. Additional details on stakeholder involvement are provided in Section IV4.

2. PART II: Strategy

2.2 Project Goal, Objective, Outcomes and Outputs/activities

104. A logical framework matrix is presented in Annex 2. The overall goal of the project is “Sustainable Land Management” provides the basis for economic development, food security and sustainable livelihoods while restoring the ecological integrity of the Cattle corridor ecosystem. The objective of the project will be “To provide land users and managers with the enabling policy, institutional and capacity environment for effective adoption of SLM within the complexity of the cattle corridor production system.” The critical issues in achieving this objective will be to match the potential of the land to demand, recognizing the comparative advantages of pastoralism and agriculture and building on each as well as providing security of tenure and incentives for sustainable use of the resources.
105. The objective will be achieved through 3 major outcomes that are linked to the barriers, plus a project management component. These are: 1) The policy, regulatory and institutional environment support sustainable land management in the cattle corridor (in particular policy and legislation for sustainable charcoal and the security of tenure strengthened); 2) Knowledge based land use planning forms basis for improving drylands farming and pastoralism for sustainable economic development (capacity for land use planning developed and utilized). 3) Local economic development facilitated through diversification and access to finance and insurance; 4) Project managed effectively, lessons used to upscale SLM in the cattle corridor districts and the country. Details below.
106. This project and the UNDP DDC (Drylands Development Center) SLM Capacity building project are a programme that forms one component of the Uganda SLM Investment Framework which seeks to integrate all country SLM initiatives under a harmonized platform to improve coordination among the different SLM stakeholders in Government, Development Partners, NGOs and Civil Society. The two UNDP projects will feed directly to the harmonized SLM country agenda. The immediate focus of this GEF component is the central area of the Cattle Corridor, in Nakasongola and Kamuli Districts, where SLM will be piloted. The DDC component will extend to Sembabule, Lyantonde, Nakaseke, and Kaliro in addition to the two Districts. This will provide the vehicle for upscaling the SLM practices such as improvements in charcoal industry to the rest of the cattle corridor. The two projects will therefore form a fully integrated programme, with each providing co-finance to the other, and jointly contributing to Government’s SLM Investment Framework. Table 1 below illustrates these linkages.

⁴ A more detailed stakeholder analysis specifically on charcoal issues is provided in the report titled: Intra and Inter-Generational Equity Issues in Land Tenure and Charcoal Production: Community and Institutional Threats to Sustainability in the Cattle Corridor Rangelands of Uganda by JRB Consultants.

Table 1: Linkages between UNDP-DDC Outcomes and UNDP-GEF Outcomes

COMMON PROJECT GOAL	
Innovating and Mainstreaming Sustainable Land Management in the Cattle corridor of Uganda: A Contribution to the SIP for TerrAfrica	
<p>UNDP-DDC Outcomes</p> <ul style="list-style-type: none"> • Strengthening the capacity for SLM in the cattle corridor as well as capacity of the UNCCD/NAP Focal Point to support SLM Country Programmes • Mainstreaming of priority SLM interventions in the DDP and budgets with enhanced capacity for decision making; • Implementation of innovative priority SLM interventions; 	<p>UNDP-GEF Outcomes</p> <ul style="list-style-type: none"> • The policy, regulatory and institutional environment support sustainable land management in the cattle corridor (in particular policy and legislation for sustainable charcoal and the security of tenure strengthened): • Knowledge based land use planning forms basis for improving drylands farming and pastoralism for sustainable economic development (capacity for land use planning developed and utilized). • Local economic development facilitated through diversification and access to finance and insurance
COST US\$ 1,830,730	COST US\$ 1,644,364

107. **Outcome 1: The policy, regulatory and institutional environment support sustainable land management in the cattle corridor (in particular policy and legislation for sustainable charcoal and tenure security strengthened):** The objective of this outcome is to ensure an enabling environment is created, which may include strengthening of policies, institutions and related programs in ways that support sustainable management for sustainable livelihoods and ecological sustainability. Under the outcome, policies with a bearing on natural resource management, energy and livestock sector will be reviewed to ensure that they are more supportive of SLM. In particular, contradictions will be highlighted and recommendations made for harmonization. In addition, policy implementation will be supported by strengthening the linkage between local and national institutions. Stakeholders will be facilitated to contribute to the various legislative frameworks being developed to guide policy implementation, particularly for land, rural and renewable energy. This outcome will have 3 outputs as described below:
108. **Output 1.1: Policies, legislative frameworks and institutional set up for sectors related to SLM, energy and livestock sectors reviewed:** Under this output, the project will facilitate the formation of an inter-sectoral coordination platform on cattle corridor development policies and programs consisting of representatives from government departments (Soil and Water Conservation; Agriculture; Horticulture; Forests, Ecology, Environment and Wildlife; and Land Resource Development), District and Local authorities, academic institutions (Makerere University), and community-based organizations. The primary mandate of this group will be to focus on how policies, legislative frameworks and institutions development programmes can be made more effective in ensuring sustainable land management in the cattle corridor. The group will facilitate an analytical review of the main policies, building on the work done under the Country SLM Strategic Investment Framework (CSIF).
109. Policies to be analyzed include, but are not limited to, the Forest Policy, Agricultural Policy, Land Use Policy, Energy, Livestock, Wildlife Policies. The policies should support a mosaic of different land uses which when integrated across the landscape diversify and enhance livelihoods as well as maintain ecosystem services.

Gaps will be identified and recommendations made to address them, and piloted where feasible. The analytical review will be followed by a consultative dialogue involving inputs from government, non-government, and research institutions, in order to facilitate policy change.

110. **Output 1.2: Security of tenure for land and resources increased as an incentive for investing in SLM:** The PPG studies found that the cattle corridor community is reluctant to engage in many SLM techniques because of the short-term nature of their planning. Besides poverty, the underlying cause of the short-term planning was insecure land and resource tenure. From an economic point of view, secure tenure is critical to provide incentives for households and entrepreneurs to undertake land-related investments. If their ability to keep the benefits from investments is uncertain, they are unlikely to invest or exert effort. Indeed, the desire to gain more secure property rights in situations where informal rights systems prevail induces individuals to undertake such actions as planting trees on land they possess or setting up boundary markers as a way to increase tenure security.
111. However, increasing security of tenure does not necessarily require issuing formal individual titles, and in many circumstance more simple measures to enhance tenure security can make a big difference at much lower cost than formal titles. Legal measures that guarantee occupancy rights and recognition of such rights, including record keeping at the local level are one of the ways of enhancing tenure security. These measures have often had a significant impact on increasing tenure security at a relatively low cost. Secure tenure is particularly important for mobile pastoralism.
112. The project will facilitate establishment of security of tenure and property rights that support communal resource management by recognizing mobility, such as nested properties where ownership depends on scale and level of authority; inclusive rights where users have varying degrees of rights and responsibilities and no one is excluded; fluid boundaries that adapt to ecological opportunities; and co-management where covenants and agreements are made, but treated as flexible and dependent on negotiation. Under this output, Land and resource ownership and control arrangements supportive to SLM will be identified and agreed, the national land policy (currently under review) will be specifically influenced to support the security of tenure arrangement and the institutional framework for the implementation of the policy to secure land and resource tenure will be tested.
113. Activities will include sensitization on access to common property resources on already titled land, facilitating negotiations resource access arrangements for pastoralists, particularly during droughts, marking of boundaries (for rights of occupancy and customary ownership), Registration of Land (Sporadic Surveys), recording of Land rights of lawful and Bonafide occupants, piloting systematic demarcation, demarcation and marking of the communal lands (Common property resources), land redistribution through negotiated compensation of absentee landlords, creating of communal land associations and common land management schemes to govern and harness common property resources, enforcement of easements through inclusion as an encumbrance on the certificate of title, strategic litigation for access to common pool resources, development of co-management agreements and guidelines, etc.
114. Other activities will include providing for the inclusion of easements on certificates of title, negotiated Land redistribution, using the Land Fund to buy out absentee Land Lords, lobbying government to redeem specific parcels of land on the basis of economic value, and establishing financial models for acquisition of loans for land purchase and registration. Others are strengthening the local level land administration and management institutions through training and financial facilitation; ii) strengthening institutions such as Area Land Committees; LCII Courts; Office of the Recorder and the District Land Boards to handle land disputes and facilitate security of tenure. Ii) Training of the dispute resolution institutions (Local Council courts, Magistrates courts and Mediators.

115. **Output 1.3: National policy for regulating sustainable production, processing and marketing of charcoal in place:** In conjunction with output 1.1, the project will facilitate key stakeholders to undertake a comprehensive review of the policies that regulate charcoal at the various stages (from tree to charcoal to kitchen) and identify a policy and legal framework that will promote sustainable charcoal production. In addition to legalizing charcoal, the policies will provide guidelines on channeling taxation revenue collection from legalized charcoal production into the creation of a more sustainable industry; as well as guidelines on zoning of land for sustainable charcoal production. They will also provide standards for the production, processing and marketing (such as certification). Finally, they will recognize governance structures (such as charcoal producers or traders associations), etc. specific activities will include review of all existing policies as regards to charcoal, identification of gaps and contradictions in policy, legislation and implementation mechanisms, formulation of recommendations for improvement and lobbying for the adoption of the recommendations.
116. **Outcome 2: Knowledge based land use planning forms the basis for improving drylands sustainable economic development:** The project will build on the PPG studies to deepen understanding of the natural potential of the land through landscape productivity and functionality analysis. Building on the traditional management systems and knowledge, this information will be used to delineate land that is suitable for each of the competing production systems (pastoralism, agro-pastoralism and agriculture). More detailed assessment of the levels of productivity of the land will be compared to the demands on the land (from the livestock and people), and any discrepancies noted. This information will be used as the basis for determining rangeland condition (pastoral lands) and extent of degradation (agricultural and woodlands) and for identifying SLM measures needed to optimize land productivity while restoring, maintaining or improving ecosystem health. The information will be used to guide participatory land use zoning in the two pilot districts i.e. zoning of common lands for appropriate forms of sustainable use, protection, or restoration objectives and identifying key areas of intervention for improved techniques. The outcome will be delivered through 4 outputs:
117. **Output 2.1: Biophysical and socio-economic assessments undertaken and information analyzed.** Activities to achieve the output include assessment of the soil physical, chemical and biological properties, assessment of vegetation cover, economic characterization of the vegetation, macro and micro-biological studies, topography and climatological data and survey of hydro-geological information (boreholes, assessment of water tables). Socio-economic information will include demographic studies of the community, assessment of livelihood activities, analysis of relationships between inputs and outputs of the production system especially as they relate to household incomes and wealth, identification of best practice and indigenous knowledge currently being used, assessment of the traditional institutions and customary practices and their effectiveness under the current set of circumstances in the pilot districts. Economic tools will also be applied to determine the economic costs of land use and information provided to decision makers. Activities to achieve this output include valuation of natural resources, costing of competing land use activities especially charcoal, agriculture and pastoralism; determination of the opportunity costs of existing land use practices and different scenario analysis versus business as usual.
118. **Output 2.2: Capacity for land use planning and adoption of improved practices in place:** Capacity needs assessment will be undertaken (in conjunction with the UNDP DDC co-finance project) and findings used to design capacity building programmes for technical officers, land users, politicians and civil society. The project will implement these capacity building plans through activities such as training, updating the extension package and supporting its effective delivery, supporting increased dissemination and use of weather information.
119. In addition, the project will update the land capability maps and land use plans (in a GIS system), update range condition and determine current livestock carrying capacities, and determine potential for sustainable

charcoal. In addition, guidelines for integrated land-use planning at the landscape/ village level will be developed, based on existing good practice. The guidelines will outline the key steps and process for stakeholders (community members, Village Councils, Village Development Boards, scientists, government representatives, and private businesses if applicable) to come together and discuss how to manage lands for the benefit of current and future generations and to ensure ecological sustainability of lands and resources. The purpose of the planning process will be to develop management and governance strategies that respond to scientific understanding of natural and social systems as well as changing societal conditions and values.

120. **Output 2.3: Particularly degraded lands rehabilitated:** Some patches of rangelands have retrogressed beyond a certain threshold where they cannot recover by resting or through the withdrawal of livestock alone. For these patches some form of intervention is necessary to promote a favorable environment for the establishment of plants and to increase rangeland production and soil protection. Rehabilitation can be done in several ways using either intensive or extensive techniques. Intensive techniques usually involve high levels of capital and management input and is likely to yield high returns. On the other hand, it often uses introduction of exotic species which consume huge amounts of water. Extensive techniques often involve use of indigenous species that are adapted to the local climatic conditions. These require low levels of capital and management input and although they respond significantly to very small amounts of water, they do not increase total productivity significantly.
121. In recognition of the fact that rangelands are managed to maximize economic, socio and political factors while maintaining or improving the integrity of the resource base, the project will assist communities in these areas to identify rehabilitation techniques suitable for the unique set of circumstances in the cattle corridor. These are the land and resource tenure, uncertain climate and frequent droughts, low capacities and the need to reduce poverty. Under this output, the project will facilitate the inventory, survey and mapping of degraded rangelands and available fodder resources; assessment of site potential and selection of pilot sites for rehabilitation, identifying suitable species and techniques for the rehabilitation of the selected pilot sites, quantify the contribution of indigenous forages to feed quantity and quality when integrated with rangelands; demonstrate the importance of water harvesting as the basis for regeneration of rangeland vegetation, monitor changes in species richness, composition and total density of plants over time in the pilot sites, publicize and disseminate information and results through training and workshops and /or transfer of technology to end users.
122. The project will work with academic and research institutions that have conducted similar studies in some parts of the cattle corridor such as Makerere university and ILRI.
123. **Output 2.4: A participatory M&E system designed and used to monitor ecosystem health and improvements in livelihoods:** The baseline information collected will also be used to identify indicators of ecosystem health and changes in livelihoods. The M&E system will harness herders and farmers indigenous range management and ecological knowledge to monitor range condition, changes in ecosystem health and resilience of livelihoods. Herders in particular can contribute greatly to monitoring changes as they develop unique knowledge of rangelands, acquired from daily herding movements across heterogeneous landscapes, which vary greatly in topography and grazing suitability.
124. Herders treat landscapes as visual maps⁵ by disaggregating different patches and invoking history of land use. Decisions on movements are based on this intimate knowledge of the landscape, thus they are already constantly monitoring rangelands. The use of indigenous knowledge in monitoring has however been criticized as lacking in structure, standardization and objectivity, thereby making it biased and difficult to apply to test hypotheses. The M&E system will provide the context to correct the criticisms to allow the

⁵ Selection and application of indicators for decision making for drought resilient livelihood systems in the Horn of Africa - Harnessing Pastoralists Indigenous Range Management knowledge –Gufu Oba, 2009.

application of a participatory monitoring system embedded in community and district institutions for effective uptake of results and sustainability.

125. **Outcome 3: Local economic development strengthened through diversification and improved access to finance and insurance:** This outcome will improve the financial base of the local population, thereby improving their household incomes and wellbeing, as well as reducing the negative impacts poverty has on environment.
126. **Output 3.1: Agricultural productivity increased sustainably (Co-finance):** The project will support the adoption of appropriate agricultural practices based on the biophysical assessment undertaken under outcome 2. These will include conservation agriculture; a term used here to mean a range of drylands agriculture technologies. These might include the adoption of micro water harvesting, mulching, correct use of inputs such as manure, short rotation crops, drought tolerant/resistant crops, high value crops/multi-purpose crops such as moringa, fruit and traditional crops such as sorghum, sweet potatoes, cassava etc. The growing of energy crops to meet local and market needs such as jatropha, moringa, croton etc. will be investigated and supported where appropriate. Where such crops and other marketable crops are grown, the project will facilitate value addition through improved harvesting and processing as well as facilitate links to local, national, regional and international markets.
127. **Output 3.2: Viability of the production system increased via access to micro-finance, credits and insurance:** The output will be delivered through three sub-outs, below:
128. **Sub-output 3.2.1: Farmers and herders increase access to micro-finance and credits:** Under this sub-output the project will facilitate micro-finance institutions' (MFI) engagement in the agriculture and pastoral economies to provide financial services by motivating them to develop financially viable products that suit the specific needs of these systems, particularly mobility (pastoralists) and seasonality of cash flows for both. To be sustainable, the specialized financial services need to be supported by a national financial policy that is conducive to innovative banking operations. Working with the financial service providers, the project will review banking and financial policies to identify ways in which the national policy can provide the basis for sustained financial service delivery to these poverty stricken economies (as part of outcome 1).
129. The project will also undertake a capacity needs assessment and design a capacity building programme to ensure that agriculturalists and pastoralists and their local institutions have the basic capacity needed to engage with the financial service providers (as part of outcome 2). Specific activities will include an assessment of needs for micro-finance and credits, identifying current challenges to both providers and potential beneficiaries, identifying potential sources and negotiating rules of engagement, supporting establishment of viable packages and piloting provision to selected community groups and individuals, monitoring uptake, use and payment, clearly distilling lessons, facilitating use of the lessons to establish a viable and thriving local level financial markets.
130. **Sub-out 3.2.2: Insurance for livestock and selected crops piloted:** Under this sub-output the project will pilot index based insurance schemes for livestock and selected crops. It will therefore facilitate the formulation and piloting of the insurance schemes working out important design issues such as what type of insurance should be offered, whether it should be obligatory, whether premiums should be the same across the whole pilot area or be adapted to localized and so different levels of risk, and what the institutional structure should be to ensure sustainability. It will assist the insurance providers with critical information on which to base the scheme such as researching the frequency and impact of catastrophic events, educating participants about the value of insurance, establishing a regulatory framework, and underwriting the insurance until a sufficient volume of business has been established for national financial institutions and international reinsurance to come in.

131. The project will also work with the relevant government departments to investigate the possibility of the government providing cover against major catastrophic risks, with or without support from donors. The project will also work closely with NGOs, which could provide a channel to participants for information about insurance, and pioneer pilot schemes by taking out index insurance on behalf of their members, providing a cautious introduction to insurance for households which may be skeptical at first. NGOs have detailed information about the needs and situation of people at the grassroots, and could ensure that insurers are better informed. There may be economies of scale in offering insurance through NGOs, which would reduce the cost.
132. Specific activities will include review of weather-based insurance systems worldwide, use of experience and lessons to design an appropriate system, identifying suitable insurance providers, piloting of the system including negotiation with the meteorological department to ensure that there is access to weather equipment and information for the two pilot districts, strengthening dissemination of weather information (through the mass media) to ensure that weather information reaches the potential users coupled with building confidence and/or trust in weather information, monitoring implementation of the system and distilling lessons to support adaptive management.
133. **Output 3.3: Support to sustainable charcoal production delivered:** Under this output, the project will ensure that technology for efficient production, processing and consumption of charcoal is adopted locally and nationally, that resource owners and managers are provided economic incentives for sustainable charcoal through markets and sale of ecosystem services, that key stakeholders strengthen capacities for sustainable charcoal (in conjunction with outcome 2), and that local level governance to support sustainable charcoal is improved (in conjunction with outcome 1). The output will be delivered through 3 sub-outputs described below.
134. **Sub-out 3.3.1 Technologies for improved conversions along the charcoaling chain provided:** under this output, the project will work with civil society to promote the adoption of improved technologies for charcoaling such as improved earth kilns and burners. Specific activities will include an assessment of the levels of awareness on existing best technology options and the key barriers to adoption, training of selected community members on improved charcoal production technologies, setting up community pilot demonstrations for charcoal production and supporting their implementation, connecting communities to research institutions for information on fast growing tree spp for charcoal and support to development of alternative energy sources such *Jatropha* spp.
135. **Sub-out 3.3.2: Additional income from carbon finance earned through sustainable charcoal:** Communities and private land owners will manage their resources (land or woody vegetation) sustainably if they receive “greater financial benefits from conserving forests than from degrading them”. The project will facilitate provision of financial incentives for the adoption sustainable charcoal through markets and sale of ecosystem services. The project will therefore explore market based incentives and link communities to the voluntary carbon finance market to provide an additional income stream as an incentive to sustainable charcoal and improved woodland management.
136. Traditional charcoal production using earth kilns which are 10% efficient produces nine tons of carbon dioxide for every ton of charcoal. Sustainable charcoal (where trees are planted and efficient kilns are employed) is carbon neutral because the carbon emitted during production and consumption can be sequestered by trees that are planted, or allowed to continue growing (by coppicing instead of felling). Thus taking earth kilns as a baseline for every one ton of sustainable charcoal that is produced, it offsets nine tones of carbon dioxide (or nine units of CO₂).
137. At current prices in the informal Verified Emissions Reductions (VER) trading markets, one tone of charcoal will produce 9 tons of CO₂. At a mean US\$ 5 per ton of CO₂ in the VER market, a village producing 500

tons of sustainable charcoal (that means 4500 (9 x 500) tones of CO₂) could earn US\$ 225,000 selling carbon credits, in addition to the sale value of charcoal. The project will work with institutions with expertise on carbon finance such as ICRAF and the Energy for Sustainable Develop (ESD) to provide capacity and methodologies for measuring carbon stocks and monitoring and verifying trends.

138. Specific activities will include development and implementation of an incentive form similar to the saw log production and carbon finance schemes, conducting market research on the charcoal production and consumption chain, setting up and supporting operations of the charcoal associations, promoting and supporting adoption of incentives for tree planting and localized rehabilitation of badly degraded lands such as removal of invasive species, establishing and maintaining tree nurseries, promoting and supporting alternative non-timber production practices such as apiary, medicinal, wildlife conservation, etc., organizing and supporting charcoal producers and landlords into market oriented associations.
139. **Sub-out 3.3.3: Skills for sustainable charcoaling delivered:** The project will facilitate development of the extension package for managing drylands forests as a source of charcoal, borrowing from experience of countries such as Sudan and Madagascar that have a sustainable charcoal policy. It will then facilitate delivery of the extension package in pilot districts and formulation of a strategy to expand training in other cattle corridor districts. It will support the training of District Forest staff in provisions of the new Forest Act including charcoal subsidiary legislation. The District and local officers will need training and general capacity to supervise sustainable charcoal and collect revenue from producers.
140. In addition, the project will support the Forest Department and the Renewable Energy institute to train officers of other agencies in the new act working through the District Environment Committees (DEC). It will support District governments to lead better planning of the charcoal business through the District Environment Plans (DEAPs) and to feed into national planning processes including ensuring woody biomass (on private/public lands) are valued appropriately in the national accounts. Specific activities will include advocating for Local government structural adjustment to cater for Energy extension services, supporting short course trainings of Local government staff and line ministry staff in landscape planning/ rangeland management, conducting exchange visits and tours, streamlining/harmonizing charcoal revenue collection.
141. **Sub-out 3.3.4: Charcoal associations capacitated to improve governance:** To address local level governance for charcoaling, the project will facilitate review of traditional land and resource management institutions and their suitability for providing governance for sustainable charcoal production (in conjunction with outcome 1). It will also support producers through charcoal producer associations (linked to Forest Associations with PFM guidelines). Majority of the charcoal producers do not own the trees/land they use for charcoal production. Charcoal producers Associations may therefore be separate from Forest Associations. Building on the lessons learnt from the current charcoal project, this output will work through charcoal associations to increase awareness of producers aware on their rights and responsibilities under the legislation.
142. The charcoal associations will also be vehicles for disseminating information on better conversion methods and sustainable forest management principles. In conjunction with output 3.1, the project will facilitate access to loans to invest in better production technology. Specific activities will include supporting local governments and communities to review existing local regulations and to make them more accommodating of sustainable charcoal production (ordinances and byelaws), strengthening capacity for the implementation of the revised regulations by both communities and local government.
143. **Output 3.4. Livestock mobility supported as an adaptation technology:** Although mobile pastoralism has been reduced drastically in the corridor, the project will support continued use of pastoralists' adaptive strategies by supporting livestock mobility and raising awareness and support for the critical role played by mobility in exploiting drylands and in national economic development. The output will be delivered through two sub-outputs described below:

144. **Sub-output 3.4.1: Provision of mobile services and inclusive financial services to boost sustainable pastoralism and adaptation facilitated:** Providing social amenities such as schools, health services, water, electricity etc. has been sighted as the most important reason for settling herders by the government. The project will facilitate identification of a system of service provision that does not force the settlement of herds. Such a system would include mobile veterinary and health services, mobile shops, systems of effectively transporting milk and other livestock products to markets regardless of the location of herds etc. It is the role of the private sector to provide these services. For sustainability, the project will facilitate identification of private sector players willing to engage in mobile service provision and strengthen their ability to do so effectively.
145. Specific activities will include appraising the existing traditional systems for resource use by pastoralists; information sharing about the best-practice systems, capacity building for livestock keepers, members of the local governments, civil society organizations and other stakeholders; assessment of land use policy contradictions (pastoralism versus rice production); needs assessment for the mobile support service that will be required and facilitation of private sector engagement in the provision of the services.
146. **Sub-output 3.4.2: Pastoralists' traditional systems for resource use strengthened:** The pastoralists have highly heterogeneous local systems, where men and women control different functions, elite and peasants have different powers and expectations. Despite the emergence of "individualistic" behavior, most pastoral groups continue to share a sense of "community". The Community in turn continues to maintain its social capital, which consists of indigenous knowledge, customary leadership, etc. Different forms of reciprocity are codified and are as effective as contracts, interdependence of communities (both socially and economically), political alliances between communities and ethnic units, symbiotic relationships between different production systems, and many more.
147. The project will strengthen the use of this social capital for increasing sustainability of pastoralism. A specific form of empowerment will be to make decentralization work for pastoralism. The project will therefore work with the local government to ensure that decentralization does not disadvantage pastoralism, and supports mobility. In conjunction with outcome 2, the project will also facilitate the review of policy to identify and remove distortions weakening these traditional systems leading to a gradual abandonment of traditional rules, regulations and skills.
148. **Sub-output 3.4.3: Communication and conflict resolution improved:** The project will develop a communication strategy to raise awareness of the importance of livestock mobility in drylands management and increase its appreciation nationally. It will also strengthen conflict resolution mechanisms. Specific activities will include development of a pastoral code of conduct, assessment of the existing traditional conflict resolution mechanisms among pastoralists, identifying factors weakening their effectiveness, use of assessment results to design an appropriate conflict resolution system, identification of communication needs to different target audiences, preparation of communication messages suitable to each audience, identification of suitable dissemination channels, and facilitation of implementation of the communication strategy.

2.3 *Project Indicators, Risks and Assumptions*

149. Project monitoring and evaluation will be closely linked to the SIP M&E processes and will contribute to the data collection on indicators selected by the GEF Global MSP on KM Land. Key indicators are outlined in the table below. Specific data needed to measure the indicators will be determined during the inception period when a monitoring action plan will be developed.

Indicators

Result	Indicators
<p>Objective: To provide land users and managers with the enabling policy, institutional and capacity environment for effective adoption of SLM within the complexity of the cattle corridor production system.</p>	<ul style="list-style-type: none"> ✓ At least 75% of the rangeland registering improvement in rangeland condition (using range condition measurements); ✓ At least 25% of woodlands showing recovery as measured by regeneration and improvements in species index; ✓ At least a million tons of carbon dioxide mitigated from sustainable charcoal in the districts and increased efficiency of burners and kilns; ✓ At least half of land under improved SLM registers reduction in land degradation by at least 20% as measured by reduction in soil erosion, reduction in termite attacks, improvement in soil organic matter and structure, increased ground cover (grasslands and woody vegetation) and other indices to be determined during the formulation of the M&E action plan (during inception period); ✓ At least 25% improvement in household welfare for a minimum of 75% of the households in pilot districts, as measured by percentage increase in household income, percentage reduction in number of food insecure days and other specific indicators to be determined during project inception
<p>The policy, regulatory and institutional environment support sustainable land management in the cattle corridor (in particular policy and legislation for sustainable charcoal and tenure security strengthened): <i>Outputs are: Policies, legislative frameworks and institutional set up for sectors related to SLM, energy and livestock sectors reviewed: Increasing security of tenure for land and resources as an incentive for investing in SLM: National policy regulates sustainable production, processing and marketing of charcoal</i></p>	<ul style="list-style-type: none"> ✓ Over 780,000 ha under direct SLM (project pilot area) and 700,000 ha impacted by up-scaling in next 2 yrs, through the NORAD/UNDP Capacity Building (co-finance) project. ✓ At least 50% of land and resource users have some form of security of tenure ✓ At least 4 policies revised to mainstream SLM principles and so provide a better policy environment for SLM; ✓ Legislation and institutional arrangement guiding policy implementation for at least 4 key policies are influenced by project results and overtly recognize SLM principles; ✓ Charcoal legalization process in advanced stages (it is difficult for the project to commit to get the policy approved). ✓ revenue collection from charcoal processes by Uganda Revenue Authority improves by at least 50% ✓ Percentage of the revenue collected being used to support sustainable woodlands management
<p>Knowledge based land use planning forms the basis for improving drylands sustainable economic development <i>Outputs are:</i> 2.1: <i>Biophysical and socio-economic assessments undertaken and provide basis for planning</i> 2.2: <i>Capacity developed to apply the results of the analysis in outputs 1 to undertake land use planning and to support improved land and resource management:</i> 2.3: <i>Particularly degraded lands rehabilitated</i> 2.4: <i>A participatory M&E system designed and used to monitor ecosystem health and improvements in livelihoods</i></p>	<ul style="list-style-type: none"> ✓ At least 75% of cultivators adopting 3-5 forms of improved practices and complying with SLM model guidelines ✓ At least 30% increase in soil fertility from baselines for land users consistently engaging in 3-5 improved practices ✓ At least 40% of the agriculturalists and pastoralists taking decisions on the basis of the weather and drought early warning information ✓ At least 50% of the technical officers and land users requiring capacity improvement have received skills (training and materials) to enhance their capacity for SLM; ✓ Lessons on improving land and resource tenure, range rehabilitation, sustainable charcoaling, improving livestock mobility, crop and livestock insurance, and other important project initiatives available for dissemination through the upscaling project;
<p>Local economic development strengthened through diversification and improved access to finance and insurance: <i>Outputs are: Agricultural productivity increased sustainably (Co-finance): Increasing the viability of the</i></p>	<ul style="list-style-type: none"> ✓ At least 50% increase in agricultural produce for key crops as a result of improved SLM practices increasing soil fertility and soil-water use by crops. ✓ At least 30% increase in productivity per unit of the land under pastoralism; ✓ At least 25% of pastoralists and agriculturalists participating in the index based insurance scheme; ✓ At least 25% increase in numbers accessing micro-finance and credits ✓ At least ten groups with sustainable charcoal production operations and

<p><i>production systems via access to micro-finance, credits and insurance:</i> <i>Sustainable charcoal providing additional incomes from carbon-finance:</i> <i>Strengthening livestock mobility as an adaptation technology</i></p>	<p>earning money from carbon finance;</p> <ul style="list-style-type: none"> ✓ At least 10 charcoal associations have rules and regulations for sustainable charcoal and are actively enforcing them; ✓ Number of charcoal producers using improved kiln in carbonization increase by at least 50% in pilot districts ✓ Number of consumers using improved burners increase by at least 25% ✓ At least 50% of current mobile pastoralists still retain livestock mobility ✓ At least 50% reduction in incidents of conflicts over land and resources in the pilot districts ✓ At least 25% change in attitudes towards nomadic pastoralism among policy makers (measured through rapid assessments at key meetings)
--	---

150. **Risks:** There are several risks that may prevent the proposed project from achieving its objectives: at the national level, competing priorities that may alter the current political and financial support given to SLM and potentially slow pace of rolling out the land tenure and energy policies and supporting institutions needed to progress with alignment and harmonization. At the local level, the local economies may be slow in demonstrating economic returns on SLM investments thereby promoting short term decisions of survival over investment into good practices by both land managers and their leaders; resource users may therefore reduce their commitment to SLM. At both scales there are risks associated with climate change, that may undermine the gains made from SLM related investments, and/or may render proposed strategies/technologies for pursuing SLM obsolete.

151. National level risks will be mitigated by continuous policy dialogue with the Government and other Development Partners. The Government is in the process of formulating a Country SLM Investment Strategy, the first step in adopting a programmatic approach to addressing land degradation. GEF partners have agreed to align and support the implementation of a more programmatic approach to SLM scale-up. Since this project is part of the programmatic approach, this risk is minimized. Risks associated to climate change will be mitigated through assessment of potential impacts of climate change in all project initiatives and by the introduction of the index-based micro insurance. The project will indeed provide the government with an additional tool to address the root causes of climate change through increased carbon sequestration and mitigate the negative effects of climate change at the local level. At local level, the project will work closely with the civil society organizations and local leaders to help build national and community support for SLM, in particular to increase security of tenure and to increase local level governance for regulating charcoaling. Training programmes will aim to maximize human resources for SLM. By enhancing natural resource management, the project will enhance the economic and other benefits flowing from the natural resource base and thus stimulate a stronger commitment to SLM. Other risks and assumptions are presented in the table below.

Table 1: Risks and mitigation measures

Risk description	Degr ee	Mitigation/ Comment
Competing priorities at national level lead to reduced political support to SLM	L	Government has showed highest degree of commitment to SLM by adopting a programmatic approach by starting the formulation of a country SLM Investment Framework under which all SLM activities will be coordinated. This project will strengthen the process by particularly strengthening the UNCCD Focal Point's Office for coordinating implementation of the NAP (through co-finance).
Continued political conflicts in the cattle corridor (rebel activities)	L	Peace negotiations advanced at national level and political unrest reduced significantly particularly through the Karamoja Piece and Development Initiative

Short term decisions of survival instead of long-term investment into SLM good practice at local level	M	At the national level, the government has confirmed its longer term outlook on SLM via the CSIF; at the local level, the project will provide tangible support to empowering local communities to start engaging in such longer term strategic planning as well as assisting them to leverage the required investments for more sustainable livelihoods.
Insecure land and resource tenure	M	Insecure land and resource tenure is a hindrance to investing in SLM. However, securing tenure as well as formulating an SLM model that can guide resource management under the current complexities of the cattle corridor is one of the key outcomes of the project. The Government is committed to pilot such initiatives in recognition of the fact that the resources required to undertake a land titling programme are beyond the country's budget. Besides, land under pastoralism can benefit more from security of tenure than from subdivisions and titling.
Voluntary carbon markets fail to recover from the current slump occasioned by global financial meltdown	M	The success of sustainable charcoal depends on the provision of an additional income stream to producers because buyers will not pay a premium on it. CDM is still too complicated for such community projects so the voluntary markets are the obvious source of the additional income stream. The project will advertise the initiative widely and search for voluntary markets still active. It is also expected that the current global financial crisis will soon be over; also the imperative to invest in mitigation is still growing.
Low appetite for providing micro finance and insurance scheme to pastoralists	M	Lack of access to formal market structures such as micro-finance and insurance are a real hindrance to improving productivity of the rangelands sustainably. The service providers have in the past failed to recognize the potential of high returns from pastoralism and therefore only concentrated on the difficulty of providing the services. The project will provide information and facilitate discussion and piloting of provision of these services, but the success of the ventures will depend on identifying service providers who are willing to be convinced and to engage in innovative "out of the box" solutions. There is evidence however that the financial sector in Uganda and the region has grown to the level where such innovators are ready to experiment, as evidenced by the emergence of cell phone based banking and financial transactions. Lessons from the piloting of the index based insurance scheme being piloted in northern Kenya by ILRI will be used as they emerge to inform the insurance pilot.
Current levels of rent seeking persists	M	
Climate change	M	Mitigated through integrating CC concerns into the project design (i.e. CCA "proofing"; CDM investments) and formulation and implementation of SLM strategies and activities per se
Low capacities for SLM	M	The full co-finance project will address capacity gaps and provide strong knowledge and awareness as well as capacity support strategies and targeted action plans.
Legalization of charcoal creates an incentive for more rapid woodlands clearance, particularly outside project areas (leakage)	M	The project initiative will be integrated within the recently approved national renewable energy policy and national CSIF processes to ensure monitoring and correction of any leakages.
Severe drought or other	M	The cattle corridor is prone to the occurrence of frequent and severe

extreme (weather events)	droughts. However, it is the lack of preparedness (advance warning and inadequate planning) that strains the community coping strategies and government support systems. The project is increasing the use of drought and famine early warning information as well as piloting micro-insurance as both an adaptation and drought coping strategy.
--------------------------	---

2.4 *Incremental reasoning and expected global, national and local benefits*

152. **Baseline scenario:** Land degradation due to unsustainable agricultural and grazing practices as well as deforestation, threatens ecosystem integrity and function throughout Uganda’s semi-arid cattle corridor. The result has been declining ability of the ecosystems to support development as demonstrated by reduced productivity of the land and woodlands combined with soil erosion, such soil being deposited in the streams and rivers that constitute the catchment for Lakes Victoria and Kyoga. The degrading practices are largely driven by the unique set of circumstances in the cattle corridor, where an ever increasing population comprising of a mix of pastoralists, agro-pastoralists and cultivators are subsisting on a diminishing dryland resource, with weakened production systems, particularly pastoralism, facing huge demand for the supply of biomass energy under insecure tenure systems, a changing climate and alienation from formal financial and economic processes. The barrier to better management systems has been the lack of an SLM model that would provide security of tenure, financial integration and a legal basis for the production of SLM sustainable charcoal as set of incentives for investing in SLM. Under these circumstances, the risks for continued, even accelerated land degradation in the cattle corridor are real and urgent.
153. The baseline analysis identifies a number of ongoing Government and private sector activities that contribute to SLM in the corridor; of particular note are the adoption of a programmatic approach to SLM and formulation of the renewable energy strategy, and the capacity building project for the cattle corridor financed by NORAD. Implementation of the three initiatives will however be less effective in the absence of the GEF initiative because they do not adequately address the barriers that have led to degradation of the ecosystem and weakening of an ecologically appropriate production system with resultant land degradation, increased food insecurity and poverty in the cattle corridor. Knowledge based planning will provide the basis for decision making, clearly highlighting areas of comparative advantage between the competing production systems and the supporting measures needed to increase productivity of each system for mutual benefits. The application of economic tools and assessment to provide information for decision making on the production systems will in particular highlight the critical role of pastoralism to the sustainable utilization of drylands and adaptation to climate change. Introducing a livestock insurance system will strengthen adaptation while encouraging livestock herders to adjust numbers to the carrying capacity of the land. Provision of security of tenure is critical to encouraging investments in SLM. Legalizing charcoal will provide the incentive for a sustainable cleaner charcoaling industry while linking it to carbon finance will provide a significant additional financial layer to the communities.
154. Investing in the development of local and national SLM capacities will generate global, national and local level benefits. On the global level the project will generate two benefit streams: reduction of soil erosion that would otherwise end up in the lakes Kyoga and Victoria, and the mitigation of at least one million tons of carbon, through sustainable charcoal production and improved efficiencies in carbonization. At national level, the benefits will be in restoring degraded land, woodlands and grasslands, with the accompanying improvements in soil organic matter, increased productivity and conservation of biodiversity; thus supporting ecosystem services such as soil fertility and nutrient availability. Relevant to the global, national and local level are the direct positive effects on improving provisioning ecosystem services such as food production, water quality and availability and wood production, which will be enhanced through applying better practices locally but also through generating an enabling and environmentally/sustainability-informed policy environment. By conserving or improving ecosystem condition, regulating services will be better balanced and threats such as droughts, floods, diseases and pests will be checked.

155. Additional national and local benefits are the enhanced capacities in planning and executing projects, undertaking M&E, and empowering communities to take charge of their own livelihoods. Benefits include: The improvement of the knowledge base on SLM models applicable to the cattle corridor leading to better decision making and innovation in terms of rangeland and agricultural production, an increase of productivity in both production systems and a significant improvement of food security, reduction of vulnerability to extreme events such as drought, floods, diseases (including pests) through more resilient ecosystems and production systems and enhanced adaptive capacities by communities, improved service delivery by government and non-government institutions through improved skills and know-how.

2.5 Country Ownership: Country Eligibility and Country Drivenness

156. Uganda ratified the UNCCD on 25th June 1997. In 1998, the GoU developed a multi-sectoral National Action Programme (NAP), which indicated priority action areas for combating desertification. A “Roadmap for Resource Mobilization for the Implementation of the NAP” was prepared; leading to the formulation of a multi-sectoral 5-year cycle “Integrated Drylands Development Programme” (IDDP) for NAP implementation at the community level. The IDDP aims at addressing drought, precarious water supply, communal conflicts, the “export” of wood fuel, especially charcoal, seasonal fires, dominance of communal land ownership, land degradation (soil erosion, declining soil fertility, soil compaction, deforestation and vegetation clearing, salinisation, acidification), frequent food emergencies and areas only marginally productive for arable farming.
157. The IDDP is linked to the national planning framework, the Poverty Eradication Action Plan (PEAP). This project will address NAP and IDDP priorities, both of which are an integral part of the PEAP, and the Government’s Medium Term Plan for Modernization of Agriculture (PMA). The recent revision of the PEAP recognized land degradation as a major factor affecting the poor. It also underscored the need to support pastoralist production system in view of its contribution to the national economy. The PEAP states that pastoralists and their farming systems should be a key component in new policies for the livestock sector (MFPED 2005).
158. The Land Sector Strategies Plan (LSSP) is designed to provide the operational, institutional and financial framework for the implementation of sector wide reforms and land management including implementation of the Land Act. It aims at removing barriers to land utilization and access, addressing inequality and tenure insecurity, and empowering Local Governments and communities to manage their land efficiently. Furthermore, it supports the implementation of the PEAP, PMA and other major Government policies (such as the Land Use Policy) and programs. Streamlining of land ownership in Uganda has been a major challenge more in dry land districts where intensive resettlement schemes often occur. Finally, the government has formulated a strategy for renewable energy which targets increasing efficiencies in the charcoaling industry. This project addresses several priorities outlined in the above policy documents.

2.6 Sustainability:

159. Sustainability is analyzed in social, financial/ economic, ecological, and institutional terms.
160. **Social Sustainability:** Although the communities in the cattle corridor have different ethnic origins, the tough environment in which they all operate under has generated a level of understanding and cohesiveness in the communities that is unusual for mixed tribes in the region. This has provided the basis for what has developed as a high level of participation of the grass-roots communities and relevant stakeholders starting from project identification and planning and continuing through implementation processes. This high level of involvement will increase the probability of the sustainability of project interventions.
161. The strengthening of traditional institutions of natural resources governance under pastoralism and the formation of charcoal associations will further increase control of project initiatives by grassroots

communities and therefore social sustainability. The development of community-based management systems for grazing and forest lands will reduce or eliminate uncertainty about roles, obligations, costs and benefits of the use of communal lands and will contribute strongly to better governance systems, gender equity and higher social cohesion. Incentives and disincentives that favor the adoption of SLM techniques will be developed through participatory, equitable systems and will be modified based on participatory adaptive management reviews.

162. **Economic/Financial Sustainability:** Under the current land and resource tenure system, resource users have no incentive for investing in the use of resources other than those with the most immediate, short term payback. Investments in erosion control structures, tree planting, sustainable charcoal, sustainable pastoralism or in the long term build up of soil organic matter are financially unsound when there is no security of tenure. The unclear legal status of charcoal combined with the insecurity of resource tenure provides a motive for unsustainable exploitation of woodlands for charcoaling. Introducing governance systems for sustainable charcoal, linked to the carbon finance market and supported by secure tenure regimes will increase sources of income at the local level as well as for government coffers through taxation, which can be used to further strengthen the extension system and woodlands management programmes. Increasing access to financial products and insurance by pastoralists will increase income into the pastoralist production system and household food security.
163. **Ecological sustainability:** The ecological integrity of the cattle corridor has been undermined by the lack of consideration for the potential of the land in exploiting it. In particular, weakening of the pastoral production system has reduced the effectiveness of pastoralists in proving the custodianship of natural resources enshrined in the traditional practices of their production system. The critical issues in defining the model will be to match the potential of the land to demand, recognizing the comparative advantage of pastoralism and agriculture under a secure land and resource tenure regime. Techniques for improving the fertility, productivity and quality of range resources as well as arrangements for providing security of tenure will form the core of the SLM models and will include conservation agriculture, water harvesting, inter-cropping with right mixes such as agro-forestry trees and legumes, rotational grazing, etc., which will collectively ensure ecological sustainability.
164. **Institutional Sustainability:** This project is part of Uganda National SLM Programme, which has embraced a programmatic approach to SLM. This means integration of SLM practices into Local and District Environment Plans and national programs, strategies, plans and policies, which will enhance the sustainability of project initiatives. The co-finance project on capacity development has a focus on strengthening the extension system as well as building the capacity of civil society, which will enhance SLM institutions. The formation of the charcoal associations with governance structures (rules and regulations) will provide an institution for charcoal producers to regulate themselves.

2.7 *Replicability*

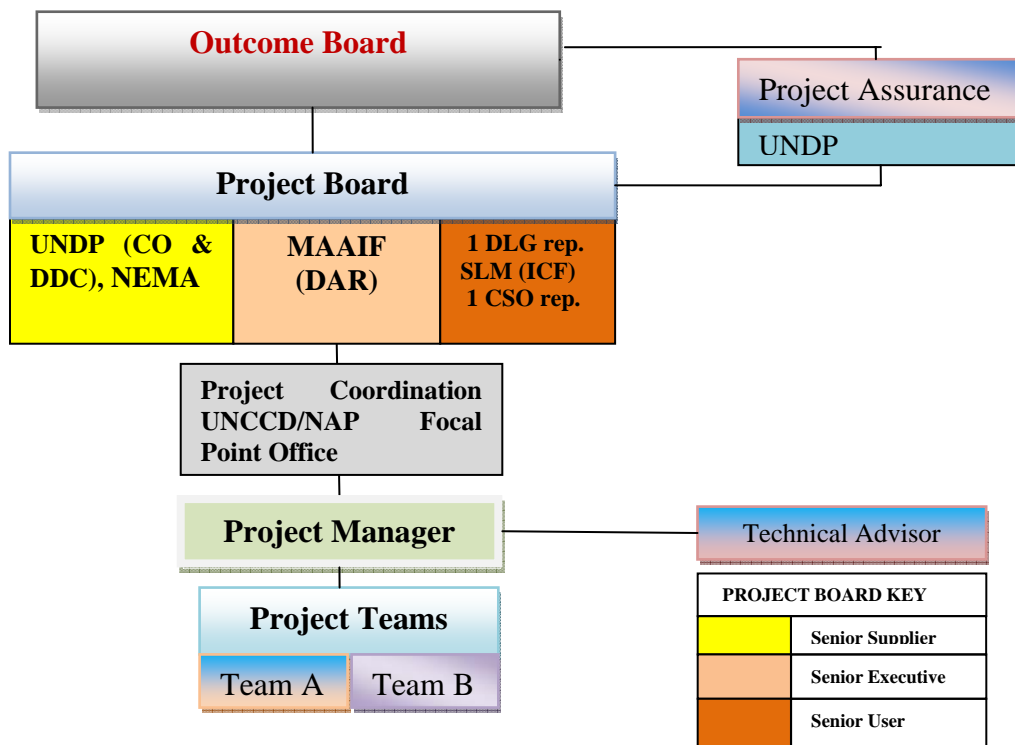
165. An analysis of past and ongoing experiences and lessons learned shows clear evidence that land degradation can be reversed through sustainable land management. Lessons learnt from this FSP will be taken up through two avenues: i) the co-finance project which operates in seven Districts will replicate the SLM model in those districts where appropriate; ii) The National SLM programme, through the country SLM Investment Framework will facilitate replication in other similar districts.
166. In addition, the project will build local capacity for replicating and adapting the new participatory management models; the most cost-effective approach for ensuring the sustainability and replicability of the project. The project's direct link to the NAP and integration into SIP and UNDAF further strengthen sustainability and scope for up-scaling. The design of the project has, from the onset, attempted to include replicability considerations. Tools provided at the local level (training materials, approaches) for building

local capacity for replicating and adapting the new participatory management models will be made available to the extension service for nation-wide dissemination.

3. PART III: Management and implementation arrangements

3.2 Management Arrangements

167. The project will be implemented over a four-year period, commencing in January 2010. The GEF implementation agency (IA) for the project will be the UNDP Uganda Country Office. The project will be executed under UNDP National Execution (NEX) procedures. The Nakasongola and Kamuli District Administrations will have overall responsibility for the project, with the Ministry of Agriculture and Fisheries (MAAIF) providing the national framework.



168. **Outcome Board:** At the UNDP Country Programme level, an Outcome Board is responsible for ensuring the realization of the expected outcome and managing the interdependency of different projects that contribute to a particular outcome. Since this project contributes to one of the country programme outcomes within the overall framework of the UNDAF, its outputs will be monitored at programme level through an Outcome Board. MAAIF as the implementing partner will be responsible for reporting progress and results of this project to the Outcome Board. The Outcome Board will be constituted by the Executing Agency (Ministry of Finance, Planning and Economic Development) and UNDP

169. **Project Board:** The Project Board will be responsible for providing overall guidance and direction to the project. It will also be responsible for making, by consensus, management decisions for the project when such guidance is required by the Project Manager, including making recommendations to UNDP and the Implementing Partner to approve project plans and revisions. In case a consensus cannot be reached, the final decision shall rest with the UNDP Resident Representative.

170. The Board will ensure that required resources are committed and will arbitrate on any conflicts within the project or negotiate a solution to any problems between the project and external bodies. In order to ensure UNDP's ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure best value for money, fairness, integrity, transparency and effective international competition. In particular, the responsibilities of the board shall include:
171. *During implementation:*
- Provide overall guidance including policy input and functional guidance as well as direction to the project, ensuring it remains within any specified constraints;
 - Address project issues as raised by the Project Manager;
 - Provide guidance and agree on possible countermeasures/management actions to address specific risks;
 - Conduct regular meetings to review the Project Quarterly Progress Report and provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans.
 - Review Combined Delivery Reports (CDR) prior to certification by the Implementing Partner;
 - Appraise the Project Annual Review Report, make recommendations for the next AWP, and inform the Outcome Board about the results of the review.
 - Review and approve end of project report, make recommendations for follow-on actions;
 - Provide ad-hoc direction and advice for exception situations when project manager's tolerances are exceeded;
 - Assess and decide on project changes through revisions;
172. *During project closure:*
- Assure that all Project deliverables have been produced satisfactorily;
 - Review and approve the Final Project Review Report, including Lessons-learned;
 - Make recommendations for follow-on actions to be submitted to the Outcome Board;
 - Notify operational completion of the project to the Outcome Board.
173. The Project Board will be comprised of three categories of membership, representing the various interests of stakeholders as the Executive (project owners), beneficiaries and suppliers as detailed below and the TORs in Annex 11.
174. **Ministry of Agriculture Animal and Industry and Fisheries (MAAIF):** The Ministry of Agriculture Animal and Industry and Fisheries (MAAIF) will be the Government Cooperating Agency, and will also be responsible for implementation of the Project. As the implementing partner MAAIF will be responsible for the delivery of the project outputs and accountable for resources provided, in accordance with UNDP rules and procedures. Specifically, the Directorate of Animal Resources in MAAIF will be the implementing partner; this is the Directorate that provides oversight over the National SLM Focal Point who executes the UNCCD/NAP responsibilities at global, national and local levels, including the national SLM Country Investment Framework.
175. MAAIF is responsible for the project and at the Project Board level will perform the role of Executive. The Permanent Secretary or her/his nominated representative will chair the Project Board and ensure government ownership of the project. S/he will also ensure that the project is focused throughout its life cycle on achieving its objectives and delivering outputs that will contribute to higher level outcomes and that the project gives value for money, ensuring a cost-conscious approach to the project.
176. **District Local Governments (DLG), Community or Civil Society (CSO), SLM Inter Ministerial Co-operation Framework (ICF) Steering Committee:** Representatives of the six Local Governments shall sit on the Project Board on a rotational basis. District Local Governments will undertake the preparation of district and sub county environment action plans and ensure the mainstreaming of SLM issues into these plans

and budgets. The DLGs will work through established mechanisms such as district technical planning committees, and together with the beneficiary communities will carry out project activities. As such the local government will benefit from the capacities developed to mainstream the SLM issues in DDPs, while the communities will benefit from interventions that empower them and provide for their engagement in sustainable livelihood activities. In addition this project will strengthen the capacity of the national SLM steering committee for coordination and harmonization of SLM interventions at national level.

177. In order to ensure an effective Board, each of these categories of beneficiary stakeholders namely, (i) the six district local governments, (ii) the beneficiary communities, and (iii) the Steering Committee for implementation of the national SLM Country Programme will nominate one individual to represent them on the project board. Furthermore the beneficiary communities may choose either a competent individual or a CSO representative, as may be deemed appropriate. As representatives of beneficiaries they will be responsible for validating the needs and for monitoring that the solution will meet those needs within the constraints of the project. They will prioritize and contribute beneficiaries' opinions on Project Board decisions, and contribute to resolution of priority conflicts.
178. **United Nations Development Programme (UNDP):** UNDP will be responsible for provision of resources as well as technical expertise to the project, drawing on its knowledge networks and pool of experts, and through external sourcing. It will also be responsible for project assurance, ensuring that the project is implemented in accordance with the rules and procedures for managing UNDP projects. In particular as a member of the Board, UNDP will promote and maintain focus on the expected project outputs; arbitrate on, and ensure resolution of, any donor priority or resource conflicts; contribute opinions on Project Board decisions on whether to implement recommendations on proposed changes; ensure that any standards defined for the project are met and used to good effect; and monitor any risks in the implementation aspects of the project.
179. **National Environment Management Authority:** NEMA will support mainstreaming of environment and SLM issues in district and local government plans and budgets and will also be a member of the Project Board;
180. **Project Manager:** The Project Manager is responsible for day-to-day management and decision-making for the project, including preparing and revising work-plans; planning and organising project review meetings; providing technical feedback to the Project Board; ensuring that project activities are carried out within the financial limitations of the budget; supervising the technical and administrative support personnel and coordinating project activities with stakeholders as detailed below and in TORs in Annex 12.
181. The Project Manager's prime responsibility will be to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost. S/he will be appointed by the Implementing Partner (MAAIF) who should be different from the Implementing Partner's representative in the Outcome Board. The specific responsibilities of the Project Manager will include:
182. *Overall project management:*
 - Manage the realization of project outputs through planned activities;
 - Provide direction and guidance to project team(s)/ responsible party (ies);
 - Liaise with the Project Board and UNDP to assure the overall direction and implementation of the project;
 - Identify and obtain any support and advice required for the management, planning and control of the project;
 - Be responsible for project administration;
 - Liaise with any suppliers;
183. *During implementation of the project*

- Plan the activities of the project and monitor progress against the initial quality criteria.
- Mobilize goods and services to initiate activities, including drafting TORs and work specifications;
- Monitor events as determined in the Monitoring & Communication Plan, and update the plan as required;
- Manage requests for the provision of financial resources by UNDP, using advance of funds, direct payments, or reimbursement using the FACE (Fund Authorization and Certificate of Expenditures);
- Monitor financial resources and accounting to ensure accuracy and reliability of financial reports;
- Manage and monitor the project risks as initially identified in the Project Brief appraised by the LPAC, submit new risks to the Project Board for consideration and decision on possible actions if required; update the status of these risks by maintaining the Project Risks Log;
- Be responsible for managing issues and requests for change by maintaining an Issues Log.
- Prepare the Project Quarterly/ Midterm Progress Reports (progress against planned activities, update on Risks and Issues, expenditures) and submit the report to the Project Board and UNDP;
- Prepare the Annual review Report, and submit the report to the Project Board and the Outcome Board;
- Based on the review, prepare the AWP for the following year, as well as Quarterly Plans as required.

184. *When closing the Project*

- Prepare Final Project Review Reports to be submitted to the Project Board and the Outcome Board;
- Identify follow-on actions and submit them for consideration to the Project Board;
- Manage the transfer of project deliverables, documents, files, equipment and materials to national beneficiaries;
- Prepare final CDR/FACE for signature by UNDP and the Implementing Partner.

185. **Project Assurance:** The Project Assurance role supports the Project Board by carrying out objective and independent project oversight and monitoring functions. This role ensures that appropriate project management milestones are managed and completed. This role will be undertaken by the UNDP who will designate a Programme Officer to perform the assurance activities on behalf of the Project Board. Project Assurance has to be independent of the Project Manager; therefore the Project Board cannot delegate any of its assurance responsibilities to the Project Manager. UNDP will undertake this role to ensure that the project remains relevant, follows approved plans, and continues to meet planned targets with quality.

186. In performing this role UNDP will check a number of key aspects, and these include;

- Maintenance of thorough liaison between the members of the Project Board.
- Beneficiary needs and expectations are being met or managed.
- Risks are being managed.
- Adherence to the Project Justification (Business Case).
- Projects fit with the overall Country Programme.
- The right people are being involved.
- The project remains viable.
- The scope of the project is not “creeping upwards” unnoticed.
- Internal and external communications are working.
- Applicable UNDP rules and regulations are being observed.
- Any legislative constraints are being observed.
- Adherence to UNDP monitoring and reporting requirements and standards.
- Quality management procedures are properly followed.
- Project Board’s decisions are followed and revisions are managed in line with the required procedures.

187. The specific responsibilities will include:

During implementation of the project

- Ensure that funds are made available to the project;
- Ensure that risks and issues are properly managed, and that the logs in Atlas are regularly updated;
- Ensure that critical project information is monitored and updated in Atlas, using the Activity Quality log in particular;
- Ensure that Project Quarterly Progress Reports are prepared and submitted on time, and according to standards in terms of format and content quality;
- Ensure that CDRs and FACE are prepared and submitted to the Project Board and Outcome Board;
- Perform oversight activities, such as periodic monitoring visits and “spot checks”.

When closing the project

- Ensure that the project is operationally closed in Atlas;
- Ensure that all financial transactions are in Atlas based on final accounting of expenditures;
- Ensure that project accounts are closed and status set in Atlas accordingly.

188. **Project Support:** The project support role will be to provide project administration, management and technical support to the Project Manager as required by the needs of the project or Project Manager. Project support will be provided by the following:-

- (i) Technical Advisor for the project to be based in MAAIF and provide guidance to the Project Manager and the Ministry,
- (ii) 2 Project Officers,
- (iii) 1 Finance/ Administrative Assistant, and
- (iv) 2 Drivers as part of the Project Management Unit.
- (v) In addition the Project shall utilise 2 seconded staff, one from the relevant Ministry of Energy and Mineral Development and the other from Ministry of Lands, Housing and Urban Development to provide technical support to the project and act as focal officers in their respective ministries.

189. The specific tasks will include:

Provision of administrative services:

- Set up and maintain project files
- Collect project related information data
- Update plans
- Administer the quality review process
- Administer Project Board meetings

Project documentation management:

- Administer project revision control
- Establish document control procedures
- Compile, copy and distribute all project reports

Financial Management, Monitoring and reporting

- Assist in the financial management tasks under the responsibility of the Project Manager.
- Provide support in the use of Atlas for monitoring and reporting.

Provision of technical support services by the Technical Advisor: The Technical Advisor will be responsible for technical issues of the project, in particular ensuring that project activities are based on good science and draw on lessons from the country and the region. S/he will supervise district officers (from various ministries) who will be responsible for the technical implementation of the project. s/he will also be responsible for the technical quality control of project reports, especially the technical reports.

4. Part IV: Monitoring and Evaluation Plan and Budget

190. 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 UNDP/GEF. The Logical Framework Matrix in Annex 2 provides indicators for project implementation, cross referenced to the SIP Results Framework as currently designed, along with their corresponding means of verification. These will form the basis on which the project's Monitoring and Evaluation system will be built.

4.2 Project start:

191. A Project Inception Workshop will be held within the first 2 months of project start with those with assigned roles in the project organization structure, UNDP country office and where appropriate/feasible regional technical policy and programme advisors as well as other stakeholders. The Inception Workshop will be crucial to building ownership for the project results and to plan the first year annual work plan. It will address a number of key issues including:

- a) Assist all partners to fully understand and take ownership of the project. Detail the roles, support services and complementary responsibilities of UNDP CO and Regional Coordination Unit (RCU) staff vis à vis the project team. Discuss the roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff will be discussed again as needed.
- b) Finalize the first annual work plan as well as review and agree on the indicators, targets and their means of verification, and recheck assumptions and risks.
- c) Provide a detailed overview of reporting, monitoring and evaluation (M&E) requirements. The Monitoring and Evaluation work plan and budget will be agreed and scheduled.
- d) Discuss financial reporting procedures and obligations, and arrangements for annual audit.
- e) Plan and schedule Project Board meetings. Roles and responsibilities of all project organisation structures will be clarified and meetings planned. The first Project Board meeting should be held within the first 12 months following the inception workshop.

4.3 Quarterly

192. Project Progress will be monitored quarterly using the UNDP Enhanced Results Based Management Platform. The risks identified at project design will be entered into ATLAS and monitored quarterly. The risks related to land tenure, charcoaling and micro-finance are all rated critical under the Enhanced Results Based Management Platform on the basis of their innovative nature (high impact and uncertainty due to no previous experience justifies classification as critical). These will therefore be monitored very carefully and information used to adapt project management.

193. Quarterly Project Progress Reports (PPR) will be generated in the Executive Snapshot, using the information recorded in Atlas. Other ATLAS logs will be used to monitor issues, lessons learned etc. The use of these functions is a key indicator in the UNDP Executive Balanced Scorecard.

4.4 Annually

194. **Annual Project Review/Project Implementation Reports (APR/PIR):** Annual Project Progress will be monitored and captured through this key report, which comprehensively combines both UNDP and GEF reporting requirements. The APR/PIR includes, but is not limited to, reporting on the following:

- Progress made toward project objective and project outcomes - each with indicators, baseline data and end-of-project targets (cumulative);
- Project outputs delivered per project outcome (annual);
- Lesson learned/good practice;

- AWP and other expenditure reports;
- Risk and adaptive management;
- ATLAS QPR;

195. Portfolio level indicators (i.e. GEF focal area tracking tools) are used by most focal areas on an annual basis as well.

4.5 Periodic Monitoring through site visits:

196. UNDP CO and the UNDP RCU will conduct visits to project sites based on the agreed schedule in the project's Inception Report/Annual Work Plan to assess first hand project progress. Other members of the Project Board may also join these visits. A Field Visit Report/BTOR will be prepared by the CO and UNDP RCU and will be circulated no less than one month after the visit to the project team and Project Board members.

4.6 Mid-term of project cycle:

197. The project will undergo an independent Mid-Term Evaluation at the mid-point of project implementation, expected to be mid-2012. The Mid-Term Evaluation will determine progress being made toward 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 evaluation will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-term evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF. The management response and the evaluation will be uploaded to UNDP corporate systems, in particular the UNDP Evaluation Office Evaluation Resource Center (ERC). The relevant GEF Focal Area Tracking Tools will also be completed during the mid-term evaluation cycle.

4.7 End of Project:

198. An independent Final Evaluation will take place three months prior to the final Project Board meeting and will be undertaken in accordance with UNDP and GEF guidance. The final evaluation will focus on the delivery of the project's results as initially planned (and as corrected after the mid-term evaluation, if any such correction took place). The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental benefits/goals. The Terms of Reference for this evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF. The Terminal Evaluation will also provide recommendations for follow-up activities and will be accompanied by a management response which will be uploaded to PIMS and to the UNDP Evaluation Office Evaluation Resource Center (ERC). The relevant GEF Focal Area Tracking Tools will also be completed during the final evaluation.

199. During the last three months, the project team will prepare the Project Terminal Report. This comprehensive report will summarize the results achieved (objectives, outcomes, outputs), lessons learned, problems met and areas where results may not have been achieved. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the project's results.

4.8 Learning and knowledge sharing:

200. Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and forums. The project will therefore 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 also identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects. Finally, there will be a two-way flow of information between this project and other projects of a similar focus.

4.9 Legal Context

201. 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. 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. 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.
202. 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.
203. 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.

4.10 Audit Clause

204. The **executing agency** will provide the Resident Representative with certified periodic financial statements, and with an annual 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 by the legally recognized auditor, or by a commercial auditor approved of by both UNDP and Government.
205. Most activities in the M&E work plan are not separately budgeted and will be mainstreamed into the work plans and resourcing dedicated to achieving the three Outcomes as specified in the Budget Summary table above. The costs of the mid term and final evaluations have been allocated equally to the budgets of the three Outcomes in that table.

Table 1: Monitoring, Reporting and Evaluation Timetable and Costs

Type of M&E activity	Responsible Parties	Specific Budget Allocation (US\$)	Time frame
Inception Workshop	<ul style="list-style-type: none"> ▪ Project Coordinator ▪ UNDP CO ▪ UNDP GEF 	None	Within first two months of project start up
Inception Report	<ul style="list-style-type: none"> ▪ Project Team ▪ UNDP CO 	None	Immediately following IW
Measurement of Means of Verification for Project Purpose	<ul style="list-style-type: none"> ▪ Project Coordinator will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team 	10,000	Start, mid and end of project

Type of M&E activity	Responsible Parties	Specific Budget Allocation (US\$)	Time frame
Indicators	members		
Measurement of Means of Verification for Project Progress and Performance (measured on an annual basis)	<ul style="list-style-type: none"> ▪ Oversight by Project GEF Technical Adviser and Project Coordinator ▪ Measurements by regional field officers and local IAs 	10,000	Annually prior to APR/PIR and to the definition of annual work plans
APR and PIR	<ul style="list-style-type: none"> ▪ Project Team ▪ UNDP-CO ▪ UNDP-GEF 	None	Annually
TPR and TPR report	<ul style="list-style-type: none"> ▪ Government Counterparts ▪ UNDP CO ▪ Project team ▪ UNDP-GEF Regional Coordinating Unit 	None	Every year, upon receipt of APR
Steering Committee Meetings	<ul style="list-style-type: none"> ▪ Project Coordinator ▪ UNDP CO 	None	Following Project IW and subsequently at least once a year
Periodic status reports	<ul style="list-style-type: none"> ▪ Project team 	None	To be determined by Project team and UNDP CO
Technical reports	<ul style="list-style-type: none"> ▪ Project team ▪ Hired consultants as needed 	5,000	To be determined by Project Team and UNDP-CO
Mid-Term External Evaluation	<ul style="list-style-type: none"> ▪ Project team ▪ UNDP- CO ▪ UNDP-GEF Regional Coordinating Unit ▪ External Consultants (i.e. evaluation team) 	12,500	At the mid-point of project implementation
Final External Evaluation	<ul style="list-style-type: none"> ▪ Project team, ▪ UNDP-CO ▪ UNDP-GEF Regional Coordinating Unit ▪ External Consultants (i.e. evaluation team) 	20,000	At the end of project implementation
Terminal Report	<ul style="list-style-type: none"> ▪ Project team ▪ UNDP-CO ▪ External Consultant 	None	At least one month before the end of the project
Lessons learned	<ul style="list-style-type: none"> ▪ Project team ▪ UNDP-GEF Regional Coordinating Unit (suggested formats for documenting best practices, etc) 	5,000	Annual reviews SLM model development
Audit	<ul style="list-style-type: none"> ▪ UNDP-CO ▪ Project team 	10,000	Yearly
Visits to field sites	<ul style="list-style-type: none"> ▪ UNDP Country Office ▪ UNDP-GEF Regional Coordinating Unit (as appropriate) ▪ Government representatives 	None	Yearly
TOTAL SPECIFICALLY BUDGETED COST Excluding project team staff time and UNDP staff and travel expenses		72,500	

5. SECTION II: STRATEGIC RESULTS FRAMEWORK (SRF) AND GEF INCREMENT

Project Strategy	Objectively verifiable indicators				
Goal	“Sustainable Land Management” provides the basis for economic development, food security and sustainable livelihoods while restoring the ecological integrity of the Cattle corridor ecosystem.				
	Indicator	Baseline	Target	Sources of verification	Risks and Assumptions
Objective: To provide land users and managers with the enabling policy, institutional and capacity environment for effective adoption of SLM within the complexity of the cattle corridor production system.	Improvement in rangeland condition	Various statistics report that about 90% of rangelands badly degraded	At least 25% of the rangeland registering improvement in rangeland condition in pilot districts (using range condition measurements) by mid-term and 75% cumulative by end of the project	Baseline report augmented by rangeland condition sampling under the M&E system linked to Transects done by MoA/NARI a relevant Project reports	Prolonged drought Increased encroachment by agriculture
	Woodland condition	Various statistics report that about 90% of rangelands badly degraded	At least 25% of woodlands showing recovery as measured by regeneration and improvements in species index and canopy cover;	Baseline report augmented by ecological sampling under the M&E system linked to Transects done by MoA/NARI a relevant Project reports	Prolonged drought Increased encroachment by agriculture
	Carbon mitigated from sustainable charcoaling	Currently no sustainable charcoaling – no carbon mitigated from it	At least half a million tons of carbon dioxide mitigated from sustainable charcoal in the districts by mid-term and a million cumulative at the end of the project	Reports of the charcoal associations on extent of adoption of sustainable charcoal augmented by records of carbon credits ready for sale and/or sold	Voluntary markets dry up due to the global financial crises. This would reduce the incentive for sustainable charcoal; Prolonged drought interferes with establishment and growth of woodlots

	Reduction in soil erosion	More than 85% of land experiencing serious forms of erosion	At least half of land under improved SLM registers at least 150% reduction in soil erosion by mid-term and 40% cumulative by end of project	Soil erosion monitoring reports as part of the participatory ecological monitoring;	Occurrence of El Nino or severe drought;
	Change in household wellbeing	More than 95% of households below the UN defined poverty line	At least 25% improvement in household welfare for a minimum of 75% of the households in pilot districts, as measured by percentage increase in household income, percentage reduction in number of food insecure days etc.	Socio-economic monitoring reports as part of the participatory monitoring system	Severe weather events such as drought or El Nino making SLM improved practices ineffective Inflation rising at higher than the current trends, would reduce net benefits; A return to political instability would reduce effectiveness of SLM

The policy, regulatory and institutional environment support sustainable land management in the cattle corridor (in particular policy and legislation for sustainable charcoal and tenure security strengthened):	Extent of land under SLM	Less than 50,000 ha under any form of SLM in the pilot districts	Over 780,000 ha under direct SLM by mid-term and 1,480,00 ha cumulative by the end of the project	Monitoring reports, project technical reports	Security of tenure can be obtained No new influx of agriculturalists, so rate of encroachment can be contained
	Resource users with security of tenure	Most land in Nakasongola under either Mailo or communal tenure and almost 50% of Kamuli is either under Mailo or communal with no security of tenure:	At least 50% of the land users have some form of secure tenure	Project monitoring reports; Land and resource security negotiations reports	The land policy emphasizes restoration of security of tenure through transformation of Mailo into other forms of land ownership. It also emphasizes the protection of rights under communal lands. Achievement of this indicator assumes that tenure arrangements that protect communal and other land tenure types can be negotiated and supported by speedy implementation of the policy guidelines
	Number of policies mainstreaming SLM	All policy statements mention importance of SLM but don't have details of how SLM will be ensured	At least 4 policies revised to mainstream SLM principles and so provide a better policy environment for SLM;	Policy discussion papers and briefs; project monitoring reports	Policy processes tend to be slow in developing countries. Speeding up the process, especially of formulating legislative frameworks will be necessary for achievement of this indicator

	Number of policies with legislation and institutional arrangement for effective implementation	None of the policies have updated and effective frameworks well linked into the LCs	Discussions for legislation and institutional arrangement for policy implementation for at least 4 key policies held by mid-term and recommendations provided adopted by end of the project	Policy discussion papers and briefs; project monitoring reports	Policy processes tend to be slow in developing countries. Speeding up the process, especially of formulating legislative frameworks will be necessary for achievement of this indicator
	Legal status of charcoal	No clarity on the legal status of the charcoaling chain. Some aspects are legal while others are not. Production is not legal, transporting is often banned but consumption is not regulated and therefore presumably not illegal	Recommendations for policy changes needed to legalize charcoal provided by mid-term and have government support by end of the project (t is difficult for the project to commit to get the policy approved).	Policy discussion papers and briefs; project monitoring reports	Slow speed of policy process Current political willingness and support to clean up charcoal industry declines
	Revenue from charcoal going to District and national revenue	Minimal collection through licensing but none through taxation	Collection of revenue by Districts and Uganda Revenue Authority from charcoal processes increase by 25% by mid-term and 50% cumulatively be end of the project;	Budgets Project monitoring reports	Current levels of rent seeking could divert revenue collection if not changed Slow policy change processes might delay the legislation that allows taxation to start
Knowledge based land use planning forms the basis for improving drylands sustainable economic development	Percentage of land and resource users adopting improved practices	Less than 10% engaging in 1-2 improved practices consistently	At least 25% of cultivators adopting 3-5 forms of improved practices by mid-term and 75% cumulatively by project end	Sampling captured in project monitoring reports	Prolonged drought Current levels of political willingness and support for SLM by government and resource users declines
	Change in soil fertility	Very low and declining, exact levels for pilot districts obtained during inception	At least 10% increase in soil fertility from baselines for land users consistently engaging in 3-5 improved practices by mid-term and by 30% cumulatively by end of the project	Sampling captured in project monitoring reports	Prolonged drought Current levels of political willingness and support for SLM by government and resource users declines
	Use of weather data for adapting SLM	Less than 5% use of weather information provided by Uganda	At least 15% of the agriculturalists and pastoralists taking decisions on the basis of	Sampling captured in project monitoring reports	Weather information from Met department continues to be largely inaccurate thereby reducing

	practices	Met	the weather and drought early warning information by mid-term and 40% cumulatively by project end		credibility
	Number of people with relevant skills for SLM	Less than 20% of land users and pastoralists have skills for improved management; less than 50% of technical officers have updated SLM skills	At least 40% of land users and 30% of technical officers requiring to update skills have done so by mid-term: by the end of project, at least 60% of land users and 75% of technical officers cumulatively have updated skills.	Project training reports as part M&E reports	Current levels of political willingness and support for SLM by government and resource users declines
	Lessons generated	Limited knowledge management happening now, no clear mechanism for generating and sharing lessons	Lessons on improving land and resource tenure, range rehabilitation, sustainable charcoaling, improving livestock mobility, crop and livestock insurance, and other important project initiatives available for dissemination through the upscaling project;	Project M&E and technical reports	Project implementation is effective and generates lessons worth sharing
Local economic development strengthened through diversification and improved access to finance and insurance	Change in agricultural productivity	Current low and declining, exact levels of selected crops to be obtained during inception	At least 20% increase in agricultural produce for key crops for those adopting 3-5 improved practices consistently by mid-term and 50% cumulative by project end	Project monitoring reports	Unusual weather event such as prolonged drought or El Nino Current levels of political willingness and support for SLM by government and resource users declines
	Number of households with insurance for crops and livestock	No insurance scheme operating	At least 10% of pastoralists and agriculturalists participating in the index based insurance scheme by mid-term and 25% cumulatively by project end;	Household economic activity data captured in project monitoring reports	Insurance institutions are convinced to invest in the rural economy
	Number of households or individuals accessing micro finance and credits	Less than 10% of households have access	At least 25% increase in numbers accessing micro-finance and credits	Household economic activity data captured in project monitoring reports	Finance institutions are convinced to invest in the rural economy
	Number of groups with	No groups engaging in sustainable charcoal	At least ten groups with sustainable charcoal production	Charcoal production data	Voluntary carbon markets recover from current slump occasioned by the

	operational sustainable charcoal processes		operations and earning money from carbon finance;	captured in project reports	global financial melt down
	Number of functional charcoal associations	5 charcoal associations but without functional governance systems	At least 10 charcoal associations have rules and regulations for sustainable charcoal and are actively enforcing them;	Charcoal production data captured in project reports	Current willingness and support by government and people to clean up charcoaling processes declines Current levels of rent seeking from charcoal persists
	Adoption of improved kilns in carbonization	Less than 10% use improved kilns in carbonization	Number of charcoal producers using improved kiln in carbonization in pilot districts increase by at least 30% by mid-term and a cumulative 50% by project end	Charcoal production data captured in project reports	Current willingness and support by government and people to clean up charcoaling processes declines
	Mobile livestock	The current trend is tilted to fast rates of sedenterization; specific baseline will be obtained during inception	At least 50% of current mobile pastoralists still retain livestock mobility by the end of the project	Project monitoring reports	Current hostility based on misunderstanding of role of mobility persists
	Incidents of conflicts over resources (inter and intra pastoralists and agriculturalists)	Very high number of incidents of conflicts, specific baseline will be obtained during inception	At least 10% reduction in incidents of conflicts over land and resources in the pilot districts and a cumulative 50% reduction by project end	Project monitoring reports	Current hostility based on misunderstanding of role of mobility persists Slow policy processes on land tenure
	Attitude towards mobile livestock by policy makers	Most policy makers and technical officers blame mobile pastoralism for land degradation and conflict over resources in the cattle corridor	At least 25% change in attitudes towards nomadic pastoralism among policy makers (measured through rapid assessments at key meetings)	Sampling for attitudes Policy statements and level of support provided to enable mobility all captured in project monitoring reports	Current hostility based on misunderstanding of role of mobility persists

SECTION III: Total Budget and Work Plan

Award Title: PIMS 3227 LD FSP: Atlas ID: 00072031

Proposal ID: 00058105

Project Title: Enabling Environment for SLM to overcome land degradation in the Uganda cattle corridor Districts

GEF Outcome/Atlas Activity	Output	Responsible partner	Source of funds	Budgetary acc code	ATLAS Budget Description	Year 1 (USD)	Year 2 (USD)	Year 3 (USD)	Year 4 (USD)	Total (USD)	Note	
Outcome 1: The policy, regulatory and institutional environment support sustainable land management in the cattle corridor (in particular policy and legislation for sustainable charcoal and tenure security strengthened	1.1: Policies/ legislative and institutional reviewed		62000	71400	Contractual services – company	40,000	10,000	3,000	1,000	54,000	1	
				71600	Travel	4,000	1,000	1,000		6,000	2	
	Output subtotal					44,000	11,000	4,000	1,000	60,000		
	1.2: Security of tenure for land and resources increased as an incentive for investing in SLM		62000	71200	International consultants	10,000				10,000	3	
				71400	Contractual services – individuals	30,000	15,000	10,000	5,000	60,000	4	
				71600	Travel	10,000	5,000	1,000	1,000	17,000	5	
				72500	Supplies	2,000	2,000	2,000	500	6,500	6	
	Output subtotal					52,000	22,000	13,000	6,500	93,500		
	National policy for regulating sustainable production, processing and marketing of charcoal in place		62000	71400	Contractual services – individuals	30,000	20,000	10,500	5,000	65,500	7	
				71600	Travel	10,000	5,000	1,000	1,000	17,000	8	
				72500	Supplies	2,000	2,000	2,000	500	6,500	9	
				72800	Information technology equipment	4,000	2,000	1,000	500	7,500	10	
	Output subtotal					46,000	29,000	14,500	7,000	96,500		
			Outcome Total				142,000	62,000	31,500	14,500	250,000	
	Knowledge based land use	2.1: Biophysical and socio-economic assessments		62000	71200	International consultants	30,000	30,000	10,000	0	70,000	11

planning forms the basis for improving drylands sustainable economic development	undertaken and information analyzed		71400	Contractual services – company	60,000	60,000	20,000	10,000	150,000	12	
			71600	Travel	20,000	20,000	20,000	10,000	70,000	13	
			72200	Equipment and furniture	20,000	5,000	5,000	1,000	31,000	14	
			72500	Supplies	10,000	10,000	5,000	5,000	30,000	15	
			72800	Information technology equipment	2,000	1,000	1,000	500	4,500	16	
		Output subtotal				142,000	126,000	61,000	26,500	355,500	
	2.2: Capacity for land use planning and adoption of improved practices in place		62000	71400	Contractual services – individuals	50,000	30,000	10,000	10,000	100,000	17
				71600	Travel	15,000	10,000	7,000	5,000	37,000	18
				72200	Equipment and furniture	10,000	5,000	1,000	1,000	17,000	19
				72500	Supplies	10,000	10,000	5,000	1,000	26,000	20
				72800	Information technology equipment	5,000	5,000	1,000	1,000	12,000	21
		Output subtotal				90,000	60,000	24,000	18,000	192,000	
	2.3: Particularly degraded lands rehabilitated		62000	71400	Contractual services – company	50,000	40,000	25,000	5,000	120,000	22
				71600	Travel	3,000	3,000	3,000	1,000	10,000	23
				72200	Equipment and furniture	5,000	5,000	1,000	1,000	12,000	24
				72500	Supplies	5,000	5,000	5,000	1,000	16,000	25
			72800	Information technology equipment	2,000	1,000	1,000	1,000	5,000	26	
	Output subtotal				65,000	54,000	35,000	9,000	163,000		

	2.4: A participatory M&E system designed and used to monitor ecosystem health and improvements in livelihoods		62000	71400	Contractual services – company	10,000	30,000	5,000	2,000	47,000	27
				71600	Travel	2,000	5,000	1,000	500	8,500	28
				72200	Equipment and furniture	5,000	5,000	1,000		11,000	29
				72500	Supplies	1,000	1,000	1,000	1,000	4,000	30
				72800	Information technology equipment	2,000	2,000	1,000	1,000	6,000	31
	2.4	Output subtotal				20,000	43,000	9,000	4,500	76,500	
Outcome Total						317,000	283,000	129,000	58,000	787,000	
Local economic development strengthened through diversification and improved access to finance and insurance	3.1: Agricultural productivity increased sustainably (Co-finance)										
	3.2: Viability of the production system increased via access to micro-finance, credits and insurance		62000	71200	International consultants	15,000	10,000	0	0	25,000	32
				71400	Contractual services – company	50,000	30,000	15,000	5,000	100,000	33
				71600	Travel	5,000	5,000	2,000	0	12,000	34
				72500	Supplies	10,000	5,000	5,000	5,000	25,000	35
				72800	Information technology equipment	2,000	2,000	2,000	2,000	8,000	36
		Output subtotal				82,000	52,000	24,000	12,000	170,000	
	3.3: Support to sustainable charcoal production delivered		62000	71200	International consultants	20,000	10,000		0	30,000	37
				71300	Local consultants	10,000	5,000	3,000	3,000	21,000	38
				71400	Contractual services – company	50,000	50,000	40,000	30,000	170,000	39
				71600	Travel	10,000	10,000	10,000	5,000	35,000	40
				72200	Equipment and furniture	10,000	10,000	10,000	5,000	35,000	41

				72500	Supplies	20,000	20,000	10,000	5,000	55,000	42
				72800	Information technology equipment	2,000	2,000	1,000	1,000	6,000	43
		Output subtotal				122,000	107,000	74,000	49,000	352,000	
	3.4: Livestock mobility supported as an adaptation technology		62000	71200	International consultants	12,000	0	0	0	12,000	44
				71400	Contractual services – individuals	30,000	15,000	5,000		50,000	45
				71600	Travel	4,000	3,000	1,000		8,000	46
				72500	Supplies	4,000	4,000	4,000	1,000	13,000	47
				72800	Information technology equipment	2,000	2,000	1,000	657	5,657	48
		Output subtotal				52,000	24,000	11,000	1,657	88,657	
		Outcome Total				256,000	183,000	109,000	62,657	610,657	
Project Management	Learning, Adaptive Management, Monitoring & Evaluation		62000	71400	Contractual services – individuals	6,000	5,000	5,000	5,000	21,000	49
				71600	Travel	1,000	1,000	1,000	1,000	4,000	50
				72500	Supplies	1,000	1,000	1,000	1,000	4,000	51
		Output subtotal				8,000	7,000	7,000	7,000	29,000	
	Project Management Unit		62000	71400	Contractual services – individuals	18,000	18,000	18,000	18,000	72,000	52
				71600	Travel	1,000	1,000	1,000	1,000	4,000	53
				72200	Equipment and furniture	25,000	1,000	5,000	1,000	32,000	54
				72500	Supplies	2,000	2,000	2,000	1,873	7,873	55
				72800	Information technology equipment	5,000	1200	1,000	1,000	9,200	56

				74100	Professional services	2,000	10,000	2,000	15,000	29,000	57
		Output subtotal				53,000	34,000	29,200	37,873	154,073	
		Outcome Total				61,000	41,000	36,200	44,873	183,073	
		Grand Total				776,000	569,000	305,700	180,030	1,830,730	

Budget Notes

Budget Note	ToR/ Explanation
1 & 2	An entity will be engaged to lead the policy review. The entity will facilitate the formation of an inter-sectoral coordination platform on cattle corridor development policies and programs consisting of representatives from government departments (Soil and Water Conservation; Agriculture; Horticulture; Forests, Ecology, Environment and Wildlife; and Land Resource Development), District and Local authorities, academic institutions (Makerere University), and community-based organizations. The committee will review policies, identify gaps, make recommendations and lobby for the adoption of the recommendations.
3.4.5.6	An entity will be contracted to lead the identification of legislative framework for the implementation of the new land policy in a manner that guarantees security of tenure to the current land users. This will provide part of an incentive package to encourage investment into improved SLM. The budget includes fees (3), travel, material and supplies to support consultation workshops, production and dissemination of information.
6,7,8,9,10	An entity will be contracted to lead specific discussions on legalization of charcoal and the development of a legislative and institutional framework for effective implementation of the policy. The budget includes fees, travel, material and supplies to support consultation workshops, production and dissemination of information.
11, 12, 13, 14, 15, 16	This output will build on the information collected during the PPG to deepen the biophysical and socio-economics assessments. Assessments. The assessments will provide information on the potential of the land and levels of productivity of the land compared to the demands (from the livestock and people), and any discrepancies noted. This information will be used as the basis for determining rangeland condition (pastoral lands) and extent of degradation (agricultural and woodlands) and for identifying SLM measures needed to optimize land productivity while restoring, maintaining or improving ecosystem health. The information will be used to guide participatory land use zoning in the two pilot districts i.e. zoning of common lands for appropriate forms of sustainable use, protection, or restoration objectives and identifying key areas of intervention for improved techniques. An entity will be contracted to lead the output, with the support of an international consultant who will provide best practices in methodologies and planning from the region and the rest of the world. The budgets will also support fees, travel, supplies and purchase of basic survey equipment as well as production and dissemination of information.
17, 18, 19, 20, 21	This output supports capacity building for SLM: an entity will be contracted to undertake capacity needs assessment and develop a capacity building programme including coordination of development and delivery of training materials for the various categories of technical staff and land users; the development of guidelines for participatory planning and SLM and the updating of an extension package to support improved practices. The budget will support fees, travel, production and delivery of information/materials and training workshops.
22, 23, 24, 25, 26	This output will support the rehabilitation of particularly degraded patches of the drylands. An entity will be contracted to lead the process by facilitating the inventory, surveying and mapping of degraded rangelands and available fodder resources; assessment of site potential and selection of pilot sites for rehabilitation, identifying suitable species and techniques for the rehabilitation of the selected pilot sites, quantifying the contribution of indigenous forages to feed quantity and quality; demonstrating the importance of water harvesting as the basis for regeneration of rangeland vegetation, and monitoring changes in species richness, composition and total density of plants over time in the pilot sites as well as publicizing and disseminating information and results through training and workshops and /or transfer of technology to end users. The budget will support fees, travel, fieldwork, purchase of basic survey and rehabilitation materials, workshops and production and dissemination of information.
27, 28, 29, 30, 31	This output will support the development and implementation of a participatory monitoring and evaluation plan. An entity will be contracted to lead the output by facilitating a participatory

	identification of indicators of ecosystem health and changes in livelihoods and designing a system for monitoring changes in those indicators including a monitoring action plan showing data to be collected, responsible parties and timing for collection, systems for the synthesis and dissemination of the information. The budget will support fees, travel, fieldwork, purchase of basic materials, workshops and production and dissemination of information.
32, 33, 34, 35, 36	This output will facilitate access to micro-finance, credits and insurance. One or two entities will be hired to lead on the output by facilitating identification of suitable micro-finance institutions' and motivating them to develop financially viable products that suit the specific needs of farmers and herders. It will also facilitate the formulation and piloting of insurance schemes working out important design issues such as what type of insurance should be offered, whether it should be obligatory, whether premiums should be the same across the whole pilot area or be adapted to localized and so different levels of risk, and what the institutional structure should be to ensure sustainability. For both the finance services and insurance, the entity will in conjunction with outcome 1 and 2 facilitate review of policies to ensure legal support and strengthen capacity of the beneficiaries to engage with and manage both. The budget will support fees, travel, fieldwork, purchase of basic materials, workshops and production and dissemination of information.
37, 38, 39, 40, 41, 42, 43	Under this output, the project will ensure that technology for efficient production, processing and consumption of charcoal is adopted locally and nationally, that resource owners and managers are provided economic incentives for sustainable charcoal through markets and sale of ecosystem services, that key stakeholders strengthen capacities for sustainable charcoal (in conjunction with outcome 2), and that local level governance to support sustainable charcoal is improved (in conjunction with outcome 1). An entity will be contracted to facilitate assessment of levels of adoption of improved burners, carbonization equipment and methods, and the incentives needed to improve rates of adoption. The entity will also assist the formation of charcoal associations and identification of buyers of carbon credits from sustainable charcoal. It will also facilitate the charcoal associations to engage in sustainable charcoal and to improve governance and compliance with the rules and regulations for sustainable charcoal. It will also assist them to establish system for monitoring compliance as well as receiving and distributing benefits. The budget will support fees, travel, fieldwork, purchase of basic materials, workshops and production and dissemination of information.
44, 45, 46, 47, 48	This output will support the continued use of pastoralists' adaptive strategies by supporting livestock mobility and raising awareness and support for the critical role played by mobility in exploiting drylands and in national economic development. An entity will be contracted to lead the output by facilitating a participatory identification of ways to strengthen livestock mobility without conflicting the state policies, improving provision of mobile services to allow mobility, improving knowledge dissemination with a view to reducing the negative attitude towards pastoralism and improving conflict resolution. The budget will support fees, travel, fieldwork, purchase of basic materials, workshops and production and dissemination of information.
49, 50, 51	This output will support learning and adaptive management. An entity will be hired to facilitate synthesis of the various M&E systems developed under each outcome to a comprehensive project monitoring, learning and adaptive management system. The budget will support fees, travel, fieldwork, purchase of basic materials, workshops and production and dissemination of information
52, 53, 54, 55, 56, 57	These budget lines will support the establishment and running a project management unit. The project will be implemented largely through the relevant government ministries and departments, necessitating the recruitment of a staff member to support the National Project Leader (the UNCCD Focal Point) in coordinating joint planning, implementation, monitoring and evaluation. The budget will support the salary of the staff member, a secretary, finance officer and a messenger/driver. It will also support the purchase of one vehicle to ease the transportation problems, particularly because the pilot districts are far apart. It will also support compliance activities such as annual audits, mid and final evaluations and other operational costs (phones, internet, etc.)