

**GOVERNMENT OF BURKINA FASO  
MINISTRY OF AGRICULTURE, WATER AND FISHERIES  
INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT**

**SUB-PROGRAMME OF THE NORTHERN REGION  
(PHASE I OF THE CPP)**

**Proposal for Obtaining Funding  
from the Global Environment Facility**

**PROJECT BRIEF**

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**SUB-PROGRAMME OF THE NORTHERN REGION  
(PHASE I OF THE CPP)**

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## ACRONYMS

<b>APIMWR</b>	<b>Action Plan for Integrated Management of Water Resources</b>
<b>CBD</b>	<b>Convention on Biological Diversity</b>
<b>CC</b>	<b>Conseil Communal</b>
<b>CDD</b>	<b>Community-Driven Development</b>
<b>CIF</b>	<b>Community Investment Fund</b>
<b>COSOP</b>	<b>Country Strategic Opportunity Paper (IFAD)</b>
<b>CPP</b>	<b>Country Partnership Programme on Sustainable Land Management (GEF)</b>
<b>CVD</b>	<b>Comité Villageois de Développement</b>
<b>EA</b>	<b>Executing Agency (GEF)</b>
<b>EI/NEPAD</b>	<b>Environmental Initiative of the New Partnership for Africa's Development</b>
<b>FCFA</b>	
<b>GEF</b>	<b>Global Environment Facility</b>
<b>GoBF</b>	<b>Government of Burkina Faso</b>
<b>HDI</b>	<b>Human Development Index</b>
<b>IA</b>	<b>Implementing Agency (GEF)</b>
<b>IFAD</b>	<b>International Fund for Agricultural Development</b>
<b>MDG</b>	<b>Millennium Development Goals</b>
<b>MOAWF</b>	<b>Ministry of Agriculture, Water and Fisheries</b>
<b>MOE</b>	<b>Ministry of Environment</b>
<b>NAP/CD</b>	<b>National Action Programme to Combat Desertification</b>
<b>NEAP</b>	<b>National Environmental Action Plan</b>
<b>NEPAD</b>	<b>New Partnership for Africa's Development</b>
<b>OPEC</b>	<b>Organization of Petroleum Exporting Countries</b>
<b>PADAB</b>	<b>Programme d'Appui au Développement de l'Agriculture du Burkina Faso</b>
<b>PES</b>	<b>Payment for Environmental Services</b>
<b>PMCU</b>	<b>Programme Management and Coordination Unit</b>
<b>PNGT</b>	<b>Programme National de Gestion des Terroirs</b>
<b>PRSP</b>	<b>Poverty Reduction Strategy Plan</b>
<b>RDS</b>	<b>Rural Development Strategy</b>
<b>SRAP</b>	<b>Sub-regional Action Plan for West Africa</b>
<b>SRDP</b>	<b>Sustainable Rural Development Programme</b>
<b>UNCCD</b>	<b>United Nations Convention to Combat Desertification</b>
<b>WADB</b>	<b>West African Development Bank</b>
<b>WTO</b>	<b>World Trade Organization</b>

# SUSTAINABLE LAND MANAGEMENT IN THE WATERSHEDS OF THE NORTH CENTRAL PLATEAU

## PROJECT BRIEF

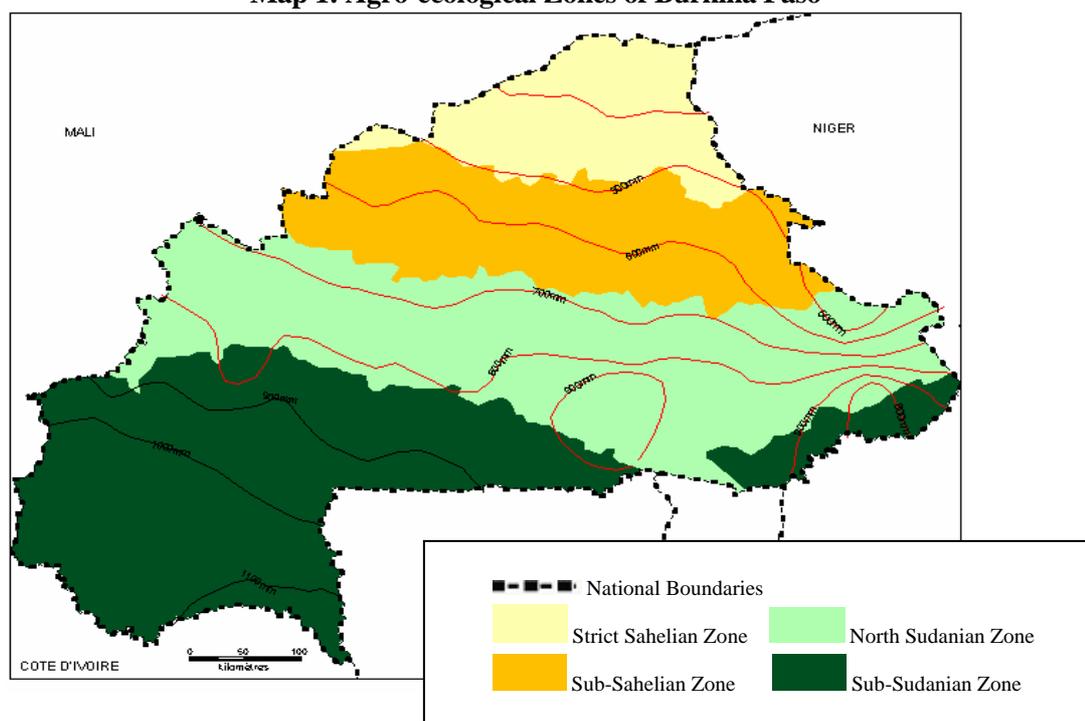
### I. BACKGROUND AND CONTEXT

#### A. Environmental and Social Context

##### Environmental Context

Burkina Faso, with an area of 274,000 km<sup>2</sup>, is a land-locked country in the heart of West Africa. The country's landscape is largely characterised by the Sahel region in the north and the Sudan region in the south. It has a tropical dry climate, with a long dry season (7 – 9 months) and short wet season (3 – 5 months). Its vegetation ranges from steppe in the north to shrub savannah in the centre and wooded savannah in the south, west and east. The severe droughts over the last decades, the continuing growth of the population and the unsustainable management of lands and natural resources have all contributed to accelerating degradation of the natural vegetative cover and animal biodiversity.

**Map 1: Agro-ecological Zones of Burkina Faso**



\* Source: Country Partnership Programme on Sustainable Land Management in Burkina Faso (2006)

Burkina Faso can be divided into two large agro-ecological zones (Sahelian and Sudanian); each of which can in turn be subdivided into two sub-zones (see Map 1). The Sahelian zone, which covers the northern region of the country where the proposed GEF project will be located, is divided into the strict Sahelian and the Sub-Saharan zone.

- The *strict Sahelian* zone is the extreme northern part of the country where rainfall is between 200 and 500 mm/year. It makes up 11 percent of the country's land area. The population density is around five inhabitants per Km<sup>2</sup>. It is primarily a region of livestock herding. The system of production has evolved towards agro-pastoralism with a tendency towards sedentary activity even if pastoral transhumance is still practiced. This zone is

characterized by a significant important loss of woody and herbaceous plants. Precipitation has seen a major drop and ponds dry up very quickly. It is estimated that there is a biomass deficit of 1.2 million tons, equivalent to annual forage resources for 175,000 head of cattle. The early drying up of ponds, which limits livestock watering, brings about non-utilization of some grazing areas and overuse of others. The reduction in productivity has led to cultivation of the inland valleys, which further limits access of animals to food supplies. Also, erosion has increased following the disappearance of the woody resources.

- The *Sub-Sahelian* zone is located between the north Sudanian zone and the strict Sahelian zone; it has an annual rainfall of 600 to 750 mm. This zone is home to 19 percent of the population with a density varying from 36 to 50 inhabitants per Km<sup>2</sup>. The pedoclimatic conditions which prevail (insufficient or irregular rains, low soil fertility) constitute a serious constraint to the development of agriculture. This means the problem of food security is an acute one. Given the limited abilities of most of the producers to invest in inputs, leaving land fallow has been the existing practice used to maintain soil fertility and to reclaim the soils. This practice also ensures sustainability of the production systems. A good fallow lands approach presumes that there is enough available land for it. Such an area is almost non-existent today with the strong demographic pressures which have led to abandoning fallow practices and also led to the shrinking of pasturelands creating conflicts between farmers and herders. Also production of monoculture cereal grains without the support of fertilizer has reduced soil fertility.

The soils of Burkina Faso are typically tropical ferruginous, with low filtration rates and significant run-off. The poor quality of the soils is a function of their composition, inappropriate agricultural practices and harsh climatic conditions. The soils in the north in particular are the most sensitive to degradation, reduction of storage capacity, ionic exchange and acidification. Arresting this degradation and restoring the fertility and productivity of the soils are critical to sustainable management of the natural resource base and to improvements in the economic and social development of the north.

The five provinces in the proposed area of GEF intervention (Bam, Loroum, Passoré, Yatenga and Zondoma) have a strategic position in the northern part of the country. At the gateway to the Sahel, they face the direct advance of desertification and rest at the top of a nationally important hydrologic system. The north central plateau contains a number of different ecological zones of national, if not international, importance (see Table 1). Passoré, in particular, has 1,225 ha of protected forest, providing important habitat to animal biodiversity but severely threatened by the

**Table 1: Selected Ecological Zones in the North Central Plateau\***

Sub-Area	Climate Zone	Ecosystem	Major Threats
Pastoral zone of Louroum	Sahelian	Pastoral zone	Drought, overgrazing, degraded soils, forest destruction
Micro-watershed of Zondoma	Sahelian	Agro-pastoral zone	Drought, land insecurity, degraded soils, forest destruction
Micro-watershed of Passoré	Sahelian	Agro-pastoral zone	Drought, land insecurity, degraded soils, forest destruction
Micro-watershed of Yatenga	Sahelian	Agro-pastoral zone	Drought, land insecurity, degraded soils, forest destruction

\* Source: Country Partnership Programme on Sustainable Land Management in Burkina Faso (2006)

local populations. The provinces continue to support a diverse fauna, including hyenas, jackals, small game, a wealth of birds and wild fowl (particularly around the wetland area at Ban), crocodiles in the pools and small antelope in the forests. The degradation of these resources is caused by both human and natural pressures, the human pressures increasing with the growth in

population. Responses to these pressures have been implemented but not in a systematic way and not in all geographic areas.

## **Social Context**

Burkina Faso remains one of the poorest countries in the world. Poverty is particularly prevalent in rural areas, although its incidence in urban areas has also increased. The Human Development Index (HDI) ranks the country 175<sup>th</sup> among the 177 countries covered by the 2005 Human Development Report. Government household surveys (*Enquêtes prioritaires sur les niveaux de vie*) undertaken in 1994, 1998 and 2003 show that in spite of good economic performance, the incidence of absolute poverty remains high and has even increased. On the basis of an absolute poverty line (82 672 FCFA in 2003 per adult per year, 72 690 FCFA in 1998), the proportion of people living below this threshold has increased from 45.3 percent in 1998 to 46.4 percent in 2003, then decreased to 42.4 percent in 2005. Poverty is particularly harsh in rural areas where its incidence has increased from 51.0 percent in 1994 to 52.3 percent in 2003. This has been accompanied by a worsening of the depth of poverty given that extreme poverty has grown from 13.7 percent in 1998 to 17.9 percent in 2003. It is estimated that 61.2 percent of the population live on less than one US dollar a day (85.8 percent on less than two US dollars a day). As a whole, in 2003 the rural sector accounted for 92.2 percent of the total incidence of poverty at national level. In urban areas too, poverty has increased from 16.5 percent in 1998 to 19.9 percent in 2003.

The social situation in Burkina Faso is precarious, with an average adult literacy rate of only 27 percent, which drops even further to 13 percent in the case of women (2005). Public health is similarly grim, with the persistence of malaria and a number of pathologies worsened by insufficient medical care. In 2005, infant mortality amounted to 113 per thousand births and juvenile mortality to 105.3 per thousand. The incidence of HIV/Aids among adults aged 15 to 49 years was 4.2 percent at the close of 2003, a trend that has contributed to lowering average life expectancy from 49 to 46 years in the period between 1996 and 1998. Once again, the situation is worse in rural areas, especially with respect to the poorest segments of the population, who often suffer from unbalanced diets. A significant proportion of the population (approximately 20 percent) lives in a state of chronic food insecurity, while some 40 percent are exposed to the risk of food insecurity. Access to drinking water is limited to 42 percent of the population and only 29 percent has access to decent health care.

Of Burkina Faso's 12 million inhabitants, an estimated 80 percent live in the rural areas. The rate of population growth is high at 2.4 percent per year, with a fertility rate of 6.7 per woman. The population density in some rural areas of the central plateau reaches 100 inhabitants per km<sup>2</sup>, with 90 percent of the active population having an occupation tied to agriculture, livestock, fishing or forestry. Burkina Faso's population is characterised by great linguistic and ethnic diversity, the primary ethnic groups being Mossi, Gourounssi, Lobi and Peuhls.

In Burkina Faso, one of most important causes of rural poverty and vulnerability is location. In a mostly agricultural country, the characteristics of the agro-ecological zones are of paramount importance. The Sahelian zone, for example, has poor and extremely variable agricultural production due to erratic and low rainfall patterns and extremely degraded natural resources; this is compensated, only partially, by livestock production. Food deficits are a permanent feature in the regions of the North and Sahel. The north Sudanian region enjoys more favourable weather conditions and suffers from less frequent food deficits, but it experiences occasional food crises because of poor yields and insufficient production. In the south Sudanian region food deficits are small and rare given that it enjoys better quality soils and abundant and better distributed rainfall, even if current agricultural technologies do not allow for large surpluses. These differences become blurred in years of exceptionally good and well distributed rainfall.

The five provinces of the proposed GEF intervention form part of the area where the incidence of poverty is highest in the country, estimated at 68.6 percent in the north and at 58.6 percent in the central plateau. The depth and severity of poverty are the most acute in the country, due in large part to the precarious means of subsistence, agricultural resources limited by the difficult climatic and physical conditions, strong demographic pressures on arable lands, high levels of illiteracy and low levels of basic social services. Among the most vulnerable and often chronically poor are subsistence food crop farmers and subsistence agro-pastoralists involved in small-scale transhumance and the transhumant pastoralists owning few heads of cattle and taking care of other peoples' animals.

The continuous and extractive exploitation of the lands by the ever-growing number of agricultural and livestock producers has resulted in severe degradation of the lands and fragile soils in northern Burkina Faso. Furthermore, the increasing variability of rainfall patterns and decreasing total amount of rainfall received annually have increased the vulnerability of native plants and animals and disrupted the livelihoods of communities living in or depending on the area. These disturbing trends are characterised by the following:

- **Competition for marginal lands between agriculture and livestock production.** Agricultural producers increasingly occupy much of the marginal land traditionally classified as sylvo-pastoral and used by ruminant livestock. This increases the livestock pressure on the most palatable plant species and in the dry season results in tree stripping by herders to provide tree fodder to their livestock. The overall result of this trend is an increase in conflicts among resource users and a decline in plant diversity and productivity (particularly the most desirable grass and legume species), contributing to accelerated degradation of the soil and natural resource base.
- **Colonisation of banks around wetlands and lakes.** The fragile banks around lakes and wetlands are under intense pressure. Agricultural producers increasingly compete among themselves for the lowland areas (where the growing period is longer for plants) and for the banks of lakes and wetlands (where irrigation is feasible) at the expense of access corridors to the water sources for livestock and of natural habitats for native biodiversity. The overall result of this trend is faster degradation of the function and integrity of the watersheds.
- **Degradation of community-protected lands and unprotected natural reserves.** Most communities in Burkina Faso have developed endogenous sets of rules protecting certain lands and natural resources, including biodiversity. These might include sacred areas like groves or woodlands, as well as sacred animal or plant species. A significant number of the native species traditionally used as sources of food, fodder, household energy, construction material and medicinal/veterinary care are found in these sacred areas. Accordingly, they are relatively rich in biodiversity and provide relatively high carbon storage capacity.
- **Diversification of livelihoods in rural communities.** Because climate variability and land degradation in Burkina Faso jeopardise traditional agriculture and livestock production, to reduce their vulnerability rural communities resort more and more to alternative food and income sources, such as fishing, dry season vegetable production, timber products, and utilisation or commercialisation of wild plant and animal products. However, the same pressures threaten these alternative activities and products; while the needs are increasing, the availability of fish, wildlife, timber and non-timber products is decreasing due to the loss of biodiversity and natural habitat and the loss of productivity of the remaining natural species.

## B. Root and Intermediate Causes of Land and Natural Resource Degradation

According to studies performed during preparation of Burkina Faso's Country Partnership Programme for Sustainable Land Management (CPP), there are a number of causes and constraints in the country's rural areas that contribute not only to land degradation but also to the loss of biodiversity, the loss of carbon sequestration potential and the increase in carbon emissions to the atmosphere. The complex rural dynamic links the pressures that human activities put on the land with the changing quality of natural resources due to human activity.

Degradation of the land and natural resource base in rural areas has a number of **root causes**, which are tantamount to the major driving forces and pressures at play. They trigger concrete and immediate **threats** that manifest themselves in a general decline of both ecological integrity and local and global ecosystem services. Responses by land users and policy makers can redress the situation to a certain extent, but such responses must overcome a considerable number of **barriers** along the way. Some of these barriers will be difficult to overcome within the context of the CPP, but others certainly can be addressed and their removal will contribute to sustainable land management. An overview of the root causes, threats and barriers identified in the context of Burkina Faso is shown in Table 2; a discussion of these root and intermediate causes, resulting threats and barriers follows.

**Table 2: Root Causes, Intermediate Causes and Immediate Threats**

Root Causes	Intermediate Causes	Immediate Threats
Population pressure	Land tenure insecurity Unsustainable agricultural practices Unsustainable range management, overgrazing and overstocking	Loss of vegetation and above-ground biodiversity (flora and fauna) Loss of soil nutrients, organic carbon and below-ground biodiversity Loss of surface and subsurface water availability, quality and reliability Water and wind erosion
Poverty	Unsustainable forest and woodland management Bush fires Hunting and gathering	Loss of vegetation and above-ground biodiversity (flora and fauna) Loss of soil nutrients, organic carbon and below-ground biodiversity Loss of surface and subsurface water availability, quality and reliability Water and wind erosion
Rainfall (variability and intensity)		Loss of surface and subsurface water availability, quality and reliability
Moving isohyets (advancing desertification)		Loss of vegetation and above-ground biodiversity (flora and fauna) Loss of soil nutrients, organic carbon and below-ground biodiversity

### Root Causes

The **root causes** (or major drivers and pressures) of land and natural resource degradation in Burkina Faso (as identified by the CPP) are the following:

**Population pressure** In 1961, the population of Burkina Faso was estimated at 4,482,000 inhabitants. By 2001 this number had increased to 11,856,000. Between 1961 and 2001, the average annual population growth rate was 2.47 percent. The population practically tripled in 40 years, while the arable land remained unchanged at 9,000,000 hectares. Moreover, the distribution of population density over the country is very uneven (e.g. 23 inhabitants per km<sup>2</sup> in Haut Bassin versus 141 inhabitants per km<sup>2</sup> in Yatenga). Since almost 80 percent of the population lives in

rural areas and continues to increase in number, the population pressures on ecosystem services are obvious. Recurrent droughts and declining rainfall since the mid-1960s have concentrated local populations on fewer natural resources. Furthermore, the customary land tenure system has either broken down or has been overturned by nationalization, converting land to semi-open access in most areas. Conflicts between sedentary agriculturalists on the one hand and pastoralists on the other have increased in the northern parts of the country. Increasing numbers of pastoralists have meanwhile become semi-sedentary. A second source of conflict is between indigenous people and recent migrants, mainly in the southern parts of the country where migrants had to move when droughts and declining resources made life in the north too harsh.

**Poverty** The integration of agricultural products into the market economy plays a key role in household decision-making in rural areas. The income resulting from the sale of agricultural products that are in demand in international markets has oriented producers increasingly towards growing export crops, such as cotton and sesame. In order to increase purchasing power and to ensure secure land tenure, farmers use a strategy of increasing the areas cultivated in order to increase production. The negative consequences of this are: a growing pressure on the vegetative cover caused by clearing and burning, an increase in the risk of erosion in the cultivated areas, an impoverishment of the soils due to loss of soil organic matter, leaching of nutrients, erosion and a drop in the biological activity of organisms that live in the soil.

**Variability and intensity of rainfall** Rainfall in rural areas is increasingly characterized by large inter- and intra-annual variations, to the point that the total volume of rainwater that falls has little significance for agriculture. This year-to-year variability of the rainfall, when added to the large variability within each year, often manifests itself in a capricious arrival of the rainy season, an early end to the rains and the existence of numerous “rainfall holes” during the farming cycle. This very erratic and variable nature of the rainfalls requires the use of rainwater collection and conservation techniques in order to secure agricultural production. It also requires the use of transhumance and rotational grazing, as well as sustainable methods of forest harvest that anticipate such rainfall variability. Also, the force of the rains is largely proportional to the quantity of rainwater that falls.

**Moving Isohyets** Generally speaking, during the past fifty years, Burkina Faso has seen a noticeable drop in rainfall and increased aridity in both the Sahelian and south Sahelian zones. This migration of the isohyets (areas of equal rainfall) from north to south has seriously compromised agro-sylvo-pastoral activities in these zones. It also marks advancing desertification from the north. During the decade from 1951 to 1960, the 700 mm isohyet ran just north of Ouahigouya, Kaya and Bogandé. Dédougou, Ouaga and Fada were located south of the 900 mm isohyet. The 1100 mm isohyet was over Kouka and Diébougou. The 1300 mm isohyet passed to the south of Banfora and Batié. The appearance of the 500 mm isohyet north of Dori, along with the migration of the other isohyets towards the south occurred between 1961 and 1970. From 1971 to 1980, the 500 mm isohyet was observed to be largely to the south of Dori and Djibo, with the near disappearance of the 1100 mm isohyet. Between 1981 and 1990, the 300 mm isohyet appeared and the 1100 isohyet disappeared entirely. From 1991 to 2000, rainfall rose again, with the increase in the 500 mm isohyet and a disappearance of the 300 mm isohyet. The 1100 mm isohyet also reappeared. While such variability has been common, the Second National Communication for the UNFCCC predicts that global climate change may result in a reduction in rainfall patterns in Burkina.

### **Intermediate Causes**

The CPP also identified a number of **intermediate causes** (secondary drivers and pressures) of land and natural resource degradation, which include the following.

**Land tenure insecurity** Despite the clarity in terms of possession of land provided by the Land Tenure Reform Act, problems linked to the exploitation of lands remain deep-rooted in Burkina Faso (see Box 1). In fact, the expropriation of traditional land tenure rights could become an obstacle to certain soil and water conservation techniques. This is particularly the case with the implantation of perennial crops, such as tree farming. This type of technique, although it contributes to increased productivity of the land, will not normally be applied without first having secure land tenure. On an individual level, investments in sustainable land management that have a slow pay-back period (tree planting or investments in soil and water conservation structures) will only be made by those who have secure resources tenure rights. Moreover, the growing difficulty of obtaining access to good lands obliges more and more farmers to clear and to exploit more marginal lands that are susceptible to erosion and on which soil fertility maintenance is even more difficult. On the other hand, concerning investments at the community level, the issue of land tenure to date has not been an obstacle to implementing the soil and water conservation techniques. Poverty is the main constraint to access to land for certain social groups, who have often granted land concessions to entrepreneurs who are financially successful in agribusiness. The existing land tenure systems and laws governing resource access rights generally provide an adequate base for community-based natural forest management or co-management. However, the land tenure framework for community or pastoralist-based range management seems to be very complex. Viable range management models have not yet been developed. Land tenure may be a significant constraint for their development.

### **Box 1: Traditional Land Tenure Rights in Burkina Faso**

Historically, the occupation of lands and access to natural resources (pastoral resources, water, fish and wildlife, etc.) in Burkina Faso were regulated by customary mechanisms accepted by all inhabitants. Traditional Mossi or Fulani rulers played key roles in the initiation and enforcement of such rules, as well as in the resolution of any conflicts arising over resource use. Although these rules still apply to some extent today, their force has been seriously eroded by such factors as:

- rapid population growth in rural areas with the resulting increased demand for land and natural resources
- the arrival and settlement of new immigrants on the lands who are insufficiently knowledgeable about local customs and rules and often reluctant to accept them
- national policies and laws adopted in the 1980s conflicting with the traditional rules, classifying lands and natural resources as “state property”
- pressure on traditional rulers to reduce their influence on the livelihood and management of rural communities.

**Unsustainable agricultural practices** The traditional farming methods used in Burkina Faso lead to degradation of the land. Slash and burn practices produce effects similar to those of bush fires. In fact, the practice of burning during the dry season for field preparation is widely used because it helps eliminate weeds, shrubs and debris in order to make it easier to work the land. This practice of burning, when used frequently, causes a significant loss of carbon and certain organic elements, such as nitrogen and sulfur. Even though the ashes contain traces of these elements, much of this is removed by the wind or carried away with the first rains. The expansion of cropped land into rangelands and forests is the single most important intermediate cause of land degradation. Output/input ratios between commodities and inputs are unfavorable, and application of rock phosphate is insignificant even though it is available in the country. Nearly all agricultural soils in the country are deficient in phosphate and nitrogen. The high cost of purchased inputs and the slow payback period for rock phosphate constrain their use. This situation triggers area expansion instead of intensification, resulting in increased losses of vegetative cover and non-market ecosystem services. The natural potential for production depends on the biophysical condition of the soil, but the true potential depends on the management and implementation of production methods. In Burkina Faso, the level of use of inputs is generally low, with the exception of some cotton growers. The frenzied effort to get ahead in the cotton industry (and other cash crops, such as peanuts), which is fueled by the global economic environment, has

provoked a predatory exploitation of the land. In other words, this system exploits the soil to the maximum until it is completely exhausted. This mode of exploitation is incompatible with sustainable use of the land. The situation is aggravated by removal and use of harvest residues for fuel for cooking and other domestic uses or for dry season cattle feed, which constitutes another important factor for the low state of soil fertility in Burkina Faso.

**Unsustainable range management, overgrazing and overstocking** An extensive type of livestock production (transhumance) is widely practiced in Burkina Faso. The practice of growing fodder crops has remained limited. The series of droughts from 1968 to 1973 and the irregularity and uneven distribution of rains have caused a significant reduction in the productivity of range resources, especially in the Sahelian zones. During the same period, the population and the land under cultivation continued to grow, increasing the pressures on the remaining grazing areas. The number of cattle grew from 4,432,900 in 1996 to 7,312,000 in 2003, an increase of 65 percent. Goats and sheep increased from 13,709,300 to 16,739,000 for the same period (growing by 22.1 percent), primarily as a result of the growth of agro-pastoralism in the southern Sahelian and northern Sudanian zones. Furthermore, the tenure system for rangelands in Burkina Faso is primarily one of open access. There are no range management structures or institutions in place and there are no tested, proven range management systems. Past donor-funded attempts at developing range management systems in Burkina Faso and other Sahelian countries (in the 1960s to early 1980s) involved top-down technocratic ranching approaches that failed. The consequence of this situation is the overexploitation of the pastoral resources (woody and herbaceous plants, natural ponds, etc.) which contributes to a severe degradation of range resources. This is very noticeable in the Sahelian zone (in the provinces of Oudalan, Seno and Soum), which in 2003 accommodated 18 percent of the cattle and 14 percent of the sheep and goats in the country. The pastoral transhumance, which consists of moving animals from one favorable area to another following the seasons and unpredictable rainfall, generally moves on a north-south axis. However, with the increasing agricultural pressure in the south, this practice has become severely constrained and constitutes a source of conflicts between herders and farmers.

**Unsustainable forest and woodland management** Deforestation for timber and fuel wood needs is widespread in Burkina Faso. In terms of land degradation, household energy often needs drive unsustainable over-cutting of trees and deforestation. The major factor is the large, growing urban market for fuel wood. This has been exacerbated by recent sharp increases in the price of fossil fuels. Overcutting is a severe problem in unmanaged forests within urban fuel wood supply zones. Burkina Faso has several hundred thousand hectares of dryland forests, primarily wooded savanna, under co-management systems. Most of these forests are within the Ouagadougou fuel wood supply zone. Community managers harvest and market fuel wood and other products based on management plans that have been jointly prepared with the GoBF forestry service. Burkina Faso is the leader in Africa in natural forest management, but the country has insufficient capacity for replicating and adapting this successful model. The overexploitation of forest products, combined with clearing for agriculture and other uses, results in degradation of the forest cover and a shrinking of its surface area (by an estimated 150,000 to 180,000 ha per year). The woody combustible material constitutes 91 percent of national wood consumption and meets 90 percent of household energy needs. The accelerated urbanization the country has seen in recent years, as well as the growth in the need for wood for energy, has changed the means of supply and caused an intensification of commercial sales of firewood. The result is an overexploitation and progressive depletion of wood resources close to the centers of consumption.

**Bush fires** Early, light burning is a basic part of the ecology of the savanna forests in the Sudanian zone. Shrub savannas in the Sahelian zone, however, are ill-adapted to fire. Uncontrolled bush fires in either zone can cause severe degradation of wooded and shrub savanna ecosystems and can even lead to a breakdown in the structure of the surface layer of the soil. Mid

to late dry season wildfires can cause temperatures in the top few centimeters of topsoil to rise above 50<sup>0</sup> C for short periods, which dries out the top soil layers, dehydrating the iron oxide and baking the clays that quickly lose their plasticity, their absorptive capacity and their ability to retain water. Repetitive, uncontrolled bush fires are thus important contributors to land degradation. Progress has been made recently in developing guidelines for the proper use and management of fires in savanna ecosystems in Burkina Faso.

**Hunting and gathering** The exploitation of wildlife in Burkina Faso, especially hunting, is not always done rationally or sustainably. Furthermore, the wildlife and its habitat are the targets of various assaults, most notably poaching and clearing for agriculture. The results of these harmful practices include the shrinking of habitat area and decline in habitat productivity, as well as a qualitative and quantitative diminution of wild animal populations (biological diversity,) such that some species that are threatened with extinction are classified as partially or fully protected.

### **Major Threats**

Most visible, of course, are the **major threats** to ecosystems that flow directly from the root and intermediate causes identified above and result in deteriorating ecosystem components and loss of ecosystem functions, which have local, national and global costs. Four groups of threats have been recognized in the case of Burkina Faso; they are interdependent, as there are many feedbacks between them.

**Loss of vegetation and above-ground biodiversity (flora and fauna)** It is estimated that the surface of Burkina Faso that is covered by natural vegetation declines on average by 170,600 ha per year. As a result the diversity of flora and fauna is also in decline. This has natural causes (drought in the 70s and 80s), but it also is the result of (i) deforestation for extractive purposes, (ii) expansion of low-input and hence land-hungry agriculture and (iii) periodic overstocking and overgrazing of rangelands. In other words, provisioning ecosystem services are used at the expense of those services that provide global benefits and/or have no market price, such as regulating services. On top of this, the loss of natural vegetation in an arid and semi-arid environment has many positive feedback mechanisms that severely aggravate land degradation and badly affect ecosystem integrity. These include (i) bare surface-driven albedo changes affecting micro- and meso-level atmospheric and water-circulation processes, which eventually lead to declining rainfall, (ii) increasing surface temperature, which lead to increased rates of soil organic matter loss and deterioration of topsoil structure upon heavy rainfall; this again accelerates water erosion as the drying up of affected soils leads to sealing and crusting, severely reducing infiltration capacity, (iii) decreases in abundance and diversity of below-ground biodiversity, (iv) increased incidence of wind erosion and (v) invasion of exotic species of low diversity and palatability that suppress indigenous species. The entire country's vegetative cover has seen changes because of land degradation and its numerous causes. In certain zones, plants and animals have become rare or even disappeared, creating a loss of biodiversity (see Box 2).

### **Box 2: Loss of Vegetation and Biodiversity in the Sahelian and Sudian Zones**

In the **Sahelian Zone**, this has been characterized by open access grazing, the reduction of grazing lands from the extensification of agriculture into marginal lands ill-suited for cropping, the reduced access to water points and the reduced mobility of the pastoralists in combination with successive and extended droughts. All these factors resulted in the drying out or shrinking of certain water bodies, natural habitats for plants and animals and a significant drop in the water table, which negatively affects water supplies for plants and induces a high mortality level among woody and herbaceous species. There are large, severely degraded areas with heavier soils that have become crusted-over resulting in very little water infiltration and very little vegetative cover. Huge expanses of dead wood littering the ground are found in Soum, Séno and Oudalan provinces. The species that are particularly affected and which are disappearing are: *Pterocarpus lucens*, *Balanites aegyptiaca*, *Commiphora africana*, *Boscia angustifolia*, *Khaya senegalensis*, *Piliostigma reticulatum* (whose fruits are used for improving dairy production). The shrinking of grazing areas is happening at the same time as the depletion or disappearance of certain species of fodder plants: *Andropogon gayanus*, *Andropogon ascinodis*, *Schizachyrium sanguineum*, *Rottboellia exaltata*, *Leptadenia pyrotechnica*, *Echinichloa staghmina*, *Zornia glochidiata*.

In the **Sudanian Zone** the consequences of land degradation are just as harmful. The rate and trend of land degradation is higher in the Sudanian Zone because of the large scale migration of populations from the north to the south due to droughts and advancing degradation, resulting in a higher population density in the south. The main problems are linked to deforestation and unsustainable agricultural practices (e.g. slash and burn, over-cropping of cash crops). In addition, the problem of uncontrolled, mid to late season bush fires, which are more rampant in this zone, induces a qualitative and quantitative degradation of the vegetation, a loss of biodiversity, soil erosion and long-term reduction in soil fertility, an upsetting of the water balance, the release of greenhouse gases and negative socio-economic consequences. Changes in the timing and frequency of fires result in alterations to the structure and composition of the flora in the savannah. This situation affects the least dense and diversified zones, such as the shrub savannah where *Combretacées* predominates. The appropriate management of the frequency of wild fires can lead to a densification of the woody plants and a richer composition of flora. Plant families, such as *Caesalpiniaceae*, *Fabaceae*, *Loganiaceae* and *Anacardiaceae*, become more widespread as the fires become less regular; this tendency is also noted in the size and height of individual plants. Thus, the plants become larger as one moves from the most affected zones to ones which are less affected by fire. Fire, however, is one of the natural drivers of ecosystem functions in the Sudanian Zone and its optimal application can have beneficial effects.

**Loss of soil nutrients, organic carbon, and below-ground biodiversity, and acidification** As Burkina Faso forms part of the oldest land mass on the globe (more than two billion years), soils are inherently old, rather acid and devoid of major nutrients due to weathering and leaching. High temperatures also cause rapid decomposition of soil organic matter, particularly of the labile fractions. The soil carbon storage potential is, therefore, less than in regions that have younger soils or colder climates. The loss of fertile topsoil is inevitable under continuous cropping without fallow periods. Long-term trials near Koudougou and Bobo-Dioulasso have shown that topsoil organic matter is reduced to 50% of its original value or less when land is put to continuous cultivation of cereals or cotton. The use of mineral fertilizers alone raised yields but had a similar negative impact on soil organic matter. Only a combination of mineral fertilizers, manure and return of crop residues maintained soil organic matter at approximately 80 percent of its original value and also maintained below-ground biodiversity. Ten years of continuous cultivation further reduced pH by a full unit and both long-term trials needed applications of lime or dolomite after several years to raise pH and crop yields. Soil phosphate depletion is a widespread problem wherever cereals are grown, but most smallholders cannot afford the purchase of the phosphate inputs that are needed to maintain soil fertility.

**Water and wind erosion, sedimentation in and around strategic resources** Deforestation is the oldest and most important direct cause of soil erosion and desertification. The modalities that lead from deforestation to erosion and desertification result in areas covered with stones or hardened soils, which severely limit the infiltration of water. The few perennial plants that have survived until now do so with difficulty; germination becomes more difficult for both annual and perennial plants. During the past twenty years, a substantial increase in erosion has been observed. Wind

erosion is provoked by the destruction of plant cover resulting from overgrazing and/or overcutting or from clearing for agriculture on sandy soils in zones where the rainfall is lowest and can result in the formation of live sand dunes on the most severely degraded sites. The Sahel region is at the centre of this phenomenon. The World Resources Institute estimates the loss of soils in the central part of Burkina varies between 5 and 35 tons per hectare per year. The sanding up of water courses is a major concern. It is aggravated by wind and water erosion and by the degradation of riverbanks caused by agricultural pressures. This is followed by degradation of aquatic ecosystems and the weakening of certain animal and plant species. Erosion and sedimentation change the landscape in that gullies render land useless and prone to further excavation in the rainy season, whereas sedimentation negatively affects watering points and river courses. Sedimentation by wind further causes dune encroachment, burial of seeds and loss of fertile topsoil.

**Loss of surface and subsurface water availability, quality and reliability** The water resources of Burkina Faso have been well-documented in a baseline study performed in preparation of the Action Plan for Integrated Water Resource Management. The availability and use of water resources are critical issues in Burkina Faso and often represent moving targets. The replenishment of aquifers has local and global benefits but is severely reduced when surface crusts form on badly degraded, heavier soils. The threats encompass (i) declining total freshwater resources, (ii) increased rates of surface water runoff and (iii) silting up of reservoirs and small 'barrages' that also have a potential for fisheries. Small-scale irrigation of vegetables seems a sustainable way of water use, but excessive use of agro-chemicals threatens water quality. Around towns, water quality in rivers and streams is also at stake, as there are no major sanitation and sewerage facilities.

### C. Barriers to Sustainable Land and Natural Resource Management

The barriers to sustainable land and natural resource management in the north central provinces are as numerous as they are intractable. First and foremost, these barriers include **insufficient human resource and institutional capacities**. This insufficiency is clearly evidenced by the general lack of adequate capacities among the farmers and local populations of the provinces to effectively implement sustainable land and natural resources management practices. This insufficiency is further compounded at the institutional level by the limited capacities of GoBF technical and extension services working with these local populations to effectively address their resource management problems. Second, underlying this human resource barrier is the fundamental **lack of widespread knowledge of best practices** for sustainable land and natural resource management in the northern provinces. This is true despite the fact that previous soil and water conservation projects have made advances in local understanding and the fact that the current knowledge base in Burkina Faso as a whole is substantial. Knowledge in the northern area remains fragmented without effective mechanisms for collection and dissemination to the larger population. Third, looming over these other constraints are the **policy barriers** to sustainable land and natural resource management that continue to play a role at the local level in the north central provinces. Despite the large number of laws, strategies and action plans formulated and implemented at the national, regional and sectoral levels, these policy instruments have effected little change on the actual management of lands and natural resources at the local level. The mounting pressures in the rural areas have overcome the best laid plans. Policies end up not being applied in the field because of limited resources and manpower. Progress in land tenure security has remained elusive; effective systems of land tenure/secure resource access rights for range management have yet to be developed.

The studies performed during preparation of the CPP also identified a number of constraints or barriers to effectively arresting existing land and natural resource degradation and instituting

sustainable land management in the country. Most of these apply to the northern provinces. These are not physical barriers by any means; they include policy, institutional, technical, financial and economic barriers that may be more difficult to overcome than any physical barriers can be. A discussion of these barriers follows.

**International barriers** As a landlocked country with scarce resources and 80 percent of the population dependent on agriculture, the opportunities available to Burkina Faso for economic growth through increased exports are not plentiful. Trade barriers and lack of comparative advantage compared to other fast-growing countries in Asia and Latin America preclude a more rapid absorption of part of the rural population in other sectors of the economy. Trade barriers and agricultural subsidies elsewhere in the world also act as barriers in this context. The GoBF is addressing some of these barriers through its engagement with World Trade Organization (WTO) discussions, reporting on Millennium Development Goals (MDGs) and harmonization of donor interventions. Further, in the context of the CPP, the GoBF will evaluate the impact of changes in world prices and subsidies, especially for cotton, on incentives for greater expansion of cropland into rangelands and forests.

**Regional barriers** A number of the intermediate causes of land and natural resource degradation identified above require regional cooperation to address effectively (e.g. pastoral transhumance, hunting and gathering), which presents a barrier for the GoBF to overcome. The GoBF recognizes that regional cooperation is increasingly important in addressing sustainable land management issues, but such cooperation remains insufficient and must be regarded as a barrier. Joint planning and action with countries that face similar agro-ecological conditions and land degradation constraints could help Burkina Faso cut transaction costs and share in implementation of policies and investments promoting sustainable land management.

**Insufficient institutional and human resource capacities** Limited institutional and human resource capacities are found at several levels: (i) Farmers and farmers associations lack sufficient capacities to practice sustainable, productive agriculture; (ii) Community users of forest and rangeland resources have insufficient capacities needed for sustainable management of these resources; (iii) The government agricultural extension service and civil society entities working in agricultural extension frequently have insufficient capacities for participatory, adaptive extension of sustainable land management systems for agriculture; (iv) The capacity of national government technical services, of decentralized local and regional governments, of NGOs, consulting firms and others to support the replication and adaptation of community-based forest management/co-management systems is insufficient; (v) The capacity of all of these agencies to develop new, sustainable models for range management and then to replicate them, is especially thin; (vi) The capacities of the new communes and of the provincial, regional and national government to develop effective regulations/policies/laws and strategies for sustainable land management, all need to be strengthened.

**Policy barriers** There are a large number of laws, strategies, texts and action plans (e.g. regulations for the Land Tenure Reform Act, the National Action Programme to Combat Desertification (PAN/LCD), etc.) at national, regional and sectoral levels that overlap and create inefficiencies and transaction costs. They seem to be there for the sake of being there, rather than serving as mechanisms to act, intervene, facilitate or develop. Some have become old-fashioned as pressures in the rural area have mounted. Policies are not applied well enough in the field due to lack of resources and manpower. Much less time goes into law enforcement than into law making. There is no tangible progress in the field of **land tenure security**. Appropriate systems of land tenure/secure resource access rights for range management have yet to be developed. Although there is no real evidence that the lack of land ownership is a barrier to the adoption of soil conservation practices, population migration has resulted in anarchistic occupation of land

and often times conflict, which in turn increases pressure on strategic resources (protected areas, water courses, etc.). Top-down procedures at the policy level have met with resistance at the local level.

**Institutional barriers** Too many institutions are active in the field of rural development, which makes coordination of activities difficult, increases transaction costs, creates conflicts of interest, and often sends land users contradictory development messages. In addition, there are some critical issues where there are no institutions with the mandate to address them, such as transboundary management of natural resources. While the Liptako-Gourma Authority (Burkina Faso, Mali and Niger) is based in Ouagadougou, there are many counterpart national agencies that engage with it, often leading to mixed sectoral messages and agendas. Different approaches by the GoBF in the past (e.g. sectoral approach, production-oriented, lack of participation) have not been helpful for sustainable land management.

**Knowledge barriers** There is no institutional body in the country that is able to oversee and guide the entire field of sustainable land management, although the Département Territoire should be able to do this. This especially refers to thinking in terms of chains, i.e. in causes and effects, in terms of different scales and in terms of multiple stakeholders. Finally, there are no clues yet on the multiple benefits that may be obtained from targeted sustainable land management. Scarce financial and human capital at the level of the land user is a major barrier. Knowledge of non-market ecosystem values is also much less developed than knowledge of market ecosystem values. The current knowledge base in Burkina Faso on land degradation and sustainable land management is substantial, but it is fragmented without an effective mechanism for collecting, synthesizing and disseminating this knowledge. Indigenous knowledge has not been adequately captured and capitalized. There is only a modest sense of the need to advocate best practices. A successful example is the national programme to install 500,000 compost pits, but there are no further incentives for its replication.

**Fragmented sectoral barriers** Burkina Faso is the leader in sub-Saharan Africa for natural forest management, but this sectoral success has not been expanded to integrate wildlife management and/or range management. Clear opportunities for multiple use management exist that would increase the overall profitability of sustainable land management and with it the range of incentives and beneficiaries.

**Monitoring and evaluation barriers** Monitoring and evaluation of land quality and changes in land use in order to generate good-quality data and statistics on land management are of paramount importance. Without such information, decision support systems (whether government or local community) are necessarily weakened. Although such information systems have been put in place to some extent, there is ample room for improvement, particularly in the field of participatory monitoring and evaluation.

**Financial and economic barriers** Some of the inputs needed for sustainable agriculture either are not financially viable for the smallholder or have marginal profitability with relatively long payback periods. The phosphate supplements needed for maintenance of soil fertility provide a good example of this problem. The lack of an affordable means of soil testing is another example.

**Other barriers** Among the other barriers identified are (i) insufficient **awareness** of the impacts and severity of land degradation and of the opportunities and benefits of sustainable land management, (ii) insufficient financing for sustainable land management practices and investments, (iii) socio-cultural constraints to the adoption of such practices and (iv) insufficient use of adaptive management approaches.

## D. National Priorities, Action Plans and Programmes

The Government of Burkina Faso (GoBF) recognises the threat to its economic and social development posed by land and natural resource degradation and has identified addressing this threat among its highest priorities in various national policies, actions plans and programmes (see Table 3). With a fairly well-developed policy framework in place, the challenge for the GoBF has been to undertake sustainable actions on the ground. In this respect, the proposed GEF project will assist the GoBF in meeting that challenge by promoting the rational use of practices and technologies for sustainable land and natural resource management in critical watershed ecosystems in the northern part of the country.

**Table 3: Policy Framework for Land/Natural Resource Management**

Policy, Action Plan, Programme	Date	Authority/Scope
Country Partnership Programme on Sustainable Land Management	2006	GEF-approved pilot partnership programme for implementation of OP 15 on Sustainable Land Management: identifies the GEF project as one of its four regional sub-programmes
National Action Programme to Combat Desertification	1999	Implementation of the UN Convention to Combat Desertification: identifies sustainable natural resource management as priority; framework for GoBF actions
National Environmental Action Plan	1991/ 1994	Outgrowth of UN Conference on Environment and Development and Agenda 21: defines national environmental policy and includes programme on land management
Rural Development Strategy	2004	Consistent with the Poverty Reduction Strategy of the GoBF: provides objectives for the rural sector through 2015, identifies sustainable natural resource management among strategic axes
Action Plan for Integrated Management of Water Resources	2003	Based on the Water Management Law of 2001: reorients water management from sectoral to integrated (watershed) approach, establishes institutions/capacity for watershed management
National Biodiversity Strategy and Action Plan	2000	Implementation of the UN Convention on Biological Diversity: promotes conservation and sustainable use of biodiversity, including ecosystems and habitats, wetlands and dry zones
National Strategy on Climate Change	2001	Implementation of the UN Framework Convention on Climate Change: promotes reduction of greenhouse gas emissions through sustainable management of natural resources
Environment Initiative of NEPAD	2003	An outgrowth of New Partnership for Africa's Development: provides a coherent action plan and strategies to address the region's environmental challenges, including land degradation
Millennium Development Goals	2000	Commitment to human development by the international community: includes the goal of ensuring environmental sustainability and reversing the loss of environmental resources

Designed to address one of the country's top priorities, the GEF project is specifically identified as one of the four regional sub-programmes included in the CPP to facilitate implementation of GEF's OP 15 on Sustainable Land Management in Burkina Faso. Furthermore, the project will directly support the objectives of the National Action Programme to Combat Desertification (NAP/CD), the National Environmental Action Plan (NEAP), the Rural Development Strategy (RDS) and the Action Plan for Integrated Management of Water Resources (APIMWR). Furthermore, the GEF project also fits within the Environment Initiative of the New Partnership for Africa's Development (EI/NEPAD), as well as the Millennium Development Goals (MDGs)

as they relate to the sustainable management of the environment. A brief description of the GEF project's role in advancing each of these initiatives follows:

- **CPP** Approved by GEF in 2006 as a pilot country programme for implementation of OP 15 on Sustainable Land Management, the CPP identifies the GEF project in the north central plateau as one of its four regional sub-programmes for implementation in the first phase of the CPP (see excerpts from the CPP in Appendix 1).
- **NAP/CD** Prepared and adopted pursuant to the UN Convention to Combat Desertification (UNCCD), the NAP/CD provides the framework for national and local programmes and projects that combat land degradation and desertification. Operating under the GEF's primary tool for supporting implementation of the UNCCD, Operational Programme 15, the GEF project will directly contribute to the GoBF's land management priorities.
- **NEAP** Revised following the UN Conference on Environment and Development, the NEAP articulates the GoBF's national policy on environment and focuses the priority in one of its five programmes on land management. The GEF project will directly support the programme on land management but also lend additional support to the programmes on environmental capacity building and environmental information management.
- **RDS**. Revised in 2004 to be coherent with the GoBF's Poverty Reduction Strategy, the new RDS provides the GoBF's vision and objectives for the rural sector through 2015 and identifies the guiding principles, strategic axes and priority actions for the sector. The GEF project will contribute directly to the strategic axis addressing sustainable natural resources management, specifically degraded lands, fertility of soils and management of pasture and woodlands.
- **APIMWR**. Based on the Water Management Law of 2001, the APIMWR will reorient the GoBF's management of the water resources of the country, introducing watershed/water basin management and establishing the institutions, planning mechanisms and capacity for more effective water management. The GEF project's proposed watershed management approach will directly support the planning and capacity-building efforts of the APIMWR in the northern part of the country.
- **EI/NEPAD**. Developed and adopted within the framework of NEPAD, the environment initiative provides African countries with a coherent, strategic and long-term programme of action directed at such priority issues as land degradation, drought and desertification. The GEF project is fully consistent with the action plan and strategies developed under NEPAD and will advance implementation of the environment initiative in Burkina Faso. Specifically, it is a priority activity in Programme Area 1 of the environment action plan for the region of West Africa and it responds to the thematic areas on 'rational use of rangelands', 'development of sustainable agriculture' and 'sustainable land use' of the action plan.
- **MDGs**. Among the goals to be achieved by 2015 identified by the international community in its global partnership for development is ensuring environmental sustainability, specifically integrating the principles of sustainable development into country policies and programmes and reversing the loss of natural resources. The GEF project will directly contribute to integration of sustainable land and resource management principles in the development programmes of the northern watersheds.

The GEF project will also make significant contributions to the objectives of the National Biodiversity Strategy and Action Plan and the National Strategy on Climate Change. Furthermore, as an integral part of the SRDP, the GEF project also will play a role in improving the livelihoods and living conditions of the rural populations, thus advancing objectives of the GoBF's Poverty Reduction Strategy Paper (PRSP).

## **E. GoBF Response to Rural Poverty and Sustainable Development Issues**

## **in the Provinces of the North Central Plateau – Baseline Scenario**

The GoBF has marshalled its own resources and leveraged those of international institutions and donors to address the urgent threats to rural communities posed by land degradation and desertification in the northern region. It is these GoBF programmes and projects that constitute the baseline scenario for the present GEF project. Specifically, the project will build on the ongoing IFAD-financed Sustainable Rural Development Programme (SRDP) but will also be co-financed by a number of other projects implemented in the provinces of the north central plateau. An overview of these programmes and projects follows.

### **Sustainable Rural Development Programme (SRDP)**

The SRDP will make an important contribution to achieving the development priorities of the GoBF. Financed by loans from IFAD, the West African Development Bank (WADB) and the OPEC Fund, the SRDP is the latest in a series of GoBF interventions in the north central provinces designed to strengthen local capacity for participatory management, improve the security of land tenure, support local development initiatives and provide basic rural infrastructure. The SRDP will provide a significant contribution to the baseline scenario activities for the GEF project. The SRDP consists of the following four components:

**Rural Organization** This institutional development component, designed to empower rural organizations to take charge of the planning and management of their own development, has two sub-components:

- Capacity Building for Participatory Management and Co-ordination, which (i) provides capacity building and other assistance to strengthen the institutional, planning and management capacities of local/grass roots organizations, including the village/inter-village area management committees<sup>1</sup>, producer organizations and associations of women and youth; (ii) performs participatory diagnostics for selected villages to provide baseline information, evaluate existing institutional capacity, prepare village development plans and design appropriate training programmes; (iii) supports the participatory preparation and implementation of village development plans as tools for local planning and management of village development activities; (iv) finances a programme of information, education and communication for village women and identify other approaches to ensure full participation of women and other vulnerable groups in planning and management at the village level.
- Community Investment Fund (CIF), which supports implementation of the village development plans by financing priority village initiatives, such as (i) economic and social projects (e.g. water supply infrastructure, rural roads, health units, schools, literacy initiatives) and (ii) environmental (e.g. soil and water conservation and management) and energy projects (renewable energy).

**Security of Land Tenure** The land tenure component implements concrete actions to secure the land tenure rights on lands currently not exploited in a rational manner and on which the modernisation of agricultural production is difficult because of conflicts and land tenure/resource ownership constraints. Measures also will be taken to improve access to land for women, youth and landless rural populations. Among activities to be undertaken are:

- recognition and study of existing local land tenure systems
- support for dialogue and communication among actors at the local level

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<sup>1</sup> Comités Villageois de Développement (CVD) and Conseils Communaux (CC)

- training for local institutions involved in land tenure issues
- testing of appropriate measures/local strategies for land tenure issues
- capitalising on positive experiences by influencing national policies.

These activities should result in increased community awareness for resolving land tenure issues, improved capacity of local actors and institutions, and improved security of land holding and management by the disadvantaged at the village level.

**Sustainable Development of Productive Capacity** This economic development component includes three sub-components:

- Watershed Protection and Management, which implements a pilot programme of watershed management and protection in five watersheds of around 10,000 ha each, selected according to specified criteria. The proposed watershed management activities bring together the public lands, the community sylvo-pastoral resources, as well as the cultivated lands in a global approach to land and resources management by the local inter-village area management committees. (This proposed GEF project will build directly on the foundation of this sub-component but will provide additional global benefits.)
- Intensification and Diversification of Agricultural Production, which provides extension services, including information, training and demonstrations to agricultural producers on recommended agricultural practices and technologies (especially those promoting soil fertility and integrity), as well as develops local capacity to provide extension and training to rural producers. The practices and technologies include small irrigation schemes on lands near water sources, practices for integrating/reducing conflicts between livestock and agricultural production and introduction of erosion-control vegetative cover techniques.
- Support for Income-Generating Activities, which complements the above activities in promoting improvements in income and creation of employment among targeted rural groups. Specifically, the sub-component supports and extends local financial services in the villages (e.g. credit unions) and develops income-generating activities (e.g. vegetable gardening, animal-raising, and agricultural processing), giving priority to women, youth and migrants.

**Programme Organization and Management** The programme management component includes two sub-components:

- Management and Co-ordination, which establishes an independent Programme Management and Co-ordination Unit (PMCU) under the Ministry of Agriculture, Water and Fisheries (MOAWF) to ensure adequate planning, management, monitoring and evaluation of SRDP activities. The PMCU is based in the field and also has two regional offices to assist it in covering the five north central provinces.
- Monitoring and Evaluation, which put in place a dynamic information system to support the programming, management, monitoring and evaluation of SRDP community development activities. The information system is managed by a small unit in the PMCU, assisted by specialists in the two regional offices. The system provides maps of the SRDP programme area and includes a geographic information system (GIS), which will contribute to the environmental monitoring system initiated under the Programme National de Gestion des Terroirs (see below) and to be utilized by the GEF project.

### **Programme National de Gestion des Terroirs (PNGT)**

The PNGT is an integrated rural development program that places a major focus on sustainable

land and natural resources management. Approved by the GoBF in 2001 for a duration of 15 years, the PNGT is backed by IFAD, the World Bank and the Governments of Denmark and the Netherlands. The activities of the PNGT aim at promoting land management practices that restore soil fertility, enhance soil moisture and arrest or prevent land degradation, deforestation and desertification. The PNGT, which covers the northern region, is nationwide in focus and targets some 8,000 villages.

The development objective of PNGT's Phase 2 is to consolidate and scale up the achievements of the first phase of PNGT with respect to local governance, access to basic social services and sustainable management of natural resources in rural communes and villages of Burkina Faso. The project, which will be financed with US\$ 20 million from the GoBF, US\$ 50 million from the World Bank and US\$ 8 million from local communities, is built around three components:

**Capacity Development** The capacity development component consists of the following:

- **Commune and Village Capacity Development** This component will (i) inform and train the members of village development and commune councils on how to efficiently play their role and provide them with the necessary tools to manage these local governance institutions; (ii) sensitise and inform all stakeholders on the objectives and strategy of the project, and on the methods of participation of local communities in its implementation; (iii) train staff and other parties of the communes in the planning, implementation, monitoring and maintenance of communal infrastructures; (iv) assist rural communes in the preparation and implementation of their development plans; and (v) prepare all rural commune stakeholders to assume ownership of the project.
- **Capacity Development for Decentralization Reform** In order to strengthen capacities for decentralization, this component will (i) conduct studies necessary to optimise project management and policy reform; (ii) ensure intra- and inter-communal dialogue; (iii) strengthen the capacities of the various parties supporting implementation of the decentralization process, including service providers at commune level, and facilitating agencies in the realm of strategic planning at village and commune levels; (iv) acquire requisite equipment for program implementation; and (v) and implement strategic communication activities.
- **Capacity Development for Sustainable Natural Resource Management** Under the law governing local governments, rural communes are divided into three territorial spaces: housing, production and conservation. Within this framework, the project will support (i) the demarcation of development spaces defined within rural communes; (ii) the development of plans and rules for the management of natural resources in the demarcated zones; and (iii) the dissemination of proven technologies for the management of natural resources. The project will also support the development of a national policy for land tenure in rural areas. Once developed, the project will support: (i) the dissemination of the policy and texts governing land management and development within rural communes; (ii) rural populations to take ownership of the land tenure policy; and (iii) national reflection on the status and improvement of the land policy.

**Commune and Village Investment Facility** Improving the socio-economic conditions, increasing the productivity of the primary capital of the rural communes, and increasing incomes requires putting in place various infrastructure and socio-economic investments. This component aims at strengthening the financial capacities of grass-root organizations and interest groups by making available to them the financial resources necessary to support: (i) socio-economic infrastructures; (ii) activities contributing to the improvement of the productive potential of natural resources (iii) income-generating activities for specific groups (women, entrepreneurs) in order to increase the level of income and boost the local economy; and (iv) activities identified

related to sustainable natural resource management. The facility will provide investment envelopes to participating communes and villages, based on a population-based formula.

**Coordination, management, monitoring and evaluation of the project** This component will support (i) the coordination and efficient administrative, technical and financial management of the programme and (ii) the monitoring and evaluation of the performance and impacts of the programme.

### **Programme d'Appui au Développement de l'Agriculture du Burkina Faso (PADAB)**

The PADAB, financed by the Government of Denmark, supports the agricultural objectives of both the Rural Development and Poverty Reduction Strategies. Effective from 2006 to 2011, the development objective of the programme is to “contribute to realization of the objectives of the Rural Development Strategy relative to economic growth, food security and improved incomes in the rural sector”. The PADAB comprises three components:

**Institutional Support** The immediate objective of this component is to contribute to the strengthening of institutional capacities and human resources of the State at the central and regional levels with relation to implementation of the rural development and decentralization strategies (13 percent of the investment, at national level).

**Decentralized Rural Development** The immediate objective of this component is to fight poverty by creating favorable conditions for an increase in the incomes of producers and regional operators in the Agro-Sylvo-Pastoral sectors by: (i) development of profitable sub-sectors; (ii) sustainable improvement of production systems and (iii) capacity building of private and public actors. The strategy of the component is based on a regional approach, intervening in three principal regions (Sahel, East and Centre East), with development activities for agro-sylvo-pastoral systems et differentiated sub-sectors according to the region. Interventions will be based on a demand-driven approach, which will give responsibility progressively to the communes, the Professional Agricultural Organizations and individuals to permit them to assume long-term control of their development.

The implementation strategy is also based on the establishment of a Regional Fund for Decentralized Rural Development, which will finance:

- Public initiatives designed for co-financing under the agro-sylvo-pastoral part of the Communal Development Plans aimed at actions preserving productive capital, collective investments of public interest and support to the Regional Chambers of Agriculture;
- Private initiatives designed for co-financing economic agro-sylvo-pastoral projects proposed by private producers (individuals or in groups).

The component aims to strengthen regional capacity in the Ministry's Regional Directions of Agriculture, Water and Fisheries, as well as the organization and institutional strengthening of professional organizations (technical and organizational capacity, mobilization and management of financial resources, negotiation capacity). Support to the communes will help them elaborate their Communal Development Plans.

**Support to the Micro-finance Sector** The immediate objective of this component is to improve and develop the access of the rural populations to financial services offered by financial institutions on their way to viability. Improvement in access to credit from bank and micro-finance institutions is a priority action in contributing to the growth, diversification and intensification of agricultural production, as well as the growth and diversification of revenue

sources for the rural population. To this end, this component is devoted to the professionalization of micro-finance institutions, the principal objective being to improve and develop the access of rural populations to financial services offered by financial institutions engaged in the sector. The immediate objectives of the component are:

- the consolidation and development of micro-finance institutions covering the market with services adapted to the target groups,
- the development and diffusion of professional financial mechanisms as a means of integrating the financial sector,
- support to the Professional Association of Micro-finance Institutions of Burkina Faso as the unique and recognized interlocutor of the profession.

## **II. IFAD'S STRATEGIC FRAMEWORK FOR COLLABORATION WITH BURKINA FASO**

### **A. IFAD's Strategy for Collaboration with Burkina Faso**

IFAD is in the process of revising its Country Strategic Opportunity Paper (COSOP), which will define its strategy for collaboration with Burkina Faso over the next six years. The revised COSOP will be closely synchronised with the GoBF's Poverty Reduction Strategy Plan 2007-2009 (PRSP), which provides the framework within which IFAD's interventions can most effectively contribute to the country's development objectives. The revised COSOP will specifically support the PRSP pillars on employment-income-generation and good governance through the following two strategic objectives:

- The first aims at achieving enhanced, diversified and sustainable livelihoods of rural poor and marginalised groups through inclusive local private sector development, which includes: a) developing rural micro enterprises and building commodity chain institutions; and b) improving governance capacity and enhancing transparency, including of commodity chain transactions, and enhancing access to information.
- The second aims at achieving enhanced decentralised governance of, and equitable access to, public goods, services and natural resources, which includes: a) increasing local access to and revenues from better managed natural resources, greater tenure security and conflict prevention and mitigation; b) strengthening inclusive bottom-up planning, monitoring and accountability processes at the interface between villages and local governments; and c) enhancing the resilience of livelihood systems, including the diversity of food production and farming systems, through co-managed innovative agricultural action research and technology development (emphasis added for relevance to present project).

These strategic objectives will require IFAD to use proactive and inclusive targeting principles and processes focused on the rural poor, particularly in the northern regions and in the southwest, while giving preference to the more marginalised either by gender, socio-economic or cultural factors, or to the degraded and fragile ecosystems on which their livelihoods depend (emphasis added for relevance to present project). The GoBF has endorsed IFAD's new COSOP objectives and counts on IFAD support in its efforts to attain its PRSP poverty reduction goals. In this regard, the present GEF project is fully consistent with the objectives of both IFAD's new COSOP and the GoBF's principal strategy documents.

### **B. IFAD's Strategy on Natural Resources Management**

IFAD's strategy on natural resources management is to support investments, often times in partnership with GEF as in this case, that exploit technical opportunities for environmental improvement and sustainability by promoting better protection, conservation or management of natural resources and by enhancing the delivery of environmental services by communities. IFAD's strategy recognizes, as in the present GEF project, that impact will often depend on measures to improve community access to, and local control over, the resource base. The IFAD strategy includes the following basic principles:

- Optimize local control over, and access to, natural resources via gender-sensitive participatory mechanisms – e.g. through group sharing and exchange of knowledge, communal decision-making processes, publicized risk assessments, community monitoring and evaluation of natural resource use and trends
- Address identified constraints to adoption of improved/more sustainable practices for

natural resource management, distinguishing between the needs of women, men and other target groups

- Boost the transfer of pro-poor environmental and natural resource management technologies using participatory advisor-client relationships and participatory extension
- Provide support and incentives for those forms of community-based natural resource use and management that ensure long term sustainability
- Enhance technical, legal and institutional capacities to address negative externalities including off-site and boundary effects; also to help beneficiaries mitigate any potential adverse impacts associated with project interventions, and to ease constraints on their adoption of environment-friendly, sustainable practices
- Encourage positive synergies with existing/ongoing strategic natural resource management frameworks as set out in national poverty reduction strategies and environmental action plans (NAPs, NEAPs), as well as other projects and programs
- Where appropriate, exploit opportunities to promote the use of environment-friendly agricultural technologies such as organic fertilizers and alternative pest control techniques, including integrated pest management; and promote global environmental issues addressed by GEF and/or UNCCD (the latter, as in the present case, may involve the inclusion of project components which address the objectives of UNCCD or are eligible for GEF funding).

### **III. SUB-PROGRAMME AREA, TARGET GROUP AND RATIONALE**

#### **A. The Sub-Programme Area**

The sub-programme area consists of five provinces, i.e. Bam, Loroum, Passoré, Yatenga and Zondoma, covered by the SRDP (see Map 2). These provinces are situated in the north-west agro-ecological zone, according to the classification established by the *Institut National de l'Environnement et de la Recherche Agricole (INERA)* on the basis of rainfall and soil classification and socio-economic data. Together they occupy a surface area of 21,057 km<sup>2</sup> (8 percent of the surface area of Burkina Faso). Their population, estimated in 2003 taking into account the rate of population growth, is 385,311 inhabitants, with an average density of 66 inhabitants per km<sup>2</sup>.

These five provinces are among the zones where the incidence of poverty is the highest in the country. The incidence is 68.6 percent in the north and 58.6 percent in the central plateau or an average incidence of 61.2 percent for the Centre-North. These are also zones where the depth and severity of the poverty are the most severe. This poverty is in large part a result of the precariousness of the means of subsistence, limited agricultural resources caused by climatic conditions, strong demographic pressure on the cultivated lands and natural resources, elevated rates of illiteracy and weaknesses in basic social services. Furthermore, the provinces have a “front line” position in the north of the country, positioned at the gates to the Sahel where they confront the advance of desertification directly. If nothing is done in these provinces, the impact of actions undertaken below them would be seriously jeopardized.

#### **B. The Target Group**

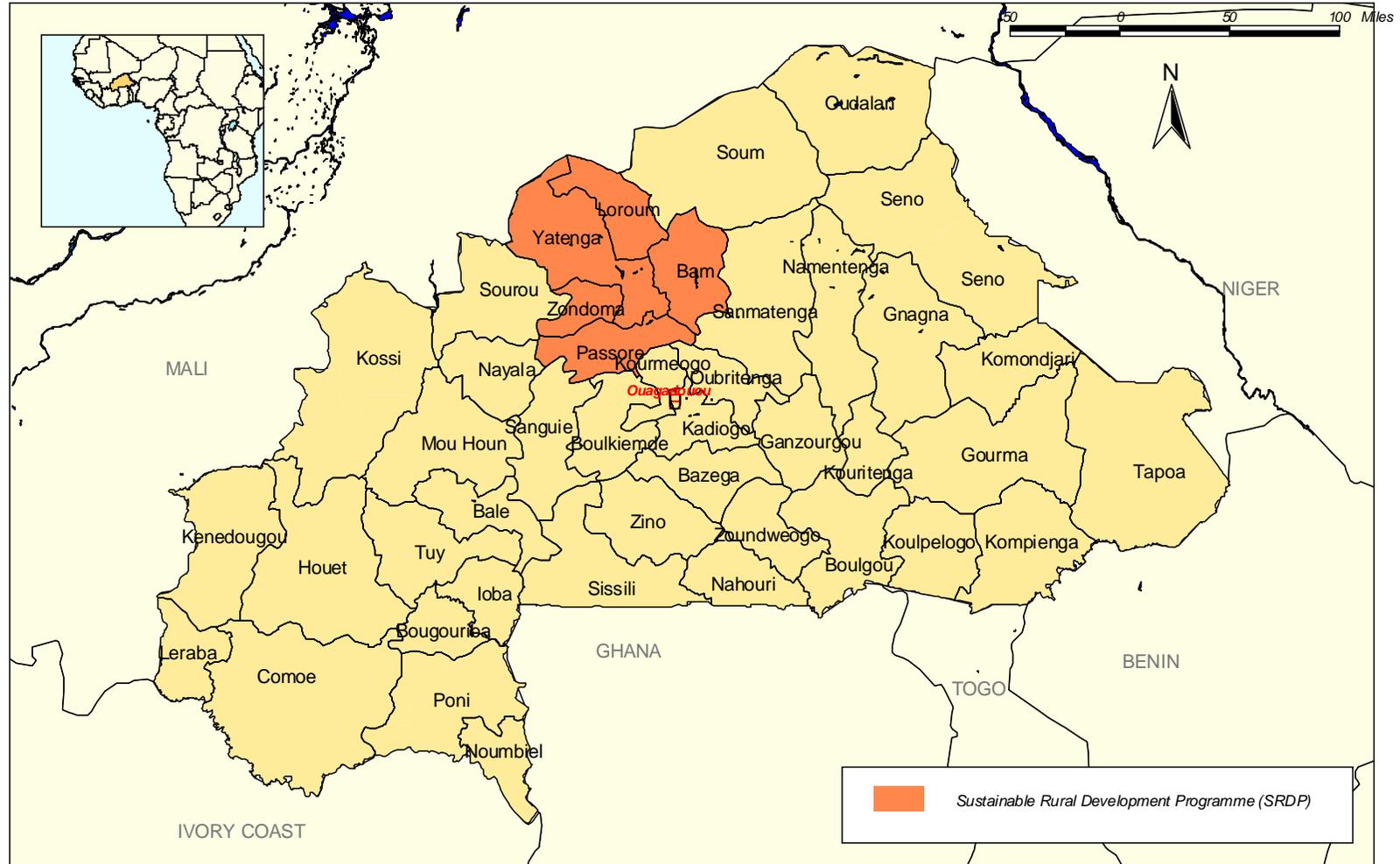
The target group of the Sub-Programme of the Northern Region is the same group targeted by the SRDP; thus the target group consists of the poor populations of the village communities organized within the framework of associations and groups of farmers of like economic interest. These communities are characterized by some of the highest levels of poverty in the country. The levels of poverty are slightly variable across the zones or where agricultural production is essentially concentrated around subsistence farming. These farmers, who constitute the most important professional socio-economic group, registered the strongest increase in the incidence of poverty between 1994 and 2003 (from 51 to 52.3 percent). This worsening of poverty is due to the regular declines in the fertility of soils and cereal harvests and to the deterioration of household food security. Most of the provinces have cereal deficits, but opportunities for employment outside of farming are limited. Among the groups exposed to food insecurity in this region are poor households in the informal sector, farmers without supplies or animals, migrants, unemployed and youth who have no lands. The target groups then are the rural poor, women (particularly those who are heads of households), heads of villages, young people and migrants without lands.

The priority given to land tenure security and to development of economic opportunities and access to means of production will permit targeting the most vulnerable groups, including women, rural poor without land and young people without employment and immigrants. The proposed approach for defining target groups will consist of directing project resources to the most disadvantaged communities and to finance income-generating activities that aim particularly at the poorest groups within them, giving priority to women and youth. It is understood that indirect effects will benefit other groups as well as a result of implementation of such actions as protection and management of the micro-watersheds, capacity building, dissemination of agricultural information and investments in water resources as well as other community and public investments and inter-community investments.

The targeted groups are as follows:

# BURKINA FASO

## SUSTAINABLE RURAL DEVELOPMENT PROGRAMME (SRDP) - Project Area



Source: IFAD

The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.

- **Subsistence farmers** This group constitutes the majority of the rural population, men and women, who have difficult living conditions, live in very constrained economic and social context. Their situation continues to decline and their level of poverty has increased over the course of the last three years. Targeting these farmers poses no problem in that they constitute the overwhelming majority of the population in the villages in the SRDP. As a result, the interventions will be undertaken through the CVD, which will permit other social categories to benefit from the actions. Actions will be developed through groups or associations of producers in order to assure accurate targeting of the poor and other groups.
- **Women** Village women constitute an essential component of the productive system in agriculture. The SRDP will develop strategies and actions especially designed so that women can increase their role in the sector and receive the advantages and benefits that they are not now receiving. Current representation of women in decision-making at the village level (CVD) is not satisfactory, so the project will attach special emphasis on corrective measures like literacy and capacity building among women's groups. Further, the income-generating activities, actions on land tenure security and capacity building activities (literacy, training) also will give priority to women's groups.
- **Youth** Young people will benefit from project initiatives to organize them into groups of economic interest based on the participatory diagnostics performed and supported by diverse project activities.
- **Migrants** Very numerous in the project zone, migrants constitute a particular target because of their precarious situation as well as their potential for having knowledge and experience acquired outside the country. If the problem of access to land and to rural credit were resolved, this group could serve to introduce and disseminate new practices and techniques.

The target group of this intervention is consistent with the main target groups identified by the new COSOP, i.e. subsistence food crop farmers, subsistence agro pastoralists involved in small scale transhumance and transhumant pastoralists owning few heads and taking care of other peoples' animals, small entrepreneurs, and small scale processors. Amongst these groups women, youth and women headed households will receive special attention.

### C. Rationale for GEF Funding

The problems of land and natural resource degradation in Burkina Faso are less technical or technological challenges than they are the absence of an "eco-citizen" consciousness and the lack of willingness among most of the key players to work towards the same sustainable land management goals. As noted above, there are numerous strategies, policies, plans and programmes dealing with land management. Unfortunately, this plethora of frameworks and plans has only translated into compartmentalization and institutional agendas, which means that each ministerial department or institution seeks its own survival and legitimacy in developing its own programmes and its own legislation and rules for good conduct, rather than looking to see how it can be collaborative and complementary with others and build their respective capacities for coordination and support for development. Currently the sectoral development approach and the proliferation of institutions appear to be the primary elements for the development strategy within each ministry. Very few efforts are developed together, to provide a holistic long-term vision that is shared by all the development players (populations, civil society, private sector, development partners). Even when such a vision is developed (as in the case of the RDS or the PAN-LCD) it does not serve as the reference framework for the ministry which has oversight responsibility for its elaboration.

To further complicate matters, there is very little knowledge in Burkina Faso on the integrated management of ecosystems at the landscape level. Professionals tend to be specialists in one

particular field and have not sufficiently learned to combine disciplines, to think in terms of trade-offs between market and non-market ecosystem services, to think in terms of different stakeholders and interests or in terms of different spatial and temporal scales. Considerable strides have been made in capacity building at the national level and the current cadre of staff in leading positions has a much stronger background than was true 30 years ago. Still, approaches remain highly sectoral and, although production and resource management often go together, a really integrated vision of the future for the country with respect to land degradation and sustainable land management is lacking. This vision should particularly address trade-offs between (i) the use of provisioning ecosystem services (crop and animal production targets), set against the regulatory services from natural resource quality and ways to improve it, (ii) the use of cultural ecosystem services and (iii) the improvement and/or maintenance of regulatory ecosystem services, particularly realizing that preventing land degradation is much cheaper than rehabilitating degraded resources.

At the institutional level, many ministries in the GoBF have a stake in sustainable land management, with respect to agriculture, water resources, range management, forestry, infrastructure, decentralization processes, research, etc. At the regional and provincial levels, these ministries are represented but often lack the means to adequately provide the institutional services that they are meant to provide. Lack of an effective extension service has led to poor levels of contact between government bodies and land users, who now rely more on non-governmental organizations (NGOs) and consulting firms ('bureaux d'études'). In other words, the amount of time and effort spent at the national level to develop strategies and action plans is watered down considerably when it reaches the intermediate and local levels. These are also the levels where the private sector is active and where stakeholders should ideally meet to discuss development issues at an appropriate intervention scale. Currently, investments in institutional development are part of many baseline project objectives, but there is no single proven framework yet that has shown to be most effective. Projects also tend to develop their own structures of interaction and often would rather not make use of ineffective government structures or take the time to learn best practices. Instead, they would rather create their own.

In terms of human capital and knowledge, Burkina Faso has advanced markedly in recent decades, but much remains to be done to solidify knowledge of sustainable land management at all levels. Professional staff in government offices have improved their skills, as many benefited from formal degree training inside and outside of Burkina Faso. Projects at baseline level make use of skilled professionals and also lower echelon local staff tends to have more knowledge on rural development than shortly after independence. Furthermore, much has been done in Burkina Faso at the grassroots level to sensitize and empower land users themselves. Unfortunately, these advances have not stopped the land and natural resources from further degradation. The village land management committees (CM) are now in place but need to be properly trained to take on the management of their local environment or to cooperate with other villages and territories in management of the wider landscape (whether at the local or transboundary level). This requires investments in social, human, physical and financial capital. Elderly people being highly respected may also mean that modern insights, captured by the younger villagers, remain underutilized.

As far as application of sustainable land management practices and technologies goes, Burkina Faso has made some significant advances, but again much remains to be done to consolidate these advances into sustainable management. The participatory testing of diverse technologies in the field has been and still is a major activity of projects and NGOs, increasingly through the CMs. An array of technologies have been adopted to a limited extent (zaï, half-moons and stone rows seemingly being most cost-effective, at least in the Central Plateau where the majority of investments have taken place). What remains, however, is for these technologies to be validated well enough economically to be replicated widely throughout the country and for their global environmental benefits to be fully understood and appreciated. As land users in different parts of

the country have different cultures and perceived problems and goals, there is no such thing as one perfect set of tools and technologies, but rather a set of best practices. More efficient use of provisioning ecosystem services (i.e. obtaining more food, wood, meat per unit of provisioning ecosystem service) reduces the overall unsustainable use of ecosystem services. Research has shown that major crop yield increases are feasible and innovative farmers on the Central Plateau have adopted sustainable land management technologies which were then copied by others. In particular, zai seems cost-effective, showing a doubling of sorghum yield. Moreover, zai is practiced on land that was previously totally bare, unused and a source of runoff.

Environmental degradation is widespread in the north central plateau region. It is related to the above conditions but is more directly driven by barriers specific to the region, such as particularly degraded vegetative cover and soils due to recurrent droughts, irregular rainfall, erosion and increasing demand for agricultural land. This is resulting in further cultivation of marginal lands and detrimental changes in land use and cropping patterns. Marginal land cropping has led to increased competition and conflicts between farmers and pastoralists.

The region is also characterized by its low soil fertility and the unsustainable agricultural practices (inadequate land use and cultivation/cropping techniques). Land reclamation techniques are not adopted and extensive livestock systems, coupled with the inadequate production techniques, lead to progressive deterioration of soil organic matter content. Furthermore, the soils of the region, dominated by ferruginous tropical soils, are rather difficult to manage as they tend to block important elements such as phosphorus.

Water sources in the region (dams, ponds, reservoirs) are increasingly rare and subject to growing pressure due to high and uncontrolled demand for irrigation and livestock. No mitigation measures are in place and this situation has led to significant sedimentation problems in dams throughout the region.

In sum, the main barriers to SLM in the north central plateau of Burkina Faso could be summarised as: (i) rural poverty, (ii) lack of harmonised approaches to SLM, (iii) lack of local planning for land management, (iv) limited financial resources and technical capacities and (v) difficult and complex land tenure situations.

The proposed project is one of four sub-programmes included in Burkina Faso's pilot phase of the GEF-approved CPP. Thus the project's objectives mirror those of the CPP and will contribute directly to the CPP's three specific objectives for the north central plateau. The programme's overall objectives and main expected results are those identified by stakeholders in relation to the CPP umbrella framework for the region. The programme will work towards:

- contributing to the development of a partnership platform and coordinated approach to sustainable and equitable land management,
- promoting the institutional and policy contexts to support better mainstreaming of SLM,
- promoting integrated and equitable SLM practices based on innovative modalities and local knowledge.

As such, the programme will assist the GoBF in effectively implementing the CPP and the national action plans designed to improve the potential for production by rural populations while preserving the global environment, in particular the agro-ecosystems, natural habitats and biotopes of biodiversity of the northern watersheds.. Finally, the GEF project will help Burkina Faso sustainably improve the productivity of rural resources through the adoption of an integrated, holistic approach that will meet its MDGs related to reversing the current trends of loss of environmental resources.

## **E. Sub-Programme Strategy**

The overall strategy of the project is grounded in the GoBF's CPP, which designated four regional sub-programmes as priority sites for the initial interventions during the first five-year phase. The sub-programme of the northern region, like those of the eastern, centre-west and Mouhoun belt regions, was chosen based on (i) the magnitude of the land degradation (the current status), (ii) the pace of degradation resulting from the various human and climate-related pressures (types of land exploitation, population dynamics, previous or current interventions), (iii) the risks of continuing degradation resulting from the above, (iv) the current projects and programmes (catalytic nature of GEF support), (v) the incidence of poverty in the region and (vi) the benefits for the global environment.

Reflecting the strategy of the CPP, the sub-programme's strategy is to reduce poverty in rural areas of the country while ensuring ecosystem integrity, functions and services for long-term food security and global environmental benefits. That is to improve the productivity of the lands and natural resources on which the rural populations depend, through the adoption of an integrated, holistic approach to resource management, while preserving the global environment, in particular the agro-ecosystems, natural habitats and biotopes of biodiversity, enhanced carbon sinks and pools. This should be accomplished through (i) developing and implementing a sustainable inter-sectoral partnership for better coordinated and integrated approaches to sustainable and equitable resource management, (ii) promoting an enabling policy and institutional environment for implementing sustainable and equitable resource management and (iii) fostering an integrated approach to sustainable and equitable resource management techniques and practices, including innovative and/or local knowledge-based practices.

The strategy of the sub-programme is closely aligned with the five CPP engagement principles: (i) participation/empowerment of all stakeholders, (ii) dialogue and negotiations among all SLM actors, (iii) gender mainstreaming, (iv) partnership and (v) coordinated, efficient and transparent use of aid resources.

Furthermore, the strategy of the sub-programme is intimately connected to the strategy of the SRDP, which involves the dynamic processes of empowering village communities to take charge of their own development activities. This involves not only socio-economic development, as indicated in the local development plans, but also sustainable natural resources management, as incorporated into the watershed management plans. Building on the SRDP, it also takes into account the need to bring the full range of support necessary (from literacy campaigns to local economic development actions to watershed resources management) to a village community. At present, community organizations are profoundly modifying the social dynamic in the villages of the northern region in terms of participatory approaches and decentralization of decision-making authority. The sub-programme will build on these positive social dynamics to empower village communities to take greater charge of sustainable management of the natural resource base on which they depend. Of course, the primary tool put at their disposal will be the watershed management plan, but the sub-programme will provide other support mechanisms, e.g. institutional strengthening for dialogue and consultation, which will reinforce the sustainable management practices promoted by the watershed plans. All of the above support is designed, of course, to ensure community ownership of the activities introduced by the project and the long-term sustainability of project interventions. From the outset, sub-programme interventions will define clear limits of project versus community responsibility, promote community leadership for long-term ownership and recognize realistic timeframes for full assumption of responsibility by local communities.

As an integral part of the SRDP, the sub-programme was conceived and will be implemented as an instrument of the PRSP and NEAP. The strategy thus relies on a holistic and participatory

approach to the problems of protection and sustainable management of lands and natural resources based on the actual demands of the communities, their engagement to undertake actions for protection and management of watersheds and security of land tenure. The CVD and CM will be the points of entry for all actions benefiting the target populations and their associations. This approach will integrate: (i) the elaboration of locally developed strategies for management of sites and the adoption of proven techniques, such as anti-erosive systems (rock cordons, half moons, zais) and assisted natural regeneration, (ii) the objectives of beneficiary revenue enhancement through strengthening and capitalizing on the lessons of proven soil and water conservation practices, (iii) the improvement of their living conditions by establishing a Community Investment Fund (CIF), which targets the financing of community social and economic projects proposed by professional producer organizations.

In line with the CPP's strategy and taking into account the amount of financing necessary, the sub-programme strategy will be based on:

- The establishment of models of management and development of micro-watersheds on which replication would be based during the course of the project depending on the available resources. An effort at mobilization of resources will be made in terms of co-financing by other donors
- The search for synergies and for complementarity with the actions underway, notably with the PNGT (mentioned above)
- The activities financed by the GEF will be integrated at all levels of intervention of the sub-programme and most notably at the level of capacity building, land tenure security, watershed management and monitoring and evaluation and impact measures
- The sub-programme will benefit territorial groups which are included in the small watersheds. Priority will be given to the most degraded zones and where there are opportunities for management and where communities are sufficiently motivated to undertake land tenure security actions included in their village development plans.

The strategy of intervention will be based on the following principles:

- Development of capacities and empowerment of community organizations in the management of their development programs, which should be developed with a view to protection of watersheds and territories
- Capacity building of producer organizations, which constitute the key actors for agricultural intensification and diversification activities and for coordination with the market, the private sector and civil society
- Land tenure security will be the base for intensification and modernization of agriculture
- Strengthening of agricultural financial services and development of non-farm economic opportunities
- Targeting of disadvantaged groups and gender mainstreaming
- Mobilization of resources for financing local economic development projects and infrastructure, as well as synergies with other development partners
- Mobilization of GEF resources which should permit an important synergy in improved management of common natural resources and the watershed management approach.
- Coordinated and synergetic interventions with ongoing and planned SLM initiatives at the local and national level.

## IV. SUB-PROGRAMME OBJECTIVES, OUTPUTS, COMPONENTS AND ACTIVITIES

### A. Sub-Programme Objectives and Benefits

The **development objective** of the proposed sub-programme is to improve in a sustainable manner the productivity of rural resources by adopting an integrated and holistic approach in order to attain the millennium development goals by reversing the current trends in degradation of environmental resources in the northern region. The three specific objectives of the sub-programme identified by the CPP for the region are: (i) to contribute to the development of a partnership platform and coordinated approach to sustainable and equitable land management, (ii) to promote the institutional and policy contexts in view of better SLM mainstreaming and (iii) to promote integrated and equitable SLM practices based innovative modalities and local knowledge

The sub-programme will be directly integrated into the rural development activities financed by IFAD's SRDP; its activities and investments will mainstream environmental considerations into the SRDP that will provide global as well as national and local benefits. The sub-programme is fully consistent with the GEF policies, focal area strategic objectives and operational programmes that address land degradation and promote sustainable land management in fragile ecosystems.

**Local and National Benefits** The expected outcomes from implementation of the proposed sub-programme will reinforce the local and national benefits of the SRDP in strengthening local management of the natural resource base on which the local populations rely and in promoting conservation of common resources in the upper watersheds of the project area. This will include improving the livelihoods and living conditions of both local and transhumant populations and building social cohesion among these groups in order to reduce potential conflicts over the use of lands and natural resources.

**Global Benefits** Moreover, the sub-programme's focus on sustainable land management, arresting and reversing desertification and deforestation and restoring the functional integrity of the watershed ecosystems, will realise a number of global benefits that the SRDP alone would not accomplish (see incremental cost analysis in Appendix 2):

- the restoration and sustainable management of indigenous biological diversity through rehabilitation and conservation of the critical watershed ecosystems and their natural habitats for biological diversity, particularly in the pastoral zones and wetland environments
- the potential reductions in soil erosion and conservation of critical water resources resulting from improved land management practices in the watershed and pastoral zone ecosystems
- the promotion, replication and dissemination of innovative and replicable approaches, practices and technologies to address land degradation and combat desertification and deforestation
- the sequestration of carbon in the natural vegetative cover of rehabilitated woodland, rangeland and wetland systems in the watershed ecosystems
- the reduction of carbon dioxide emissions.

In addition, local and national benefits with particularly high potential for scaling up and for replicating in similar contexts within Burkina Faso or in the Sahel region of Africa would be considered of overall global benefit. Further, the sub-programme shares many of the global benefits identified by the CPP and approved by GEF. The CPP identified a number of expected global benefits from instituting sustainable land management in Burkina Faso in terms of improved practices in agriculture, forest and woodland and rangeland management. The expected global benefits identified by the CPP are displayed in Table 4.

**Table 4: Expected Global Environmental Benefits from Project Interventions\***

<b>Global Environmental Benefits</b>	<b>Watershed Ecosystems</b>	<b>Forest and Woodlands</b>	<b>Pastoral Zones</b>
<b><i>Ecosystem Components</i></b>	<b><i>Actions that provide global environmental benefits in relation to ecosystem components (structure and quality aspects)</i></b>		
Restoration of indigenous biological diversity  Conservation of critical water resources  Reduction in soil erosion  Sequestration of carbon	- Soil and water conservation - Water harvesting - Integrated and efficient water and land management - Targeted land use planning and buffer zone management - (Agro)-silvo-pastoral systems	- Reforestation - Woodlot development - Protection of inland valley systems and other wetlands - Sustainable extraction practices	- Animal rotation systems - Carrying capacity assessments - Use of indigenous grass varieties - (Agro)-silvo-pastoral systems - Management of watering points - Management of animal routes
<b><i>Ecosystem Services</i></b>	<b><i>The following actions provide global environmental benefits in relation to ecosystem services</i></b>		
Provision of:  - natural habitat  - clean water, groundwater recharge  - nutrient cycling, soil productivity  - buffer functions, flood control  - carbon, methane sequestration	- Land use planning, buffer zone management - Use of organic fertilizer in combination with mineral fertilizers and amendments - Agro-forestry - Capture of rain water for domestic use - Increased vegetation cover - Protection of natural water bodies	- Reforestation - Natural woodland management - Leguminous trees (N-fixing) - Woodland planning - Gallery / riverside woodlands - Mixed woodlands (silvi-culture) - Forest inventories (measurement of quantities sequestered)	- Preserving indigenous grass species - Targeted land use planning, and buffer zone management - Multiple watering points, if possible natural water bodies - Water harvesting - Animal waste management - Animal rotation systems - Agro-Silvo-pastoral systems - Increased vegetation cover

\* Adapted from Country Partnership Programme on Sustainable Land Management in Burkina Faso (2006)

## **B. Sub-Programme Outcomes, Components and Activities**

**Expected Sub-Programme Outcomes** The proposed sub-programme would add a number of significant expected outcomes to those already envisioned by the SRDP:

- Outcome 1.1 Enhanced mechanisms for dialogue and consultation at the regional, provincial and local level ensure effective participation of stakeholders
- Outcome 1.2 A unique monitoring and evaluation system is developed and utilized by all stakeholders in sustainable land management in Burkina Faso
- Outcome 1.3 A sustainable financing mechanism is established and finances sustainable land management activities in the country
- Outcome 2.1 Institutional reforms aimed at establishing a framework favourable to sustainable land management are undertaken
- Outcome 2.2 Legislative and regulatory texts on sustainable land management are developed, adopted and applied at different levels of the administrative structure by the

different actors

- Outcome 2.3 The individual and institutional actors have the capacities necessary for participatory, decentralized and sustainable management of the lands at different levels of the administrative structure of the country
- Outcome 2.4 The responsibility for management and decision-making for rural resources management is effectively transferred to the regions and rural and urban communes
- Outcome 3.1 Land use and soil conservation techniques based on local know-how and innovative practices are promoted and diffused
- Outcome 3.2 Good land management practices are adopted and successful experiences are replicated on a larger scale
- Outcome 3.3 Exchanges of experiences and technology transfer among actors and other partners in the region are organized.

These outcomes of the sub-programme should reinforce the important outcomes expected from the SRDP:

- Strengthening of individual and institutional capacities for sustainable management of the lands, soils and resources in the fragile watershed ecosystems
- Strengthening of the policy and regulatory framework and improvement of incentive structures for adoption of sustainable land management practices in the watershed ecosystems
- Sustainable land use and natural resource management techniques based on local know-how and innovative practices are promoted and diffused
- Innovative mechanisms for prevention and resolution of land tenure conflicts identified and tested
- Sustainable land and natural resource management practices adopted and replicated at the ecosystem level in order to improve the ecological integrity, economic productivity and environmental services of the lands in the watersheds

The outcomes of the sub-programme will be achieved by means of the various outputs planned for each component of the project (see Table 5).

**Table 5: Outputs by Outcome**

Objectives and Outcomes of the Sub-Programme	Objectives and Outcomes of the SRDP	Outputs and indicators
<b>Objective 1: Develop and put in operation a partnership platform and coordinated approach to sustainable and equitable land management</b>		
<b>Outcome 1.1</b> Enhanced mechanisms for dialogue and consultation at the regional, provincial and local level ensure effective participation of stakeholders	A platform for SLM consultations and coordination at the local level	Training in dialogue and consultation given to 30 villages; 1,800 villagers trained (component 1) The regional/provincial platforms meet twice a year, the local platforms meet four times a year
<b>Outcome 1.2</b> A unique SLM monitoring and evaluation system is developed and utilized by all stakeholders in sustainable land management in Burkina Faso	A monitoring and evaluation system, including a GIS, is developed and implemented	GIS database on SLM techniques operational GIS with geo-referenced information on SLM (in line with all the sub-programs of the CPP) 60 percent of stakeholders are using the database by end of phase 1 of the CPP Number and frequency of M&E missions
<b>Outcome 1.3</b> A sustainable financing mechanism is established and finances sustainable land management activities in the country	Promote SLM financing mechanisms in the northern region (i.e. PES)	Volume and efficiency of financial resource mobilisation for SLM
<b>Objective 2: Promote an enabling policy and institutional environment for better mainstreaming of SLM practices</b>		
<b>Outcome 2.1</b> Institutional reforms aimed at establishing a framework favourable to sustainable land management are undertaken	Integrate the priorities of the NAP-CCD and the CPP into the development plans of the territorial institutions (CVD, CM)  Strengthening of the policy and regulatory framework and improvement of incentive structures for adoption of sustainable land management practices in the watershed ecosystems	Strengthening of local institutional structures (CVD, CM) Innovative incentive mechanisms piloted at one site in each watershed (component 1)
<b>Outcome 2.2</b> Legislative and regulatory texts on sustainable land management are developed, adopted and applied at different levels of the administrative structure by the different actors		Land tenure policy/law disseminated to 100 villages (component 2) Texts of laws available in the 4 national languages by end of phase 1 of CPP
<b>Outcome 2.3</b> The individual and institutional actors have the capacities necessary for participatory, decentralized and sustainable management of the lands at different levels of the administrative structure	Strengthening of individual and institutional capacities for sustainable management of the lands, soils and resources in the fragile watershed ecosystems Provide key SLM actors with the necessary capacity and	Training in environmental governance given to officials in 30 villages (component 1) Training in resource planning and management conducted in 60 villages, 1,000 villagers trained

of the country	competencies to ensure a participatory, decentralized and sustainable land management at all local administrative levels	(component 3) 3 information/education/communication campaigns undertaken in project provinces (component 1) Environmental education introduced into village schools (component 1)
<b>Outcome 2.4</b> The responsibility for management and decision-making for rural resources management is effectively transferred to the regions and rural and urban communities	Management responsibility and decision making processes are fully transferred/decentralised to local community organisations.	Results of baseline studies incorporated into village diagnostics and development plans in 5 watersheds (component 1) 6 baseline studies of watersheds and pastoral zone conducted (component 3) 6 management plans for watersheds and pastoral zone are prepared and implemented (component 3)
<b>Objective 3: Promote integrated and equitable SLM practices based on innovation and local knowledge</b>		
<b>Outcome 3.1</b> Land use and soil conservation techniques based on local know-how and innovative practices are promoted and diffused	Sustainable land use and resources management techniques based on local know-how and innovative practices promoted and diffused	Training in conflict resolution conducted in 30 villages, 750 villagers trained (component 2) 20 environmental micro-projects financed as part of village development plans (component 1)
<b>Outcome 3.2</b> Good land management practices are adopted and successful experiences are replicated on a larger scale	Innovative mechanisms for preventing and resolving land tenure conflicts identified and tested	10 pilot sites for conflict resolution are identified by baseline studies (component 2) 10 field tests of innovative mechanisms conducted at priority sites (component 2) 20 percent of mediators (for conflicts resolution) trained by end of phase 1 of the CPP Establishment of land tenure information system (component 2)
<b>Outcome 3.3</b> Exchanges of experiences and technology transfer among actors and other partners in the region are organized.	Sustainable land and natural resources management practices adopted and replicated on a ecosystem scale improving ecological integrity, economic productivity and services of the lands in the rehabilitated watersheds and pastoral zone SLM experience and knowledge shared	8 national and 2 international study tours are conducted for 210 beneficiaries (component 2) Participation in symposia and national fora project website 20 on-the-ground physical investments financed as part of the watershed and pastoral zone management plans (component 3) One operational database on best practices Area (in ha) where best practices are up-scaled Rate of adoption of best practices (20 % of operators) by end of phase 1 of the CPP

**Sub-Programme Components and Activities** are aligned with the proposed results framework that was developed under the CPP umbrella for the northern region. The sub-programme will work in a synergistic manner and in concentration with other programs at the regional and local levels. It will facilitate partnership, dialogue, information and knowledge exchange on SLM and consolidate the participatory and decentralised processes. The proposed sub-programme is at the same time integrated into the SRDP, the sub-programme will foster the use of rational and sustainable land management practices using an ecosystem approach to restore degraded natural resources of selected watersheds in the northern region of Burkina Faso. Within the upstream portions of the watershed ecosystems identified, the GEF would finance a number of targeted interventions on a pilot/demonstration basis at critical sites, scaling up to a larger number of sites once experience has been gained.

The GEF sub-programme's proposed ecosystem approach will ensure that the SRDP takes into account the economic, social and environmental dimensions of development in the programme area (the SRDP addressing the first two of these, the GEF the last). Experience in the field in Burkina Faso affirms the need for the environmental dimension to address the full watershed ecosystem, i.e. privately held, cultivated lands as well as shared community resources. To ensure the complementarity between the SRDP and GEF sub-programme, the SRDP will finance investments directed at optimising the cultivated lands within the watersheds selected, whereas the GEF will finance activities aimed at strengthening the management of the shared resources in these watersheds and at planning sustainable management of resources of ecosystem importance.

Sub-programme results are aligned with the three objectives: (i) to contribute to the development of a partnership platform and coordinated approach to sustainable and equitable land management, (ii) to promote the institutional and policy contexts in view of better SLM mainstreaming and (iii) to promote integrated and equitable SLM practices based innovative modalities and local knowledge. The components of the sub-programme respond the following specific results: (i) enhanced mechanisms for dialogue and consultation at the provincial and local level (ii) established platform for SLM consultations and coordination at the local level, (iii) establish SLM M&E system for open use by the project and all stakeholders at the national and local level.

The sub-programme will ensure that necessary institutional reforms are established for a favourable framework for SLM; it will similarly reinforce individual and institutional capacities for SLM in fragile watershed ecosystems, provide key SLM actors with the necessary capacity and competencies to ensure participatory, decentralised and sustainable land management at all local administrative levels while integrating the NAP-CCD and CPP priorities into local development plans. An important result of the sub-programme would be to strengthen the policy and regulatory framework and the incentive structure for SLM and at the same time ensure that coherent SLM legislation is developed, adopted and enforced at all administrative levels.

The third level of results focuses on the promotion of integrated and equitable SLM practices based on innovative techniques and local knowledge. This entails: (i) up-scaling best SLM practices, (ii) developing innovative mechanisms for preventing and resolving land tenure conflicts and (iii) sharing better SLM knowledge/experiences among stakeholders at all levels.

Sub-programme results will be achieved through the following components:

**(1) Participatory Decision-making and Environmental Planning** Complementing the SRDP's Rural Organization Component, the sub-programme will promote the integration of critical environmental aspects (especially improved management of common resources and degraded lands) into the socio-institutional activities of the rural development programme financed by the SRDP. As currently proposed, the SRDP will support a number of basic tools for enhancing the social and economic aspects of rural development (including raising public awareness, preparing

participatory village diagnostics and development plans, providing management training, strengthening the framework for dialogue and consultation, and financing small-scale village projects). However, the SRDP will not ensure adequate attention to the larger ecological issues that should be considered in the programme area.

To remedy this, the sub-programme will finance the complementary activities that will identify and implement appropriate measures for enhancing the standard development tools of the SRDP programme, as well as extend the stakeholder dialogue and consultation mechanisms for better resource management to the watershed ecosystems. The specific outcomes expected from this component include:

- enhanced mechanisms for dialogue and consultation at provincial and local level to ensure effective participation of stakeholders (including an SLM platform for coordination and harmonization at the provincial/local level)
- reinforced individual and institutional capacities for planning and sustainable management of the lands, soils and resources of the fragile watershed ecosystems
- improved incentive structures for the adoption of sustainable land management practices in watershed ecosystems
- sustainable land use and natural resources management techniques based on local know-how and innovative practices promoted and diffused

The activities and outputs planned in order to achieve these outcomes include the following:

- Conducting five baseline studies and inventories of communal resources in the five selected watersheds (You watershed in Loroum, Bilinga-Nogo watershed in Yatenga, Minima-Kontoega watershed in Zondoma, Yako-ouono watershed in Passoré, Guibare watershed and Lac Bam in Bam) to provide the baseline information on the natural resource base necessary to incorporate the environmental dimension into the 50 village diagnostics and village development plans envisioned by the SRDP
- Providing capacity building for local and regional actors, in up to 30 villages (up to 1800 trainees), in dialogue and consultation mechanisms and in integrated planning and sustainable management of shared community resources in the fragile watershed ecosystems (threatened water catchments and other critical resources, such as the receiving areas for transhumant cattle and residual natural forests)
- Conducting three overall information, education and communications campaigns in the five project provinces for raising awareness among the village populations (leaders, men, women, transhumants and youth) of the environmental dimension involved in their local development planning and activities
- Integrating environmental education into the regular curriculum of village schools in the five provinces in order to reach the youth in these areas, complemented with small-scale ecological actions centred around watershed management that the young people can undertake in order to put their knowledge into action
- Strengthening of community-level environmental governance through capacity building for the officials in up to 30 village and inter-village area management committees (CVDs and CMs) and integrating local environmental activities into their community development plans, thus reinforcing the links to the various activities for combating land degradation and desertification identified in the NAP/CD
- Financing up to 20 environmental micro-projects at the village level (through the existing CIF structure of the SRDP), as part of the village development plans, to promote sustainable land and natural resources management of critical near-village, watershed resources (soil and water conservation, restoration of soil fertility, rehabilitation and conservation of degraded woodlands and rangelands, restoration of degraded wetlands). The existing CIF will finance a range of social, economic, environmental and energy

micro-projects in participating villages. The GEF resources blended into the CIF, but dedicated to financing environmental projects, will ensure financing of a certain number of environmental micro-projects that have demonstrated local and national but mainly global benefits.

- Identifying and implementing/testing, at one site per watershed, innovative incentive mechanisms, e.g. payments for environmental services (PES), for promoting the use of rational practices and technologies for sustainable land management in the upper watersheds (e.g. payments for conservation of critical upper watershed woodlands, payments by transhumants for access to rangelands and water resources). The project will follow the approach taken by other GEF projects promoting PES in similar settings. A feasibility study will identify potential interventions to develop environmental services markets or policy reforms and identify five pilot projects to provide field experience. The project will finance technical assistance for the feasibility, planning and thematic studies (e.g. soil and water conservation, forestry, rangelands, biodiversity conservation) for the pilot projects. It also will cover the costs of a final workshop and publication of workshop proceedings and good practice recommendations. Furthermore, In promoting PES mechanisms the project will build on other similar initiatives like RUPES (rewarding the upland poor for environmental services), an IFAD technical assistant grant that has developed tools for rapid carbon assessment as well as hydrological assessment tools. The project could also learn from RUPES in terms of institutional mechanisms for the scoping and negotiation stages, and how the project could act as a broker between ES buyers and sellers.

Under this component, the sub-programme will contribute directly to the three major sectors identified in GoBF's new Operational Programme for Implementation of the NAP/CD (March 2004):

- Bio-physical environment – sustainable management of natural resources, including soils, water resources, vegetative cover, wildlife and fisheries
- Human environment – improvement in the living conditions of the rural populations, including access to basic social services, drinking water
- Environmental governance – sustainable ecological management, applied research on desertification, and improved management of trans-boundary resources.

## **(2) Land Tenure Security and Sustainable Land Management Investment Incentives**

Complementing the SRDP's Security of Land Tenure Component, the sub-programme will provide added value in promoting the testing and validation of innovative mechanisms for preventing and resolving land tenure conflicts that threaten the management of critical communal resources. Land tenure security represents the most challenging land management issue in the rural development programme financed by the SRDP and progress to date in this arena has been slow and gradual. Without the added emphasis and support from GEF resources, the SRDP may not adequately address the critical land tenure situations that jeopardize particularly vulnerable environmental resources (e.g. natural habitats, wetlands, rangelands) in the sub-programme provinces. Building on the SRDP experience to date, the sub-programme will fund targeted actions at a number of priority sites and on particularly sensitive issues to be addressed in improving land and natural resources management, such as resolving land tenure/management disputes and creating incentives for better management of shared resources.

The sub-programme will build on the recent experiences in land tenure operations in Burkina Faso, noting in particular the lessons taken from other projects involving land tenure activities. The GoBF did a stock-taking exercise on progress in land tenure in 2005. Among the principal lessons learned in these efforts, the project will incorporate the following:

- Recognizing that the commitment and involvement of local populations in the land tenure

objectives and processes are critical to the success of land tenure operations, the project will respect the validity of local land rights and involve all concerned actors in its operations, including local leaders (village chiefs, peasant leaders, elected officials) and vulnerable groups like migrants, women and youth.

- Further supporting the above point, the project will carefully design and execute land tenure information dissemination and awareness raising efforts among local populations, which are essential factors for assuring the transparency of the process and avoiding unnecessary conflicts.
- Recognizing that land tenure operations must not be limited only to securing the rights of customary land users/owners, the project will aim at securing the rights of resource/land users who do not have rights to the resources/lands and are thus in particularly precarious situations.
- Realizing that it is not sufficient to successfully test mechanisms for securing land tenure rights without ensuring the administrative and legal validity of these rights, the project will integrate procedures for legal recognition of successful results in order to assure the sustainability of results obtained.
- The project will make every effort to ensure the quality of the baseline studies and the motivation and quality of land tenure project team involved, as these are critical to the success of any land tenure operations.

The sub-programme will address lessons learned with respect to institutional questions, working to lessen the burden of administrative and financial procedures that can jeopardize the success of land tenure efforts, collaborating fully with the GoBF's technical services (lands, cadastre, etc.) in the field in land tenure operations and clearly demonstrating the willingness of the GoBF to support and facilitate land tenure operations. In compliance with the CPP objectives, the sub-programme will ensure that coherent SLM legislation is developed and/or enforced at all administrative levels. This will be also based on awareness rising through dissemination of the land tenure policy/law to 100 villages.

The specific outcomes expected from this component include:

- reinforced individual and institutional capacities for sustainable management of the lands, soils and resources of the fragile watershed ecosystems
- sustainable land use and natural resources management techniques based on local know-how and innovative practices promoted and diffused
- innovative mechanisms for preventing and resolving land tenure conflicts identified and tested

The activities and outputs planned in order to achieve these outcomes include the following:

- Conducting three detailed baseline studies and inventories of communal resources to identify 10 pilot sites caught in land tenure conflicts to provide the baseline information on the land tenure situation in the selected watersheds for the land tenure information system (which will also provide important information inputs to the national land information system to be developed under the CPP)
- Undertaking 10 field actions/tests on appropriate mechanisms for preventing and resolving the land tenure questions/conflicts that threaten sustainable management of critical shared community lands and resources (as identified in the above baseline studies and inventories of communal resources caught in land tenure conflicts)
- Purchasing cartographic tools and satellite imagery as necessary to support the land tenure information system to assist in mapping and spatial analysis of the land tenure situation in the watersheds
- Providing capacity building for local and regional actors, in up to 30 villages (750

villagers trained) in dialogue and consultation tools in resolving land tenure conflicts over shared community resources in the fragile watershed ecosystems

- Providing targeted national (8) and international (2) study tours for a limited number of local and regional actors (up to 210 beneficiaries) to allow them to see innovative examples of land tenure conflict resolution within the country and in neighbouring countries in the region
- Disseminating information for better implementation of the national policy and land tenure law to local village populations, to up to 100 villages in the project provinces, in the local language (verbal presentations, written materials, media communications, etc.)
- Promoting appropriate mechanisms (at least one each for targeted groups) for more equitably involving vulnerable community groups, especially women, youth, migrants and transient populations, in integrated planning and sustainable management of community resources
- Supporting spatial planning at the communal level for up to 17 communes in the project provinces as a tool to aid in preventing and resolving land tenure conflicts.
- Provide training for land conflict resolution targeting 20 percent of mediators by the first phase of the CPP.

### **(3) Ecological Integrity and Sustainable Management of Selected Watershed Ecosystems**

Complementing the watershed protection and management activities to be financed under the Sustainable Development of Productive Capacity Component of the SRDP, the sub-programme of the northern region will undertake an ecosystem, holistic approach, focusing especially on the common pool resources neglected under the SRDP's village/inter-village area management approach. Limited to five provincial watersheds, of not more than 10 villages each, the SRDP interventions will address only a small, disconnected portion of the watershed ecosystems in the Mouhoun and Nakambé river basins.

The sub-programme, on the other hand, will undertake an ecosystem approach and will intervene in the resources critical to watershed ecosystem structure and function for the purpose of achieving global as well as national and local impacts and benefits. The sub-programme will address the watershed sites selected by the SRDP based on a combination of ecological and practical criteria<sup>1</sup>, as well as a pastoral zone selected by the CPP for its national ecological significance and vulnerability to land degradation:

- You watershed in Loroum Province
- Bilinga-Nogo watershed in Yatenga Province
- Minima-Kontoega watershed in Zondoma Province
- Yako-ouono watershed in Passoré Province
- Guibare watershed and Lac Bam in Bam Province and
- Loroum Province (Zico pastoral zone).

The specific outcomes expected from this component include:

- reinforced individual and institutional capacities for sustainable management of the lands, soils and resources of the fragile watershed ecosystems
- sustainable land use and natural resources management techniques based on local know-

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<sup>1</sup> The SRDP selected the project watersheds based on the following criteria: (i) the ecological conditions are characterized by severe land degradation, (ii) the geographic location includes a shallow water body and is suitable for water collection structures and management of the surrounding lands, (iii) neighboring communities are sufficiently motivated to engage in resolving land tenure issues and managing the land and resources of the watershed and (iv) there are already anti-erosion works financed by other projects present.

how and innovative practices promoted and diffused

- sustainable land and natural resources management practices adopted and replicated on a ecosystem scale, improving the ecological integrity, economic productivity and services of the lands in the rehabilitated watersheds and pastoral zone.

As noted above, to ensure its complementarity with the SRDP's watershed interventions, the GEF will finance activities aimed at the shared community resources, leaving investments benefiting cultivated lands to the SRDP. The activities and outputs planned in order to achieve the desired outcomes for this component include the following:

- Conducting six detailed baseline studies and inventories of communal resources during the first year to provide the baseline information on ecosystem resources in the five selected watersheds and one pastoral zone
- Preparing and implementing six management plans for the watershed and pastoral zone ecosystems identified above. These plans, prepared during the first and second years, will take into account:
  - specific modalities for strengthening watershed-level governance of critical common resources using the existing inter-village area management committees (CCs) or creating other institutional mechanisms for that purpose
  - on-the-ground physical investments (up to 20 total) identified in the management plans as necessary for restoration and management of shared community resources (rehabilitation of vegetative cover, reforestation, consolidation of water points, wildlife-livestock-agriculture conflict resolution, wildfire management) and promotion of sustainable agricultural practices (e.g. windbreaks, buffer strips, wetland restoration)
  - modalities for assigning and sharing responsibilities for sustainable planning and management of community resources (e.g. signing stakeholder/resource user agreements, allocating resource management costs and benefits, creating appropriate incentives for sustainable management and enforcing effective public sanctions for unsustainable practices)
  - mechanisms for ensuring the active participation of women, youth, migrants and transient populations in the planning and management of community resources
  - sustainable financing mechanisms, e.g. PES, for ensuring the long-term viability of community management arrangements
  - identification of priority intervention sites or "hotspots" (pastures/rangelands to rehabilitate, forests/wooded areas to protect, degraded lands to restore) for the on-the-ground physical investments.
- Providing capacity building for local and regional actors (in up to 60 villages for up to 1,000 villagers) in planning and management of shared community resources in fragile watershed and pastoral ecosystems
- Testing of up to 12 integrated planning and sustainable land and resource management techniques and processes (e.g. rotational grazing, alternating transhumant routes, selective fencing/protected areas, etc.) at a number of priority pilot sites in the early years, scaling up these activities to a larger number of sites in the watershed and pastoral ecosystems in the latter years
- Promoting sustainable management practices for ecologically viable agriculture (e.g. use of proven traditional practices, production/restoration of indigenous species and varieties, conservation of agricultural biodiversity) in cultivated areas at 10 pilot sites
- Providing capacity building for up to 10 local village populations for alternative income-generating activities designed to relieve the pressure on the natural resource base in the watersheds and pastoral zone. The capacity-building would focus on activities, e.g. apiculture, sericulture, medicinal plants, small-scale manufacturing, that have proven

successful in other countries of the region<sup>1</sup>.

The watershed management plans financed by the GEF will present the GoBF with the opportunity to integrate any existing and/or future planning at the community, departmental, provincial and regional levels into this holistic, ecosystem approach for resource management and area development in the northern region. Furthermore, such planning will take into consideration the efforts of neighbouring countries with which Burkina Faso shares the international watersheds.

To further promote SLM practices and expand impact beyond the project area while contributing to CPP objectives, the sub-programme will include a database on best land use and management practices. The database will include a combination of both best and viable traditional and innovative practices. The best SLM practices database will complement the proposed land tenure information system.

**(4) Sub-Programme Organization and Management** Program organisation and management will respond to and follow the overall institutional requirements of the CPP at the national, provincial and local levels<sup>2</sup>. At the regional level, the sub-programme will specifically complement the SRDP's Programme Organization and Management Component, it will fully integrate its planning, management, monitoring and reporting activities into those systems already functioning under the PMCU of the SRDP. This will avoid any duplication of effort in the field and save overall GEF resources for project management and coordination. The PMCU, established under and supported by the MOAWF, is fully staffed and already functioning, based in the field in three regional offices (Yako, Ouahigouya, and Kongoussi) that assist it in covering the five provinces. The GEF will finance a dedicated environmental/GEF team (two professionals) to ensure the management and coordination of the sub-programme. This team, comprising a qualified land or natural resources management specialist and a monitoring and evaluation specialist, will be fully integrated into and complement in skills the PMCU. Further, two protocols will be established with the Regional Departments of Environment and Animal Resources in order to exploit the expertise of their personnel to advise and support the beneficiary populations (through their CVDs) in management of the shared forestry and pastoral resources of the watersheds. The team will be provided with the necessary vehicles and equipment for carrying out the implementation activities in the selected watersheds and pastoral zone and will be supported by national experts and consultants as needed. The achievements and lessons learned from the sub-programme, in particular with respect to the process of preparation and implementation of the watershed and forested/pastoral zone management plans, will be disseminated widely and replicated in other national and regional contexts as appropriate.

In terms of monitoring and evaluation, the sub-programme will integrate its activities into the overall monitoring information system implemented by the SRDP for monitoring implementation progress as well as the environmental and socio-economic impacts of programme activities. Again, this will avoid any duplication of effort and provide savings for the GEF monitoring efforts. The existing SRDP information system is already operational and is managed by a small unit in the PMCU, assisted by specialists in the two sub-offices. The system provides maps of the SRDP programme area and includes a GIS. The GEF monitoring and evaluation specialist will work within this unit to ensure integration of the GEF monitoring requirements into the overall system. The key indicators identified for GEF monitoring purposes are identified in the logical framework contained in Appendix 3. A monitoring and evaluation manual will be prepared during

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<sup>1</sup> For GEF purposes, the income-generating activities will have to result in clearly demonstrated global environmental benefits (e.g. incremental carbon sinking, agro-biodiversity and biodiversity conservation, better adaptation to climate change) before they can be supported by the project through the management plans.

<sup>2</sup> See Annex 1 (attachment 1.1) section 5

the first year of project implementation (see the monitoring and evaluation plan in Appendix 4). The information system will provide a baseline for environmental and social monitoring and facilitate subsequent evaluation and reporting on environmental and socio-economic impacts. Furthermore, it will furnish data for the north central plateau of the country to the national environmental monitoring system established under the PNGT.

At the national level, the MOAWF will oversee implementation of the sub-programme just as it does the SRDP, providing technical support through its delegated technical services in the five provinces of the project area. The MOE, because of its role in supervising the PAN/LCD and CPP as well as its expected contribution provided by the technical services based in the five provinces, will oversee the ecological aspects of sub-programme activities, ensuring that the desired outcomes result in the local, national and global benefits identified for the sub-programme. The MOE will also see that relevant information generated by the sub-programme feeds back into the CPP national lands inventory (and the CPP website), as well as into the national GIS database on land use. At the regional and provincial levels, the governors and high commissioners will have a role in supervision of activities within their jurisdictions. At the communal level, project supervision at pilot sites will be undertaken by the municipal councils, with technical functions delegated to specialized communal bodies.

## V. KEY INDICATORS, ASSUMPTIONS AND RISKS

### A. Indicators

The project has identified a number of key performance indicators for measuring progress in achieving its global objective and three specific component objectives. These indicators, taken from the logical framework for the project, are shown in Table 6.

**Table 6: Key Project Indicators**

CPP Goal and Overall Objective	Verifiable Indicators
<p>The goal of the program is to combat land degradation and poverty in Burkina Faso through sustainable and equitable land management that preserves the integrity of ecosystem functions.</p> <p>The overall objective is to improve sustainable productivity of rural resources through an integrated and holistic approach in order to achieve the MDGs and arrest trends in degradation of environmental resources</p>	<ol style="list-style-type: none"> <li>1. increased soil fertility</li> <li>2. increased agricultural productivity</li> <li>3. increased food security</li> <li>4. income increase in targeted areas/beneficiaries</li> </ol>
Specific Objectives and Results	
<b>Objective 1: Develop and implement a partnership platform for a coordinated approach to sustainable and equitable land management</b>	
<b>Outcome 1.1</b> Enhanced mechanisms for dialogue and consultation at the regional, provincial and local level ensure effective participation of stakeholders	<ol style="list-style-type: none"> <li>1. Training and dialogue/consultation with 30 villages with 1,800 villagers trained.</li> <li>2. The regional/provincial platforms meet twice a year, the local platforms meet four times a year.</li> </ol>
<b>Outcome 1.2</b> A unique SLM monitoring and evaluation system is developed and utilized by all stakeholders in sustainable land management in Burkina Faso	<ol style="list-style-type: none"> <li>1. Operational database on SLM techniques by the end of the first phase of the CPP</li> <li>2. GIS with geo-referenced information on SLM (in line with all the sub-programmes of the CPP)</li> <li>3. 60 percent of stakeholders are using the database by CPP phase 1.</li> <li>4. Number and frequency of M&amp;E missions</li> <li>5. Land tenure information system established and functioning by project end</li> </ol>
<b>Outcome 1.3</b> A sustainable financing mechanism is established and finances sustainable land management activities in the country	<ol style="list-style-type: none"> <li>1. Volume and efficiency of financial resource mobilisation for SLM</li> </ol>
<b>Objective 2: Promote an enabling institutional and policy environment for better mainstreaming of SLM</b>	
<b>Outcome 2.1</b> Institutional reforms aimed at establishing a framework favourable to sustainable land management are undertaken	<ol style="list-style-type: none"> <li>1. Fifty (50) village participatory diagnostics incorporating environmental aspects completed by project year 3</li> <li>2. Fifty (50) village development plans incorporating environmental actions/activities completed by project year 4</li> <li>3. Ten (10) innovative mechanisms for security of land tenure tested by project end</li> <li>4. Innovative incentive mechanisms piloted at one site in each watershed</li> </ol>
<b>Outcome 2.2</b> Legislative and regulatory texts on sustainable land management are developed, adopted and applied at different levels of the administrative structure by the different actors	<ol style="list-style-type: none"> <li>1. Land tenure policy/law disseminated to 100 villages</li> <li>2. Texts of laws available in the 4 national languages by end of phase 1 of CPP</li> </ol>

<b>Outcome 2.3</b> The individual and institutional actors have the capacities necessary for participatory, decentralized and sustainable management of the lands at different levels of the administrative structure of the country	<ol style="list-style-type: none"> <li>1. Training in environmental governance given to officials in 30 villages</li> <li>2. Training in resource planning and management conducted in 60 villages, 1,000 villagers trained</li> <li>3. Three information/education/communication campaigns undertaken in project provinces</li> <li>4. Environmental education introduced into village schools</li> </ol>
<b>Outcome 2.4</b> The responsibility for management and decision-making for rural resources management is effectively transferred to the regions and rural and urban communes	<ol style="list-style-type: none"> <li>1. Results of baseline studies incorporated into village diagnostics and development plans in 5 watersheds</li> <li>2. Six baseline studies of watersheds and pastoral zone conducted</li> <li>3. Six management plans for watersheds and pastoral zone are prepared and implemented</li> </ol>
<b>Objective 3: Promote integrated and equitable SLM based on innovative practices and local knowledge</b>	
<b>Outcome 3.1</b> Land use and soil conservation techniques based on local know-how and innovative practices are promoted and diffused	<ol style="list-style-type: none"> <li>1. Training in conflict resolution conducted in 30 villages, 750 villagers trained</li> <li>2. 20 environmental micro-projects financed as part of village development plans</li> </ol>
<b>Outcome 3.2</b> Good land management practices are adopted and successful experiences are replicated on a larger scale	<ol style="list-style-type: none"> <li>1. 20 on-the-ground physical investments financed as part of the watershed and pastoral zone management plans</li> <li>2. 10 pilot sites for conflict resolution are identified by baseline studies</li> <li>3. 10 field tests of innovative mechanisms conducted at priority sites</li> <li>4. 20 percent of mediators (for conflicts resolution) trained by end of phase 1 of the CPP</li> <li>5. Establishment of land tenure information system</li> </ol>
<b>Outcome 3.3</b> Exchanges of experiences and technology transfer among actors and other partners in the region are organized.	<ol style="list-style-type: none"> <li>1. 8 national and 2 international study tours are conducted for 210 beneficiaries</li> <li>2. Participation in symposia and national fora, website</li> <li>3. One operational database on SLM best practices</li> <li>4. Area (in ha) where best practices are up-scaled</li> <li>5. Rate of adoption of best practices (20 % of operators) by end of phase 1 of the CPP</li> </ol>

## B. Risks and Mitigating Measures

The GEF project will face a number of potential risks in carrying out its activities promoting sustainable land and natural resources management in the watersheds in the northern region. Specific risks related to the assumptions made in the logical framework and their corresponding risk management measures are shown in Table 7 below.

**Table 7: Risks and Mitigating Measures**

Potential Risks	Mitigating Measures
<b>External Risks</b>	
Extended periods of draught and advancing desertification in the Sahelian Zone as a result of global warming	The project will be prepared to adapt its interventions to any extreme changes in the climate and physical conditions of the project area
GOBF financial constraints that curtail timely implementation of project interventions	The project will be prepared to adapt to any financial constraints that may limit GOBF execution of project interventions
Political instability interrupts decentralization process and execution of project interventions	The project has sufficient credibility in the project areas to overcome any interruptions in the decentralization process or project interventions
<b>Internal Risks</b>	
Community acceptance of diagnostics and plans integrating environmental management aspects	Community awareness of environmental challenges is generally high but will be additionally reinforced by planned project information, education and communications activities
Lack of shared vision at community level for shared natural resource management/willingness of village populations to accept watershed management	Village awareness of natural resource threats should encourage shared vision and willingness to accept new management approaches, project information, education and communications campaigns should further prepare villagers for watershed management practices
Willingness of village populations to accept alternative income-generating activities	Village awareness of the need to find alternative sources of income should encourage such willingness, project initiatives in identifying and promoting appropriate alternatives should reinforce willingness
Coordination with traditional institutions and territorial authorities	Project emphasis on building consensus with traditional institutions/territorial authorities should facilitate effective coordination
Capacity of beneficiaries to manage resources in their areas	Project emphasis on capacity building for sustainable land and resource management should ensure capacity to manage local communal resources
Success of community dialogue on land tenure issues	Project emphasis on identifying and strengthening mechanisms for dialogue and consultation should facilitate the dialogue on land tenure issues
Willingness of watershed village communities to collaborate in managing communal resources	Project emphasis on dialogue and consultation and strengthening CVDs and CCs should build willingness to collaborate in management of inter-village communal resources
Sustainability of investments in land and natural resource management	Project emphasis on building sustainable, innovative mechanisms for maintaining investments, e.g. payments for environmental services and local planning, will offer an opportunity to solve potential conflicts over land/natural resource use hence improving sustainability

## **VI. COUNTRY OWNERSHIP**

### **A. Country Eligibility**

Burkina Faso is fully eligible for GEF financing because it has ratified the critical international conventions related to the environment, i.e. the United Nations Convention to Combat Desertification (UNCCD) on 26 January 1996, the Convention on Biological Diversity (CBD) on 2 September 1993 and the United Nations Framework Convention on Climate Change on 2 September 1993. Burkina Faso is also contributing to the dynamics of regional desertification control as a member of the New Partnership for Africa's Development, the Permanent Interstate Committee for Drought Control in the Sahel, the West African Economic and Monetary Union and the Economic Community of West African States. All these institutions have included combating desertification as a priority in their agendas.

Furthermore, Burkina Faso has adopted a national policy framework that clearly identifies the constraints, needs, priorities and strategies for its development. The PRSP, which was launched in 1999 and revised in 2003, acknowledges that land degradation is one of the main constraints that perpetuates the poverty cycle and identifies among its four main objectives the rational and sustainable management of natural resources. Moreover, pursuant to the UNCCD guidelines, Burkina Faso adopted and officially launched its NAP/CD in June 2000 to highlight the importance of sustainable land management for the sustainable development of the country,

Burkina Faso also has reaffirmed its commitment to the issue of sustainable land management through such actions as:

- the integration of NAP principles into the policy letter on decentralized rural development adopted by the Government in 2002
- the integration of combating desertification through the NAP as a priority area of the PRSP investment plan during its update in October 2003, which has given access to HIPC resources from the debt reduction programme initiative starting in 2005
- the allocation of domestic resources to co-finance projects on sustainable environmental management and combating desertification from the public investment programme and
- the development in 2004 of the NAP/CD operational programme which has identified the constraints to implementation of the NAP/CD and which proposes how to address these through the establishment of a national and integrated consultative framework.

Finally, in recognition of its suitability for GEF financing, GEF selected Burkina Faso as one of the pilot countries in Africa within its framework Country Partnership Programme for Sustainable Land Management.

### **B. Country Drivenness**

Burkina Faso's commitment to environmental protection is enshrined in its Constitution of 2 June 1991, which recognizes in its preamble that environmental protection is a necessity for Burkina Faso, states that natural resources belong to the people (Article 14) and identifies protecting, defending and promoting the environment as the duty of all citizens (Article 29).

In 2000, Burkina Faso adopted its first PRSP (2000-2002), which analyzed the vulnerability of the country and the factors reducing its capacity to address environmental and natural resource degradation, contributing to the vicious cycle of poverty and hindering its capacity to face the economic challenges imposed by globalization. Among these factors, the PRSP identified climate variability and change, land and biodiversity degradation and the pressure on the land by subsistence farmers. Thus the Government recognized that the critical elements in the struggle to reduce poverty in Burkina Faso are sustainable land management and combating desertification.

The PRSP was revised in 2003, integrating the outcomes of the Johannesburg Summit on Sustainable Development and recognizing the combat against desertification as an investment priority. The new PRSP has been validated for the period 2002-2006 after extensive consultations with stakeholders from various social strata, as well as with development partners.

In December 2003, in order to achieve coherence with the revised PRSP, the Government adopted a new Rural Development Strategy validated through broad stakeholder consensus. The strategy is considered by the Government as a reference framework responding to the challenges of development in rural areas, where the incidence of poverty has been constantly increasing during the last ten years. The strategy takes a holistic approach through the integration of interventions from all sectors of the economy, the rational management of natural resources and ecosystems, and the empowerment of the rural population to enable them to control their own development.

After ratification of the UNCCD in 1996, Burkina Faso embarked on a participatory process for the development and adoption of the NAP/CD. The NAP/CD, launched in June 2000, is meant to be an integrating and federating framework for all programmes and projects that directly or indirectly deal with land management, combating desertification or poverty reduction in Burkina Faso; it has the primary objective of seeking complementarities and efficiency in promoting sustainable development in the country. It seeks “to achieve sustainable development of the country by building the capacity of local authorities and by ensuring the active participation of the population, local government units and local groups in initiatives related to combating desertification and mitigating the impacts of drought” through seven priority focal areas:

- sustainable natural resource management (water, forests, fauna, soils, etc.)
- improvement of living conditions of the rural and semi-urban populations
- creation of an enabling policy, legal and institutional environment
- capacity building (socio-professional organizations, technical capacities, technological and strategic analysis and the formulation of strategies)
- scientific and technical cooperation
- strengthening the financial capacity and negotiation skills of vulnerable groups and
- sub-regional cooperation.

In 2004, the Government adopted two major documents aimed at mainstreaming environmental issues into local development, i.e. the new Environmental Plan for Sustainable Development and the Operational Programme for the NAP/CD. The CPP is the main vehicle for implementing both of these policy instruments.

Taken together, the PRSP, the RDS and NAP/CD are ample proof of the policy coherence and of the strong political will of the Government in its efforts to improve people’s livelihoods. They demonstrate an institutional dynamic searching for solutions for strengthening sustainable management of natural resources, more particularly for arresting and reversing trends in land degradation. The CPP further capitalizes on these dynamics, as well as on lessons learned to date, in order to promote dialogue and an action framework which will be coherent and efficient and will address land degradation challenges within an appropriate time span.

Burkina Faso is also participating in TerrAfrica, a partnership in support of SLM in Sub-Saharan Africa (SSA), developed around a joint Business Planning Framework. Its overall mission is to support scaling up of mainstreaming and financing of SLM approaches in SSA, employing a business model that seeks to remove specific bottlenecks to the scaling up of SLM strategies and investments. This business model is supported by a broad partnership in recognition of the fact that no institution acting alone could hope to achieve such an objective, while by acting together significant gains could be made in efficiency, quality, and scale. The business model includes three activity lines, i.e. coalition building, knowledge management and enabling investments at country levels. Under each activity line, a number of sub-objectives are identified that are derived

from the overall mission described above. For each sub-objective, a limited set of activities with clear deliverable and outcomes are identified under annual Work Programs for the partnership. The Government has requested that Burkina Faso be part of the priorities under the TerrAfrica work program. The Executive Committee of TerrAfrica has endorsed this request and made Burkina Faso one of the priority countries for collective action, investment scale up, capacity building, alignment and harmonization under Activity Line 3 of the TerrAfrica work program. The GEF funded CPP under UNDP leadership is planned to be a major delivery mechanism under Activity Line 3 of TerrAfrica, and will benefit of the support of all TerrAfrica

## VII. PROGRAM AND POLICY CONFORMITY

### A. Fit to GEF Focal Area Strategic Objectives and Operational Programme

The project's objectives are fully consistent with the provisions of the UNCCD and with the objectives and policies of GEF, particularly with those of its **Focal Area on Land Degradation** and its **Operational Program 15 for Sustainable Land Management**. The project's focus on combating desertification and deforestation in the context of promoting sustainable development in rural areas puts it in line with the mission and objective of the land degradation focal area (see Box 3).

#### **Box 3: Mission and Objective of the GEF Focal Area on Land Degradation**

The **mission** of the GEF focal area in land degradation is to foster system-wide change to control the increasing severity and extent of land degradation. Change will be promoted through: (i) creating an enabling environment conducive to sustainable land management (SLM) and (ii) generating an upscaling of SLM investments at all scales of operation – global, regional, national and local.

The **objective** of the focal area is to reduce and reverse current trends in land degradation through the operation of sustainable land management policies and practices that simultaneously generate global environmental benefits and support local and national development. Actions will contribute to overall national programmes of natural resources management. They will be conducted utilizing cross-cutting opportunities for achieving impacts with an integrated ecosystem and landscape perspective. The focal area, in also addressing cross-cutting issues such as sustainable forest management, adaptation to climate change and integrated chemicals management, will foster co-benefits between both the global environment and local livelihoods in order to ensure sustainability, replicability and harmony fully in line with national development goals.

The project recognizes the close link between combating desertification and achieving sustainable rural development as a means towards poverty alleviation, which converges with the main objective of the focal area, i.e. to “reduce and reverse current trends in land degradation through the operation of sustainable land management policies and practices that simultaneously generate global environmental benefits and support local and national development”. To this end, the project addresses the underlying causes of land degradation and desertification, as well as those of food insecurity and poverty, in the watershed ecosystems of the north central plateau of Burkina Faso. The GEF-supported activities will strengthen the human capacity and institutional mechanisms for dialogue and consultation on sustainable management of shared natural resources in the watersheds, as well as prepare and implement the watershed management plans necessary to promote sustainable land and resource management practices in the watershed ecosystems.

Furthermore, the project fits comfortably within the two **Strategic Objectives** of the **GEF Focal Area on Land Degradation** (see Box 4): (i) SO 1 on placing sustainable land management in the mainstream of development policy and practice at the local level (see project components 1 and 2 above) and (ii) SO 2 on scaling up investments in sustainable land management to generate benefits for the global environment as well as for local livelihoods (see project components 2 and 3). This is further demonstrated by the fact that the project is included in the first phase of the CPP for Burkina Faso, which has among its objectives (i) to promote an enabling policy and institutional environment for the enhanced adoption and implementation of sustainable land management (CPP Strategic Objective 2) and to promote innovations among farmers and

exchanges of knowledge and best practices in collaboration with farmers and other practitioners (CPP Strategic Objective 3). The proposal meets the suggested specific objectives for the northern central plateau, identified by the CPP umbrella.

#### **Box 4: Strategic Objectives of the GEF Focal Area on Land Degradation**

**Strategic Objective 1: To create an enabling environment that will place sustainable land management (SLM) in the main stream of development policy and practice at regional, national and local levels.** This objective addresses the enabling environment for the promotion of integrated ecosystem approaches to the management of natural resources. It is proposed because natural resource management issues involving land, water, forests and agriculture are currently dealt with in a fragmented and piecemeal fashion. Sectoral policies and regulatory frameworks are not harmonised, leading to lack of clarity in over-arching goals and lack of secure financing for SLM. Yet, poverty, disease and lack of well-being are not only the result of human-induced land degradation, they are also the drivers for further degradation. Policy reform is a priority. The building of institutional capacity for integrated ecosystem management in the wider landscape is essential to promote more effective interventions that will reverse land degradation.

**Strategic Objective 2: To generate mutual benefits for the global environment and local livelihoods through the up-scaling of SLM investments.** This objective is proposed to encourage the prioritization of SLM investments on those actions that achieve significant and positive co-benefits for the global environment and for local livelihoods. This is fully in accord with guidance from the UNCCD and with the current scientific understanding of benefits achievable through integrated approaches. Beneficial synergies with other focal area objectives are also to be encouraged, especially to achieve adaptation to climate change, enhance biodiversity conservation in production landscapes and reductions in pollution and sedimentation of international water bodies. These benefits will only be realised through addressing up-scaling issues, such as prioritisation of actions that will optimise benefits and initiatives that are ready to be taken up widely.

Furthermore, the current policy of the GoBF, which constitutes the frame of reference for both the project and the CPP, recognizes the close link between combating desertification and achieving sustainable development as a means towards poverty alleviation.

Finally, as an integral part of the CPP, the project benefits from the synergies with GEF established by the CPP:

- GEF Strategic Priority 1 with respect to targeted capacity-building is coherent with the Specific Objective 2 of the CPP, which is to promote an enabling policy and institutional environment for the enhanced adoption and implementation of sustainable land management
- GEF Strategic Priority 2 with respect to field activities is coherent with CPP Specific Objective 3, which aims at promoting innovations among farmers and exchanging knowledge and best practices in collaboration with farmers, scientists and other practitioners, both within the country and the region.

In addition, the broadened partnership framework of the CPP in Burkina Faso (through its three specific objectives), combined with the exchange mechanisms it has promoted, will greatly contribute to achieve global impact in conformity with the GEF approach. As the CPP is extending its implementation (phase 2) into GEF-4, care has been taken to ensure that it anticipates the upcoming new Strategic Objectives of the LD Focal Area in GEF-4. In this regard, the CPP addresses primarily SLM-1 (Systemic change) but also has relevance to SLM-2 (demonstrating and upscaling).

#### **B. Sustainability**

The project has been designed to ensure its sustainability over the long term. The activities will be centred on the village development committees established and supported under the SRDP. These committees have proven their effectiveness and sustainability over the life of previous IFAD and other donor-funded development projects in the region, in particular the Community-Based Rural

Development Project financed by the World Bank, IFAD, The Netherlands and Denmark. In terms of financial sustainability, the GEF itself will finance targeted research on sustainable financing mechanisms, which will then be promoted and adopted throughout the watershed ecosystems. On-the-ground physical investments financed by the GEF will be one-time investments maintained by the local village committees.

The very integration of the project into the CPP of Burkina Faso reinforces its overall sustainability. Because the CPP's long-term, three-phased approach is expected to evolve within the current decentralization process in Burkina Faso and work towards strengthening capacities, particularly those of the newly established local governments and other local actors over the long term, the project will play a critical initial role in this process in the northern region. The strengthened capacities and all related activities undertaken will be integrated within future institutional structures in Burkina Faso. Furthermore, the mainstreaming of the CPP and its projects into the two major strategic frameworks governing Burkina Faso until now (the PRSP, the Rural Development Strategy) will allow long-term and coherent planning, and will also provide certain guarantees in terms of the availability of funds. Within this context, resources from the Heavily Indebted Poor Countries Debt Initiative (HIPC), as well as other sources, will help finance the National Fund for Combating Desertification as the combating of desertification has been recognized as a priority area for PRSP interventions. The creation of an "Innovation Fund" at the level of each sub-programme in the pilot zones will contribute to the financial sustainability of local level actions, focusing on viable economic activities that will generate incomes while reducing pressure on natural resources.

As a pilot project of the CPP, the project will reinforce the institutional dynamics of the country, based on lessons learned through the various initiatives already implemented as part of the NAP. Because of its holistic nature, the CPP will be able to facilitate synergies between the implementation of the different conventions that Burkina Faso has signed, including CBD, UNFCCC and UNCCD. Such synergies will contribute to the sustainability of the CPP and thus the project itself, while generating both global and local benefits.

The institutional sustainability of the project will be further enhanced through the direct involvement of all beneficiaries at all levels, including their empowerment through capacity building. The sustainable engagement and commitment of development partners and the optimal mobilization of financial resources will be enhanced by their early involvement in programme design. This will ensure adequate ownership by all stakeholders, and, not least, financial sustainability.

Finally, the Landscape Approach as promoted by the GEF will be implemented through the CPP and its pilot projects through the reform and development of relevant policies, the development of human resources and the exchange and dissemination of best practices and lessons learned. These are effective tools for the construction of a consensus and for the replication of results by other partners.

Ensuring sustainability of actions is a required condition for all GEF projects, and is one of the guiding principles of Burkina Faso's CPP.

### **C. Replicability**

The successful approaches to watershed planning and management, land tenure conflict resolution and sustainable land management are designed to be replicated and scaled up during and after the life of the project. Testing at the initial priority pilot sites in the early years will lead to scaling up activities at a larger number of sites in the latter years of the project. Further, the strengthened capacities of local populations for natural resources management will anticipate and facilitate the decentralisation of management responsibilities planned under the GoBF's programme of

decentralisation to local authorities. As an integral part of the first phase of Burkina Faso's CPP, the project's successful practices will be replicated in subsequent phases of the CPP over the next decade or longer. Beyond the GEF intervention, proven models and practices would be disseminated and replicated in other watersheds of Burkina Faso and extended to similar ecosystems in the Sahel region of Africa.

Like the CPP, the project is based on the partnership principle which requires joint resource mobilization and an open sharing of results, experiences and lessons learned. Monitoring and evaluation tools, such as horizontal exchange mechanisms (for example, farmer-to-farmer exchanges) offer a systematic learning and knowledge-building tool at the local level. These are good vehicles for knowledge dissemination and for sharing best practices within the country and beyond.

The replicability of the CPP and its various sub-programmes outside Burkina Faso will rely on the active participation of Burkina Faso in various existing collaborative frameworks at the regional level, namely:

- The CCD's Sub regional Action Plan for West Africa (SRAP) is jointly coordinated by the Permanent Interstate Committee for Drought Control in the Sahel and the Economic Community of West African States. More specifically, there exist two thematic networks: Thematic Programme Network 2 (sustainable land use) under the supervision of the Institute of the Sahel (Bamako, Mali) and Thematic Programme Network 6 (sustainable agriculture development) under the supervision of Semi-Arid Food Grain Research and Development of the African Union (Ouagadougou, Burkina Faso). The SRAP is also supported by the New Partnership for Africa's Development (NEPAD), which has integrated the SRAP as one of its areas of intervention related to sustainable land management.
- Given the strategic convergence between the thrusts of the CPP and the TerrAfrica initiative (NEPAD), a privileged, rich and solid partnership should be sought. TerrAfrica could become complementary to the CPP and contribute to its development, support and implementation. It could also contribute to the mobilization of a larger coalition in favor of Burkina Faso at the global level, the development of innovative methodologies and the dissemination of knowledge and experience at the regional level.
- The World Initiative for Sustainable Pastoralism (GEF/UNDP/IUCN) will provide an excellent vehicle for dissemination of results as well as sharing of experiences from the Burkina case.
- The Land Degradation Assessment in Drylands project, which has recently been initiated by GEF, UNEP and the UN Food and Agriculture Organization (FAO), could contribute to the replication of the CPP process through the development and application of reliable indicators on land degradation within a broad international monitoring system. Similarly, the CPP will gain from the portfolio (Focal Area) indicators that are currently under preparation.
- The GEF Agencies are undertaking a lessons learned exercise on the design of CPPs and will most likely undertake another exercise during the implementation of the CPPs. The programme will contribute actively to this exercise.

#### **D. Stakeholder Involvement**

Preparation of this project involved stakeholders at the national, regional and local levels. Initial meetings with relevant GoBF stakeholders (various officials from the Ministries of Agriculture and Environment) and development partners (the World Bank, GTZ, the Netherlands, IUCN) took place initially in 2004 and again in 2007. In both cases they were followed by field visits in the proposed areas for GEF intervention with relevant regional and local officials, non-governmental organizations and village populations in several of the watersheds. A thorough discussion of the

objectives and activities for the project took place with stakeholders throughout the project preparation process.

Furthermore, the project is intended to ensure full and effective stakeholder involvement in the planning and implementation of its activities. The capacity-building component will strengthen the mechanisms for stakeholder dialogue and consultation, whereas the watershed management component will ensure stakeholder participation and negotiation in the planning and implementation of all aspects of the watershed management plans. At the regional and national levels, the participation of the interested national line ministries and their regional services will ensure the involvement of GoBF stakeholders.

In the context of the CPP, the present project was drafted in consultation with various partners. It was elaborated on the basis of information obtained through: (i) government agencies; (ii) major projects and programmes on sustainable land management; (iii) the network of associations and grass-roots community organizations involved in the struggle against desertification; and (iv) the consultative framework of the technical and financial partners. The project concept, along with the CPP concept note, was also approved by the workshop held on 31 January 2006 in Ouagadougou, which brought together the majority of partners actively involved in land management in Burkina Faso. The workshop confirmed the partners' strong interest in the CPP.

The analysis of the key roles to be played in the CPP has led to the identification of the following government-level stakeholders: (i) the Ministry of Finance (mobilization of internal and external resources, donor coordination); (ii) the Ministry of the Environment (CCD focal point and in-charge of coordinating environmental interventions and strategies); and (iii) the Ministry of Agriculture, Water and Fishery Resources (implementation of activities). See Box 5 for more details on the two major institutional stakeholders. Other ministries are also involved in the CPP, including: the Ministry of Infrastructure, Transportation and Housing, the Ministry of Trade, Enterprise Promotion and Crafts, the Ministry of Mining, Quarries and Energy, the Ministry of Local Administration and Decentralization, the Ministry of Health, the Ministry of Secondary and Higher Education and Scientific Research, the Ministry of Basic Education and Literacy, and the Ministry of Culture, Arts and Tourism.

The NGO community has been involved in the process of developing the CPP framework, and it is expected that they will continue to be a major partner in its implementation. This includes both civil society organizations (producer associations, NGOs) as well as academic and research community. In particular, the project will involve the following: producer organizations (village « groupements », producer associations), community-based organizations, umbrella farmer organizations, herder's associations, opinion leaders, religious leaders, local businessmen, consulting firms, experts and researchers, other private sector operatives, elected officials at local and national level, and other representatives of local beneficiaries. It is to be noted that many of these stakeholders will have a direct involvement in project execution.

Stakeholder involvement is one of the guiding principles of the CPP, as well as one of the eligibility requirements of any GEF project. Each sub-programme/project will undertake to conduct a full Stakeholder Involvement analysis, following required procedures, prior to approval of the sub-project.

**Box 5: Key Government Stakeholders**

**The Ministry of Agriculture, Water Resources, and Fisheries** is responsible for aspects of production and productivity of land and its related resources. Because of the role it plays in the areas of agricultural and fish production, this ministry is very interested in and concerned with ensuring high productivity of resources from non-irrigated and irrigated agricultural land, inland valleys and hydro-agricultural development, as well as with productivity of fishery resources, primarily fish, in water bodies. Various central directorates and attached offices, and structures dispersed at the regional and provincial levels, as well as programmes and projects which fall under this ministry’s oversight authority are directly involved in sustainable land management activities. Some of these entities have relevant experiences which can help nurture the programme, primarily in its aspects related to development of tools for sustainable land management, capacity-building, and promotion of water and soil conservation techniques.

**The Ministry of the Environment (MOE)** is responsible for aspects of land conservation and land resources to satisfy the needs of current and future generations, for the genetic improvement of resources, conservation of biological diversity and the global environment. Thus it is interested into and focused on planning for land allocation, including the forests and wooded areas, and the use of farming and rural production methods that respect the equilibrium of ecosystems and the biosphere. As with the Ministry of Agriculture, the MOE, through a number of facilities, has a wealth of experience which can be used within the context of this current programme. These facilities include the National Centre for Forestry Seeds, which has an expertise of international renown. The MOE also is one of the rare ministries, along with agriculture, livestock, and others to have decentralized structures in the regions and provinces.

## VIII. FINANCING

### A. Project Costs

The financing for the activities of the GEF project will be fully blended with the financing for SRDP programme activities provided by IFAD, WADB, the OPEC Fund, the GoBF and the SRDP beneficiaries. A summary overview of the preliminary GEF cost estimates and the co-financing arrangements are shown in Table 8.

**Table 8: Project Costs (millions of US\$)**

<b>Project Components/Outcomes</b>	<b>Co-financing* (US\$ M)</b>	<b>GEF (US\$ M)</b>	<b>Total (US\$ M)</b>
Participatory Decision-making and Environmental Planning	<b>US\$ 9.988</b>	<b>US\$ 0.463 (23%)</b>	<b>US\$ 10.451</b>
Land Tenure Security and Sustainable Land Management Investment Incentives	<b>US\$ 1.682</b>	<b>US\$ 0.471 (22%)</b>	<b>US\$ 2.153</b>
Ecological Integrity and Sustainable Management of Watershed Ecosystems	<b>US\$ 11.930</b>	<b>US\$ 0.881 (43%)</b>	<b>US\$ 12.811</b>
Project Organization and Management	<b>US\$ 4.218</b>	<b>US\$ 0.201 (12%)</b>	<b>US\$ 4.419</b>
<b>Total :</b>	<b>US\$ 27.818</b>	<b>US\$ 2.016 (100 %)</b>	<b>US\$ 29.834</b>

\*Includes co-financing from IFAD, WADB, OPEC Fund, GoBF and Beneficiaries

### B. Project Management Budget/Cost

The total for the project organization and management budget shown in Table 9 above (US\$ 4.419 million) is an aggregate; the breakdown of this aggregate amount is presented in Table 9 below. Project management totals correspond to the larger project (IFAD loan included)

**Table 9: Project Management Costs**

<b>Component</b>	<b>Estimated Staff Weeks</b>	<b>GEF (million US\$)</b>	<b>Other Sources (million US\$)</b>	<b>Project Total (million US\$)</b>
<b>Locally recruited personnel</b>	<b>520 (2 staff x 5 yrs)</b>	<b>0.144</b>	<b>1.640</b>	<b>1.784</b>
<b>Internationally recruited personnel</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Office facilities, vehicles, equipment, communications</b>		<b>0.057</b>	<b>1.422</b>	<b>1.479</b>
<b>Travel</b>		<b>0</b>	<b>0.903</b>	<b>0.903</b>
<b>Miscellaneous</b>		<b>0</b>	<b>0.253</b>	<b>0.253</b>
<b>Total</b>		<b>0.201</b>	<b>4.218</b>	<b>4.419</b>

### C. Consultants Working for Technical Assistance Components\*

Component	Estimated Staff Weeks	GEF (US\$)	Other Sources (US\$)	Project Total (US\$)
Local consultants	72	54,000	20,000	74,000
International consultants	16	32,000	10,000	42,000
Travel		21,000	15,000	36,000
<b>Total</b>	<b>88</b>	<b>107,000</b>	<b>45,000</b>	<b>152,000</b>

\*Rough estimates for consultants that will need to be confirmed in the field

### D. Co-Financing Sources

Name of Co-financier	Classification	Type	Amount (million US\$)	Status (US\$)
IFAD	Loan	Cash	16.028	Confirmed and available
WADB	Loan	Cash	3.834	Confirmed and available
OPEC Fund	Loan	Cash	2.886	Confirmed and available
GoBF	Government contribution	Tax exemption	3.312	Confirmed and available
Beneficiaries	In kind	Local labour	1.758	Confirmed and available

## **IX. INSTITUTIONAL COORDINATION AND SUPPORT**

### **A. Core Commitments and Linkages**

The GoBF will be ultimately responsible for the Sub-programme in the Northern Region since it is one of the four regional sub-programmes of the CPP. As part of the CPP, the sub-programme will contribute to achieving a number of the MDGs, i.e. Goal 1 on poverty reduction, Goal 7 on a sustainable environment and Goal 8 on global partnership for development. The sub-programme aims to combat land degradation through sustainable and equitable land management. By promoting sustainable and equitable access by the rural poor to land, the sub-programme is consistent with the PRSP, whose objective is to reduce poverty and improve living conditions among the rural poor. However, conscious that this objective cannot be attained in a country which takes two-thirds of its national wealth from primary sectors (agriculture, cattle-raising, forestry), the GoBF was careful to integrate the sustainable land management orientations of the PAN/LCD into the revised PRSP in 2003. Convinced that implementation of the CPP will contribute to reversing the trends for poverty, vulnerability of primary production and land degradation, the GoBF has committed to co-financing the CPP with its budget resources and to the extent of its capacity.

The GEF project has fundamental commitments from the two most important GoBF institutional stakeholders – the MOA and the MOE. As noted above, the MOA has the primary responsibility within the GoBF for aspects of production and productivity of land and its related resources and thus is very interested in and committed to ensuring high productivity of resources from non-irrigated and irrigated agricultural land, rangelands, woodlands and watershed ecosystems. The present project will allow the MOA to effectively demonstrate this commitment through the active collaboration of its various central directorates and decentralized structures at the regional and provincial levels and through harmonization with the other programmes and projects MOA's oversight authority that are directly involved in sustainable land management activities. Certainly the MOA will bring to bear its relevant experiences in development of tools for sustainable land management, capacity-building, and promotion of water and soil conservation techniques.

The MOE as well has direct responsibility for conservation and management of the country's land resources, preservation of its important genetic resources, conservation of its biological diversity and GoBF's commitments to the global environment. Thus the MOE is interested in and committed to planning land use allocation, including the forests and wooded areas, and the use of farming and rural production methods that respect the equilibrium of ecosystems and the biosphere. The MOE's commitment to the project brings with it a wealth of experience to be used in consolidating technical capacity within the GoBF. The National Centre for Forestry Seeds, for example, has expertise of international renown and should contribute greatly to the technical expertise needed in management approaches to sustainable forest and woodland management.

### **B. Consultation, Coordination and Collaboration among IAs and EAs**

IFAD and UNDP worked together as “co-leaders” during the preparatory stage to assist the GoBF in developing the CPP framework. IFAD then took the lead in preparing the present GEF project in tandem with its preparation of the SRDP in the northern region of the country.

IFAD has long been engaged in rural poverty alleviation through direct investments aimed at achieving concrete improvements in the livelihoods of its projects' target groups. In Burkina Faso, most IFAD projects also have had a strong environment, land and water conservation dimension through the promotion of equitable and sustainable land and water management practices. IFAD also fosters the empowerment of local populations in decision-making through their participation in the identification and dissemination of sustainable traditional practices, as well as innovative and cost-effective practices. In this respect, IFAD has contributed to the dissemination of local

practices for land and water conservation. IFAD also has substantial experience in watershed management approaches (planning, resource management, conflict resolution and access to land).

IFAD is both a United Nations agency and an international financial institution (IFI). IFAD is the only IFI in Burkina Faso that emphasises direct targeting of rural households and embedding its targeting approach within local institutional development activities for greater empowerment. These activities aim at strengthening the most relevant rural poor people's organisations, be they income-generating or natural resources management-related. In a community-driven development (CDD) setting, this implies strengthening public and private institutions both of participatory democracy (village assemblies, Village Development Committees, producer organisations, etc.) and representative democracy (rural municipal councils, unions and federations of producer organisations, etc.). Especially, it implies striving to solidify the often tenuous linkages and sometimes skewed and biased relationships between different levels of decision-making. In technical terms, IFAD has a comparative advantage in land improvement and reclamation, soil erosion control and water management, encompassing both traditional improved and modern practices, linking applied participatory research to farmers and their organizations and rural micro enterprise development. Another comparative advantage of IFAD is focus on connecting internal rural and urban markets and to transform traditional and subsistence crops into locally important cash crops.

The objectives of the CPP are in line with IFAD's mandate, which is to enable the rural poor to overcome their poverty. The CPP will contribute to two of IFAD's strategic objectives, namely: (i) increasing local access to and revenues from better managed natural resources, including land and water (for agriculture and grazing), greater land tenure security and conflict prevention and resolution and (ii) strengthening inclusive bottom-up planning, monitoring and accountability processes at the interface between villages and local governments. As noted above, IFAD's COSOP for Burkina Faso highlights the importance of using sustainable and equitable land and natural resources management to improve rural population livelihoods. However, it is expected that IFAD's long-standing experience and its ongoing programmes represent an essential strategic support to the CPP in terms of investment and implementation. In addition, the CPP will bring value added to IFAD operations in terms of partnership, policy dialogue and learning.

### **C. Project Implementation Arrangements**

Since the GEF activities are fully blended into the existing SRDP, so too will be the management, implementation, monitoring and evaluation responsibilities. Under the SRDP, the MOAWF established a **Project Management and Coordination Unit (PMCU)** based in Yako and furnished by the GoBF with offices and equipment from a previous soil and water conservation project. The PMCU is responsible for general management and coordination of the SRDP, as well as its monitoring and evaluation, financial management, accounting and auditing functions. With the approval of the GEF grant, the PMCU will assume the same responsibilities for the GEF activities and financial resources. The light organizational structure of the PMCU will be reinforced with two additional GEF-financed staff to support the additional management and coordination responsibilities.

The SRDP also has two MOA-established **Regional Offices** to cover the two geographic sub-regions of the project. These offices essentially serve as the links between the PMCU and the CVGTs, which are the local organizations with responsibility for actual implementation of project activities. The role of these offices is to supervise the activities in their zone, control the quality of service contracts and ensure monitoring and evaluation of project activities.

In addition, there is a **National Steering Committee** for the SRDP, headed by the MOA and composed of nine members chosen for their recognized competence and knowledge of sustainable development and desertification issues and their commitment to development in the northern

region. Three members are from the GoBF, the remainder are chosen by representatives of the beneficiaries. The committee meets at least once a year to review project progress reports and approve the work plan and budget for the coming year. At the provincial level, the PMCU coordinates closely with the GoBF's **Provincial Technical Coordination Staff** in order to ensure collaboration at the provincial level. The PMCU submits its provincial work programmes and seeks complementarities at the provincial level with other programmes and projects.

**CPP Implementation Arrangements** Since the GEF project supports one of the four regional sub-programmes identified by the CPP, the overall CPP administrative structure (see Figure 1 for the administrative structure of the CPP) also will be involved in overseeing and monitoring implementation of the GEF project. For this purpose, the GoBF will establish a **National Authority for Sustainable Land Management** to be housed temporarily within the MOE. This national authority will ensure the management, administration and guidance of the programme. The national authority will be a permanent structure, established at senior level, and given the mandate and authority for coordination of the different sectors involved in sustainable land management. The authority will supersede and incorporate existing institutional structures and will assume their tasks as follows:

- Coordinate at the national level the activities linked to the planning and allocation of land and advise the government on concerns linked to sustainable land resources management;
- Facilitate exchanges of information at different levels (nation, region, commune, village) and promote a holistic and integrated approach to sustainable land management;
- Develop information systems on the land resources, land allocation and on environmental effects;
- Facilitate the establishment of a sustainable financing mechanism (e.g. National Fund for Desertification) with full participatory principles
- Help create a coordinated approach to design, implementation and follow-up of development and improvement plans and initiatives relative to land management;
- Ensure the monitoring and evaluation of the dynamics of land degradation;
- Modify and update the land allocation policies as well as the legislative and institutional aspects which relate to them;
- Facilitate and support the implementation of laws and policies enacted for conservation and for appropriate management of natural resources;
- Facilitate the management of transboundary resources.

The sub-programme will work towards a harmonised SLM approach and investments in the north central plateau region through an SLM platform and the promotion of synergetic efforts to meet the collective objective of the CPP. The sub-programme is directly linked to the CPP framework in terms of results and shares collective objectives with the other four CPP sub-programmes. The sub-programme will engage partners (international, national, local, NGO, etc.) that are operating in the region. Partners active in the northern region, as well as their activities, are summarised in the Table 10:

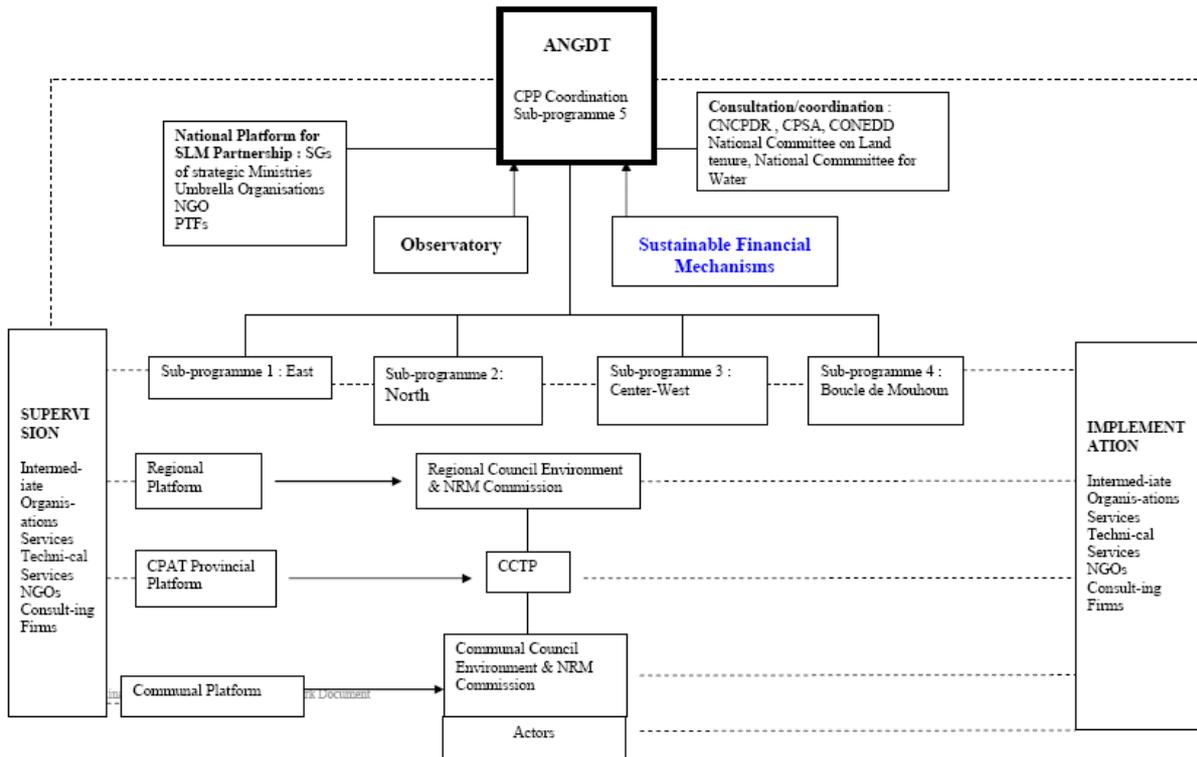
**Table 10: Sub-programme Partners in the North Central Plateau**

Structures	Relevant Domain	Zone	Budget (in million)
Fédération Nationale des Groupements Naam (FNGN)	SWC, rural water, agro-forestry, nutrition, health education, gender mainstreaming, extension, livestock, cereal banks, micro-credit and IGA	Entire area	NA
ECLA	Social environment, agriculture, livestock, credit and IGA	Entire area	NA
ADRK	Credit, SWC, NRM, agriculture, employment	Passoré	NA
ANAR	Alphabetisation, SWC, IGA, agriculture, reforestation	Yatenga	NA
PNGT II	Local development and “gestion des terroirs”	Passoré, Zondoma	NA
PADSEA II	Water management	Entire area	15 361
PADL2	Local development	Yatenga, Loroum	7 336
PDCL	Local development and food security	Zondoma	NA
PSA/RTD	Food security and land reclamation	Yatenga, Loroum	NA
PRS	Water management	Entire area	8 920
PETITS BARRAGES BAD	Agricultural production	Entire area	10 249,3
PRS-AEP	Water management	Passoré	5600,17
PSSA	Agriculture and diversification	Entire area	NA
INERA	Research and development (Agriculture and forestry)	Entire area	NA
FAARF	Credit	Entire area	NA
URCPN	Credit	Entire area	NA
PAM/BKF	Agriculture, soil fertility, food security	Entire area	3331,782
PROJET 1000 FORAGES/CHINE	Water management	Entire area	5 000
PE IV / VOLET AGRICOLE	Education and training	Loroum	4 361,20

**Sub-programme Implementation** The sub-programmes will be autonomous but linked to each other by functional relations for communications and knowledge exchange. They will be governed by the same common principles articulated by the CPP. The role of coordination of the two sub-programmes will be given to the actor which will provide the greatest value-added in terms of contribution to the baseline in the region. The baseline was defined by evaluation of incremental costs. In granting the leadership of the sub-programme according to the weight of contributions to the baseline, there is a better cost/efficiency if support measures are developed: allocation of appropriate human materiel and financial resources, establishment of a concerted and clear protocol for collaboration/specifications leading to results that are agreeable to all parties. For these reasons, the sub-programme for the northern region was given to the SRDP.

Coordination of each sub-programme will facilitate the partnership/consultation and conduct of sustainable land management initiatives at the regional level, as well as monitoring and evaluation and capitalization of the programme. In each region, a synergy will be developed with the actors through their partnership platforms envisaged at the various levels (communal, provincial, regional). It should be noted that in order to consolidate the investment activities on the ground, and the promotion and dissemination of best practices and knowledge exchanges on technology transfers, the regional coordination unit will have the task of creating a list of projects that are underway or being negotiated with the help of the technical and financial partners.

**Figure 1: Administrative Structure of the CPP**



## **Appendix 1**

### **Excerpts from the CPP**

#### **I. PROGRAMME RATIONALE**

The past three decades have been marked by barely supportable pressure on land resources. As a consequence, there has been a decline in agricultural production, degradation in the quantity and quality of land and grazing areas, and an impoverishment of the biological diversity (disappearance of plants, including medicinal plants, animals, birds, insects, micro-organisms, etc.), food insecurity and a deepening of poverty, and increasing competition for access to land for different usages and users. This continual degradation of natural capital is explained by the fact that government initiatives were often developed to react to the most pressing needs (response to emergencies), with a resulting inattention to sustainable land management. The short term economic and political benefits were often obtained at the price of long-term environmental damage. This is also true for users of land who have just enough to live on, and who had practically no other choice than to search for immediate benefits for their survival. Also, in many cases, sectoral development and the proliferation of institutions appears to have constituted the primary elements of development strategy. Very few efforts were developed or are developed to provide a holistic long-term vision which is shared by all the development actors (Government, populations, civil society, private sector, cooperation partners, etc.). Moreover, the decisions which are often made at the highest levels of government without any true grass roots participation render their impact fairly inefficient in terms of poverty alleviation at the local level.

The Partnership Programme for Sustainable Land Management in Burkina Faso aims to overcome these various barriers so as to promote ecosystem integrity, taking into account the spatial variation of land resources, the functioning of ecosystems and the pace of change in their status, the modes of allocating land, etc.

#### **ENVIRONMENTAL CONTEXT**

Burkina Faso can be divided into two large agro-ecological zones; each of which can in turn be subdivided into two sub-zones. The Sudanian zone has rainfall of between 600 and 1200 mm. It is divided into the south Sudanian zone and the north Sudanian zone. The climatic characteristics shown below, in particular rainfalls are subject to high irregularity from year to year. Since the beginning of the 1970s, Burkina Faso has seen chronic drought, including the most serious periods in the years 1972-74 and 1983-84.

#### **SOCIO-ECONOMIC CONTEXT**

Burkina Faso is an agricultural country and the evolution of its GDP depends essentially on agricultural production, which is largely dependent on climatic conditions, because of the modes and technologies of production used (low mechanization and little use of fertilizers). Agriculture makes up the primary source of employment and income for nearly 85 percent of the population. Agriculture contributes more than 30% of the GDP as compared to livestock, which is 16% of GDP. In the Western region, cash crops contribute 35.9% of income, followed by food crops which are 28.9%. Livestock production makes a particularly important contribution in the Northern and Centre-North regions, or 38.6% and 27.1%, respectively.

#### **POLICY CONTEXT**

The Strategic Framework to Combat Poverty (CSLP) aims to reconcile the necessities of structural reform and economic recovery with objectives for increasing the incomes of the poor and income transfers to the poorest of the poor. In Burkina Faso, the National Action Programme to Combat Desertification (PAN/LCD) also seeks to become a framework of reference for action.

The Policy Letter on Decentralized Rural Development (LPDRD) is the newest operational strategy for sustainable environmental and natural resource management. It is there to support the CSLP and the National Programme for Decentralized Rural Development (PNDRD) which follows from it and serves as a federating framework for different projects and programmes in progress and envisions the development of grassroots communities. The Rural Development Strategy (SDR) was developed at the end of 2003. Its overall objective is to ensure continued growth of the rural sector in order to contribute to the fight against poverty, strengthening of food security and promoting sustainable development. The SDR has five primary objectives: Increase agricultural, livestock, forest products, game, and fishery production through improved productivity; Increase revenues from diversification of economic activities in rural areas; Strengthen the links between producers and markets; Ensure sustainable management of natural resources; Improve the economic conditions and the social status of women and the youth in rural areas; Empower rural populations to be development actors. Burkina Faso ratified the United Nations Framework Convention on Climate Change on 2 September 1993. A pilot project was approved by the Burkina Faso government in November 2001.

## **THREATS, ROOT CAUSES AND BARRIERS TO SLM**

Land degradation has a number of root causes, which are tantamount to the major driving forces and pressures. They trigger concrete threats that manifest themselves in a general decline of both local and global ecosystem services. Responses by land users and policy makers could redress the situation to a certain extent, but a considerable number of barriers are met along the way. Some barriers are hard to remove within the context of the CPP, but others certainly can be, and their removal will contribute to sustainable land management.

- Major threats (state, impact of/on ecosystems) that have global costs are related to deteriorating ecosystem components and loss of functions. Four groups of threats can be recognized in the case of Burkina Faso. They are interdependent, as there are many feedbacks between them: (1) loss of vegetation and above-ground floristic and faunal biodiversity; (2) loss of soil nutrients, organic carbon, and below-ground biodiversity and acidification; (3) water and wind erosion, and sedimentation in and around strategic resource; (4) loss of surface and subsurface water availability, quality and reliability.
- Intermediate causes are (1) land tenure insecurity, (2) unsustainable agricultural practices, (3) unsustainable range management, overgrazing and overstocking, (3) unsustainable forest and woodland management.
- Root causes (major drivers, pressures) that turn these threats into reality include the following: (1) population pressure, (2) poverty, (3) rainfall variability and intensity and (4) moving isohyets.
- Barriers include (1) insufficient institutional and human resource capacities are found at several levels, (2) policy barriers, (3) institutional barriers, and (4) knowledge barriers.

## **II. GEF ALTERNATIVE**

Under the GEF Alternative, different stakeholders at national, intermediate and local levels have institutional structures in place, supported by enabling and effective land use policies that allow them to address both provisioning and regulating/supporting ecosystem services. This should ideally happen at the landscape level, which allows better understanding of the different ecosystem services as they largely follow landscape features. At the landscape level, communes and villages work together as landscape managers, supported by effective NGOs and government institutions, and with enabling and clear policy boundary conditions. Exchange of experiences and best practices at country scale allows communes and villages to borrow ideas from each other so as to further improve the productivity and sustainability of the landscape. The GEF Alternative makes use of the actions listed in Table 1 below. They all provide global environmental benefits, but also at the same time local benefits.

**Table 1: Framework of Expected Global Environmental Benefits in Burkina Faso**

Global Benefits	Agriculture	Forest and Woodlands	Rangeland
<i>Ecosystem Components</i>	Actions that provide global environmental benefits in relation to ecosystem components (structure and quality aspects)		
Soil, Biological and Water Resources	Soil and water conservation, Water harvesting, Small-scale irrigation, Conservation tillage, Crop rotation, Integrated and efficient water, nutrient and pest management, Agro-biodiversity maintenance, Agro-ecosystems as habitat for species and pollinators, Agro-forestry, Targeted land use planning, and buffer zone management	Management of invasive species Reforestation Woodlot development Protection of inland valley systems and other wetlands Sustainable extraction practices	Animal rotation systems, Carrying capacity assessments, Use of indigenous grass varieties and indigenous animal genetic resources, (Agro)-silvo-pastoral systems, Targeted land use planning, and buffer zone management, Protection of natural water bodies, Management of watering points, Management of trekking routes and transboundary resources
<i>Ecosystem Services</i>	The following actions provide global environmental benefits in relation to ecosystem services		
Provision of Habitat, Clean Water (e.g. groundwater recharge), Nutrient Cycling (e.g. soil productivity), and Buffer function (flood control, toxic retention), Climate Regulation and Carbon and Methane sequestration	Management of invasive species, Protection of pollinators, Zoning and land use planning, buffer zone management, IPM, Use of organic fertilizer in combination with mineral fertilizers and amendments (rock P and lime), Agro-forestry, Capture of rain water for domestic use, Agricultural waste management, Crop rotation, incl. fallow periods, Increased vegetation cover, Protection of natural water bodies, Mulching instead of burning agricultural waste, Fire management	Management of invasive species, Reforestation, Indigenous vs. exotic species selection, Sustainable logging practices, Restricted hunting, IPM, Natural woodland management, Leguminous trees (N-fixing), Woodland inventories, Woodland planning, Gallery / riverside woodlands, Tree species, Mixed woodlands (silviculture), Forest inventories (measurement of quantities sequestered)	Management of Invasive species, Preserving indigenous grass species, Targeted land use planning, and buffer zone management, IPM, Multiple watering points, if possible natural water bodies, Water harvesting, Animal waste management, Animal rotation systems, Agro-Silvo-pastoral systems, Increased vegetation cover, Fire management, Altering the feed composition for ruminants

### PRIORITY INTERVENTION SITES

The programme is intended to cover the entire country of Burkina Faso. This coverage will be rolled out gradually as a function of results and knowledge acquired from the programme. During the first five-year phase, four sites were selected: East, Centre-west, North, and Mouhoun Belt. During Phase 2, which will also last five years, the programme will be extended to all the cotton-

producing regions, parks and reserves, as well as regions with forest reserves. Phase 3 will cover the entire country. The selected sites for the North are listed in Table 2.

**Table 2: Presentation of the selected ecological areas**

Area	Sub Area	Climate zone	Ecosystems	Major problems
North Central Plateau	Pastoral zone of Louroum (Zico)	Sahelian	Pastoral zone	Drought, overgrazing, degraded soils, forest destruction
	Micro-watershed of Zondoma	Sahelian	Agro-pastoral zone	Drought, land insecurity, degraded soils, forest destruction
	Micro-watershed of Passoré	Sahelian	Agro-pastoral zone	Drought, land insecurity, degraded soils, forest destruction
	Micro-watershed of Yatenga	Sahelian	Agro-pastoral zone	Drought, land insecurity, degraded soils, forest destruction

## PROGRAMME OBJECTIVES, RATIONALE AND COMPONENTS

The Burkina Faso CPP is considered an operational programme of the SDR that has the aim of creating a less poor rural world while ensuring ecosystem integrity, functions and services for long term food security. To this end, its primary function is to assist the Government of Burkina Faso to effectively implement national action plans designed to improve the potential for production by rural populations while preserving the global environment, in particular the agro-ecosystems, natural habitats and biotopes of biodiversity, and enhanced carbon sinks and pools. The goal of CPP Burkina Faso is to combat land degradation and contribute to poverty reduction efforts through sustainable and equitable land management by preserving the ecosystem functions and integrity. The main objective is to help Burkina Faso sustainably improve the productivity of rural resources through the adoption of an integrated holistic approach that will meet its Millennium Development Goals related to reversing the current trends of loss of environmental resources. This overall objective is articulated in the following three specific objectives, which are to:

- SO 1: develop and implement a sustainable inter-sectoral partnership platform for a better coordination and an integrated approach to sustainable and equitable land management;
- SO 2: promote an enabling policy and institutional environment to better take into account and implement sustainable and equitable land management; and
- SO 3: foster an integrated approach to sustainable and equitable land management practices including innovative and/or local knowledge based practices.

## DESCRIPTION OF SUB PROGRAMMES

The CPP is organized around five sub-programmes, four of which correspond to the pilot regions, and a fifth focusing on cross-cutting policy and institutional development. Each sub-programme has similar goal and objective as the CPP framework, and harmonized outcomes, each of which contributes to the three main specific objectives of the CPP. However, the outputs and activities of each sub-programme will vary. Each sub-programme will be implemented through one or more sub-projects, throughout the 3 phases of the CPP. In the first phase, only one sub-project has been designed for each sub-programme, as such a single entity will be able to impart the necessary coordination and harmonization envisaged. The sub-programme for the Northern Region is briefly described below. The sub-projects have been identified and designed with the participation of local communities, local government, and regional authorities.

## **SUB PROGRAMME 4: NORTHERN REGION**

The goal of the SLM/North pilot sub programme is to contribute to the fight against desertification through unleashing a process of integrated natural resource management involving the empowerment of all stakeholders to combat desertification and its negative effects. The expected results are the development of a stimulating technical, organizational institutional, political and legislative environment for the rehabilitation and preservation of degraded lands. The key principles driving this activity are partnership, innovative techniques for sustainable restoration and use of land, co-management of natural resources, and participation of all stakeholders.

In this pilot phase, the capacity building and partnership development activities will be developed at a regional level, in order to create the conditions for ensuring sustainability of the programme activities. Activities in the field will be demonstration projects in certain strategic areas such as the pastoral zone and Louroum (Zico) and their peripheries, the most important dams (Tougou, Goinré, Titao, Ouahigouya) and the most degraded micro watersheds (one micro watershed per project).

### **III. COUNTRY OWNERSHIP**

#### **COUNTRY ELIGIBILITY**

Burkina Faso is eligible for GEF assistance because it has ratified many conventions related to the environment, namely: the United Nations Convention to Combat Desertification (CCD), on 26 January 1996; the Convention on Biological Diversity, on 2 September 1993; and the United Nations Framework Convention on Climate Change, on 2 September 1993. Burkina Faso is also contributing to the dynamics of regional desertification control as a member of the New Partnership for Africa's Development, the Permanent Interstate Committee for Drought Control in the Sahel, the West African Economic and Monetary Union and the Economic Community of West African States.

#### **COUNTRY DRIVENNESS**

In 2000, Burkina Faso adopted the PRSP for the period 2000-2002. The PRSP analyzes the vulnerability of the country and the factors reducing its capacity to address environmental and natural resource degradation, contributing to the vicious circle of poverty, as well as hindering its capacity to face the economic challenges imposed by globalization. Among these factors, the PRSP identifies climate variability and change, land and biodiversity degradation and the pressure on the land by subsistence farmers. The key elements in the struggle to reduce poverty in Burkina Faso are sustainable land management and combating desertification. In 2003, the PRSP was revised integrating the outcomes of the Johannesburg Summit on Sustainable Development and in order to recognize that the combating of desertification is an investment priority. In December 2003, in order to achieve coherence with the revised PRSP, the Rural Development Strategy was validated through broad stakeholder consensus. The strategy is considered by the Government as a reference framework responding to the challenges of development in rural areas, where the incidence of poverty has been constantly increasing during the last ten years. After the ratification of the CCD in 1996, Burkina Faso embarked on a participatory process for the development and adoption of the NAP/CD, which was launched by the President in June 2000. The NAP/CD is meant to be an integrating and federating framework for all programmes and projects that directly or indirectly deal with land management, combating desertification, or poverty reduction in Burkina Faso; it has the primary objective of seeking complementarities and efficiency in promoting sustainable development in the country

#### **IV. PROGRAMME AND POLICY CONFORMITY**

Regulating and supporting ecosystem services provide global environmental benefits, including sequestration and retention of carbon, conservation of genetic resources, improved (agro) ecosystem productivity and resilience, and reductions in demographic instability. These global environmental benefits in the CPP Burkina Faso will be obtained from the following type of activities, which are in line with GEF Operational Programme 15 on Sustainable Land Management (SLM): i) sustainable management of forests and woodlands; ii) sustainable agriculture; iii) sustainable management of rangelands and pastures; iv) integrated watershed management ('landscape approach'). The current policy of the Government which constitutes the reference framework for the CPP recognizes the close link between combating desertification and achieving sustainable development as a means towards poverty alleviation. There is an obvious convergence with the main OP 15 objective, which seeks to 'mitigate the causes and negative impacts of land degradation on the structure and functional integrity of ecosystems through the adoption of sustainable land management practices with the objective of contributing to improving people's livelihoods and economic well-being.'

#### **SUSTAINABILITY**

The CPP positions itself in a forward looking logic aimed at attaining environmental and socio-economic sustainability. It will mainstream environmental issues whilst being concerned with issues of equitable access to land on the part of poor and vulnerable groups. Because of the long term, three phased approach, the CPP is expected to evolve within the decentralization process framework and work towards strengthening capacities, particularly those of the newly established local governments and other local actors over the long term. These strengthened capacities and all related activities undertaken will be integrated within future institutional structures in Burkina Faso.

#### **REPLICABILITY**

The CPP is based on the partnership principle which requires joint resource mobilization and an open sharing of results, experiences and lessons learned. Monitoring and evaluation tools, such as horizontal exchange mechanisms (for example, farmer-to-farmer exchanges) offer a systematic learning and knowledge-building tool. They are good vehicles for knowledge dissemination and for sharing best practices within the country and beyond.

#### **V. INSTITUTIONAL COORDINATION AND SUPPORT**

The Government of Burkina Faso will be responsible for the CPP, in collaboration with UNDP, as the lead agency it has designated. The CPP in Burkina Faso is contributing to achieve the Millennium Development Goals (MDG), namely: Goal 1 (poverty reduction), Goal 7 (a sustainable environment) and Goal 8 (global partnership for development). The CPP aims to combat land degradation through sustainable and equitable land management.

## Attachment 1.1: Alignment with the CPP and TerrAfrica<sup>1</sup>

Pays enclavé et amoindri à bien des égards, la structure de toute l'économie du Burkina Faso est essentiellement basée sur la gestion des ressources naturelles et l'exploitation des terres.

L'agriculture, l'élevage et la foresterie mobilisent environ 85% de la population et produisent près de 2/3 des richesses nationales. 30% des terres arables du pays (81 808 km<sup>2</sup>) connaissent une dégradation avancée. 4 % autres (10 537 km<sup>2</sup>) sont complètement dégradées du fait entre autres de:

- L'augmentation de la population, l'augmentation et la diversification de ses besoins, et l'accentuation de la pression foncière autour des ressources stratégiques (aires protégées, cours d'eau et lacs, etc.) ;
- L'augmentation du cheptel: l'augmentation du nombre de têtes de bétails accroissant ainsi les besoins en fourrage et en eau, pression sur les aires protégées, cours d'eau et lacs, etc.)
- Les sécheresses récurrentes et les effets de l'érosion hydrique et éolienne.

Au nombre des conséquences engendrées par la dégradation de ce capital « terres » nous relevons: La baisse / la perte de la fertilité des terres (terres cultivées non irriguées, terres cultivées irriguées, bas-fonds et aménagements hydro agricoles, parcours) ; La régression ou disparition du couvert végétal (forêts et surfaces boisées, pâturages, etc.) et fragilisation des écosystèmes ;

L'appauvrissement de la diversité biologique généré par la destruction de nombreuses espèces végétales et des habitats de nombreuses espèces animales et floristiques ; La baisse des ressources en eaux ; Les Changements climatiques (car la dégradation du couvert végétal réduit les possibilités d'absorption des gaz à effet de serre (tel le dioxyde de carbone (CO<sub>2</sub>) à l'origine du changement climat) ; L'insécurité alimentaire ; La baisse des revenus et la persistance de pauvreté ; Les conflits entre agriculteurs et éleveurs et mouvements migratoires.

En guise de réponse à cette situation périlleuse, plusieurs initiatives ont été développées au niveau national dont notamment :

- La ratification des principales conventions de la génération de Rio relative à la lutte contre la désertification, la diversité biologique et aux changements climatiques et l'adoption des stratégies ou programme d'action afin de consacrer leur opérationnalisation au niveau national ;
- La réactualisation du CSLP en 2003 intégrant des préoccupations d'environnement et lutte contre la désertification ;
- L'adoption de la Stratégie de développement rural en 2003 ;
- L'élaboration d'un Plan d'Environnement pour le Développement Durable, en 2004 ;
- La contribution aux initiatives environnementales du PASR/CILSS, NEPAD, CEDEAO.

En dépit de ces efforts internes, force est de constater que certains obstacles et barrières subsistent à la gestion durable des terres dont :

La coordination insuffisante des actions de LCD/GRN due notamment à l'absence d'une conscience éco citoyenne et d'une volonté d'aller dans la même direction chez la plupart des acteurs et de se doter d'une vision holistique à long terme et partagée par l'ensemble des acteurs du développement ;

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<sup>1</sup> Common annex to all the CPP sub-programmes

L'insécurité foncière due à l'absence d'une politique foncière nationale qui permette en milieu rural le contrôle de la tenure et de l'affectation des terres ; La faible capacité d'intervention des acteurs (en compétences et moyens de travail).

La détérioration des termes de l'échange économique telle la vente des produits agricoles d'exportations en dessous de leur coût de revient, du fait des subventions agricoles dans les pays développés.

C'est dans ce contexte qu'en application du PANLCD, le CPP/BF fut élaboré pour contribuer entre autres à la mise en œuvre de la Stratégie de Développement Rural dont l'ambition est de parvenir à un monde rural moins pauvre, jouissant d'une sécurité alimentaire durable.

Aussi, faut-il se réjouir de son adoption tant par les parties prenantes au Burkina Faso que par le Conseil du FEM respectivement en janvier et août 2006.

#### 1- Buts et objectifs du programme

Le but du programme est de « Combattre la dégradation des terres et la pauvreté au Burkina Faso à travers un aménagement durable, décentralisé et équitable des ressources rurales ».

Pour l'atteinte de ce but, l'objectif global défini pour le programme est « d'améliorer de manière durable la productivité des ressources rurales par l'adoption d'une approche intégrée et holistique permettant d'atteindre les objectifs de développement du millénaire relatifs à l'inversion de la tendance actuelle à la déperdition de ses ressources environnementales ».

Les objectifs spécifiques retenus pour le programme sont de:

Développer et mettre en œuvre une plate-forme de partenariat durable pour une meilleure coordination et une approche intégrée de gestion durable et équitable des terres ;  
Promouvoir un environnement institutionnel et politique habilitant pour une meilleure prise en compte et la mise en œuvre de la gestion durable des terres ;  
Promouvoir des pratiques de gestion intégrée, durable et équitable des terres dont des pratiques novatrices ou basées sur les savoirs locaux.

A ce titre, sa fonction principale est d'aider notre pays à mettre en œuvre de manière efficace les plans d'action nationaux destinés à améliorer le potentiel de production des populations rurales tout en préservant l'environnement mondial, en particulier les habitats et le biotope de diversité biologique, la séquestration de carbone.

#### 2- Durée de mise en œuvre du programme

Le programme est prévu pour s'exécuter sur une durée de 15 ans avec des phases successives de 5 ans.

#### 4- Stratégie et approche du programme

La stratégie et l'approche d'intervention du CPP/ Burkina sont fondées sur les éléments suivants :  
1ère phase : Phase d'apprentissage axée entre autres sur la mise au point des instruments et outils de GDT dans les 4 zones socio écologiques retenues à cette phase ;  
2è phase : Phase de consolidation consacrée à l'expérimentation des outils développés au cours de la phase 1 et à la sécurisation foncière dans les provinces disposant des réserves de faune, des parcs et des forêts classées ainsi que des espaces de production cotonnière ;  
3è phase : Phase de généralisation du modèle à tout le pays suivant une approche bassin versant.

Ses interventions seront conduites suivants des principes communs, tels la participation, le dialogue et la négociation, la prise en compte de l'approche genre, le partenariat et la subsidiarité, l'équité, la responsabilité / imputabilité, l'approche holistique, l'approche bassin versant, la durabilité, la coordination de l'aide internationale et son efficiente et transparente utilisation aux différents niveaux de l'action gouvernementale et non gouvernementale (national, régional et local).

### 3- Zone d'intervention du programme

La couverture d'intervention se fera de manière progressive à l'ensemble du Burkina Faso en fonction des résultats et acquis du programme. Dans sa première phase de cinq ans, quatre zones socio écologiques ont été retenues : l'Est, le Centre Ouest, le Nord et la Boucle du Mouhoun. Au cours de la phase 2, le programme s'étendra à toutes les zones cotonnières, parcs et réserves de faune, ainsi qu'aux régions disposant de forêts classées. La phase 3 concernera tout le pays.

### 4- Description des sous programmes

#### 4.1. Sous programme 1: Région de la boucle du MOUHOUN

Dans sa première phase de 5 ans, les activités de renforcement des capacités et de développement du partenariat seront mises en oeuvre au niveau régional. Il s'agit de créer les conditions pour assurer la durabilité des interventions du programme. Les activités sur le terrain seront surtout des projets de démonstration sur certains types d'espaces stratégiques tels que les aires protégées et leurs périphéries (la forêt classée des deux Balés), l'aménagement irrigué de 4 000 ha dans la vallée du Sourou, la protection des berges du fleuve Mouhoun et les micro-bassins versants fortement dégradés (un micro bassin versant par province).

#### 4.2. Sous programme 2 : Région de l'EST

Il contribuera à la convergence des actions de lutte contre la désertification et de lutte contre la pauvreté au niveau régional et local tel que recommandé dans le programme opérationnel du PAN/LCD.

Le sous programme permettra la préservation d'au moins 10 000 km<sup>2</sup> d'aires protégées, dont 2 350 km<sup>2</sup> de la RBT/W, 300 km<sup>2</sup> de plans d'eau et la réhabilitation de plus de 100 km de pistes à bétail ainsi que des pâturages dégradés. Les espèces symboliques d'importances mondiales telles que l'éléphant, l'hippopotame, le lion, l'antilope, et les oiseaux migrateurs seront préservées grâce au projet. Les aires protégées d'importance stratégique pour l'environnement mondial (parc national, forêts classées, fleuve international, etc.) bénéficieront d'un mécanisme durable de conservation et de restauration.

#### 4.3. Sous programme 3 : Région du CENTRE OUEST

Il contribuera à la convergence des actions de lutte contre la désertification et de lutte contre la pauvreté au niveau régional et local, suivant la recommandation faite dans le programme opérationnel du PAN/LCD. De façon spécifique, il permettra de mettre en place un système décentralisé et concerté de restauration, de préservation et d'utilisation durable des terres de la région du centre-Ouest.

Les actions prévues comprennent l'encrage de l'approche gestion intégrée des écosystèmes aux micro bassins versants avec un schéma de planification dans lequel la gestion des ressources partagées par les populations du MBV sont gérées avec l'entière participation de tous. La gestion rationnelle des ressources en eau des cours d'eau à travers une utilisation rationnelle sera également soutenue en adaptant le type d'investissement et en prenant en compte l'impact de ces

aménagement sur les populations vivant en amont ou en aval des micro-bassins versants.

Plus de 10 000 ha de berges, 50 000 ha de forêts et des zones humides seront gérés de manière durable pendant la première phase du projet. Ces superficies pourront être au moins doublés vers la fin du projet. Les espèces symboliques d'importance mondiale tel l'éléphant seront préservées.

#### 4.4. Sous programme 4 : Région du NORD

Dans cette phase pilote, les activités de renforcement des capacités et de création de partenariat seront développées au niveau régional, en vue de créer les conditions nécessaires à la durabilité des interventions du programme. Les activités sur le terrain seront surtout des projets de démonstration dans certaines zones stratégiques telles que la zone pastorale de Louroum ( Zico) et leurs périphéries, les barrages les plus importants (Tougou, Goinré, Titao, Ouahigouya) et les micro-bassins versants les plus dégradés (un micro bassin versant par projet).

#### 4.5. Sous programme 5 NATIONAL DE DEVELOPPEMENT INSTITUTIONNEL POUR LA GDT

Ce sous programme prend en compte la création de l'Agence Nationale de Gestion Durable des Terres (ANGDT), l'Observatoire, la garantie de mécanismes financiers durables, les activités nationales de gestion et de coordination du Programme ainsi que toutes les autres activités de partenariat et celles hors site.

### 5. Coordination et gestion du programme et des sous programmes

La gestion, l'administration et le pilotage intérimaire du programme est assuré par la Cellule /Unité de Coordination temporaire, logée au CONEDD (MECV) dans l'attente de la création d'une Autorité/ Agence Nationale de Gestion Durable des Terres (ANGDT). L'ANGDT dont la mise en place est prévue au cours de cette première phase du Programme est considérée comme une structure permanente, créée au plus haut niveau et qui a reçu le mandat et l'autorité d'assurer la coordination des différents secteurs impliqués dans la gestion durable des terres.

Le CPP est organisé autour de cinq sous-programmes, dont quatre correspondent aux régions pilotes (ou zones socio écologiques retenues) et la cinquième considéré national se concentrant sur les politiques transversales et le développement institutionnel. Chaque sous-programme et son sous-projet FEM correspondant sont coordonnés par un organisme chef de file comme suit :

Sous-programme de la région Nord : Programme de Développement Rural Durable (PDRD) ;  
Sous-programme de la région Est : Programme National de Gestion des Terroirs (PNGT) ;  
Sous-programme de la région Centre-Ouest: Plate-forme multi-fonctionnelle pour les énergies renouvelables (ONG) ;  
Sous-programme de la région de la Boucle du Mouhoun: à définir car il n'existe aucun projet de base pour le moment (les options comprennent : le MFP /OCADES ou GRN/Mouhoun) ;  
Sous-programme National : la Cellule/ Unité de Coordination temporaire, logée au CONEDD (MECV) dans l'attente de la création d'une Autorité/ Agence Nationale de Gestion Durable des Terres (ANGDT).

Les sous-programmes sont considérés autonomes mais reliés entre eux par des relations fonctionnelles de communication et d'échanges. Ils seront régis par les mêmes principes communs (cf. Annexe E).

La coordination de chaque sous-programme facilitera entre autres, le partenariat/concertation et la conduite des interventions de GDT à l'échelle de la région ainsi que le suivi-évaluation et la capitalisation du programme. Dans chacune des régions, une synergie sera développée avec les acteurs à travers, entre autres, leurs Plate formes de partenariat prévues aux différentes échelles

(communales, provinciales, régionales). Il convient de noter que pour la consolidation des activités d'investissement sur le terrain, la promotion et la diffusion des bonnes pratiques de GDT ainsi que les échanges d'expériences en matière de transfert de technologies de GDT, l'Unité de coordination sera chargée d'établir une liste de projets de GDT en exécution ou en négociation, en collaboration avec les partenaires techniques et financiers.

Chaque sous-programme contient un but et un objectif similaires à ceux du CPP, ainsi que des résultats harmonisés, chacun desquels contribuant aux trois principaux objectifs spécifiques du CPP. Cependant, les productions et les activités de chaque sous-programme varieront. Chaque sous-programme sera mis en œuvre par un ou plusieurs sous-projet(s), à travers les trois phases du CPP. Dans la première phase, seulement un sous-projet a été conçu pour chaque sous-programme ; ainsi, une seule entité sera en mesure d'assurer la coordination et l'harmonisation prévues. Cependant, on espère qu'aux phases 2 et 3, chaque sous-programme aura plus d'un sous-projet. En outre, il est possible que de nouveaux projets conçus par des partenaires pour la GDT en Phase 1 soient ajoutés au sous-programme et à son cadre de coordination, sur consultation et validation par la cellule de coordination du CPP et le Comité National de Pilotage, ainsi que les systèmes régionaux de coordination.

## 6. Supervision du programme

Au niveau national : La supervision d'ensemble du programme a été confiée au MECV (Ministère de l'Environnement et du Cadre de Vie) compte tenu du rôle de superviseur que le Ministère joue déjà dans le cadre du processus PAN-LCD (fondement du CPP et de la TerrAfrica). A cet effet, la gestion politique du processus, y compris la gestion des relations avec le FEM et l'Organisme chef de file, à savoir le PNUD, ainsi que le dialogue politique avec les bailleurs de fonds relèveront du MECV. Le Ministre de l'Environnement pourrait déléguer certains aspects du processus au SG du Ministère ou au SP/CONEDD, ou encore à la structure de concertation nationale qui sera choisie. Un mécanisme de concertation permanent et efficace sera établi entre le SG et les structures choisies et servira de plate forme pour un dialogue national en vue d'assurer de façon continue la circulation des informations entre les différents niveaux de mise en œuvre du programme.

Le Comité National de pilotage du PAN-LCD servira de Comité de pilotage officiel pour le CPP afin d'assurer la synergie et la cohérence avec le PAN-LCD. Le Comité de pilotage peut constituer un Comité national scientifique et/ou un Point Focal CNUCD-CST en vue d'examiner et approuver les rapports et les documents produits par le CPP et se prononcer sur leur valeur et contenu scientifiques.

Aux niveaux régional et provincial, la supervision du programme sera confiée aux gouverneurs et aux hauts commissaires respectivement. Toutefois, au plan technique, ces fonctions seront déléguées aux structures correspondantes du CNCPDR, du CRCPSA, et du MEDEV et à la structure de concertation mise en place au niveau provincial.

Au niveau communal, la supervision du programme reviendra au conseil municipal et les fonctions techniques déléguées à la structure communale de concertation et de dialogue composée de l'ensemble des structures qui représentent les différentes formes de légitimité au niveau local (politique, sociale, économique).

La supervision d'ensemble du programme doit tenir compte des facteurs suivants :

- (i) Le programme doit compléter des projets et programmes d'amélioration des conditions de vie des populations qui sont déjà financés par les bailleurs de fonds traditionnels du pays (ligne / scénario de base).
- (ii) Il existe au niveau du PNGT2, un mécanisme de financement des interventions (Fonds

d'Innovation Local ou FIL) agréé par la majorité des partenaires techniques et financiers, et un système de suivi-évaluation des impacts qui sont fonctionnels et performants. Le CPP (et éventuellement l'ANGDT) examineront les voies et moyens permettant de s'inspirer de ces bonnes pratiques en vue de mettre en place un mécanisme financier et de suivi plus stable et durable.

(iii) L'un des objectifs du CPP est de parvenir à un décloisonnement des ministères et à une plus grande cohérence de l'action gouvernementale. A ce titre, il doit amener tous les intervenants à travailler la main dans la main à tous les niveaux de l'action. Le partage des rôles et responsabilités dans ce contexte ne se fait pas de manière verticale et dans le cadre de l'organisation actuelle de l'action gouvernementale. Bien mieux, des structures privées ou de la société civile peuvent être responsabilisées pour des mandats considérés jusqu'ici comme des « domaines réservés » de l'administration publique. Une telle innovation doit prendre en compte les ressources institutionnelles pour la supervision du programme.

(iv) Il est important de garder à l'esprit que, d'une part, le programme n'est pas sectoriel et qu'il est la propriété de tous les acteurs engagés dans sa formulation et sa mise en œuvre, et d'autre part, les départements ministériels, les services rattachés et les services déconcentrés doivent changer leurs modes d'action et faire preuve de flexibilité, d'ouverture aux autres, d'esprit de partage et, surtout, d'esprit d'appartenance à un même corps : la nation burkinabé.

## 7. Lien entre le CPP/BF et TerrAfrica

TerrAfrica est un partenariat d'appui GDT en Afrique Subsaharienne, développé autour d'un cadre de Planification conjointe de l'Entreprise. Sa mission consiste à soutenir l'extension de l'intégration et du financement des approches de la GDT en Afrique Sub-Saharienne. L'une des leçons tirées des précédents efforts visant à aborder l'agenda de la gestion des sols en Afrique Subsaharienne est que les approches restreintes ont un impact limité compte tenu d'un ensemble de contraintes de barrières politiques, institutionnelles, techniques et financières. Le Cadre de Planification de l'Entreprise TerrAfrica vise à orienter un modèle d'entreprise qui cherche à dégager les goulots d'étranglement spécifiques à l'extension d'échelle des stratégies et des investissements de la GDT. Ce modèle d'entreprise est soutenu par un vaste partenariat en reconnaissance du fait qu'aucune institution travaillant seule ne peut espérer atteindre un tel objectif, alors qu'en travaillant ensemble d'importants acquis peuvent être obtenus en termes d'efficacité, de qualité d'importance. Le modèle d'entreprise définit trois lignes d'activités, à savoir le renforcement de la Coalition, les gestions des Connaissances et les Investissements Favorables sur le plan national

Sous chaque ligne d'activité, un certain nombre de sous objectifs sont identifiés découlant de la mission d'ensemble ci-dessus décrite. Pour chaque sous objectif, une série limitée d'activités aux résultats mesurables clairs sont identifiés conformément aux Programmes annuels de Travail pour le partenariat et à partir de ce Cadre de Planification de l'Entreprise.

Le Gouvernement a demandé que le Burkina Faso fasse partie des pays prioritaires conformément au programme de travail de TerrAfrica. Le Comité Exécutif de TerrAfrica a appuyé cette requête et a fait du Burkina Faso un pays prioritaire pour une action collective, l'extension d'échelle en matière d'investissement, le renforcement des capacités, l'alignement et l'harmonisation conformément à la Ligne d'Activité 3 du programme de travail de TerrAfrica. Ce pays pourra bénéficier du soutien de tous les partenaires de TerrAfrica.

## **Appendix 2**

### **Incremental Cost Analysis**

#### **Background**

Burkina Faso's landscape is largely characterised by the Sahel region in the north and the Sudan region in the south. It has a tropical dry climate, with a long dry season and short wet season. Its vegetation ranges from steppe in the north to shrub savannah in the centre and wooded savannah in the south, west and east. The severe droughts over the last decades, the continuing growth of the population and the unsustainable management of lands and natural resources have all contributed to accelerating degradation of the natural vegetative cover and animal biodiversity. The country can be divided into two large agro-ecological zones (Sahelian and Sudanian); each of which can in turn be subdivided into two sub-zones. The Sahelian zone, which covers the north central plateau of the country where the proposed GEF project will be located, is divided into the strict Sahelian and the Sub-Sahelian zones.

The five provinces in the proposed area of GEF intervention (Bam, Loroum, Passoré, Yatenga and Zondoma) have a strategic position in the northern part of the country. At the gateway to the Sahel, they face the direct advance of desertification and rest at the top of a nationally important hydrologic system. The north central plateau contains a number of different ecological zones of national, if not international, importance. Passoré, in particular, has 1,225 ha of protected forest, providing important habitat to animal biodiversity but severely threatened by the local populations. The region continues to support a diverse fauna, including hyenas, jackals, small game, a wealth of birds and wild fowl (particularly around the wetland area at Ban), crocodiles in the pools and small antelope in the forests. The degradation of these resources is caused by both human and natural pressures, the human pressures increasing with the growth in population. Responses to these pressures have been implemented but not in a systematic way and not in all geographic areas.

#### **Overview**

The **development objective** of the proposed GEF project is to reduce the levels of poverty and to improve the living conditions of the poorest and most vulnerable rural populations in the five northern provinces by improving management of the natural resources and degraded lands (especially the fertility and productivity of the soils) and restoring the functional integrity of the threatened ecosystems in selected watersheds of the central plateau of Burkina Faso. The GEF project will be directly integrated into the rural development activities financed by IFAD's SRDP; its activities and investments will mainstream environmental considerations into the SRDP that will provide global as well as national and local benefits. The project is fully consistent with the GEF policies, focal area strategic objectives and operational programmes that address land degradation and promote sustainable land management in fragile ecosystems (specifically OP 15).

**Local and National Benefits** The expected outcomes of the proposed GEF component will reinforce the local and national benefits of the SRDP in strengthening local management of the natural resource base on which the local populations rely and in promoting conservation of common resources in the upper watersheds of the project area. This will include improving the livelihoods and living conditions of both local and transhumant populations and building social cohesion among these groups in order to reduce potential conflicts over the use of lands and natural resources.

**Global Benefits** Moreover, the GEF project's focus on sustainable land management, arresting and reversing desertification and deforestation and restoring the functional integrity of the watershed ecosystems, will realise a number of global benefits that the SRDP alone would not accomplish:

- the restoration and sustainable management of indigenous biological diversity through rehabilitation and conservation of the critical watershed ecosystems and their natural habitats for biological diversity, particularly in the pastoral zones and wetland environments
- the potential reductions in soil erosion and conservation of critical water resources resulting from improved land management practices in the watershed and pastoral zone ecosystems
- the promotion, replication and dissemination of innovative and replicable approaches, practices and technologies to address land degradation and combat desertification and deforestation
- the sequestration of carbon in the natural vegetative cover of rehabilitated woodland, rangeland and wetland systems in the watershed ecosystems
- the reduction of carbon dioxide emissions.

In addition, local and national benefits with particularly high potential for scaling up and for replicating in similar contexts within Burkina Faso or in the Sahel region of Africa would be considered of overall global benefit. Furthermore, the project shares many of the global benefits identified by the CPP and approved by GEF. The CPP identified a number of expected global benefits from instituting sustainable land management in Burkina Faso in terms of improved practices in agriculture, forest and woodland and rangeland management.

### **Baseline Scenario**

The GoBF has marshaled its own resources and leveraged those of international institutions and donors to address the urgent threats to rural communities posed by land degradation and desertification in the north central plateau. It is these GoBF programmes and projects that constitute the baseline scenario for the present GEF project. Specifically, the project will build on the ongoing IFAD-financed Sustainable Rural Development Programme (SRDP) but will also be supported by a number of other projects implemented in the north central plateau.

The SRDP will make an important contribution to achieving the development priorities of the GoBF. Financed by loans from IFAD, the WADB and the OPEC Fund, the SRDP is the latest in a series of GoBF interventions in the north central plateau designed to strengthen local capacity for participatory natural resources management, improve the security of land tenure, support local development initiatives and provide basic rural infrastructure. The SRDP, which provides the most significant contribution to the baseline scenario activities for the GEF project, consists of the following four components:

- **Rural Organization** The institutional development component is designed to empower rural organizations to take charge of the planning and management of their own development through: (i) capacity building for participatory management and co-ordination to strengthen the institutional, planning and management capacities of local/grass roots organizations, producer organizations and associations of women and youth; to perform participatory diagnostics for selected villages to provide baseline information, evaluate existing institutional capacity, prepare village development plans and design appropriate training programmes; to support the participatory preparation and implementation of village development plans as tools for local planning and management of village development activities; and to finance a programme of information, education and communication for village women and identify other approaches to ensure full participation of women and other vulnerable groups in planning and management at the village level. (ii) a community investment fund (CIF) to support implementation of the village development plans by financing priority village initiatives, such as economic and social projects (e.g. water supply infrastructure, rural roads, health units, schools, literacy

initiatives) and environmental (e.g. soil and water conservation and management) and energy projects (renewable energy).

- **Security of Land Tenure** The land tenure component implements concrete actions to secure the land tenure rights on lands currently not exploited in a rational manner and on which the modernisation of agricultural production is difficult because of conflicts and land tenure/resource ownership constraints. Among the activities to be undertaken are: (i) recognition and study of existing local land tenure systems, (ii) support for dialogue and communication among actors at the local level, (iii) training for local institutions involved in land tenure issues, (iv) testing of appropriate measures/local strategies for land tenure issues and (v) capitalising on positive experiences by influencing national policies. These activities should result in increased community awareness for resolving land tenure issues, improved capacity of local actors and institutions, and improved security of land holding and management by the disadvantaged at the village level.
- **Sustainable Development of Productive Capacity** The economic development component includes: (i) Watershed protection and management, which will implement a pilot programme of watershed management and protection in five watersheds of around 10,000 ha each, selected according to specified criteria. The proposed watershed management activities bring together the public lands, the community silvo-pastoral resources, as well as the cultivated lands in an integrated approach to land and natural resources management by the local communities. (ii) Intensification and diversification of agricultural production, which provides extension services, including information, training and demonstrations to agricultural producers on recommended agricultural practices and technologies (especially those promoting soil fertility and integrity), as well as develops local capacity to provide extension and training to rural producers. The practices and technologies include small irrigation schemes on lands near water sources, practices for integrating/reducing conflicts between livestock and agricultural production and introduction of erosion-control vegetative cover techniques. (iii) Support for income-generating activities, which complements the above activities in promoting improvements in income and creation of employment among targeted rural groups. Specifically, the sub-component supports and extends local financial services in the villages (e.g. credit unions) and develops income-generating activities (e.g. vegetable gardening, animal-raising, and agricultural processing), giving priority to women, youth and migrants.
- **Programme Organization and Management** The programme management component provides for: (i) Programme management and coordination through an independent PMCU within the MOAWF to ensure adequate planning, management, monitoring and evaluation of SRDP activities. Based in the field, the PMCU will have two regional offices to assist it in covering the five provinces of the north central plateau. (ii) Monitoring and evaluation through a dynamic information system to support the programming, management, monitoring and evaluation of SRDP community development activities. Managed by the PMCU, the information system will provide maps of the SRDP programme area and include a geographic information system (GIS).

**Baseline Benefits.** In terms of national environmental benefits, under the Baseline Scenario, the GoBF's interventions will achieve some limited reductions in land degradation (desertification and deforestation) through improved watershed protection and management. These interventions alone, however, will risk the continuing loss of watershed ecosystem environmental services and the continuing decline in the productivity of agriculture, woodlands and rangelands, further aggravating the food insecurity and living conditions of local populations in the north central plateau. In global environmental terms, the north central plateau will witness increasing occupation of lands by the expanding population, conflicts over land tenure and access to natural resources resulting in further degradation and a continuing loss of watershed ecosystem environmental services. These increasing pressures on the land resources will aggravate the risks to local biodiversity, jeopardize the ecological integrity of the watersheds and reduce the levels of carbon sequestration. In the absence of additional GEF funding, the implementation of the

aforementioned baseline set of activities is unlikely to contribute in any significant way to achieving global environmental benefits.

**Baseline Costs.** The Baseline Scenario, drawing solely on the financing from the SRDP, is estimated to cost US\$ 27.8 million.

### **GEF Alternative.**

Integrated into the programme that will be financed by the SRDP, the proposed GEF alternative will foster the use of rational and sustainable land management practices using an ecosystem approach to restore degraded natural resources of selected watersheds in the north central plateau of Burkina Faso. Within the upstream portions of the watershed ecosystems identified, the GEF alternative would finance a number of targeted interventions on a pilot/demonstration basis at critical sites, scaling up to a larger number of sites once experience has been gained.

The GEF alternative's proposed ecosystem approach will ensure that the SRDP takes into account the economic, social and environmental dimensions of development in the programme area (the SRDP addressing the first two of these, the GEF project the last). Experience in the field in Burkina Faso affirms the need for the environmental dimension to address the full watershed ecosystem, i.e. privately held, cultivated lands as well as shared community resources. The GEF alternative will ensure the complementarity between the SRDP and GEF activities, the SRDP financing investments directed at optimising the cultivated lands within the watersheds selected, the GEF financing activities aimed at strengthening the management of the shared resources in these watersheds and at planning sustainable management of resources of ecosystem importance.

The GEF alternative comprises the following components:

- **Participatory Decision-making and Environmental Planning** Complementing the SRDP's Rural Organization component, the GEF project will promote participatory decision-making and environmental planning (especially improved management of common resources and degraded lands) in the context of the socio-institutional activities of the rural development programme financed by the SRDP. As currently proposed, the SRDP will support a number of basic tools for enhancing the social and economic aspects of rural development (including raising public awareness, preparing participatory village diagnostics and development plans, providing management training, strengthening the framework for dialogue and consultation and financing small-scale village projects). However, the SRDP will not ensure adequate attention to planning and decision-making with respect to the larger ecological issues that should be considered in the programme area. To remedy this, the GEF project will finance the complementary activities that will identify and implement appropriate measures for enhancing the standard development tools of the SRDP programme, as well as extend the stakeholder dialogue and consultation mechanisms for better resource management to the watershed ecosystems.
- **Land Tenure Security and Investment Incentives** Complementing the SRDP's Security of Land Tenure component, the GEF project will promote the testing and validation of innovative mechanisms for preventing and resolving land tenure conflicts that threaten the management of critical communal resources. This represents the most challenging issue in the rural development programme financed by the SRDP and without GEF support may not address the land tenure situations that jeopardize particularly vulnerable environmental resources (e.g. natural habitats, wetlands, rangelands). The GEF project will fund targeted actions on a number of priority or particularly sensitive issues to be addressed in improving land and natural resources management, such as resolving land tenure disputes and creating incentives for better management of shared resources.
- **Ecological Integrity and Sustainable Management of Selected Watershed Ecosystems** Complementing the watershed protection and management activities to be financed under

the Sustainable Development of Productive Capacity component of the SRDP, the GEF project will undertake an ecosystem, holistic approach, focusing especially on the common pool resources neglected under the SRDP's village/inter-village area management approach. Limited to five provincial micro-watersheds of not more than 10 villages each, the SRDP interventions will address only a small, disconnected portion of the watershed ecosystems in the Mouhoun and Nakambé river basins. The GEF project, on the other hand, will undertake an ecosystem approach and will intervene in the resources critical to watershed ecosystem structure and function for the purpose of achieving global as well as national and local impacts and benefits. The watershed and pastoral zone sites selected are: (i) You watershed in Loroum Province, (ii) Bilinga-Nogo watershed in Yatenga Province, (iii) Minima-Kontoega watershed in Zondoma Province, (iv) Yako-ouono watershed in Passoré Province, (v) Guibare watershed and Lac Bam in Bam Province and (vi) Louroum (Zico pastoral zone).

- **Project Organization and Management** Complementing the SRDP's Programme Organization and Management Component, the GEF project will integrate into the overall information system planned for the SRDP the necessary information management to monitor implementation progress, as well as the environmental and socio-economic impacts of the project activities. The key indicators for such monitoring are identified in the logical framework contained in Appendix 2. A monitoring and evaluation manual will be prepared during the first year of project implementation. The information system will provide a baseline for environmental and social monitoring and facilitate subsequent evaluation and reporting on environmental and socio-economic impacts. Furthermore, it will furnish data for the northern region of the country to the national environmental monitoring system established under the PNGT. Finally, the GEF will finance a small, dedicated environmental/GEF team (two persons) to ensure the management and co-ordination of the GEF project. This team, comprising a qualified land or natural resources management specialist and a monitoring and evaluation specialist, will be fully integrated into and complement in skills the programme management unit of the SRDP. It will be supported by national and international experts and consultants as needed. The achievements and lessons learned from the GEF project, in particular with respect to the process of preparation and implementation of the watershed and pastoral zone management plans, will be disseminated widely and replicated in other national and regional contexts as appropriate.

**GEF Alternative Benefits.** In terms of national environmental benefits, the GEF Alternative will catalyze the benefits realized by the SRDP as far as reducing land and natural resource degradation, conserving watershed ecosystem environmental services and reversing the decline in productivity of agriculture, woodlands and rangelands. Furthermore, these benefits should contribute to improving the food security situation and living conditions of local populations. The GEF increment will result in better coordination of sectors and effective implementation of village development and watershed management plans and activities to the benefit of local populations. Of longer term interest to the country, the GEF increment will increase opportunities for replication of good practices across the country, thus improving the living conditions of a wider group of rural populations.

As far as global benefits are concerned, the GEF alternative will put the north central plateau in a position to realize improved management of its watershed ecosystems (lands, woodlands and rangelands) and restoration of their ecological integrity and environmental services. Furthermore, the GEF alternative will reduce the human and natural pressures on local biodiversity, contribute to the structure and function of the international watersheds and increase the level of carbon reserves in the region. In practical terms, the GEF increment should realize improved village, inter-village and watershed planning and management, result in strengthened capacity for sustainable management and increased awareness among rural populations.

**GEF Alternative Costs.** The total cost of the GEF Alternative is estimated at **US\$ 29.9 million**. The Baseline Scenario, GEF Alternative and incremental costs, as well as corresponding national and global benefits, are displayed in summary form in the following table.

**Incremental Cost Table**

<b>Project Component</b>	<b>Cost Category</b>	<b>US\$ Million</b>	<b>Local/National Benefits</b>	<b>Global Benefits</b>
Overall	Baseline		Limited reduction in land degradation (desertification and deforestation), continuing loss of watershed ecosystem environmental services, continuing decline in productivity of agriculture, woodlands and rangelands, further aggravating food insecurity and living conditions of local populations. Increasing occupation of lands, conflicts over land tenure and natural resources.	Continuing loss of watershed ecosystem environmental services, increasing pressures on land resources, local biodiversity and international watersheds. Reduction in carbon sequestration.
	GEF Alternative		Reduction in land degradation, conservation of watershed ecosystem environmental services, reversal of decline in productivity of agriculture, woodlands and rangelands, improving food security situation and living conditions of local populations.	Improved management of watershed ecosystems (lands, woodlands and rangelands) and restoration of environmental services, reduction in pressures on biodiversity, international watersheds and carbon reserves.
	Increment		Better coordination of sectors and effective implementation of village development and watershed management plans and activities to the benefit of local populations. Increased opportunity for replication of good practices across the country, improving the living conditions of rural populations.	Improved village, inter-village and watershed planning and management, strengthened capacity for sustainable management and increased awareness among rural populations. Commitment to restoration of watershed ecosystem environmental services.
Component 1: Participatory Decision-making/ Environmental Planning	Baseline	US\$ 9.9 M	Preparation of participatory diagnostics and village development plans, financing of priority village initiatives (e.g. water supply infrastructure and soil and water conservation and management)	Limited global benefits
	GEF Alternative	US\$ 10.4 M	<u>Baseline plus</u> mainstreaming of environmental management aspects into village diagnostics and development plans, financing of sustainable land management initiatives	Incorporation of sustainable land management priorities into village development framework and investment programme initiatives
	Increment	US\$ 0.4 M		

<b>Project Component</b>	<b>Cost Category</b>	<b>US\$ Million</b>	<b>Local/National Benefits</b>	<b>Global Benefits</b>
Component 2: Land Tenure Security and Sustainable Land Management Investment Incentives	Baseline	US\$ 1.6 M	Support for dialogue and communication among actors on land tenure issues, training for local actors, testing of appropriate measures and strategies for resolving land tenure conflicts	Limited global benefits
	GEF Alternative	US\$ 2.1 M	<u>Baseline plus</u> identification and validation of mechanisms for prevention and resolution of land tenure conflicts, particularly for communal resources	Resolution of potential land tenure conflicts over communal resources critical to the ecological integrity of the watershed ecosystems.
	Increment	US\$ 0.4 M		
Component 3: Ecological Integrity and Sustainable Management of Selected Watershed Ecosystems	Baseline	US\$ 11.9 M	Watershed management and protection in four watersheds of around 10,000 ha each, intensification and diversification of agricultural production, support for income-generating activities	Limited global benefits
	GEF Alternative	US\$ 12.8 M	<u>Baseline plus</u> preparation and implementation of watershed management plans, including investments incorporating sustainable land and resource management practices for agriculture, woodlands and rangelands	Mainstreaming sustainable land and resource management approaches and practices in watershed ecosystem management. Restoration of environmental services provided by watershed ecosystems
	Increment	US\$ 0.9 M		
Component 4: Organization and management, monitoring and evaluation, dissemination and replication	Baseline	US\$ 4.2 M	Management and coordination of project activities through a project management unit, monitoring and evaluation of project impacts by means of an innovative information system	Limited global benefit
	GEF Alternative	US\$ 4.4 M	<u>Baseline plus</u> additional technical staff to manage and coordinate sustainable land and resource management activities, monitor and evaluate impacts of environmental activities and promote dissemination and replication of successful experiences	Specialized capacity for managing, monitoring and evaluating land and resource management activities and practices
	Increment	US\$ 0.2 M		
Totals	Baseline	US\$ 27.8 M		
	GEF Alternative	US\$ 29.9 M		
	Increment	US\$ 2.1 M		

**Appendix 3**  
**Logical Framework<sup>1</sup>**

Global Objective	Verifiable Indicators	Means of Verification	Risks and Assumptions
<b>I. CPP Goal and Overall Objective</b>			
<ul style="list-style-type: none"> <li>- The goal of the program is: “to combat land degradation and poverty in Burkina Faso through sustainable, decentralized and equitable management of rural resources”.</li> <li>- The overall objective is: “to promote sustainable productivity of rural resources through integrated and holistic approach to achieve the MDGs”</li> </ul>	<ul style="list-style-type: none"> <li>- increased soil fertility</li> <li>- increased agricultural productivity</li> <li>- increased food security</li> <li>- income increase in targeted areas (beneficiaries)</li> </ul>	<ul style="list-style-type: none"> <li>• Site inspections of watershed and pastoral zone ecosystems</li> <li>• Field studies/technical reports</li> <li>• Annual progress reports</li> <li>• Final evaluation</li> </ul>	<ul style="list-style-type: none"> <li>• Effective systems of monitoring and evaluation established and functioning</li> </ul>
<b>II. Specific results</b>			
<b>Objective 1: Contribute to the development of a partnership platform and coordinated approach to sustainable and equitable land management</b>			
<ul style="list-style-type: none"> <li>• Result 1.1: Enhanced mechanism for SLM dialogue and consultation at the provincial and local levels</li> <li>• Result 1.2: One SLM M&amp;E system developed</li> <li>• Result 1.3: Efficient SLM financing mechanisms</li> </ul>	<ul style="list-style-type: none"> <li>- Number of functional SLM consultation frameworks</li> <li>- Number of synergies identified</li> <li>- Reduction in transaction costs</li> <li>- GIS with geo-referenced information on SLM (in line with all the sub-programmes of the CPP)</li> <li>- 60 % of stakeholders are using the database by CPP phase 1.</li> <li>- Number and frequency of M&amp;E missions</li> <li>- flow of resources supporting SLM and</li> <li>- Withdrawal rates</li> </ul>	<ul style="list-style-type: none"> <li>• Review of participatory diagnostics</li> <li>• Review of village development plans</li> <li>• Review of IEC campaigns</li> </ul>	<ul style="list-style-type: none"> <li>• Community acceptance of diagnostics and plans integrating environmental management aspects</li> </ul>
<b>Objective 2: Promote the institutional and policy contexts in view of better SLM mainstreaming</b>			
<ul style="list-style-type: none"> <li>• Result 2.1: Ensure that necessary institutional reforms establish a favorable framework for SLM</li> <li>• Result 2.2: SLM legislation are developed, coherent and enforced at all administrative levels</li> <li>• Result 2.3 Provide key SLM actors with the</li> </ul>	<ul style="list-style-type: none"> <li>- fifty (50) village development plans incorporating environmental actions/activities completed by project year 4</li> <li>- fifty (50) village participatory diagnostics incorporating environmental aspects completed by project year 3</li> <li>- Number of legislation/policy applied in relation to land tenure security</li> </ul>	<ul style="list-style-type: none"> <li>• Field studies</li> <li>• Annual progress reports</li> <li>• Use of information system</li> </ul>	<ul style="list-style-type: none"> <li>• Resistance of populations/institutions tied to customary rights of land tenure</li> </ul>

<sup>1 1</sup> Please note that the project was designed as part of GEF 3 when baseline values were not required at CEO endorsement. Baseline values will be provided during the early phase of project implementation.

<p>necessary capacity and competencies to ensure a participatory, decentralized and sustainable land management at all local administrative levels</p> <ul style="list-style-type: none"> <li>Result 2.4 Management responsibility and decision making processes are fully transferred/decentralised to local community organisations</li> </ul>	<ul style="list-style-type: none"> <li>- three (3) information/education/communication campaigns undertaken in project provinces (see component 1)</li> <li>- environmental education introduced into village schools (see component 1)</li> <li>- training in environmental governance given to officials in 30 villages (see component 1)</li> <li>- training in resource planning and management conducted in 60 villages, 1,000 villagers trained (see component 3)</li> </ul>		
<p><b>Objective 3: Promote integrated and equitable SLM practices based on innovation and local knowledge</b></p>			
<ul style="list-style-type: none"> <li>Result 3.1 Sustainable land use and resources management techniques based on local know-how and innovative practices promoted and diffused</li> <li>Result 3.2 Sustainable land and natural resources management practices adopted and replicated on a ecosystem scale</li> <li>Result 3.3 SLM experience and knowledge shared</li> </ul>	<ul style="list-style-type: none"> <li>- 5 studies completed by PY 2</li> <li>- 5 pilot PES systems identified and tested by PY 5</li> <li>- 10 pilot sites for conflict resolution identified by baseline studies by PY 2</li> <li>- area (in ha) where best practices are up-scaled – 10 % target by the CPP phase 1</li> <li>- rate of adoption of best practices (20 % of operators) by end of phase 1 of the CPP</li> <li>- access to project website</li> <li>- number of study tours</li> </ul>	<ul style="list-style-type: none"> <li>Review/field inspection of watershed management plans</li> <li>Field studies of management systems for common resources</li> <li>Field studies of alternative income activities</li> <li>Project website</li> </ul>	<ul style="list-style-type: none"> <li>Lack of shared vision/willingness of village populations to accept watershed management</li> <li>Willingness of village populations to accept alternative income-generating activities</li> </ul>
<p><b>III. Detailed outcomes, outputs and activities by component</b></p>			
<p><b>Component 1: Participatory Decision-making and Environmental Planning</b></p>			
<ul style="list-style-type: none"> <li>enhanced mechanisms for dialogue and consultation at provincial and local level to ensure harmonization and effective participation of stakeholders</li> <li>SLM consultation platform</li> <li>reinforced individual and institutional capacities for planning and sustainable management of the lands, soils and resources of the fragile watershed ecosystems</li> <li>improved incentive structures for the adoption of sustainable land management practices in watershed ecosystems</li> </ul>	<ul style="list-style-type: none"> <li>- 30 villages/1,800 villagers trained in integrated planning and sustainable management of community resources by PY 5</li> <li>- 30 village and inter-village management committees strengthened and operating by PY 5</li> <li>- SLM consultation platform at the local/provincial level established by PY 1</li> <li>- 5 pilot PES systems identified and tested by PY 5</li> </ul>	<ul style="list-style-type: none"> <li>Field studies</li> <li>Annual progress reports</li> <li>Synergies established</li> </ul>	<ul style="list-style-type: none"> <li>Coordination with traditional institutions and territorial authorities</li> <li>Capacity of beneficiaries to manage resources in their areas</li> </ul>
<p><i>Outputs/Activities</i></p>	<p><i>Indicators</i></p>	<p><i>Means of Verification</i></p>	
<ul style="list-style-type: none"> <li>Baseline studies/inventories of communal</li> </ul>	<ul style="list-style-type: none"> <li>- 5 studies completed by PY 2</li> </ul>	<ul style="list-style-type: none"> <li>Review of baseline</li> </ul>	

<ul style="list-style-type: none"> <li>resources</li> <li>• Capacity building integrated resource management</li> <li>• IEC campaigns</li> <li>• Environmental education and ecological actions</li> <li>• Strengthening local environmental governance</li> <li>• Natural resource management micro-projects (CIF)</li> <li>• Implementing incentive mechanisms</li> </ul>	<ul style="list-style-type: none"> <li>- 30 villages, 1800 villagers trained by PY 5</li> <li>- 3 IEC campaigns completed (2 by PY 3, 1 by PY 5)</li> <li>- Percentage of schools/students provided env. education by PY 5</li> <li>- 30 village and inter-village management committees strengthened and operating by PY 5</li> <li>- 20 micro-project investments co-financed by PY 5</li> <li>- 5 pilot PES systems identified and tested by PY 5</li> </ul>	<ul style="list-style-type: none"> <li>studies</li> <li>• Annual progress reports</li> <li>• Mid-term evaluation</li> </ul>	
<b>Component 2: Land Tenure Security and Sustainable Land Management Incentives</b>			
<ul style="list-style-type: none"> <li>• Innovative mechanisms for preventing and resolving land tenure conflicts identified and tested</li> </ul>	<ul style="list-style-type: none"> <li>- 10 pilot sites for conflict resolution identified by baseline studies by PY 2</li> <li>- 30 villages/750 villagers trained in conflict resolution by PY 5</li> <li>- 8 national and 2 international study tours conducted by PY 5</li> <li>- Number of conflicts reduced by 10 % by the end of the first phase of the CPP</li> </ul>	<ul style="list-style-type: none"> <li>• Field studies</li> <li>• Annual progress reports</li> </ul>	<ul style="list-style-type: none"> <li>• Success of community dialogue on land tenure issues</li> <li>• Involvement and support of customary institutions</li> </ul>
<b><i>Outputs/Activities</i></b>	<b><i>Indicators</i></b>	<b><i>Means of Verification</i></b>	
<ul style="list-style-type: none"> <li>• Detailed baseline studies on land tenure issues</li> <li>• Action/tests on mechanisms for land tenure conflicts</li> <li>• Capacity building in land tenure conflict resolution</li> <li>• Study tours</li> <li>• Dissemination of the national policy/land tenure</li> <li>• Spatial planning at provincial/communal level</li> </ul>	<ul style="list-style-type: none"> <li>- 5 studies completed by PY 2</li> <li>- 10 innovative mechanisms for security of land tenure tested ( 6 by PY 3, 4 by PY5)</li> <li>- 30 villages, 750 villagers trained by PY 5</li> <li>- 8 national, 2 international study tours conducted by PY 5</li> <li>- Dissemination to 100 villages by PY 5</li> <li>- Spatial planning completed for 17 communes by PY 5</li> </ul>	<ul style="list-style-type: none"> <li>• Review of baseline studies</li> <li>• Annual progress reports</li> <li>• Mid-term evaluation</li> </ul>	
<b>Component 3: Ecological Integrity and Sustainable Management of Selected Watershed Ecosystems</b>			
<ul style="list-style-type: none"> <li>• Sustainable land use and natural resources management techniques based on local know-how and innovative practices promoted and diffused</li> <li>• Sustainable land and natural resources management practices adopted and replicated on an ecosystem scale, improving ecological integrity, economic productivity and services of the watersheds and pastoral</li> </ul>	<ul style="list-style-type: none"> <li>- Management plans for the 5 watersheds and 1 pastoral zone prepared and being effectively implemented by PY 5</li> <li>- 20 on-the-ground physical investments in watershed/pastoral zone management are co-financed and under implementation by PY 5</li> </ul>	<ul style="list-style-type: none"> <li>• Field studies</li> <li>• Annual progress reports</li> </ul>	<ul style="list-style-type: none"> <li>• Willingness of watershed village communities to collaborate in managing communal resources</li> <li>• Sustainability of physical investments in land and natural resource management</li> </ul>

zone			
<i>Outputs/Activities</i>	<i>Indicators</i>	<i>Means of Verification</i>	
<ul style="list-style-type: none"> <li>• Baseline studies of watersheds and pastoral zone</li> <li>• Preparation and implementation of management plans</li> <li>• Physical investments to support watershed/pastoral zone management plans</li> <li>• Capacity building resource planning and management</li> <li>• Innovative mechanisms for integrated management based on indigenous methods tested</li> <li>• Sustainable management practices for agriculture</li> <li>• Capacity building for alternative income-generating activities</li> </ul>	<ul style="list-style-type: none"> <li>- 6 studies completed by PY 3</li> <li>- 6 management plans prepared and under implementation by PY 5</li> <li>- 20 on-the-ground physical investments in watershed/pastoral zone management are co-financed and under implementation by PY 5</li> <li>- 60 villages, 1,000 villagers trained by PY 5</li> <li>- 12 innovative mechanisms tested by PY 5</li> <li>- 10 sites for sustainable agricultural practices piloted by PY 5</li> <li>- Capacity building for 10 pilot villages provided by PY 5</li> </ul>	<ul style="list-style-type: none"> <li>• Review of baseline studies</li> <li>• Annual progress reports</li> <li>• Mid-term evaluation</li> </ul>	
<b>Component 4: Project Organization and Management</b>			
<ul style="list-style-type: none"> <li>• Organization and management of project activities in order to realize local, national and global benefits</li> </ul>	<ul style="list-style-type: none"> <li>- Rate of project implementation (percentage) by PY 3 and PY 5</li> </ul>	<ul style="list-style-type: none"> <li>• Annual progress reports</li> <li>• Mid-term evaluation</li> </ul>	<ul style="list-style-type: none"> <li>• Local, national and global benefits are measurable</li> </ul>
<i>Outputs/Activities</i>	<i>Indicators</i>	<i>Means of Verification</i>	
<ul style="list-style-type: none"> <li>• Organization and management of project activities at the local and regional levels</li> <li>• Functioning monitoring and evaluation system, feeding geographic information system (GIS) and the CPP</li> <li>• Start-up workshop, reporting, additional mechanisms for dissemination and replication</li> </ul>	<ul style="list-style-type: none"> <li>- Recruitment of project personnel (natural resources management specialist, monitoring and evaluation specialist) by PY 1</li> <li>- Monitoring and evaluation system in place by PY 1, feeding GIS by PY 2</li> <li>- Number of workshops and dissemination mechanisms employed by PY 3 and PY 5</li> <li>- Operational database on SLM techniques by the end of the first phase of the CPP</li> <li>- GIS with geo-referenced information on SLM (in line with all the sub-programs of the CPP)</li> <li>- 60 % of stakeholders are using the database by CPP phase 1.</li> <li>- Number and frequency of M&amp;E missions</li> <li>- Establishment of land tenure information system (component 2)</li> </ul>	<ul style="list-style-type: none"> <li>• Annual progress reports</li> <li>• Mid-term evaluation</li> </ul>	<ul style="list-style-type: none"> <li>• Database frequently and timely updated</li> <li>• Good data collection and processing quality</li> <li>• Information systems are maintained and updated frequently</li> </ul>

\* Project year

## **Appendix 4**

### **Monitoring and Evaluation Plan**

GEF project monitoring and evaluation (M&E) will be fully integrated into the existing M&E programme established for the SRDP and will ensure consistency with GEF and IFAD procedures and requirements. The GEF project M&E system will be based on the project logical framework (see Appendix 3) but will rely on the existing SRDP M&E systems (baseline) to ensure monitoring consistency between baseline interventions and GEF incremental activities. Monitoring of both the project performance and impact will be conducted in accordance with the indicators and the means of verification identified in the logical framework. The M&E system will be aligned with the CPP overall result framework and M&E modalities – indicators, data collection and sharing will be harmonized with the CPP M&E requirements to ensure that the sub-programs feeds into the national monitoring system.

#### **Project Monitoring**

The specific modalities for project M&E will be detailed at project start-up, including defining the roles of the GEF team within the existing M&E system, specifying the additional GEF monitoring and reporting requirements, etc. The terms of reference for the M&E specialist on the GEF team will be developed and clear reporting and communication lines will be defined.

The day-to-day monitoring of project implementation will be handled by the PMCU of the SRDP under the direct responsibility of the project coordinator and the M&E unit. The PMCU has already developed procedures for participatory monitoring of project activities in consultation with key stakeholders; additional procedures for participatory monitoring will be developed as necessary to accommodate GEF monitoring and evaluation requirements.

The GEF project's incremental activities will be closely monitored by IFAD in the context of its monitoring of the SRDP through regular missions and teleconferences. The GEF project team will inform IFAD of any delays or difficulties faced during project implementation in order to ensure smooth execution of project activities.

#### **Project Reporting**

The results of project activities and monitoring will be captured in the following reports:

- **Project Implementation Report** The GEF mandates an annual project implementation report (PIR) in order to review progress in project implementation. All projects under implementation for a year by the end of June of any calendar year must submit a PIR. PIRs are completed by the executing agency, in close collaboration with the project team, following a GEF PIR template. The PIR template will be shared with the GEF project team to facilitate their compliance with this requirement.
- **Quarterly Progress Reports** In addition to the annual PIR, the GEF project team will submit quarterly progress reports (QPRs) containing pertinent information and data on project progress and performance. The format for these reports is attached for ease of reference.
- **Project Terminal Report** During the last three months of project implementation, the GEF project team will prepare the Project Terminal Report (PTR), which is a comprehensive overview summarizing all project activities, outputs and results, impact, lessons learned, objectives met or not achieved etc. The PTR is the definitive review of the project's activities, but it should also include recommendations for any additional

measures that could be taken to ensure sustainability and replicability/up scaling of the project outcomes.

- **Technical Reports** Additionally, the GEF project team will be required from the outset to develop a draft plan and list of expected technical reports on relevant areas of intervention to be prepared during project implementation. If necessary, these technical reports may also be prepared by external consultants contracted by the project for particular interventions. The technical report should describe the project's contribution to specific areas and should be used as effective dissemination tools of best practices or innovations.

## Independent Evaluations

The project will be subject to independent mid-term and final evaluations:

- The **independent mid-term evaluation** will be undertaken at the end of the second year of project implementation. The purpose of the mid-term evaluation is to determine progress made towards the achievement of project outcomes and to recommend mid-course adjustments where they are necessary. The mid-term evaluation also focuses on project effectiveness and implementation efficiency. This evaluation will also identify initial lessons learned and suggest measures to be taken to improve implementation of the project.
- The **final evaluation** is similar in scope to the mid-term evaluation but takes place three months prior to the terminal tripartite review meeting on the project. The final evaluation focuses, in particular, on project impacts (local, national and global), results and sustainability; it provides recommendations for follow-up and replication of best practices.

## Project Monitoring and Evaluation Work Plan

These monitoring, reporting and evaluation activities are summarized in the following monitoring and evaluation work plan, which also include an estimated budget for these activities (see table).

**Monitoring and Evaluation Work Plan and Budget**

M&E Activity	Responsible Parties	Budget (US\$)	Timeline
Identification of project indicators	GEF project team, key stakeholders, IFAD	To be finalized in first three months of project	Start, mid and end of the project
Annual monitoring of project progress and performance	SRDP Coordinator GEF project team	To be finalized in first three months of project	Annually prior to preparation of PIR
Training of GEF team and PMCU	PMCU	10,000	At the start of the project implementation, later as necessary
Project implementation report	GEF project team	None	Annually
Technical reports	GEF project team, external consultants if needed	4,000	Ad-hoc as required
Quarterly progress reports	GEF project team and SRDP Coordinator	None	Quarterly after project start up
Project terminal report	GEF project team and SRDP Coordinator	None	At least one month before the end of the project
Mid-term external evaluation	External consultants, oversight by IFAD	15,000	Mid-term of project implementation
Final external evaluation	External consultants, oversight by IFAD	18,000	At the end of project implementation
Audit	Certified auditor, oversight by IFAD	7,500 (average 1500 per audit per year)	Annually

## **Technical Modalities of Project Ecological Monitoring**

The GEF project's environmental objective is to improve management of natural resources and degraded lands and restore the functional integrity of ecosystems in selected watersheds of the five target provinces of the North Central Plateau. The integrated management of these watershed ecosystems will provide local and national environmental benefits by reducing land degradation (desertification and deforestation), conserving watershed ecosystem environmental services, reversing the decline of agriculture, woodlands and rangelands. They will also provide global environmental benefits by mitigating land degradation, sequestering carbon, enhancing landscape biodiversity and improving wildlife habitat.

### **Gross project area:**

The project area consists of five provinces in the northern zone of the country, i.e. Bam, Loroum, Passoré, Yatenga and Zondoma, covered by the SRDP (see Map 2). These provinces are situated in the north-west agro-ecological zone, according to the classification established by the *Institut national de l'environnement et de la recherche aureole (INERA)* on the basis of rainfall and soil classification and socio-economic data. Together they occupy a surface area of 21,057 km<sup>2</sup> (8 percent of the surface area of Burkina Faso). Their population, estimated in 2003 taking into account the rate of population growth, is 385,311 inhabitants, with an average density of 66 inhabitants per km<sup>2</sup>. This large area will include five specific monitoring focal areas (FA), one per province, for monitoring and evaluation of project and environmental objectives. The GEF project interventions will occur in these FAs.

### **Net project area:**

The net project area (NPA) will consist of five focal areas (FAs) of roughly 1,000 ha each, specifically designed for monitoring and evaluating project interventions, within the five watersheds of roughly 10,000 ha each targeted by the SRDP. These watersheds are: (i) You watershed in Loroum Province, (ii) Bilinga-Nogo watershed in Yatenga Province, (iii) Minima-Kontoega watershed in Zondoma Province, (iv) Yako-ouono watershed in Passoré Province and (v) Guibare watershed and Lac Bam in Bam Province. The NPA will be the area in which improved land management practices and techniques will be implemented under the GEF project and in which the impacts of these improvements will be monitored.

### **Field Sampling Design within Focal Areas and Reference Plots:**

Field sampling will follow scientifically sound procedures developed and tested for monitoring environmental and economic impacts. These procedures are based on cost effective combinations of remote sensing and participatory surveys. Ground measurements within each focal area will be carried out using a spatially clustered sampling plan. Small field teams will be mobilized and trained for data collection at each cluster, including biophysical, site characterization data, above and below ground biomass, erosion observations, water infiltration measurements, soil augering, etc. The FAs will serve as the primary data collection sites for the project. The location of the FAs and all data collected will be geo-referenced and entered into the project GIS data base.

### **Remote sensing:**

Satellite imagery will be acquired for each FA and geo-registered. Analyses of woody vegetation cover will be completed using standard image interpretation and supervised classification techniques. Additionally, the images will be used to identify FAO Land Cover Classification System (LCCS) classes, villages, housing units, the presence of soil conservation structures,

roads, water sources including stock tanks, springs, boreholes, lakes and rivers, roads, tracks and physically degraded or barren areas.

### **Measuring impacts of land degradation:**

Large-scale diagnostics of land degradation will be done using remote sensing images. Areas will be identified and mapped as erosion sources, sediment deposition basins and reasonably stable areas. Results will be used to target land management interventions. Deforestation will be monitored along forest margins using remote sensing. Land degradation and sediment loads will be monitored in the FAs. Observations will be matched with field data and socio-economic surveys collected at the monitoring sites. Interpretation will be done for deforestation and desertification hot spots, sources of sediment, and impacts on soil fertility.

### **Ecosystem richness and biodiversity:**

Two complimentary approaches for measuring biodiversity will be used. The first, ecosystem richness<sup>1</sup>, is calculated on the basis of the type and number of ecosystems in each FA. The second approach, agro-biodiversity<sup>2</sup>, is a rapid field approach to biodiversity assessment, based on using pair-wise plant checklists of useful, common exotic and indigenous plants. Agro-biodiversity will be assessed in terms of abundance, density, and relative frequencies of plant species, and the importance of traditional, indigenous plants.

### **Monitoring rural livelihood and poverty:**

The SRDP uses participatory rural appraisal techniques to capture socio-economic indicators in the five selected watersheds. The GEF team will direct special attention to villages within the five FAs. Initially, focus group discussions with local leaders and community members will be used to introduce the GEF project to the area and to identify the major natural resource management constraints faced by the community. Focus groups will be asked to rank problems and possible interventions for these by consensus. Results will be synthesized in the village diagnostics and development plans prepared by each community.

### **Capacity Building for Implementation of the M&E Plan**

The GEF project will provide technical assistance for capacity building and supervision of the M&E activities. Capacity building will include training for the GEF team M&E specialist and for other staff (e.g. the GIS specialist) in the PMCU, as well as on-the-job experience with a national M&E expert. Assistance with supervision of M&E activities will be provided by qualified national M&E experts as needed.

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<sup>1</sup> The ecosystem richness is measured as the number of terrestrial or marine ecosystem types or biomes, based where possible on an existing classification or estimated from the description and structure.

<sup>2</sup> That component of biodiversity that contributes to food and agriculture production. The term agro-biodiversity encompasses within-species, species and ecosystem diversity.

## **Appendix 5 Project Costs**

### **I. Background and Assumptions**

**Project Duration** The GEF project is designed and has been costed for **five years**, which covers the period of the first phase of the GoBF's CPP and coincides with the remaining years of IFAD's SRDP. The baseline studies, raining and capacity building activities will take place throughout the project's duration but are expected to occur mostly during the initial years.

**Inflation and Exchange Rates** Provision for inflation (price contingencies) has been made for all items financed by the project. For purposes of this analysis, an annual local inflation rate of **2.5** percent has been used. This is consistent with the estimate used by other financing institutions. A foreign inflation rate of **2.0** percent per annum has been used for all years.

**Exchange Rate** The prevailing exchange rate at the time of data collection (**US\$= 552 FCFA**) has been used for this analysis. A constant exchange rate has been applied for the project's duration.

**Taxes** As is the practice with externally financed projects in Burkina Faso, all goods are expected to be procured free of identifiable taxes and import duties. These are considered as part of the GoBF's contribution to the project. Overall the taxes are estimated to amount to **US\$ 287,100** or 12 percent of total project costs.

**Supervision costs:** As the GEF component is an integral part of the SRDP, all fiduciary supervision costs will be covered by SRDP (not the GEF Grant)

**Procurement:** Procurement of goods and civil works and services will be undertaken in accordance with the Government procedures to the extent that these are consistent with IFAD's procurement guidelines.

**Disbursement:** Withdrawals from the grant account may be made against certified statements of expenditure in respect of eligible expenditures and in amounts as designated by IFAD. The relevant documentation justifying such expenditures will be retained by the project and made viable for inspection by supervision missions and external auditors. All other withdrawals from the grant account will be made on the basis of full supporting documentation.

### **II. Project Components**

The project investments are arranged in four components as follows:

- Participatory Decision-making and Environmental Planning
- Land Tenure Security and Sustainable Land Management Investment Incentives
- Ecological Integrity and Sustainable Management of Selected Watershed Ecosystems
- Project Organization and Management

### **III. Project Costs**

The project will be financed by a GEF grant of **US\$ 2.016 million (GEF 3 allocation for the first phase of the CPP)**. The total project costs (including physical and price contingencies) are estimated at US\$ 2,303,900. The foreign exchange component totalling US\$ 267,000 represents 11.5 percent of the total costs. Physical and price contingencies of US\$ 154,600 account for about 6.7 percent of total project costs. The investment costs, totalling US\$ 2,126,200, represent 92.3

percent of the total cost. The recurrent costs, totalling US\$ 177,700, represent 7.7 percent of the total costs. Project costs by components are summarized in Table 1. A complete set of summary cost tables are attached.

#### IV. Financing

The project will be financed by a GEF grant of **US\$ 2.016 million**, blended into the co-financing provided by IFAD, WADB, the OPEC Fund, the GoBF and the beneficiaries for the ongoing SRDP. The co-financing provided by the SRDP consists of an IFAD loan of **US\$ 16.028 million**, a WADB loan of **US\$ 3.834 million** and an OPEC Fund loan of **US\$ 2.886 million**. The GoBF financial contribution of **US\$ 3.312 million** will cover the costs of salaries, identifiable taxes and a percentage of the operation and maintenance of vehicles and equipment. The beneficiary contribution of **US\$ 1.758 million** will be provided in kind through labour for local civil works, watershed investments, etc.

**Table 1: Project Costs by Component**

<b>Components</b>	<b>FCFA (‘000)</b>	<b>US\$ (‘000)</b>	<b>% of total</b>
Participatory Decision-making and Environmental Planning	255,576.0	463	22.96
Land Tenure Security and Sustainable Land Management Investment Incentives	259,992.0	471	23.36
Ecological Integrity and Sustainable Management of Selected Watershed Ecosystems	486,312.0	881	43.70
Project Organization and Management	110,952.0	201	9.97
<b>Total Project Cost</b>	<b>1,112,832.0</b>	<b>2016</b>	<b>100.0</b>

## ATTACHMENT

### List of Tables

Table 2: Project Components by Year – Base Costs (US\$ ‘000)

Table 3: Project Components by Year – Totals including contingencies (US\$ ‘000)

Table 4: Project Cost Summary by Component (FCFA ‘000 and US\$ ‘000)

Table 5: Project Components by Financiers (US\$ ‘000)

## ATTACHMENT<sup>1</sup>

### Table 2: Project Components by Year – Base Costs (US\$ '000)

Burkina Faso  
Sustainable Land Management in the Watershed of the No  
**Project Components by Year -- Base Costs**  
(US\$ '000)

	Base Cost					Total
	2008	2009	2010	2011	2012	
1. Environmental Planning	151.5	114.0	98.0	60.5	60.5	484.5
2. Land Tenure Security	233.9	126.4	66.4	32.5	15.0	474.2
3. SLM in Watershed Ecosystems	232.5	190.0	187.5	165.0	155.0	930.0
4. Project Organization and Management	79.7	44.7	44.7	44.7	46.7	260.5
<b>Total BASELINE COSTS</b>	<b>697.6</b>	<b>475.1</b>	<b>396.6</b>	<b>302.7</b>	<b>277.2</b>	<b>2,149.2</b>
Physical Contingencies	20.5	9.5	7.8	3.2	2.4	43.4
Price Contingencies	8.5	18.0	25.3	27.1	32.3	111.2
<b>Total PROJECT COSTS</b>	<b>726.7</b>	<b>502.6</b>	<b>429.8</b>	<b>333.0</b>	<b>311.8</b>	<b>2,303.9</b>
Taxes	108.5	57.5	48.9	38.3	33.9	287.1
Foreign Exchange	144.4	39.0	32.6	26.8	24.2	267.0

**N.B: Please note that Project organisation and management includes GEF Contribution to M&E costs. (Please consider this for Attachment 1)**

### Table 3: Project Components by Year – Totals including contingencies (US\$ '000)

Burkina Faso  
Sustainable Land Management in the Watershed of the No  
**Project Components by Year -- Totals Including Contingencies**  
(US\$ '000)

	Totals Including Contingencies					Total
	2008	2009	2010	2011	2012	
1. Environmental Planning	159.0	122.1	107.2	67.0	68.6	523.9
2. Land Tenure Security	246.3	135.4	74.1	37.1	17.6	510.5
3. SLM in Watershed Ecosystems	240.1	198.5	200.7	179.8	173.1	992.2
4. Project Organization and Management	81.3	46.6	47.8	49.0	52.6	277.3
<b>Total PROJECT COSTS</b>	<b>726.7</b>	<b>502.6</b>	<b>429.8</b>	<b>333.0</b>	<b>311.8</b>	<b>2,303.9</b>

### Table 4: Project Cost Summary by Component (FCFA '000 and US\$ '000)

Burkina Faso  
Sustainable Land Management in the Watershed of the No  
**Components Project Cost Summary**

	(FCFA '000)			(US\$ '000)			% Foreign Exchange	% Total Base Costs
	Local	Foreign	Total	Local	Foreign	Total		
	1. Environmental Planning	247,591.3	19,852.7	267,444.0	448.5	36.0		
2. Land Tenure Security	205,866.2	55,892.2	261,758.4	372.9	101.3	474.2	21	22
3. SLM in Watershed Ecosystems	461,996.4	51,363.6	513,360.0	837.0	93.1	930.0	10	43
4. Project Organization and Management	131,491.9	12,304.1	143,796.0	238.2	22.3	260.5	9	12
<b>Total BASELINE COSTS</b>	<b>1,046,945.8</b>	<b>139,412.6</b>	<b>1,186,358.4</b>	<b>1,896.6</b>	<b>252.6</b>	<b>2,149.2</b>	<b>12</b>	<b>100</b>
Physical Contingencies	20,401.7	3,574.4	23,976.1	37.0	6.5	43.4	15	2
Price Contingencies	56,982.4	4,423.9	61,406.3	103.2	8.0	111.2	7	5
<b>Total PROJECT COSTS</b>	<b>1,124,329.9</b>	<b>147,410.9</b>	<b>1,271,740.8</b>	<b>2,036.8</b>	<b>267.0</b>	<b>2,303.9</b>	<b>12</b>	<b>107</b>

### Table 4: Project Components by Financiers (US\$ '000)

<sup>1</sup> Full COSTAB file is annexed to this report

Burkina Faso  
Sustainable Land Management in the Watershed of the Nc  
**Components by Financiers**  
(US\$ '000)

	The Government		GEF		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%			
1. Environmental Planning	60.0	11.4	463.9	88.6	523.9	22.7	38.3	425.6	60.0
2. Land Tenure Security	79.6	15.6	430.8	84.4	510.5	22.2	107.7	323.2	79.6
3. SLM in Watershed Ecosystems	111.6	11.2	880.6	88.8	992.2	43.1	98.2	782.4	111.6
4. Project Organization and Management	35.9	12.9	241.4	87.1	277.3	12.0	22.9	218.6	35.9
<b>Total PROJECT COSTS</b>	<b>287.1</b>	<b>12.5</b>	<b>2,016.8</b>	<b>87.5</b>	<b>2,303.9</b>	<b>100.0</b>	<b>267.0</b>	<b>1,749.8</b>	<b>287.1</b>