



PROJECT IDENTIFICATION FORM (PIF)
PROJECT TYPE: FULL SIZED PROJECT
TYPE OF TRUST FUND: THE GEF TRUST FUND

PART I: PROJECT IDENTIFICATION

Project Title:	Mainstreaming SLM in rangeland areas of Ngamiland district productive landscapes for improved livelihoods		
Country:	Botswana	GEF Project ID:	TBD
GEF Agency:	UNDP	GEF Agency Project ID:	4629
Other Executing Partners	Depts of Forestry & Range Resources, Environmental Affairs, Animal Production & Crop Production, Botswana Meat Commission	Submission Date:	January 11, 2012
GEF Focal Area:	Land Degradation	Project Duration:	60 months
Parent program:	Not Applicable	Agency Fee:	USD 308,180

A. FOCAL AREA STRATEGY FRAMEWORK:

Focal Area objective	Expected FA Outcomes	Expected FA Outputs	Trust Fund	GEF	Co Financing
LD 1: Maintain or improve flow of agro-ecosystem services to sustaining the livelihoods of Local communities	Outcome 1.2: Improved rangelands /livestock management.	Land area under effective agriculture, land and water management practices with improved vegetative cover (0.5m ha/ rangeland/ livestock)	GEF TF	2,000,000	10,000,000
LD 3: Reduce pressures on Natural resources from competing land uses in the wider landscape	Outcome 3.1: Enhanced enabling environments between sectors in support of SLM.	Demonstration results strengthening enabling environment between sectors (livestock marketing, agriculture, land tenure)	GEF TF	936,000	5,000,000
Project management cost				145,800	1,000,000
Total project costs				3,081,800	16,000,000

B. PROJECT FRAMEWORK

Project Objective: To build institutions, policies & markets for mainstreaming SLM in managing rangelands in Ngamiland, Botswana					
Project	T	Expected Outcomes	Expected Outputs	GEF	Co-Fin
Effective range management improve range condition and flow of ecosystem services to support livelihoods of local communities	IN V	<ul style="list-style-type: none"> - Sustainable land management over an area of 0.5 million hectares, reducing land degradation from overstocking of cattle, goats and other livestock and enhancing ecosystem functions (water cycling, soil protection and biodiversity status) - Bush encroachment reduced and perennial grasses increased to return over 0.5 million hectares of current bush invaded land into ecologically healthier "wooded grasslands" with consequent increase in rangeland condition and at least 40% increase in primary productivity (baseline to be established during PPG); - Capacity indicators for key land use decision making and extension support institutions increased as measured by the capacity score card. [Departments of Forestry and Range Resources, District Land Use planning Unit (DLUPU) and Tawana Land Board] 	<p><u>Technologies and skills for adoption SLM in range management, including stocking rates:</u></p> <ol style="list-style-type: none"> 1.1 Rangeland stocking/carrying capacity guidelines/plans formulated and being used to influence decisions on livestock management, including sales; these will be informed by up-to-date knowledge on range conditions, appropriate stocking capacities and effects of the changing climate on bush encroachment and invasive species; 1.2 A bush control program provides financial incentives for controlled bush clearance by harvesting bush in invaded savannah areas for the production of charcoal, woodfuel and other woodlands products) in overgrazed bush infested rangelands; a safeguards system ensures that bush products are sourced from bush invaded savannahs/ grasslands and not forests and that the use of the bush does not cause a net increase in emissions. 1.3 Effective use of fire as a savannah vegetation management tool reduces uncontrolled fires, improve quality of grazing and increase rangeland carrying capacity; 1.4 Targetted rehabilitation of particularly degraded areas, use of live fences around homesteads and gardens, and, establishment of riparian buffer strips contribute to higher tree cover, reduced soil erosion, increased rainfall infiltration and enhanced nutrient cycling. <p><i>Adaptive management supported by ecological monitoring:</i></p> <ol style="list-style-type: none"> 1.5 Local level M&E system with pragmatic indicators (integrating local and traditional knowledge) being used for long-term ecological monitoring of range condition and productivity. 	2,000,000	10,000,000

Effective governance framework and markets provide incentives for livestock offtake and compliance with SLM	TA	<ul style="list-style-type: none"> - Land tenure, agriculture and livestock production policies recognize SLM principles and provide basis for the enforcement of the provisions of the three-tier land holding system to facilitate SLM; <p>Co-finance) Markets for beef and other livestock products from Ngamiland District expanded resulting in:</p> <ul style="list-style-type: none"> - 20-30% increase in sales of livestock and livestock products from the district, leading to livestock offtake and at least 30% reduction in overstocking, and 25% increase in incomes of livestock farmers (baseline to be established during PPG); - At least 40% of the farmers access more than USD \$ 1.0 million additional finance (loans and grants) and use it to improve trade in livestock and non-livestock products, in line with principles that promote SLM in livestock production; 	<p>Land governances:</p> <p>2.1 A permanent multi-stakeholder SLM forum facilitating a dialogue on SLM, harmonization of production sector policies, providing a mechanisms for SLM issues to influence important policies (such as the developing beef market policy);</p> <p>2.2 Institutional set up at the Ngamiland level provides the land boards with the legal mandate and capacity to enforce the provisions of the Tribal Grazing Land Policy);</p> <p>2.3 A Ngamiland Sustainable Livestock Producers Network established and with the Ngamiland district authorities monitors compliance with SLM, enabling farmers to obtain market benefits (price premiums and market access);</p> <p>Markets and trade in livestock & non-livestock products (BMC co-finance);</p> <p>2.4 The meat processing plant in Ngamiland increases quantity and variety of locally processed meat products, allowing higher sales of livestock products and offtake;</p> <p>2.5 Product placement in local and regional supermarket chains – increasing demand for Ngamiland meat products, and providing incentives for SLM in livestock farming;</p> <p>2.6 Agreements/and or contracts in place between purchasers and livestock farmers and producers of non-livestock products regarding the sourcing of products (linking sourcing to SLM) leading to higher household incomes</p> <p>Finance: (BMC co-finance)</p> <p>2.7 Deal flow brokerage of grants and loans from public and private financial institutions allowing more than 40% of the farmers to access a cumulative total of 1 million USD to improve trading in livestock and non-livestock products</p>	936,000	5,000,000
Project management cost				145,800	1,000,000
Total project costs				3,081,800	16,000,000

C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, (\$)

Sources of Co-fin	Name of Co-financier	Type of Co fin	Amount (\$)
Government	Government of Botswana (relevant departmental budgets)	Grant	4,000,000
Government	GoB: Botswana Meat Commission	Grant	8,000,000
District Council	Ngamiland District Council	Grant	2,500,000
University of Botswana	Okavango Research Institute	Grant	400,000
CSO	Tlhare Segolo Foundation, Kalahari Conservation Society	Grant	100,000
GEF IA	UNDP	Grant	1,000,000
Total			16,000,000

D. GEF RESOURCES REQUESTED BY AGENCY (IES), FOCAL AREA(S) AND COUNTRY(IES)

GEF AGENCY	TRUST FUND	FOCAL AREA	Country name	Project amount (a)	IA Fee	Total
UNDP	GEF	Land Deg	Botswana	3,081,800	308,180	3,390,000 ¹

PART II: PROJECT JUSTIFICATION

A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

A.1. THE GEF FOCAL AREA STRATEGIES:

1. More than 80% of Botswana is covered by savannah ecosystems that are rich in fauna and flora and support livestock and wildlife systems, both of which are important drivers of the national economy. Productivity of the savannah ecosystem is highest when they have a good balance between grasslands and woody vegetation, maintained under natural conditions by the correct mix of browsing and grazing herbivores, small and large herbivores (and other microbotics), soil conditions, timing of fires and rainfall, and their positive and negative feedback pathways. In

¹ The figure US\$ 3,390,000 excludes the PPG (US\$ 100,000) and IA fee on PPG (US\$ 10,000). When the PPG is included, the total IA fee and project will be US\$ 318,200 and US\$ 3,500,000 respectively, in line with figures approved in the LoE and included in table A 2

Botswana, the natural interactions of these factors have been largely disrupted by livestock farmers (and conservationists), who have changed the management practices without taking adequate considerations of the effects of the changes on the basic characteristics of the ecosystem. Fuelled by overstocking, overgrazing and harvesting of veld products without considerations for sustainability, the savannah ecosystem has degraded, with consequent weakening of the flow of agro-ecosystem services for sustaining economic development and increasing pressure on the wider ecosystem. As exemplified in Ngamiland District, many parts of the country are experiencing serious rangeland degradation, encroachment of thorny bush and loss of the perennial grass cover, reducing the value of the rangeland to livestock production. Mainstreaming SLM into the productive sector has been hampered by institutional, policies and knowledge barriers that prevent land and resource users from effectively halting the degradation processes. The proposed project will work with the considerably large baseline investment in land use planning (through the Okavango Delta Management Plans) and the on-going debate on policy processes to provide a local governance model, with empowered institutions, knowledge, skills and market incentives and avenues for mainstreaming SLM into the Ngamiland production system. The increased capacity of stakeholders will result in effective range management in over half a million hectares of range lands, with reduced bush encroachment and improved flow of ecosystem services to support the economy, livelihoods and wildlife. The market incentives and effective governance framework will increase livestock trade, reducing overstocking and increasing household incomes. Collectively, the outcomes and outputs will contribute to enhanced enabling environment within the livestock sector and improved rangelands/livestock management, the two outcomes of the first SO of the Land Degradation Focal Area on “Maintain or improve flow of agro-ecosystem services”, as well as the second outcome of SO 3 (Enhanced enabling environments between sectors in support of SLM).

A.2. National Strategies and Plans or Reports and Assessments under Relevant Conventions

2. The project is in line with several national development frameworks, starting with the National Strategy for Poverty Reduction (BNSPR, 2003), Vision 2016 document and the Millennium Development Goals. These macro-policy frameworks seek to provide the Batswana with tools to meet national aspirations for an educated, informed and prosperous society with sustainable livelihoods and development. The programmes pursued through the NBSPR include the advancement of sustainable livelihoods through employment creation, support to rain fed crop production; increasing small stock production; strengthening the Community Based Natural Resources Management Programme; creating employment opportunities in the tourism industry; and building capacity for small and medium citizen businesses. The project is also in line with the country’s National Action Plan for Combating Land Degradation (NAP, 2006), formulated to facilitate the implementation of the UNCCD program in the country. The objectives of the NAP are, amongst others, facilitating sustainable use and management of natural resources, Development of mechanisms for mobilizing and channeling financial resources to combating desertification, Poverty alleviation and community empowerment, *inter alia* by promoting, viable and sustainable alternative livelihood projects, Strengthening capacity for research, information collection, analysis and utilization.
3. At the District level, the project is in line with the Okavango Delta Management Plan (ODMP), and the constituent sector based implementation sub-programs (outlined in the baseline section). The Overall Goal for the ODMP is to promote integrated resource management in the Ngamiland District, especially within the Delta and its environs, to ensure long-term conservation and to provide benefits for the present and future well-being of the Batswana. One of the outputs from the ODMP is the Integrated Land Use and Management Plan for the Okavango Delta Ramsar Site and the Fire Management Strategy. The ODMP therefore provides a basis for, and baseline information in, the use and management of resources within the ODRS. These products are important in sustainable land management in the district and if effectively implemented they can positively contribute to addressing land degradation issues in the district.

B. PROJECT OVERVIEW:

B.1. DESCRIBE THE BASELINE PROJECT AND THE PROBLEM THAT IT SEEKS TO ADDRESS:

4. Lying in the semiarid interior of Southern Africa, Botswana’s climate is typified by a mean annual rainfall varying from less than 200 mm p.a. in the South-West to 650 mm p.a. in the North-East with an inter-annual variability of about 40%. Approximately 80% of the country is covered with Kalahari sand soils and savannah ecosystems that support both commercial and communal livestock systems, as well as National Park and Wildlife Management Areas. The vegetation of the region is influenced by the highly variable rainfall occurring mostly in the summer months, from October through March, with a drought recurring roughly every 7 years. Most rainfall is in the form of thunderstorms, depositing between 15 mm to 90 mm of rain within a few hours. Together with the widely varying₃

temperatures, these seasonal storms have a marked regeneration effect on the vegetation, and highly influence the species composition. During the winter months – from May through August – there is little or no rain and no surface water to sustain vegetation. The mean maximum temperature is between 27° and 30°C and the mean minimum temperature is between 9° and 12°C; in June and July, temperatures can drop below freezing, but in the summer months temperatures may exceed 40°C.

5. Despite significant economic growth based largely on diamonds, 47% of Botswana's populations still live under the UN's two US dollars/day poverty line, and pastoral agriculture represents the chief source of livelihood for more than 40% of the nation's 1.8 million residents. Indeed, livestock represents an important source of status and well-being for the vast majority of Botswana, making the savannah rangelands a critical resource. Degradation of the savannah ecosystem has however emerged as a serious threat to the country's biodiversity and livestock based economy, as it is reported to be reducing the resilience of the rangeland ecosystem, increasing the vulnerability of pastoral communities to environmental change. This is particularly evident in the Ngamiland District in the north of the country.
6. Ngamiland District hosts 8% of the National population and covers an area of about 109,000 km² (10,900,000 hectares) of richly endowed rangelands and wetlands. The district is home to the world famous Okavango Delta, a wetland of international importance listed under the Ramsar Convention. Plant species composition in the delta comprises about 1300 taxa. Use of the Rosenzweig (1995) formulae show that the Okavango Delta has a density of 210 species per km², similar to the dryer and colder biomes in Southern Africa, and more than twice as high as those of the better watered and warmer grasslands and savannas in the eastern and northern parts of the sub-continent (Ramberg et al., 2006). The high species diversity is an artifact of the flood pulse system that drives the ecological dynamics of the Delta.
7. Although the flora of the district outside the Okavango Delta is not well researched or documented, it is largely in line with the Semi-arid Kalahari *Acacia-Baikiaea*² woodlands that is the dominant savannah vegetation across the larger Kalahari basin. In its healthiest state, this vegetation is characterized by a balanced mixture of the two lifeforms; trees and grasses that make the savannas the most important ecosystems for livestock production in Africa. In the Ngamiland district, rangelands in good condition are dominated by open grasslands with scattered trees and bushes, with open canopy that allows sufficient light to reach the ground and support an unbroken herbaceous layer consisting primarily of C4 grasses. The tree species are dominated by *Baikiaea plurijuga*, with varying proportions of *Colophospermum mopane* and *Burkea africana*. The grass layer is dominated by species such as *Aristida meridionalis*, *A. congesta*, *Eragrostis pallens*, and *E. lehmanniana*³. In addition to providing an excellent home to livestock, the whole district (including the delta) has a very rich and diverse fauna, including a variety of ungulates such as elephants, buffalos, rhinos, etc. Despite the importance of both livestock and wildlife based tourism to the economy of the country, the integrity of the savannah ecosystem in the district has been declining steadily over several decades, weakening its ability to continue supporting the rich variety of fauna and flora systems that have been the backbone of economic development and livelihoods. Majority of the threats originate from changes in land use associated with the management practices adopted in livestock production systems, the dominant economic activity outside the core delta.
8. Threats to the integrity of the Ngamiland savannah ecosystem: there are two key threats to the ability of the savannah to continue supplying agro-ecosystem goods and services for sustaining the livelihoods of the Ngamiland people and the economy of Botswana: these are declining rangeland conditions and bush encroachment, both driven by many and complex landuse practices, often compounding each other, with devastating effect on the health of the land. The productivity of the savannah ecosystem is at its best when supporting a healthy balance of grasslands and woody species; this mix evolved over millenia, influenced by ecological interactions between a set of biotic and abiotic conditions involving a mix of browsing and grazing herbivores, small and large herbivores (and other microbials), soil conditions, timing of fires and rainfall, and their positive and negative feedback pathways. The natural interactions of these factors have been largely disrupted by livestock farmers (and conservationists), who have changed the management practices without taking adequate considerations of the effects of the changes on the basic characteristics of the ecosystem. In Ngamiland (and much of Botswana), the face of these changes is the current

² Hannelore Bendsen and Thoralf Meyer, 2002: The Dynamics Of The Land Use Systems In Ngamiland, Botswana: Changing Livelihood Options and Strategies (University of Botswana).

³ The Botswana National Atlas, 2000: The government of Botswana

overstocking of livestock.

9. In the 1970s, the government of Botswana, recognized the seriousness of the threat of overgrazing to the national economy, and introduced the Tribal Grazing Land Policy, to i) to improve grazing control, range management and increase productivity (by granting exclusive usufruct rights in some areas which were expected to be fenced and managed actively); and, ii) to safeguard the interests of those who owned few or no cattle. To achieve the two objectives, tribal grazing areas were zoned into three categories of land conferring three different interests in land: i) Commercial Grazing Areas, allocated under common law lease to commercial ranchers with large herds of cattle (400 or more); ii) Communal areas where the land rights would remain as before; and, iii) reserved areas meant for those who were unable to get allocation in the commercial areas, including the future generation. This policy sought to reduce grazing pressure on the communal lands, by moving most of the livestock to the commercial grazing areas, under which livestock management was supposed to be in line with principles of range management; including observation of stocking rates/carrying capacities, and active manipulation of the vegetation for optimum productivity. This was expected to reduce the herds of cattle and grazing pressure in the communal areas, which was meant for farmers with small herds of cattle.
10. As reported by Fringpong⁴ and many others, the effectiveness of the policy has been derailed by wide scale non-compliance. Many ranchers are simply having the better of two worlds: they own ranches but have not given up the rights to the communal areas. They therefore rotate between the communal areas and their own ranches instead of confining their cattle to the ranches, as required by the policy. The communal areas did not experience the expected reduction in grazing pressure, and hence the farmers with small herds have not been protected from the large scale farmers. Indeed, overgrazing has continued unabated in the communal lands and the commercial ranches. A 1991 amendment on fencing has not been successful in enforcing compliance with stocking rates in the ranches, due to the same limitations (National Policy on Agricultural Development (NPAD) Fencing Component (1991)). Indeed many of the farmers who fenced their land did so, not to reduce overstocking, but to keep cattle from other ranches out. The issue of overstocking has been compounded by lack of market outlets for Ngamiland cattle due to the current beef marketing policy.
11. Marketing of Botswana beef is largely focused on export of fresh beef to the EU, and is controlled by the Botswana Meat Commission (BMC). In accordance with the BMC Act (1976) all meat exported to the EU has to be processed through EU export-approved abattoirs, and originate from FMD free zones. Unfortunately Ngamiland is prone to frequent outbreaks of Foot and Mouth Disease and Contagious Bovine Pleuro-pneumonia (CBPP). Resident populations of the pathogens causing these diseases are maintained by the high wildlife numbers (particularly buffaloes) in the district, making eradication impossible. The Maun abattoir was established in 1989, but was closed indefinitely in 1996 after the outbreak of CBPP in Ngamiland, along with the destruction of 320,000 cattle as a disease eradication measure. Although grazing lands showed signs of recovery after the livestock slaughter, particularly in the previously heavily degraded villages (Burgess/FAO, undated)⁵, livestock numbers have subsequently recovered and indeed exceeded the pre-1996 levels, following the adoption of the livestock recovery program⁶. The closure of the BMC-led markets for Ngamiland livestock farmers means that there has been no effective livestock offtake from Ngamiland in the last 15 years. The livestock population in the district is estimated to be between 400,000 and 500,000 in an area with a carrying capacity of around 250,000 (Falepu/BMC, 2011)⁷. A more recent outbreak of the CPBBB (2007) led to 37% of the district being declared cattle free zones, reducing the pasturelands available for communal grazing even further. Indeed, more than 87000 km² of the communal rangelands have become unsuitable for livestock rearing due to the occurrence of poisonous plants, such as *Dichapetalum cymosum*, *Pavetta harborii* and *Urginea sanguinea*. Livestock tend to eat these plants in the early summer as they produce green leafy material ahead of most palatable plants, and when livestock are forage deprived. The combined effect of large and growing herds, shrinking pasturelands, and disregard for SLM/ principles of range management in the production sector have led to serious rangeland degradation, bush encroachment and loss of the perennial grass cover. Using data collected in 2003, Foster (2006)⁸ reported that experts rated Ngamiland to be

⁴ Kwame Frimpong (undated) in Pula: Botswana Journal of African Studies Vol. 9 No.1.; Mathuba B. M: Botswana Land Policy: MINISTRY OF LANDS AND HOUSING; Paper presented at an International Workshop on Land Policies in Southern Africa Berlin, Germany – May 26 – 27, 2003.

⁵ <http://www.fao.org/ag/AGP/AGPC/doc/Counprof/Botswana/botswana2.htm>

⁶ As reported in unpublished reports of the Department of Forests and Rangelands. Hannelore Bendsen and Thoralf Meyer (2002): The Dynamics Of The Land Use Systems In Ngamiland, Botswana: Changing Livelihood Options and Strategies. University of Botswana

⁷ Interview granted by the Head of the BMC: <http://www.mmegi.bw/index.php?sid=4&aid=1059&dir=2011/October/Friday28>

⁸ Foster R (2006) Methods for assessing land degradation in Botswana Earth & Environment 1: 238-276 - Earth & Environment 1: 238-276

highly degraded around the Okovango Delta with the rest of Ngamiland rated as having medium degradation. This is significant because most livestock is kept in areas adjacent to the Okavango delta, and that livestock numbers have increased significantly since 2003. Although some experts thought degradation in Ngamiland was naturally induced (such as changing flood patterns and the oxidising away of peats), the majority felt that degradation was human-induced and was caused by over-grazing, fires and unsustainable grass harvesting practices⁹.

12. Additional pressure on the ecosystem comes from arable farming and overharvesting of veld (grasslands) products by the growing population, without consideration for sustainable harvesting. The population of Ngamiland District has grown significantly over the last three decades: rising from 68 063 to 94 534 between 1981 and 1991; and, 94 534 to 124 712 between 1991 and 2001, an increase of 39% and 32% respectively. Although livestock sector is by far the most important contributor to rural subsistence and cash income, agro-pastoralism, wildlife management and conservation are important land uses, with 3.3% and 34% of the district conserved as Game Reserves and Wildlife Management Areas respectively. However, on the 63 % of the land under communal use (under the Tribal Land Act), cultivation constitutes an important livelihood mechanism, and despite the limited potential for crop production and the high risks this activity carries, the majority of households in Ngamiland are involved in some form of crop production. During the last 30 years, 66% of the agricultural holdings in the district planted crops (Agricultural Statistics Unit, 1968 – 2002), and agriculture gained prominence as an alternative source of livelihood after the 1996 and 2007 disease outbreaks. Agriculture is complemented by collection of veldt products (such as reeds, thatching grass, wild fruits, medicinal plants etc.), basket-making, fishing and community-based tourism. Similarly to the livestock production, these livelihood activities are contributing to ecosystem degradation due to the fact that they are being undertaken without due consideration for sustainability.

The Baseline Project

13. There are three programs that constitute the baseline upon which this project will build; two closely related national programs and one site specific program, with a combined value of over US\$ 25 million dollars.
14. **The Botswana Meat Commission (BMC) – US\$ 16,000,000, national budget - 2010-2016:** BMC is a Parastatal established in 1965 to promote the development of the country's livestock industry as well as the country's beef and related products globally. Besides owning three abattoirs in Botswana, BMC has cold storage facilities in South Africa with marketing subsidiaries in the United Kingdom, Germany, Holland and South Africa. Due to the monopoly enjoyed by the BMC in the beef markets, it has a huge potential to affect livestock production processes in the country. However, the monopoly on beef export has faced strong challenges from the meat processors, who maintain that they have opportunities to export fresh beef into the Southern Africa Development Community (SADC) region. The country is indeed at a crossroads with regards to beef export policy, and is currently debating the future policy directions. This debate has been hastened by a combination of several factors: the escalating cost of accessing the EU markets in the face of continued and regular threats of FMD outbreaks, an ending of the African Caribbean and Pacific (ACP) quota arrangements, and the advent of an Economic Partnership Agreement in the SADC regional integration initiative, which provides newer but less lucrative markets. The country is currently engaged in an intensive debate on the future policy options on the important beef trade and its role in the national economy. BMC is also in the process of re-opening the Maun (Ngamiland) and is currently re-furbishing it to the capacity of 100 animals per day; although there is recognition of the fact that it might have to operate in shifts to kill at least 200 cattle the first few years of operation in order to take care of the back-log. As fresh product cannot be taken out of Ngamiland to Southern Botswana where the markets are, BMC is investigating meat processing systems, e.g. preheating, and plans to install a heat treatment facility in Maun to heat treat the beef before being sent to another centre for canning. New markets for this and other beef products are being explored, e.g. exported and/or sold to Government for the school feeding programme
15. **Foot and Mouth Disease Control Program – US \$ 5 million, national budget– 2010-2016:** The beef export market for Botswana is highly dependent on the effective control of foot and mouth and CBPPP in the country; necessitating a stringent control program, closely aligned with the beef export policy. The national FMD control policy is based on effective prevention, rapid detection and response, geared towards achieving eradication of the disease in some parts of the country. Since the African buffalo (*Syncerus caffer*) present in northern Botswana are known maintenance hosts for FMD Southern African Territories (SAT) viruses, the country can never be completely free of the virus; it has therefore adopted the concept of zoning or regionalization with disease control fences as

⁹ Foster R (2006) Methods for assessing land degradation in Botswana Earth & Environment 1: 238-276 - Earth & Environment 1: 238-276

efficient barriers between high-risk zones and disease-free zones (annex 3). The government invests huge resources each year on programs of strict import controls, border security and quarantine measures, critical in reducing external and internal FMD challenge. Annual vaccination is carried out in cattle in the FMD high-risk areas, shown in red in annex 3 (including Ngamiland) - to protect them from FMD and prevent possible sprouting of disease outbreaks. Substantive resources are invested in establishment and maintenance of cordon fences and a public education program, which are critical pillars of the control policy. The country has also aligned its national FMD control program with international animal health standards as set by the World Organization for Animal Health (OIE) and European Commission requirements, and aimed to achieve a quick recovery and resumption of beef trade following an outbreak. In line with these policies, the country has periodically eradicated large herds of livestock in response to outbreaks, such as the contagious bovine pleuropneumonia (CBPP), in 1994 and the FMD outbreaks of 2003 to 2004, 2007, when it destroyed huge numbers.

16. **The Okavango Delta Management Plan – US\$ 10 million, District (local government budget) - 2005-2016:** In recognition of the important role the Okavango Delta plays in maintaining globally significant biodiversity, and the threat posed to this biodiversity by the degradation of the rangelands surrounding the delta, the government of Botswana prepared the Okavango Delta Management Plan (ODMP) with technical and financial contributions from many International Cooperating Partners (ICPs). The ODMP was completed in 2007 at a cost of US\$7 Million. Subsequent plans for implementing the recommendations of the ODMP are in place, and are currently being implemented by the various government departments, at an estimated cost of US\$ 1 million per year. The Ngamiland district has prepared, and is implementing the Ngamiland Settlement Strategy, which includes sub-strategies on the sustainable utilization of the natural resource of the district. Tawana Land Board is currently implementing the Okavango Delta Integrated Land Use Plan (2006) and is formulating a Ngamiland District Land Use Plan. The Ministry of Agriculture, through departments of Animal Production, Crop Production and Veterinary Services, is providing extension services in line with the ODMP, and the Department of Forestry and Range Resources is implementing a program of fire management. As part of the implementation of the ODMP, the country is in the process of declaring the Okavango Delta a World Heritage Site, in addition to its status as a Wetland of International Importance under the Convention on Wetlands of International Importance (Ramsar Convention).
17. However, despite these measures, land degradation is rampant in Ngamiland because adoption of SLM principles in the productive systems is currently being hampered by institutional, policies and knowledge barriers that prevent land and resource users from effectively halting the degradation processes. If the current land and livestock management processes continue, they will compromise all efforts at securing the continued flow of ecosystem goods and services from the savannah ecosystem that are necessary to sustain the national economy, livelihoods and the rich fauna and flora diversity.

Barriers to improving range management through SLM in Ngamiland District

18. Barrier 1: Inadequate knowledge and skills for adoption of SLM in livestock management and livelihood support systems, in line with clear principles of range management: Managed well, the savannah ecosystems can be highly productive. But because they developed under a very unique set of circumstances, mismanagement quickly upsets the balance between grasses and woody vegetation, losing the foundation for a thriving livestock industry. While discussion still rages amongst the ecologists on the process of bush encroachment and control, there is general agreement that changing the grazing and fire regimes, the combination of foragers and duration of rest periods, has led to a deterioration of the condition of the savannah ecosystem, certainly in Ngamiland. Perennial grasses for instance are known to have evolved under conditions of severe grazing followed by periods of long rest. They can become weakened by extremes in either direction, namely by overgrazing or over-resting. Both conditions can occur on the same rangeland, if animals are stocked lightly and continuously or under fast rotation with short rest, as occurs on many commercial farms. The most palatable grasses, especially those closest to the water point, then become overgrazed, while the less palatable species, especially those further from the water point, become over-rested, both resulting in lowered grass vigour (McNaughton, 1979). Although knowledge on how to effectively manage savannah ecosystems is increasing, there is still ground to be covered; and very little of the currently available knowledge is being utilized to manage the livestock and livelihood support systems in Ngamiland, due to low levels of skills amongst the land and resource managers, and weak technical expertise in the technical ministries.
19. Barrier 2: Policy and market distortions have provided disincentives for adopting SLM and range management principles in the productive sector. The land tenure system and the beef marketing policies have the highest influence on the livestock production systems. However, the Tribal Grazing Land Policy (TGLP), the instrument the government

adopted in the 70s to reduce rangeland degradation has not been effective. A synthesis of the reviews provided by Frimpong¹⁰ reported that while the foundation of the policy still remains sound today, implementation has faltered due to weak institutional base for enforcement. The success of the policy was hinged on the hope that those granted leases for ranches would comply with the requirement for the granting of the lease. Among other things, they were expected to give up their rights to the communal land and to confine their entire production on the ranches. They were therefore expected to move their cattle from the communal areas into the ranches. In addition they were expected to manage their ranches in line with principles of range management; including observation of stocking rates/carrying capacities, and active manipulation of the vegetation for optimum productivity. This was expected to reduce the herds of cattle and grazing pressure in the communal areas, which was meant for farmers with small herds of cattle. The policy however lacked mechanisms for enforcement; while the land boards had the power to allocate and administer land, they did not have the powers, capacities or skills to enforce compliance with the basic driver of the policy: that of ensuring that livestock management was in line with the principles of range management.

20. The failure of the TGLP has been compounded by the negative impacts of the current beef marketing policy on livestock sales and off take from Ngamiland, which is an FMD-controlled (not free) zone. The closure of the Maun abattoir in 1996 after the outbreak of CBPP and the undeveloped nature of other market avenues means there has not been meaningful livestock offtake from Ngamiland in the last 15 years, leading to serious overstocking with consequent overgrazing and land degradation. Although Botswana beef can access other world markets such as Japan, USA and China/Hong Kong and Africa region, the country is not currently taking this opportunity due to the complexities placed on the industry by the monopoly of the BMC and its focus on profits, which are realized from the EU markets, even with the current restrictions. Although the country is currently debating the future policy options on the important beef trade and its role in the national economy, there is still a big challenge of using the policy to provide incentives for better rangelands management. While everyone recognizes that the beef industry remains critical to the Botswana economy, there is little recognition of the role of SLM and range management principles in the sustainability of the industry in this debate, or the critical interplay of the various policy options on the land degradation. Currently the debate is heavily entrenched in economics, disease control and profit margins and fails to factor in the long-term cost of rangeland and ecosystem degradation on the future sustainability of the industry, or the relatedness of the current land policy, stocking rates and rangeland and livelihoods degradation. This is demonstrated by a recent SWOT analysis of potential future options, which is silent on SLM. Opening up the debate has provided a great opportunity to incorporate SLM requirements into the new beef and disease control policies, but the people of Ngamiland, who suffer the most from the policy incoherence, are not accessing the policy debate effectively because they lack a forum through which to influence national policy processes.

B. 2. INCREMENTAL COST REASONING AND THE ASSOCIATED GLOBAL ENVIRONMENTAL BENEFITS:

21. The project will engineer a paradigm shift from current management practices that undermine the ecological integrity of the savannah rangelands, the biodiversity in the delta and livelihoods, towards systems imbedded in sound range management principles; this will be supported by policies, markets and capacities for effective planning, implementation and monitoring of the range condition and the trends in the ability of the production system to support livelihoods while simultaneously leading to improvements in the ecological integrity and functionality of the drylands ecosystem. It will deliver global environment benefits outlined in the table below.

Current Practice	Alternatives to be put in place by the project	Expected Global Benefits
<p>Livestock management practices are not in line with SLM or improved range management principles and ignore range carrying capacities and stocking principles.</p> <p>Bush encroachment and loss of grass/forage which is the backbone of cattle, thereby reduced ecological health of the rangelands and</p>	<p>1) Local institutions (land boards) with capacity for better enforcement of the provisions of the tribal grazing land policy, reducing overstocking and improving management of over 1 million hectares of rangelands, which will be managed in line with SLM principles, including considerations of stocking rates (GEF);</p>	<p>1) Reduction in overstocking will reduce overgrazing leading to recovery of rangelands; Bush reduction will lead to improvement in the ecological integrity of the wooded grassland savannah vegetation, increasing functionality and cover of drylands woodlands. Collectively, these measures will lead to enhanced flow of ecosystem goods and services, including reduced pressure on the biodiversity in the core delta. The Okavango Delta forms part of the Kavango-Zambezi Transfrontier Conservation Area (KAZA) which is a noble initiative by 5 riparian states of the Okavango and Zambezi river systems which aims to</p>

<p>productivity of the system;</p> <p>Weak institutional mechanisms for enforcing the TGLP policy combined with inadequate marketing options has led to overstocking and contributed to overgrazing in the communal lands and bush encroachment;</p>	<p>2) Bush encroachment reduced and perennial grasses increased to return over 1 million hectares of current bush invested land into an ecologically healthier “wooded grasslands” with consequent increase in rangeland condition, carrying capacity and productivity (GEF);</p> <p>1) Mechanisms provided to allow land tenure, beef marketing policy and other agriculture policies to overtly recognize SLM and range management principles, including carrying capacities and stocking rates (GEF)</p>	<p>secure the goods and services provided by the two river systems. The conservation of the Okavango Delta contributes directly to regional cooperation and joint management which is a key principle of the Southern Africa Development Community (SADC).</p> <p>2) Reducing pressures outside the core Delta will directly contribute to other international efforts such as the Convention on Biological Diversity; United Nations Convention to Combat Desertification; Convention on Wetlands of International Importance and other regional protocols such as the Protocol on Forestry and SADC Shared Water Courses Protocol. It will in particular maintain sequestration capacity of the delta, maintaining the flow of ecosystem services to sustain livelihoods;</p> <p>The sustained flow of goods and services will lead to increased livestock and agricultural production, and improve local livelihoods directly. It will in particular maintain or secure flow into the Makgadikgadi wetland system via Boteti river system, which is critical for livestock, wildlife and livelihoods of the communities around the pans</p>
<p>Weak local level institutions fail to facilitate adoption of SLM in livestock and veld harvesting processing, as well as link local issues, concerns, needs, experiences to national policy formulation processes;</p> <p>Community institutions are not governing sustainable livestock production and resource use due to low capacities compounded by weakened and ineffective institutions, hence weakening livelihoods support systems</p>	<p>2) Technical institutions increase capacity to support planning, implementation and monitoring of improved and knowledge based livestock production, compliant with principles of SLM, range management and stocking rates (GEF);</p> <p>3) Communities provided with skills and support to improve local governance systems to enforce compliance with improved management systems and to access niche markets for livestock and veld products (GEF)</p>	<p>1) Improved rangeland condition and productivity lead to increased livestock productivity and sales; this will augment household incomes, improving socio-economic conditions of the community. This will in turn provide an incentive for sustaining the improved livestock management practices;</p> <p>2) Uptake, replication and mainstreaming of community models on improved resource management into legal, policy and programme framework.</p>
<p>Prevalence of CBPPP and FMD has led to a prolonged quarantines, reducing livestock trade and off takes, compounding the overstocking and the spiral of degradation of rangelands</p>	<p>1) Strengthen processing of beef inside the district in order to broaden access to markets by selling finished products rather than live animals or beef; (Co-Fin)</p> <p>2) Financial support to livestock farmers to increase access to and participation in the marketing of both processed livestock products and beef - (Co-Fin);</p>	<p>Livestock off take contributes to reducing the overgrazing and grazing pressure, hence supporting the delivery (and sustainability) of the GEBs delivered through the GEF financed components (and described above)</p>

22. The objective will be achieved through two key components, each with a set on interrelated outcomes and outputs as described below.

Component 1: Effective range management improve range condition and flow of ecosystem services to support livelihoods of local communities:

23. Under this component, the project will put in place systems, capacities and community institutions necessary for applying improved range management principles over one million hectares of rangelands. It will start by supporting formulation of land use plans based on appropriate rangeland stocking/carrying capacity, whose implementation will

influence decisions on livestock management, including sales. It will also implement a bush control program to provide financial incentives for controlled bush clearance. Opportunities for converting excess bush to marketable products (such as charcoal, woodfuel and other woodlands products) in overgrazed bush infested rangelands will be supported and accelerated in order to improve range condition, productivity and carrying capacity for cattle in the pilot areas. This will be guided by lessons from the region (mainly Namibia) on the use of charcoal production as a bush encroachment control tool, complemented by a safeguard system which will be formulated to ensure that it does not lead to net emissions or land and woodlands degradation. The PPG period will also be used to provide a detailed emissions analysis to identify potential of the project increasing net emissions, along with measures to ensure that the project does not increase net emissions. Replication of the successful pilot will be facilitated through the extension service, to upscale the effects of the project over a similar hectareage. The effective use of fire as a savannah vegetation management tool will be supported to reduce uncontrolled fires, improve quality of grazing and increase rangeland carrying capacity. Targeted restoration of particularly degraded areas, use of live fences around homesteads and gardens, and, establishment of riparian buffer strips will be undertaken to increase tree cover, reduce soil erosion, increase rainfall infiltration and enhance nutrient cycling. The percentage of farm and veld products being produced and/or harvested in line with sustainable principles reaching markets will be increased by at least 20%, leading to increase in household incomes. Vulnerability of livestock production system to droughts will be reduced through the formulation and implementation of a disease and drought early warning system linked to markets for rapid off-take. Adaptive management will be supported by ecological monitoring; in this regard, a local level M&E system with pragmatic yet robust indicators (integrating local and traditional knowledge) will be elaborated and used for long-term ecological monitoring of range condition and productivity.

24. Both components 1 and 2 (below) will be supported by a program of work to enhance skills and institutional capacity to enable technical officers and livestock managers to engage in the improved practices, particularly the land use planning, implementation of the bush control program, marketing and long-term monitoring of range condition and livelihoods.

Component 2: Markets and effective policy and resources governance frameworks provide incentives for livestock off take:

25. Under this component, the project will facilitate the conditions necessary to enforce compliance with the range management plans (including stocking regulations), which is critical for the successful implementation of the plans developed under component 1. These relate to governance/policies (GEF) and access to markets (Co-finance).
26. Under governance, the project will support the formation of a national multi-stakeholder SLM forum which will lead a national dialogue on harmonization of productive sector policies to mainstream SLM considerations in critical national and regional policies such as livestock production and marketing, agriculture and land policies. Local governance of rangeland resources will also be improved through empowered local NRM/CBM institutions that facilitate effective participation of the communities in decision making, particularly related to enforcement of the range management principles envisioned under the TGLP, and contribution of local level issues into the emerging national beef marketing policy, as well as other incentives and marketing of livestock products. The pilot interventions will provide valuable insights on model policy framework for SLM, particularly regarding rangelands and livestock. It will also support the formation of a Ngamiland Sustainable Livestock Producers Network through which the livestock producers can work with the Ngamiland district authorities to monitor compliance with SLM.
27. Under markets (**Co-FINANCE**), the project will work with the private sector, farmers and government to explore and expand alternative markets for livestock and livestock products. Led by the Botswana Meat Commission (BMC), the project will adopt a two pronged approach: producing a broader range of meat products for a broader range of markets. The most feasible long term strategy will be establishing a livestock products processing facility in Maun (co-finance) which would produce a wide range of processed meat products suitable for a range of global markets; for example, the market for sous vide¹¹ products is expanding rapidly in Eastern Europe and Asia. This will be complemented by a suite of activities aimed at increasing the unit productivity of the rangelands (and livestock): The project will pilot the development of small scale feedlots at community level as an alternative to the handful of large commercially operated feedlots upon which Botswana Meat Commission (BMC) currently relies upon. Sanitation technologies will be widely applied to improve quality of beef and increase returns per hectare of land. The pilot will

¹¹ Sous vide (meaning low temperature cooking), is a process of cooking vacuum sealed food at a very tightly controlled temperature, normally the temperature the food will be served at, but cooked for very long periods. Because it is cooked vacuum sealed, food cooked under this process doesn't lose any of the food's moisture or flavor. More importantly, it would allow Botswana to sell very high quality tender cooked beef to those who prefer sous vide but don't have the right equipment or the long hours needed to cook the food at low temperatures (often upto 36 hours for a good quality sous vide ribs, for example).

provide an opportunity for learning, in order to upscale it to national level if successful. The project will also identify a range of other non-livestock based income generating activities (to be identified at PPG) and facilitate their adoption.

28. Given that the project is largely focused on improving actual range management practices, bush encroachment and marketing of livestock (to increase off take), the implementation arrangement will be organized to capitalize on existing institutions and capacities on the ground. The actual implementation details will be elaborated during the PPG; however, it is expected that it will be led by the relevant technical departments (Forestry & Range Resources, Environmental Affairs, Animal Production & Crop Production) in collaboration with the Ngamiland District Council and the Botswana Meat Commission. The university of Botswana and Tlhare Segolo Foundation will provide technical support and community facilitation respectively. The Ngamiland Sustainable Livestock Producers, once formed and operational, will provide a further mechanism for involving local livestock farmers. Participation and contribution to policy formulation will be secured through the National SLM Platform, once formed and operational.

B.3. THE SOCIOECONOMIC BENEFITS, GENDER DIMENSIONS AND GLOBAL ENVIRONMENT BENEFITS

29. The focus on access to a broader range of markets for a wider variety of livestock products, supported by a greater access to finances, will ensure more community members participate in livestock markets, increasing household incomes. This will contribute to securing livelihoods and food security in the short term as well as increasing prosperity for the rural poor in the long-term. Revitalizing local institutions for range and resources management and governance will increase social capital and improve empowerment. Women play a critical role in livestock husbandry and natural resources management in Ngamiland, both as beneficiaries but often as victims of the effects of reduced productivity. In recognition of this fact, project design will include a gender analysis to identify critical issues related to access and control of land and other natural resources, particularly as they relate to selected project initiatives. A gender strategy will be formulated to ensure that consequent project implementation takes gender issues into consideration, promoting a more effective targeting of initiatives, and provides disaggregated data for monitoring, in line with the UNDP gender marker. In addition, the project will actively empower women and other excluded groups, particularly those at high risk of suffering from the effects of rangeland degradation and climate change vulnerabilities. This will be achieved through social mobilization utilizing Women Self Help Groups (SHGs) and such other community based structures. These groups will benefit from skill development (education/training), access to financial resources and markets for sustainably produced/harvested veld products. Expanding the processing of livestock products will increase jobs in the district, further contributing to household incomes and social capital. Increasing trade in livestock will increase the overall tax revenue available to the regional and national governments, providing funds that can be potentially used to support further improvement to natural resources management and/or provision of social services (education, health clinics, roads, etc.).

B.4 RISKS, INCLUDING CLIMATE CHANGE RISKS AND PROPOSE MEASURES THAT ADDRESS THEM

Risk	R	Mitigation measures
Effectiveness of the project in reducing overstocking depends, in part, to the successful identification of, and engagement with new markets, and the farmers’ quick adjustments to different livestock products. There is a small risk that it might be difficult to match new markets to new products, or that farmers fail to meet the quality specifications for new products and the new markets	M	Participation of the Botswana Meat Commission (BMC) is critical in overcoming this risk. Fortunately, the project has very high political support from both the country’s leadership (Presidents office) and the BMC, which are both committed to finding new markets for the country’s beef and livestock products. The project will also involve the private sector (through the BMC for international and national players) and through the district chamber of commerce, to identify and address challenges related to successful engagement with markets.
Weak enforcement of the TGLP has in the past encouraged overstocking in the communal lands since commercial farmers have retained the right to offload excess livestock to the communal areas. Increased livestock trade might become a perverse incentive and fuel higher stocking rates, in contrast to the land use/livestock stocking rates, if	M	The project will seek to improve governance at two levels: by seeking a model for local enforcement of compliance by strengthening local level institutions of governance to enforce compliance with scientifically determined stocking rates (supported by markets). Enforcement of the TGLP has been difficult in the past since it seemed to benefit the elite, who are commercial farmers. However, losses from the high rate of rangeland degradation in Ngamiland seem to be causing larger losses than gains from exploiting the weakness in the policy, even for the commercial farmers. Combined with the current political support for national policy on beef market office and the highest management of the Botswana Meat

governance is not improved simultaneously		Commission, this turn of events provides conducive environment for change.
Lack of buy-in from farmers, planning institutions and Government. There is a possibility of conflicts arising from perceptions of interference and approaches on how the issues could be addressed especially between government institutions and civil society organizations.	M	The project requires collaboration and coordination by all key stakeholders. It will set-up structures that will ensure joint planning, implementation and monitoring and evaluation in order to create ownership and accountability. Government institutions participating in the project will be directly driving their own mandates; they will have a direct interest in the successful implementation of the project. Participating Government Institutions include Departments of Animal Production; Forestry and Range Resources and Tawana Land Board will benefit from the project intervention activities.
Reluctant participation by local communities due to fear that the project will compromise their livelihoods by introducing strict management systems	L	Noting that local communities are bearing the heaviest cost of rangeland degradation and limited access to markets for livestock, the project will work closely with them to address the challenges in a participatory manner. In addition to the transparency described in the institutional barrier (above), the project will provide technical, institutional and financial support for engaging in improved livestock production and exploitation of other natural resources (veld products). It will also recognize and build on the traditional knowledge and institutions of local communities and fully integrate this in designing management interventions. The gender strategy will improve targeting and distribution of benefits.
The benefits generated by the project may be offset by the impacts of climate change, which might exacerbate the usual droughts; indeed, Botswana has encountered 12 dry episodes in the last 22 years with potentially economic consequences on ranches and notably severe impacts to the poorest communities (Mafisa herders).	M	The project will address this risk by building a better understanding of the potential impacts of climate change on trends in rangeland condition, particularly the issue of bush encroachment and the apparent thriving of invasive species. The findings of this study will contribute to the land use plans, a key element for improving ecological integrity of the rangelands and improving ecosystem functionality and cover. This will increase the resilience of ecosystems to climate changes induced fire, drought and other perturbations. By reducing existing anthropogenic stressors to ecosystems, the project will enhance the capacity of ecosystems to recover following such climate change induced perturbation. Building capacity for long-term monitoring rangeland conditions will increase the possibility of adaptive management, including early detection (and addressing) of climate change induced perturbations.

B.5. KEY STAKEHOLDERS INVOLVED IN THE PROJECT AND THEIR RESPECTIVE ROLES:

Key stakeholders	Relevant Roles and Responsibilities (indicative)
Departments of Forestry & Range Resources	The Department of Forestry & Range Resources has the primary responsibility for guiding livestock development in Botswana, including the maintenance of overall a healthy rangeland. Its mandate includes facilitating the adoption of livestock management systems based on established and appropriate range stocking rates, livestock markets, disease control and other infrastructure development to support livestock husbandry. The department will provide the overall project coordination at the national level and Ngamiland district level, and facilitate implementation particularly policy reforms and coordination among Ministries.
Departments of Central Ministries	Other departments based in Ngamiland whose mandate and domain has a bearing on this project are the Environmental Affairs, Animal & Crop Production (Ministry of Agriculture), Ngamiland District Land Use planning Unit (DLUPU), Department of Wildlife and National Parks (DWNP), Tawana Land Board and Department of Tourism (Ministry of Tourism). Government expenditure on these departments constitutes both a baseline and co-finance for the project objectives. They will therefore contribute to the project objectives by aligning sectoral programmes and policies in line with land use plans. Many of the project activities will be implemented through these departments (as relevant) utilizing their existing staff and structures. This will ensure seamless mainstreaming of the project initiatives in the existing government and local structures, and lay the foundation for sustaining project impacts.
Botswana Meat Commission	Botswana Meat Commission has the sole responsibility of identifying and linking livestock producers to markets for beef and beef products. It will provide co-finance in the form of upgrading (and expanding the capacity) of the current livestock products processing plant. It will also lead the lobbying for the removal of the three tier land holding system in order to provide a policy mechanism for enforcing compliance with the range stocking rates. It will also spearhead the identification of markets for meat products and the organization of the loan scheme.
Research and Educational	Agricultural research institutions and the university of Botswana (UB-ORI) have a presence in the region and will be responsible for informing the land use and sector management measures to ensure they are grounded

Institutions	in sound science. In particular, the university of Botswana will lead the assessment of the effects of the changing climate on bush encroachment and the apparent vigor of invasive species.
Private Sector companies	Livestock and tourism sectors will be engaged in the project by providing support to business development skills, boosting trading in products, etc.
Local communities and Community institutions	Local communities will form the main beneficiaries of project interventions and improvements especially those related to enhancing community capacities to plan and manage rangelands. The project targets grassroots organizations, which will provide indigenous knowledge and traditional institutions of governance. They will be involved in the participatory planning, implementation and monitoring of project initiatives, processes and impacts.

B.6. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:

30. There are a number of projects that are aimed at tackling key natural resource management challenges in Ngamiland District. These projects provide opportunities for complementarities and building of synergies with the proposed project. The Department of Wildlife and National Parks, in partnership with the World Bank, is implementing a project to address wildlife/human conflicts by promoting co-existence (The Human-Wildlife-Coexistence Management Project in Northern Botswana). One of the project sites is in Seronga area within Ngamiland. The project intends to develop and pilot strategies of human co-existence with wildlife and mitigating the effects of problem animals. One of the key intervention areas of the project is to improve livelihoods of the communities who live in wildlife areas. Mechanisms for coordination will be identified during PPG and utilized to (among other things) involve interventions related to reducing human wildlife conflicts (elephant) on rangelands and livelihoods.
31. The USAID Southern Africa Regional Environment Programme (SAREP), which aims to assist the Countries of Botswana, Namibia and Angola to effectively manage the resources of the Okavango River Basin, will facilitate the implementation of the Ngamiland Integrated Land Use Plan. In addition SAREP will assist in the formulation of Strategic Environment Assessment for Ngamiland which will take in to account aspects of SLM. SAREP will further work with the various departments such as Ministry of Agriculture to explore alternative investments for SLM such as REDD+. Decision support systems will be developed to facilitate decision making in land management. The proposed project will coordinate closely with SAREP in order to share information, knowledge and approaches.
32. The ODMF was the first pilot project to apply the concepts of Ecosystem Approach and Integrated Water Resources Management. The ODMF has therefore provided valuable lessons in terms of coordination and integrated planning and implementation. Department of Water Affairs in partnership with Kalahari Conservation Society is implementing a project to facilitate the adopting of IWRM process in Botswana (through “Accruing Multiple Global Benefits through Integrated Water Resources Management/ Water Use Efficiency Planning: A Demonstration Project for Sub-Saharan Africa”). The project is implementing some interventions within Ngamiland District, one of which is promoting efficient liquid waste management in the fragile Okavango Delta Ecosystem through pilot interventions of monitoring the wetlands polishing system and promoting efficient use of water resources.
33. A GEF funded project with the main objective of building local capacity for the conservation of biodiversity in the Okavango Delta; Biokavango project is working primarily in the wetland system of the Okavango Delta; strengthening tourism, fisheries and sustainability of veld products as livelihood support systems. Notable interventions included facilitation of the establishment of local level resource management structures and active community involvement in biodiversity conservation in Tubu, Panhandle area and the eastern distal ends of the Delta. Sustainable Land Management initiatives proposed under this initiative will utilize the systems and processes initiated by Biokavango project. The Government of Botswana, working with local communities and the private sector, is initiating a project under the REDD+ mechanism of the UNFCCC. The pilot project will take place in NG 8 controlled hunting area within Ngamiland District. This project will complement the SLM project through protection of rangeland areas, monitoring and releasing benefits from such resources. The Okavango Research Institute (ORI) of the University of Botswana is currently in the process of establishing a resource monitoring system. The capacity within ORI and other monitoring initiatives in the district such as biomass assessment by the Department of Forestry and Range Resources provide an opportunity for collaboration in building the capacity of local farmers, planners and decision makers in range resource monitoring.

C. UNDP’s COMPARATIVE ADVANTAGE TO IMPLEMENT THIS PROJECT:

C.1 UNDP co-financing to the Project – coming

34. UNDP is leveraging a total of \$12,500,000 of co-financing including \$1 million from its own budget, drawn from its

core funded programmes.

C.2 PROJECT FIT INTO UNDP'S PROGRAM AND STAFF CAPACITY IN THE COUNTRY FOR IMPLEMENTATION:


35. UNDP has a long standing programme of support to the government on environmental policy and management. This has built up strong collaboration and national capacity on policy development, particularly on implementation of the multi-lateral environmental agreements. The project objectives, outcomes and outputs are in line with the UNDAF for Botswana for the period 2010-2016, particularly its stated objectives on strengthening environmental governance and strengthening capacity for pro-poor socio-economic policy making, implementation, research, monitoring and evaluation. These UNDAF initiatives coupled with the proposed project will ensure that the rural poor (especially women) enjoy greater benefits from the environment and natural ecosystems, which is one of the main outcomes of the UNDAF 2010-2016. The project activities are also in line with the objectives of the UNDP-UNEP Poverty and Environment Initiative (PEI) in Botswana, which supports the Ministry of Finance and Development Planning to integrate environmental considerations in national development plans and programs. The beef marketing policy is a key instrument in this mainstreaming, given the critical role of beef exports in development. Component one of the proposed project contributes directly to mainstreaming environmental considerations in other productive sectors while component two contributes to increasing investments in the environmental sector, through improved markets for livestock (to promote off-take, reduce over-stocking and overgrazing, and improve range condition). The UNDP Drylands Development Centre has worked closely with the government and land and resource managers to identify markets for drylands products and promote the value of drylands to national the economy.
36. The proposed project is in line UNDP's signature program on ecosystems and biodiversity (EBD) which focuses the maintenance of ecosystem function to deliver wildland, forest, range, and farmland goods and services. UNDP will ensure that lessons learned from its global, regional and national work are applied in the proposed project. Indeed, UNDP has accumulated experience in mainstreaming knowledge and SLM considerations into rangelands management systems, primarily through the implementation of similar projects, such as the Namibia Country Partnership Program for SLM, Agropastoralism project (Kenya), The World Initiative on Sustainable Pastoralism (WISP – Global), and the Indigenous Cattle Project (West Africa), amongst others. Knowledge and lessons generated though these project will inform the proposed Ngamiland SLM initiative.

PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT:

NAME	POSITION	MINISTRY	DATE (MM/DD/YYYY)
Ingrid Otukile	GEF Operational Focal Point	ENVIRONMENT AND TOURISM	3 RD OCTOBER 2011

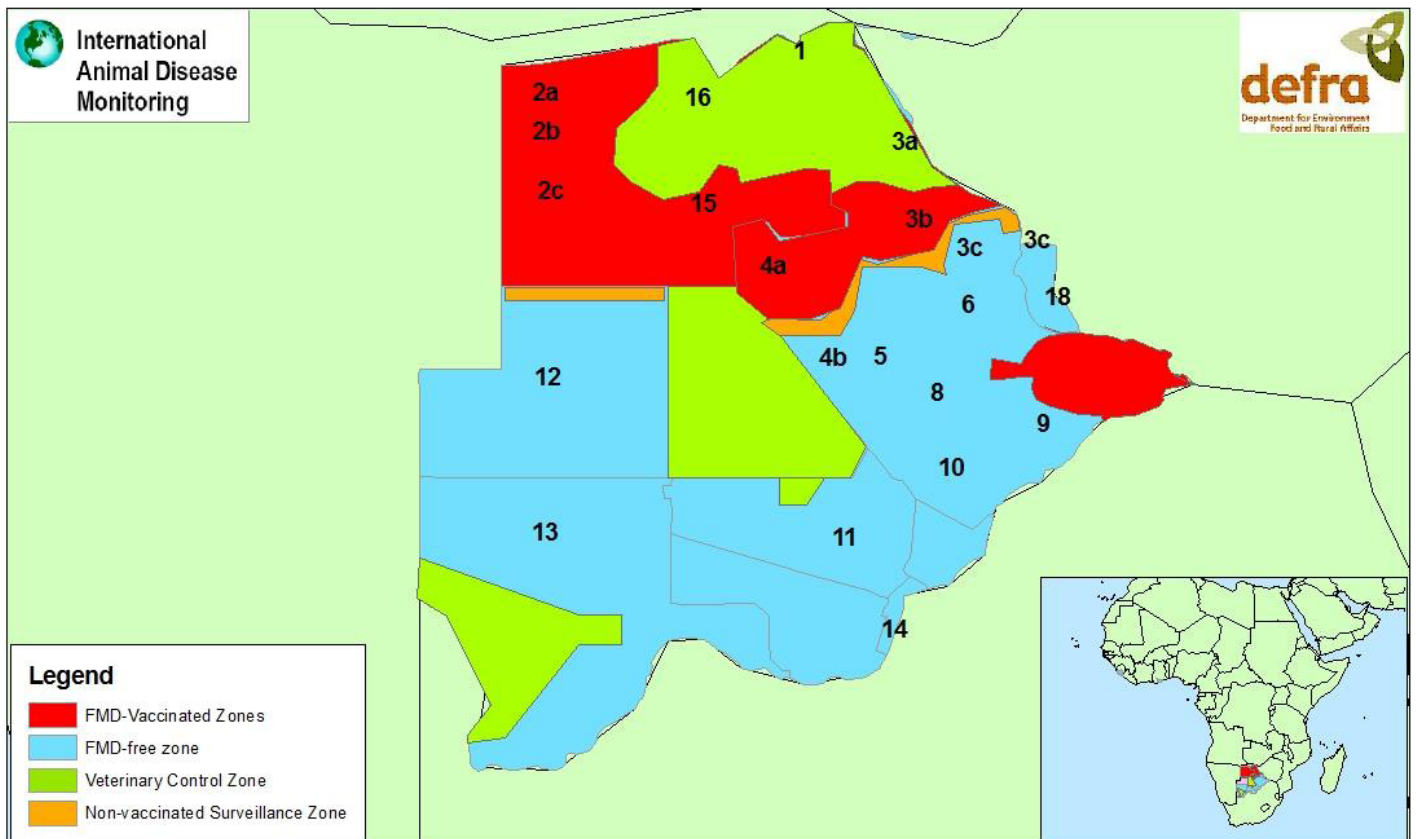
B. GEF AGENCY CERTIFICATION

The PIF is in line with GEF policies and procedures and fully meets the GEF preparation criteria					
UNDP/GEF	Signature	Date	Contact Person	Telephone	Email Address
Yannick Glemarec, UNDP/GEF Executive Coordinator		January 9, 2012	Veronica Muthui, RTA, EBD	+27 123548124	Veronica.muthui@undp.org

Annex 1 – SWOT analysis of policy options for the Botswana beef industry

Possible future Scenario	Strengths	Weaknesses	Opportunities	Threats
Area-based disease freedom	Access to high value markets Available infrastructure (cordon fences)	High costs, needs fencing, stamping out resented, poorer producers do not benefit	Wider range of private abattoirs beyond the BMC may extend access, and expand markets. Disease freedom with vaccination using none conventional FMD vaccines another alternative	FMD threat continues – and expands due to wildlife areas, cross-border movement etc. Farmers in buffer zones excluded

Compartmentalization	High value markets possible	Costly to private producer. Not feasible for poorer, small-scale producers	Private initiatives may result in new markets, and new vertical market linkages	Poorer farmers excluded from high markets
Local and regional markets	Less costly, No stringent SPS requirements, focus of basic food safety. Wider participation in markets Livestock & Meat Industries Act of 2007	Loss of high value markets, and associated revenues	Expanding opportunities for all producers including regionally	Local demand may be low, and supply from small-scale sector may be limited and variable. BMC Act
Commodity based trade	Exports can continue in spite of FMD; wider participation in export markets	Requires investment in risk assessment and certification systems	New markets may open up, involving more producers. FMD control efforts can be down-scaled with resource diversion	Some importers may reject the option, until trust is built up that products are safe. Private & commercial standards
Wildlife	FMD control not an issue. High value and growing markets in hunting, tourism, game meat etc, can be exploited	Requires large areas of land, and new skills. Excludes poorer farmers.	New transfrontier park initiatives could bring substantial economic benefit	Seen as an elite option, with benefits not being widely shared.



Botswana veterinary disease control zones and codes

Date prepares 09/08/2010
Map prepared by GAH

