New Partnership for
Africa's Development (NEPAD)

Comprehensive Africa Agriculture
Development Programme (CAADP)

Food and Agriculture Organization
of the United Nations

Investment Centre Division

GOVERNMENT OF THE KINGDOM OF SWAZILAND

SUPPORT TO NEPAD–CAADP IMPLEMENTATION

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Volume IV of VI

BANKABLE INVESTMENT PROJECT PROFILE

Community–Based Natural Resources and Land Management

February 2005

SWAZILAND: Support to NEPAD–CAADP Implementation

Volume I: National Medium–Term Investment Programme (NMTIP)

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NEPAD–CAADP BANKABLE INVESTMENT PROJECT PROFILE

Country: Swaziland

Sector of Activities: Natural resource and land management

Proposed Project Name: **Community–Based Natural Resources and Land Management**

Project Location: Northern Swaziland

Duration of Project: 4 years

Estimated Cost:
Foreign Exchange..... US$2.36 million
Local Cost ..... US$0.18 million
Total..... US$2.54 million

Suggested Financing:

Source	***US$***	***% of total***
Government	254,000	10
Financing institution(s)	2,159,000	85
Beneficiaries	127,000	5
Private sector	–	–
Total	***2,540,000***	***100***

SWAZILAND:

NEPAD–CAADP Bankable Investment Project Profile

"Community–Based Natural Resources and Land Management"

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Abbreviations

BSAP	National Biodiversity Strategy and Action Plan
CAADP	Comprehensive Africa Agriculture Development Program
CANGO	Coordinating Assembly of Non–Governmental Organisations
CBD	Convention on Biological Diversity
CSO	Central Statistics Office
FINCORP	Finance Development Corporation of Swaziland
GDP	Gross Domestic Product
GOS	Government of Swaziland
HDI	Human Development Index
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
MEPD	Ministry of Economic Planning and Development
MNRE	Ministry of Natural Resources and Energy
MOAC	Ministry of Agriculture and Cooperatives
MTEC	Ministry of Tourism, Environment and Communications
NEPAD	New Partnership for Africa's Development
NGO	Non–governmental Organisation
NMTIP	National Medium–Term Investment Programme
NRMC	Natural Resources Management Committees
PIU	Project Implementation Unit
SEA	Swaziland Environment Authority
SEAP	Swaziland Environment Action Plan
SNL	Swazi National Land
SNTC	Swaziland National Trust Commission
STA	Swaziland Tourism Authority
TDL	Land under Title Deed

I. PROGRAMME BACKGROUND

A. Programme Origin

I.1. The *Community–Based Natural Resource and Land Management Project* for the sustainable utilisation of natural resources and improved land management and agricultural productivity is aimed at sustained poverty reduction, improved agricultural productivity, capacity building of communities and improved local governance through empowering communities and local authorities, to improve natural resource and ecosystem management, and to raise levels of health, education and food security, thereby stimulating economic growth. These goals will be achieved through local–level capacity–building efforts and implementation of demand–driven micro–projects that would contribute to a more sustainable utilisation of both land and natural resource use.

I.2. All over Africa, conservationists are becoming aware of the critical role of local communities in natural resource management. It is now widely acknowledged that the success and long–term sustainability of agriculture and conservation initiatives depend on support and acceptance of such interventions by the local communities. It is also clear that local people will only support conservation initiatives if they see concrete benefits and improvements to the quality of their lives.

I.3. Until recently, natural resource management in Swaziland was seen as the responsibility of the government; protected areas were established without the consent of communities who utilised the lands and people living in and around conservation areas were moved out and kept out of such areas. Local communities were neither involved in the management of their natural resources nor benefited directly from protected area management. Nevertheless, it is common knowledge that rural Swazis depend to a large extent on natural resources for food, shelter, health, livelihoods and many other aspects of their existence. As a result, forest lands continue to be degraded, grasslands are overgrazed, most wild animal species have been eradicated with some protected in the country's conservation areas, and the local populations who depend on natural resources are becoming poorer and poorer and their ability to redress the degradation is being hampered by poverty and the impact of HIV/AIDS that is decimating many rural communities.

I.4. The *New Partnership for Africa's Development* (NEPAD), which aims to "*eradicate poverty in Africa and place African countries, both individually and collectively on a path of sustainable growth and development*", clearly acknowledges that a healthy and productive environment is a pre–requisite for Africa's development. The government and people of Swaziland, like many other countries in Africa, are determined to reduce poverty and increase livelihood sources for rural people, hence the development of the Swaziland *Poverty Reduction Strategy* in 2001. The Strategy underscores the need to safeguard the natural environment to ensure long–term growth and development, and advocates for implementation of policies that prevent further environmental degradation and ecosystems losses. There is clearly a huge potential for integration of natural resource management with rural development initiatives to generate wealth and ensure the healthy environment that will contribute to sustainable development.

I.5. All national strategies and plans that have been prepared e.g. the national development strategy, the biodiversity strategy and action plan, the desertification action plan and the national environmental action plan, all promote a strong involvement of communities in natural resource management through providing the tools and skills to improve their socio–economic status and capacities whilst at the same time improve their food security and continued access to important natural resources.

I.6. In Swaziland, as in most developing countries, communities struggle to find ways to manage and finance their own development to meet their most basic of needs. The Government of Swaziland (GOS) has long been developing policy and legislative frameworks with an ultimate view to the devolution of powers of decision and responsibility for management of natural resources including land related resources (soil, rangelands, biodiversity and water) to the communities that live in the rural areas of the country.

B. The CAADP/NMTIP Linkage

I.7. In April 2004, Swaziland initiated the preparation of her *National Medium–Term Investment Programme* (NMTIP) for agriculture under the *Comprehensive Africa Agriculture Development Programme* (CAADP). The preparation of this report, carried out by national consultants, was consultative and guided by a CAADP *Steering Committee* composed of government officers, NGO and private sector representatives. Priority areas for intervention were identified and four priority project areas were agreed upon at a *National Stakeholder Workshop* in July 2004.

I.8. The five priority areas were:[1]

- Promotion of sustainable feed and fodder production and utilisation (related to CAADP Pillar 3, and crosscutting to Pillars 2 and 5).
- Promotion of value–adding activities in agriculture (related to CAADP Pillar 3, and crosscutting to Pillars 2 and 5).
- Resuscitation of Mfumbaneni hatchery (related to CAADP Pillar 3, and crosscutting to Pillars 2 and 5).
- Community–based natural resources and land management (related to CAADP Pillar 5, and crosscutting to Pillar 3).

I.9. This proposed project falls under Pillar 5 (i.e. development of livestock, fisheries, forestry and environmental sustainability) and crosscutting to Pillar 3 of the CAADP.

C. General Country Information

I.10. Swaziland is a landlocked country with a land area of approximately 17 364 square kilometres that is divided into six agro–ecological zones based on elevation, topography, climate, geology and soils: Highveld, Upper and Lower Middleveld, Western and Eastern Lowveld and Lubombo Range. Swaziland has a subtropical climate with summer rains (75 percent in the period of October till March) and distinct seasons. All regions receive a distinct seasonal rainfall, most of which falls in summer (September to March), whilst little or no rain is expected over the other months. The climatic conditions range from sub–humid and temperate climate in the Highveld to semi–arid climate in the Lowveld.

[1] The CAADP Pillars are:
1. Expansion of the area under sustainable land management and reliable water control systems.
2. Improvement of rural infrastructure and trade–related capacities for improved market access.
3. Enhancement of food supply and reduction of hunger.
4. Development of agricultural research, technological dissemination and adoption to sustain long–term productivity growth.
5. Sustainable development of livestock, fisheries and forestry resources.

I.11. Swaziland has a population of 1,01 million as per 2002 of whom 73 percent live in rural areas. Its gross domestic product (GDP) per capita in 2002 was US$1,180 and it is ranked 133 out of the 175 countries covered by the United Nations Development Programme's (UNDP) Human Development Index (HDI). The World Bank classes Swaziland as a Lower Middle Income Less Indebted country. However, per capita income of the poorest 40 percent of the population is only US$230, and 66 percent of the population live below the poverty line (defined at US$1 per day). The income distribution is skewed, as about 43 percent of the total income is received by only 10 percent of the population.

I.12. Official estimates put real GDP growth rate at 2.5 percent in 2003, well below the 3.6 percent estimated for 2002. This reflects declining rates in foreign direct investment, the slowdown in manufacturing output and low agricultural productivity from drought. Growth in manufacturing output slowed in 2003 following the closing of some major companies and depressed world demand for the country's primary commodities. The slowdown in 2003 in South Africa's economic growth, Swaziland's largest export market, was mainly responsible for the undermined demand. The loss in momentum in the expansion of economic activity is expected to continue, and this factor is reflected in the 2004 GDP forecast of less than 2 percent, partly because of the effect of drought in the 2003/04 cropping season.

I.13. The land tenure system in Swaziland can be divided into two major categories, namely communal land held in trust by the King, called *Swazi National Land* (SNL), amounting to about 75 percent of the area, and land under Title Deed (TDL), accounting for the remaining 25 percent. However, not all land under SNL is communally used: the *Ministry of Agriculture and Cooperatives* (MOAC), parastatals, leasing companies, etc., control about 31 percent.

I.14. The main land use in Swaziland is extensive grazing, of which communal extensive grazing covers approximately 50 percent of the country and commercial ranching 19 percent. Grazing takes places on natural grasslands, savannas and woodlands, which areas are also used for community forestry and natural resource extraction. Small–scale subsistence rainfed agriculture including grass–strips, homesteads and other infrastructure covers about 12 percent, whereas large–scale irrigated and rainfed crop production cover approximately 4 and 2 percent respectively. The latter is variable due to increases and decreases in cotton farming. In most years, a considerable part of the total arable land is fallow or temporarily unused. Plantation forestry including mills, firebreaks, tracks and other infrastructure covers about 8 percent and the remaining 5 percent is made up of national parks and urban areas. Cattle dominate the livestock sector in Swaziland, with a higher density of cattle on communal land than on private land. Numbers of cattle have always fluctuated as a result of drought, but the general trend has been upward until a peak of 753,000 was reached in 1992, before the severe drought of the same year. Afterwards the number of cattle has settled at around 600,000.

I.15. Estimates of the total net arable land vary from 182,000 ha to 236,000 ha. Maize is the most important crop of the small–scale rainfed agriculture, covering in 2002 about 70 000 ha of the total of 80,000 ha, whereas sugarcane dominates the irrigated agriculture, covering in 2002 about 45,000 of the total of almost 50,000 ha. Swaziland normally imports cereals (maize, wheat and rice) estimated to be about 28 percent of national consumption needs. However, in the past four years there has been a significant fall in the self–sufficiency ratio with significant increases in the imports of wheat and rice.

I.16. The majority of the population live in farm households located on communal areas and are predominantly engaged in subsistence dry land farming. The main cause of the widespread poverty in Swaziland's rural areas is the large amount of labour that is devoted to low productivity rainfed crop farming and animal rearing. This has failed to provide the majority of the rural households with an

adequate source of livelihood, thereby inducing them to survive with the help of non–agricultural employment and remittances from family members working in South Africa or the urban centres of Swaziland. Even then, there is widespread rural poverty, food insecurity and malnutrition. This is aggravated by the high incidence of HIV/AIDS and a degrading environment whose productivity is declining. The rural economy's reliance on subsistence agriculture is exacerbated by the low incentives to invest on communal SNL, and the related but distinct issue of limited availability of commercial credit to finance such investments.

I.17. The current impact of the HIV/AIDS pandemic is exacting a very heavy burden on the population and the economy. The prevalence rate of HIV/AIDS is among the highest in the world and a rapid drop in the prevalence rate is not anticipated in the near future. Increasing rates of morbidity and mortality are exacting a huge toll on the ability of households to produce food and earn income while at the same time increasing household expenditure on health and related costs. Children are particularly affected by HIV/AIDS with an increasing number of orphans and very vulnerable child headed households resulting from the over extended kinship networks. The cost to average household income of chronic illness has not been determined in Swaziland. The ability of government services to respond to the problems has been eroded by illness and mortality of government and private sector staff.

I.18. The Swaziland bio–physical environment is rapidly changing as a result of increased natural resource utilisation, rapid population growth, industrialisation, urbanisation and increasing agricultural demands. Many of these changes are negatively affecting the natural environment. The GOS responded to this challenge by initiating the development of the *Swaziland Environment Action Plan* (SEAP) which was completed in 1997. It is within this context that Swaziland embarked on the development of a *National Biodiversity Strategy and Action Plan* (BSAP). Furthermore, Swaziland signed and ratified the *Convention on Biological Diversity* (CBD) in 1994.

I.19. Swaziland has signed and ratified at least 7 International Treaties or Agreements that directly affect biodiversity conservation and land management. These are: the *Convention on Biological Diversity*; the *United Nations Convention to Combat Desertification*; *United Nations Framework Convention on Climate Change*; the *Lusaka Agreement on Co–operative Enforcement Operations Directed at Illegal Trade in Wildlife*; the *Convention on International Trade in Endangered Species of Wild Fauna and Flora*; the *Treaty on Plant Genetic Resources* and the *African Convention on the Conservation of Nature and Natural Resources*.

I.20. Access to safe water and sanitation has increased from 63 percent in 1980 to 80 percent in 1998. Access to safe water stands at 56 percent for the whole country with 37 percent in the rural areas and 91 percent in the urban areas. This inequality between the rural and urban sectors is typical for many socio–economic indicators with the rural populations worse off in many respects.

I.21. The condition of the main road network is generally considered as good with over 1,500 km with close to 1,000 km tarred. District roads, which are unpaved, stand at close to 2,000 km (71 percent of the total network).

I.22. Rural Swazis have very limited access to credit. What little financing is available usually comes from projects with donor–specific procedures or special credit programmes. In 1995 GOS established FINCORP (formerly the *Enterprise Trust Fund*) with an initial grant of E44 million to address the needs of small and medium enterprises by providing financial assistance, training and business advisory services.

D. Degradation of the Natural Resource Base

I.23. Swaziland faces the task of utilising its natural resources for economic and social development without depleting or depreciating them at the cost of future generations. The majority of rural Swaziland depend on the country's land and water resources for their agricultural mainstay as well as for settlement and sanitation, whilst the country's landscape and the flora and fauna that inhabit it, are a source of income and employment.

I.24. Degradation of the natural resources, which includes biodiversity, habitat, ecosystems, soil and land resources, in Swaziland is rapidly expanding through increasing pressure from human and livestock populations and the ever increasing demand from arable land for subsistence or commercial farming. Degradation is a reflection of socio–economic conditions and management structures, e.g. land tenure arrangements and lack of appropriate land management and use.

I.25. The negative impacts of natural resource degradation are both ecological and socio–economic. Land degradation undermines the structure and functions of ecological systems such as the biogeochemical cycles (i.e. carbon, hydrological, and nutrient cycles). Unsustainable exploitive use of natural resources is apparent through practices such as habitat destruction, deforestation, over utilisation of the biological resources, overgrazing and expanding urbanisation and settlement.

I.26. ***Natural Resource Degradation – What is the Problem?*** Although the value of Swaziland's natural resources have long been recognised by Swazis who make use of it on a daily basis, the impact of such use on the environment is not well known. There is also a lack of appreciation of the finite nature of resources, should they be misused.

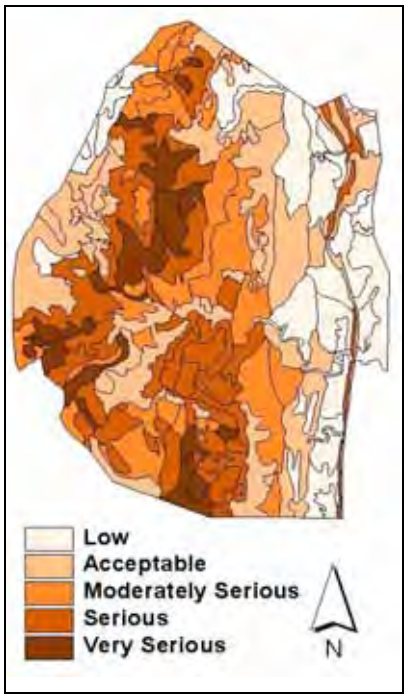

Figure 1: Erosion Status in Swaziland

I.27. The degradation of the natural resource base is a multi–faceted problem encompassing a number of processes which usually involves the accelerated alteration or removal of vegetation, water and soil. The underlying causes of natural resource degradation are intimately related to population pressure and poverty. Some of the direct causes of resource degradation are natural such as droughts, disease and bushfires which compromise the protective vegetative cover and diversity. Others are a direct result of human activities such as livestock grazing, poor agricultural land husbandry practices, or the introduction of invasive species.

I.28. Soil erosion, the most visible form of resource degradation, is most evident in the communally grazed areas, whereas it is relatively minor in arable lands, forests and nature reserves. Sheet erosion is the most widespread form of erosion, with gully erosion being the most conspicuous. Figure 1 above illustrates the status of erosion as estimated in 1995. Recent surveys since 1995 have indicated that degradation in the areas shown in the figure have remained relatively unchanged.

II. PROJECT AREA

A. Selection of Areas for Project Intervention

II.1. The study area includes the entire Kingdom of Swaziland which is between 30°45′–32°10′E and 25°40′–27°20′S though the proposed sites for project intervention are mostly located in the northern half of the country which is experiencing faster population increases and land conversions. The proposed project areas (Appendix) have been chosen from different agro–ecological zones of the country (Highveld, Upper Middleveld, Lower Middleveld and Lowveld).

II.2. These areas were selected because they are affected by poor land management practices, natural resource degradation and lack of community participation in resource management. The areas are primarily dependent upon both arable and livestock agriculture.

II.3. The selected units for project intervention are:

- ***Mbuluzi Project Area;***
- ***Maguga Dam Project Area;***
- ***Nfonjeni Project Area;***
- ***Mnjoli Dam Project Area.***

B. Overview of the Identified Project Areas

II.4. The identified project areas illustrated in the Appendix were initially identified during the course of a 2002/2004 GEF/World Bank study on identifying areas where improved natural resource management is likely to have greatest impact. The project areas represent areas of Swaziland that are either unique in the range of natural resources found within them or areas that need rehabilitation to improve the utilisation value of the resources found within such areas. The identification and prioritisation of the project areas was carried out by demarcating the country into planning units that broadly exhibited similarities in land use, tenure, biodiversity and climatic factors. Following the identification of the planning units, a set of criteria was developed to assist in the identification of priority areas that would benefit from project intervention.

(i) The Mbuluzi Project Area

II.5. The ***Mbuluzi Project Area*** (Figure 2) occurs in the central part of the country covering the Maphalaleni (72.8 percent), Ludzeludze (14.1 percent), Kukhanyeni (7.7 percent) and Mkhiweni (5.5 percent) *Tinkhundla*.[2] The unit occurs in the Mbuluzi River System catchment and covers the Lower Middleveld, Highveld, Upper Middleveld Agro–ecological Zones with tenure mainly SNL

[2] Swaziland has adopted a dual system of governance that is characterised by the interactions among the traditional system and western models of governance. At the centre of the system is the *Tinkhundla*, a non-partisan system that blends the Swazi traditional system with the modern Westminster system. At the base of the system are the communities in their respective chiefdoms, a cluster of which form an *Inkhundla* (pl. *Tinkhundla*). The *Inkhundla* is essentially the second level of government, with a Local Council, which administers its affairs and is the first entity for the co-ordination of development. It also reports to the *Swazi National Council Standing Committee* on traditional matters. The latter in turn reports to and advises the King. Complementing this structure is Parliament, which is comprised of elected members from 55 Tinkhundla as well as 10 members appointed by the King.

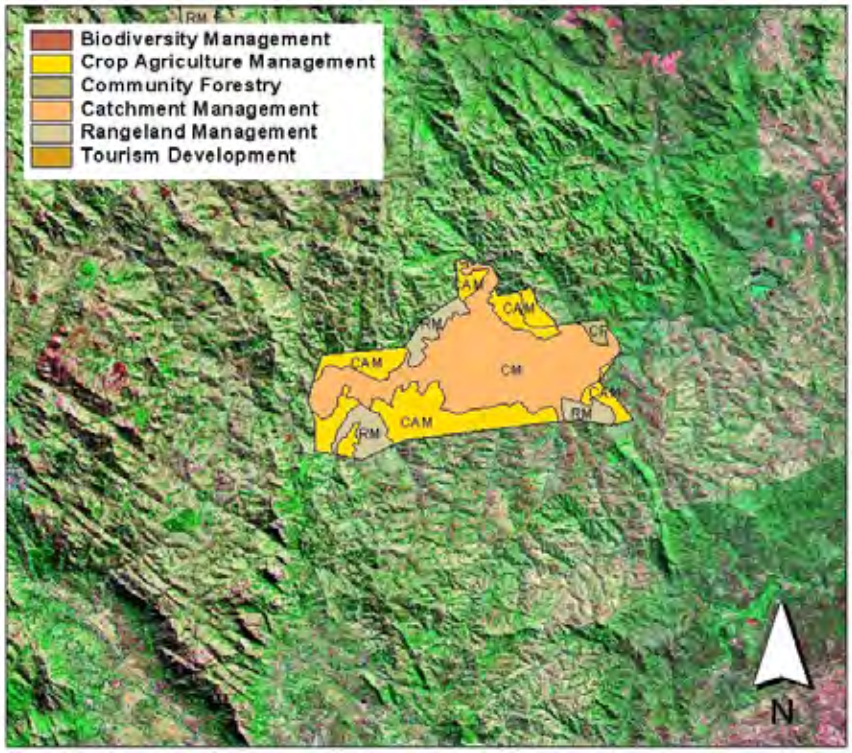

Figure 2: Project Interventions for Mbuluzi Project Area

controlled by Chiefs. The project area is some 9,676 ha in extent with an estimated population of 5,000. From CSO records, the average population density can be classified as low (10–30/km^2) but this varies from very low to high in different parts of the unit.

II.6. The predominate land use is extensive communal grazing, with minor small scale field cropping and exploitation of natural vegetation. The soils are predominantly shallow on slopes but there are also deep red and brown soils in valleys and level areas which are moderate to poor suitability for crops. The inherent vegetation is Upper Middleveld Hill Grassland, Highveld Hill Grassland.

II.7. The need for land rehabilitation and erosion control is considered moderate to severe with extensive gully and sheet erosion occurring mainly on rangelands on SNL. Natural thicket and bushland vegetation degraded (in lower part of unit). Encroachment of *Lantana camara* along water courses in particular the Mbuluzi River. The area is considered to have moderate importance for watershed management as it covers the medium and upper catchment of tributaries to Mbuluzi.

(ii) The Maguga Dam Project Area

II.8. The ***Maguga Dam Project Area*** (Figure 3) occurs in the central to north part of the country covering the Piggs Peak (50.4 percent) and Nkhaba (49.6 percent) *Tinkhundla*. The predominate land use is ranching (extensive commercial grazing). The project area is some 7,350 ha in extent with an estimated population of 4,500. The area lies within the Komati River System catchment and is considered to have high importance for watershed management as it covers the upper catchment of Komati River which has essential economic functions for commercial irrigators downstream.

II.9. The area occurs in the Upper Middleveld and Highveld Agro–ecological Zones with tenure mainly SNL (81.2 percent). The soils are predominantly shallow and poor. The inherent vegetation is highly varied covering Highveld Steep Hill and Mountain Grassland, Lower Middleveld and Lubombo Footslope Bush, Upper Middleveld Valley Broadleaf Savanna, Highveld Hill Grassland, Upper Middleveld Hill Grassland, Highveld Steep Hill and Mountain Grassland. From CSO records, the average population density can be classified as moderate density (30–60/km^2) overall but high around Maguga Dam and very low in the eastern part of the unit.

II.10. The need for land rehabilitation and erosion control is considered to exhibit moderate erosion but in places severe with moderate degradation of the Highveld and Upper Middleveld Grassland and the bushland on the lower slopes. Encroachment of alien species especially on the lower Komati River slopes is an increasing problem.

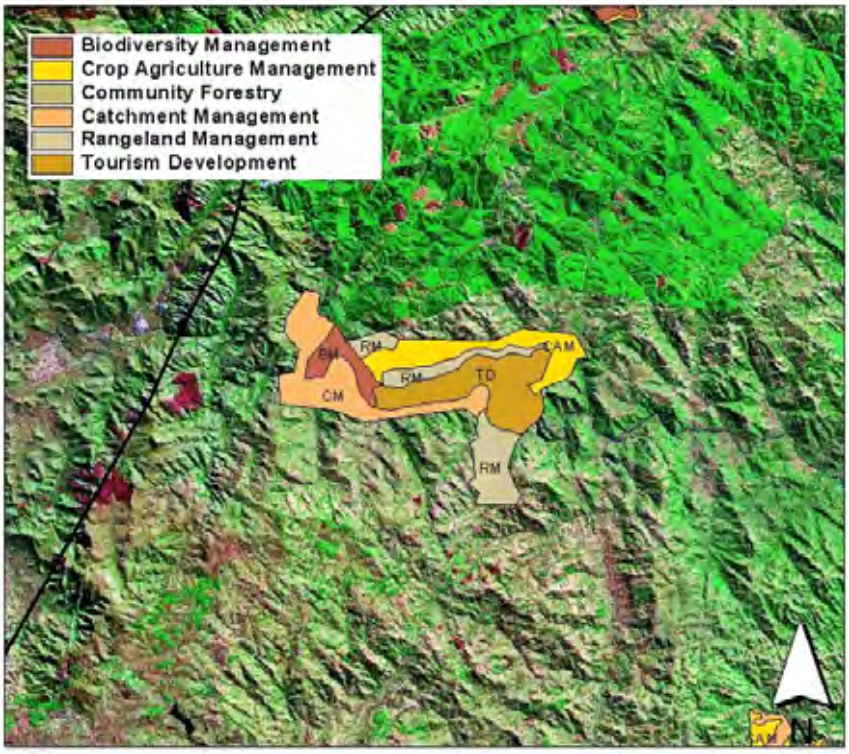

Figure 3: Project Interventions for Maguga Dam Project Area

(iii) The Nfonjeni Project Area

II.11. The ***Nfonjeni Project Area*** (Figure 4) occurs to the north of Piggs Peak in the northern part of the country covering the Nfonjeni (91.6%) and Timpisini (8.4%) *Tinkhundla*. The predominate land use is extensive communal grazing, with minor small scale field cropping (mainly in the valley bottoms) and the exploitation of natural vegetation and community forestry. The project area is some 6,506 ha in extent with an estimated population of 6,500. From CSO records, the average population density can be classified as high (60–110/km^2) but moderate to low in central part of the unit.

II.12. The area occurs in the Komati River System catchment and is considered to have high importance for watershed management as it covers the upper catchment of Lomati and Komati River which has essential economic functions for commercial irrigators downstream. The area covers the

Upper Middleveld, Lower Middleveld, Highveld Agro–ecological Zones with tenure mainly SNL controlled by Chiefs.

II.13. The soils are predominantly moderate with better soils found in the valley bottoms. The inherent vegetation is varied covering Highveld Steep Hill and Mountain Grassland, Lower Middleveld Plain Broadleaf Savanna, Upper Middleveld Basin Grassland.

II.14. The need for land rehabilitation and erosion control is considered to exhibit moderate to slight erosion and degradation of the natural vegetation. Expanding settlements and farming (arable and grazing) and new access roads are increasing land degradation in the unit.

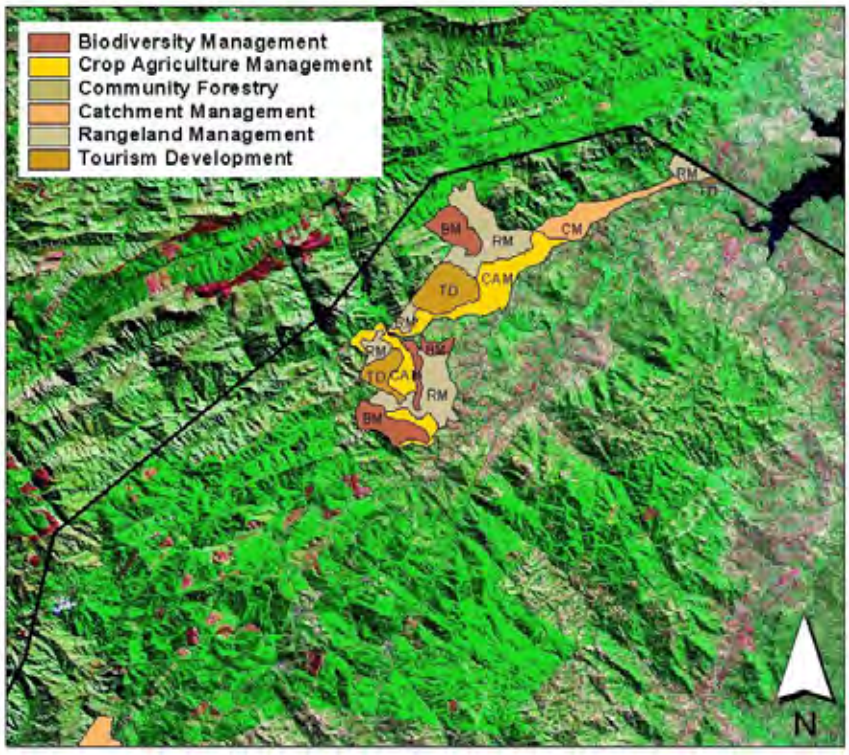

Figure 4: Project Interventions for Nfonjeni Project Area

(iv) The Mnjoli Dam Project Area

II.15. The ***Mnjoli Dam Project Area*** (Figure 5) occurs around Mnjoli Dam in the north–east part of the country covering the Mkhiweni (57.9 percent), Hlane (23.3 percent), Mhlume (9.4 percent) and Madlangempisi (9.4 percent) Tinkhundla. The project area is some 12,662 ha in extent and an estimated population of 2,500. From CSO records, the average population density can be classified as moderate (30–60/km^2) on SNL but very low on the eastern part which is TDL.

II.16. The predominate land uses range from extensive communal grazing with subordinate (25–50 percent) small–scale rainfed annual field cropping, however minor in NW part to small–scale rainfed annual field cropping with subordinate extensive communal grazing and extensive communal grazing and small scale field cropping (25–50 percent) and a minor part ranching and commercial agriculture (sugarcane on the northern banks of Mnjoli reservoir).

II.17. Although the area is heavily utilised for grazing and farming, an opportunity exists to better improve crop management and resource utilisation. The need for land rehabilitation and erosion control is considered to exhibit slight to moderate soil erosion with increasing degradation of the Combretum/Terminalia Savanna. Encroachment by *Dichrostachys cinerea* and other alien invasives is an increasing problem particularly on the grazing areas.

II.18. The area occurs in the Mbuluzi River System catchment and is considered to have low importance for watershed management as it covers the lower catchment of Mbuluzi River in a plain position. The area covers the Western Lowveld and Lower Middleveld Agro–ecological Zones with tenure mainly SNL controlled by Chiefs. Some land on the south shore of the Mnjoli Reservoir is TDL. The soils are moderately suitable for crop production. The inherent vegetation is varied covering Western Lowveld Combretum/Terminalia Savanna, Lower Middleveld Plain Broadleaf Savanna.

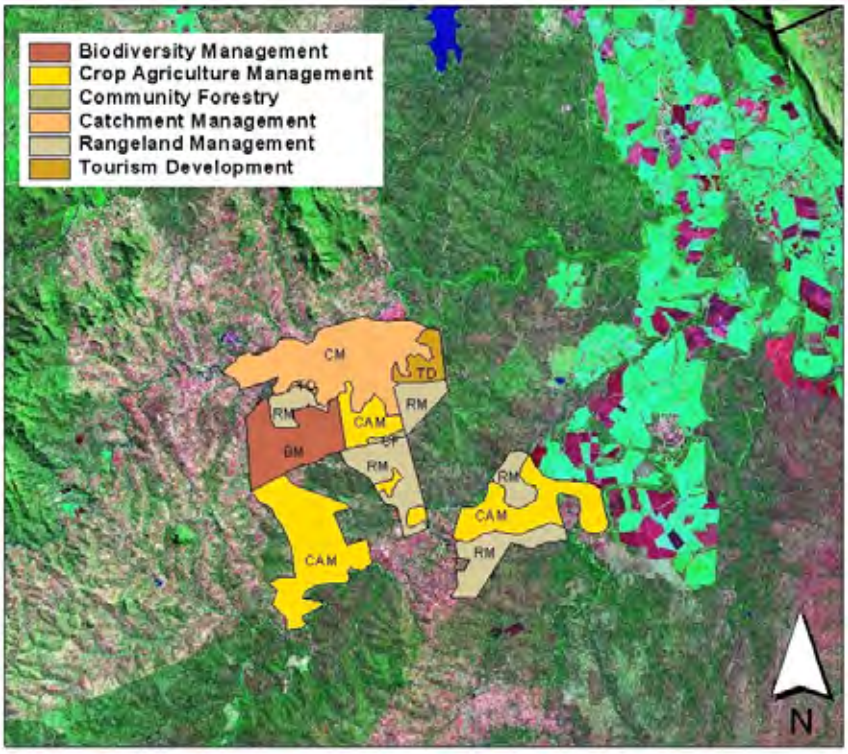

Figure 5: Project Interventions for Mnjoli Dam Project Area

III. PROGRAMME RATIONALE

III.1. The rationale behind this project is that the current threats to the environment and sustainable production systems can only be removed through pro–active community participation in natural resource management to improve land management practices and agricultural productivity.

III.2. From the analysis and discussion in the previous sections it can be concluded that resource degradation is a critical problem in Swaziland. The loss of resource productivity through land degradation in all its forms, is a major obstacle to sustainable development and a contributing factor to the continuing cycle of poverty in rural communities and loss of biodiversity and ecosystem functions.

III.3. Resource degradation in Swaziland is caused by a complex series of interdependent factors most of which can be traced back to the core issues of common property rights and the free access to communal land without sustainable land management systems being in place. In general there is a good understanding within Swaziland of the causes of resource degradation, however, identifying viable solutions to these problems presents the key challenge.

III.4. There has been one major success in promoting sustainable agriculture and soil conservation, notably the Kings Order of 1953 which enforced the use of grass strips and contour ploughing on cultivated lands. A similar approach to the management of communal land is required to promote the use of traditional communal structures to implement improved sustainable management of communal land.

III.5. Numerous GOS policies have recognised resource degradation as one of the key factors that must be tackled as a matter of urgency to promote poverty alleviation and sustainable development. Previous research, reports and current policy documents have outlined a comprehensive set of policies, plans and recommendations for addressing all the issues contributing to the occurrence of natural resource degradation.

III.6. It is clear that to produce real change in resource management in Swaziland any projects proposed must provide a framework for community based resource management and a mechanism for implementation of specific recommendations. In the region and world–wide, community based resource management is being developed as a sustainable solution to problems of communal land management through a participatory approach and partnerships. One of the key issues in Swaziland is to provide a focus for improved resource management and concentrate efforts from different sources on tackling the causes and symptoms of resource degradation and empowering the affected communities.

III.7. National experience in natural resource management is very limited. One project currently underway in the north east of the country is attempting to modify resource utilisation patterns through training and awareness raising of the causes and remedies. Early indications from the *Shewula Community Project* are promising with community members eager to learn more and apply what they have been taught or shown. Access to capital to implement non–traditional methods of resource management has been a major obstacle though a donor is currently supporting many of their activities.

III.8. Using the experiences from Shewula, it is evident that the most effective way of tackling resource degradation nationally would be to design and implement a programme which takes an holistic approach to natural resource management and provide alternatives to current resource utilisation patterns. Such an approach needs to address three key requirements:

- the need for resource management and co–ordination;
- the need to develop community based natural resource management plans, structures and skills; and
- the need to improve opportunities to increase incomes.

III.9. The ***interventions*** described over the following pages have the following characteristics:

- They are ***long term*** (about 10–15 years) in order to build capacity and manage the natural resources, yet they give priority to improved utilisation of available resources for

income–generating and food security interventions that meet the short–term basic needs of the poor;

- They are ***integrated and multi–sectoral*** rather than narrowly sector–specific, to reflect the diversity of needs and address constraints to productivity that lie outside of agriculture;
- They stress ***sensitization, community organization, participation, and capacity building***, instead of public works and heavy technical assistance;
- They are ***decentralized*** (both in terms of products and processes) and demand–driven (guided and managed by local communities), as opposed to depending on decisions and resources from central government;
- They encourage ***communication*** and horizontal circulation of information;
- They recognize and support the ***potential of women and young people***.

IV. PROJECT OBJECTIVES

IV.1. The ***overall objective*** of the project is to improve agriculture productivity, land management and natural resource management and utilisation through community empowerment and sustainable and rational land use planning. To achieve this objective project interventions to assist the affected communities are needed to assess the need and status and develop plans in collaboration with the communities that map out key management interventions.

IV.2. The ***specific objectives*** of the project are the:

- Formation of Natural Resources Management Committees;
- Development of Catchment Management Plans;
- Development of Community Forestry Plans;
- Development of Rangeland Management Plans;
- Development of Biodiversity Management Plans;
- Development of Crop Agriculture Management Plans;
- Facilitation of Tourism Development;
- Promotion of Small Enterprises Development.

IV.3. To ensure sustainability and relevance to the project area, community participation in the preparation of each plan is critical. Participatory procedures and methods will be developed in collaboration with the communities to make sure such procedures and methods are relevant and understood by the communities. Scientific and technical assistance and advice in the preparation of the plans is essential to make sure plans developed are technically feasible though their eventual design will be influenced by the needs and capacity of the contributing communities.

IV.4. The proposed formation of community–based *Natural Resources Management Committees* (NRMC) within traditional administrative areas (i.e. local authorities within Chiefdoms) composed of

peer selected members of the community with a demonstrable commitment and understanding of core resource management issues, will contribute to improved uptake and participation by the community. Women are likely to be the focus of the project as they have demonstrated in other national projects to be more committed to resource management and are often the direct beneficiaries.

V. PROJECT DESCRIPTION

V.1. Through interventions promoted by the project, communities will be assisted to prepare and implement a range of land use plans with the project providing the technical assistance needed and funds to operationalize the plans.

V.2. Interventions to improve NRM and Land Management in the identified Project Areas are as varied as the units themselves, however, every area exhibits key challenges in improving NRM and land management and these challenges can be broadly defined. The spatial distribution of the identified units across the country covering a range of physiographic and social conditions means that the identification of possible interventions was limited to interventions that could be common to all units.

V.3. Broadly, the following ***interventions*** are envisaged for each project area:

V.4. ***Formation of Natural Resources Management Committees.*** This intervention seeks to empower local communities with the knowledge and expertise to tackle resource utilisation and management issues applicable in their areas. In line with recommendations made in the *National Forest Policy*, community–based NRMCs are to be formed as a means to bring resource management decisions to an appropriate level for sustainable management and use of natural resources within a communities area of influence.

V.5. This intervention is common to all identified project areas as it is viewed as critical for the project that grass roots action and responsibility is passed down to communities. The intervention seeks to form and train identified community members in sustainable resource management through the strengthening of identification, description and dissemination of indigenous NRM knowledge systems and the strengthening of innovative and sustainable local land use planning and management capacities. The same committees will be key contributors in the formulation of all other interventions.

V.6. The project will support a range of activities for communities in the identified project areas such as:

- Provision of information for local communities about their resource use and impacts to enable them to prioritize actions;
- Awareness raising and dissemination of best practices amongst local communities, advocacy groups and national decision–makers, thereby influencing policies by providing access to information;
- Preservation and dissemination of indigenous knowledge and experience on an inter–community level;
- Support for the production of local resource–use plans and mediation tools to prevent and resolve user conflicts over natural resource use;

- Development of a strategy and operational mechanism to achieve a synergistic long–term partnership amongst those involved including national and international donors and NGOs, programs, firms, organizations and other institutions for integrated ecosystem concepts; and

- Support for national and sub–regional (Southern Africa) exchange of ecosystem management experience among communities, particularly regarding local knowledge for combating desertification and for preserving biodiversity features of local ecosystems.

V.7. ***Development of Catchment Management Plans.*** The critical function of water catchment to both communities living within such catchments as well as downstream users is viewed as important for ecosystem functions and services. With a degrading catchment both sets of users bare the consequences of poor function. This intervention seeks to introduce strategic and practical rural water planning, development and conservation to sustain the critical service of access to clean water and sanitation that should result in a healthier community. In light of the recently passed Water Act, catchment management plans are the cornerstone of integrated water management planning and with time, the benefit of improved catchment management upstream could be translated into a viable service that downstream users pay for.

V.8. This intervention also seeks to provide support for community based soil conservation and land rehabilitation projects that would improve catchment functions and in the medium term provide improved benefits to communities and in the longer term to downstream water users in particular irrigators who rely on a sustained river flow for their commercial enterprises.

V.9. ***Development of Community Forestry Plans.*** The reliance of many rural communities on natural timber for fuel and building purposes is well documented. The increasing population of many rural areas is placing additional pressure on available timber resources to the point where in some areas, timber loss is having a direct economic and ecological impact on communities and their land resource. This intervention seeks to identify and map priority areas where the introduction of community forestry and management plans for existing resources will reduce pressure on natural timber resources. The intervention should see an improvement in forest and woodland management and an increase in the sustainable extraction of forest products.

V.10. The range of non–timber products from well managed forestry has been well documented during the preparation of the Forest Policy and the benefits that arise from such management can be used by the participating communities.

V.11. ***Development of Rangeland Management Plans.*** The communal range or grazing lands within the identified project areas are considered to be in a poor condition that are resulting in excessive annual rates of erosion and soil loss and the sedimentation of many water courses. Institutionalised range management on SNL is missing and governments attempts to try and rationalise access and utilisation of communal land is poor. Many attempts over the years to improve range management have failed for a variety of reasons, most important of which stems for the grazing areas being classified as communal with no direct ownership or management responsibility.

V.12. This intervention seeks to pilot improved communal grazing management within the identified areas for improved range management. The specific intervention activities will have to be developed during project implementation in close consultation with the land users and livestock owners. The approved *Livestock Development Policy* offers policy support for measures to improve

range management and by piloting methods for improving this management, the practice could be replicated in other areas.

V.13. ***Development of Biodiversity Management Plans.*** For many rural communities there is a heavy reliance on biodiversity for a range of products including medicinal, food and cultural products. Within the identified areas for project intervention, the impact of invasive plants is considered to be at such a level as to be negatively impacting on biodiversity and ecosystem function.

V.14. This intervention seeks to introduce innovative and practical methods to control invasive alien plants as part of an overall protection strategy for biodiversity conservation and management. It is envisaged that the NRMC formed in each area, will also be empowered and supported by the project and relevant government institutions to strengthen community based nature conservation and biodiversity management.

V.15. ***Development of Crop Agriculture Management Plans.*** With an increasing rural population on a finite land resource, there is increasing pressure on available arable land for food production. In addition, the impact HIV/AIDS on rural communities is limiting their effective ability to ensure food security.

V.16. This intervention seeks to introduce improved methods for food production e.g. conservation agriculture (conservation tillage, soil cover, crop rotation) as well as the promotion of crop diversification and improved cultivation practices e.g. through the introduction and distribution of drought tolerant species e.g. cassava, pigeon pea. In addition to direct food production, the intervention seeks to improve the cash economy of the rural areas through the stimulation of small agriculture–related enterprises e.g. bee keeping, pigs, poultry, fisheries where appropriate and relevant.

V.17. ***Facilitation of Tourism Development Plans.*** To exploit the natural beauty and resources of all the identified areas, the introduction of tourism–related initiatives is considered to be an important objective of the project through the stimulation of and support for community based eco–tourism and the introduction of pro–poor tourism initiatives. The *Swaziland Tourism Authority*, with technical and financial support from the EU, is currently promoting community–based tourism and have put in place methodologies to facilitate the expansion of tourism and its related positive economic spin–offs for the communities involved.

V.18. This intervention seeks to assist communities living in areas with recognised tourism potential with the skills and resources necessary to establish tourism based activities. Working closely with other partners and initiatives, communities will be supported to develop marketable enterprises that will generate an income for the participating communities. Mapping spatial areas for such an intervention is difficult without extensive analysis of the tourism opportunities of a given area and the view and capacity of communities to identify and develop key activities.

V.19. ***Promotion of Small Enterprises Development.*** To improve the cash economy of the rural areas this intervention seeks to identify and support suitable small enterprises e.g. handicrafts, small service providers (equipment repairs, building, brick making, etc.) that add financial benefit to the participating communities. Specific details of the types of activities and where they could develop will be worked out during the implementation of the Project and as such are not mapped. It is envisaged that Small Enterprises Development could occur in all project areas.

Project activities related to specific project interventions	
Intervention	**Activities**
Formation of NRMC *Community–based Natural Resources Management Committees (NRMC) formed, trained and functioning*	Identification and Review • Design, pilot and implement a Participatory Natural Resource Management Appraisal (PNRMA) activity with a range of stakeholders (including NR user groups within the identified unit) to identify the interests of various stakeholders in the use of land, resources and products with an emphasis on women's issues • Through the PNRMA process, review the current situation with respect to existing resource utilization and availability within the identified unit identifying critical resources that are of significant values to the identified unit and users • Through the PNRMA process, systematically identify, map and define all chiefdom boundaries in the identified unit and apply the demarcated chiefdom areas in land management and communal development initiatives • Review the current situation with respect to community development organisations, water and sanitation committees, etc. at Tinkhundla and community level and establish the relationship between the existing structures and proposed Community–based Natural Resources Management Committees (NRMC)
	Selection and Training • Through the PNRMA process, define the role and functioning of NRMC and in consultation with MOAC Forestry Department, formulate an operational constitution and modus operandi • Prepare suitable training programmes for community–based NRMCs and involve extension and other rural development officers and NGOs in executing training programmes • Select suitable and trainable community members through the Tinkhundla administrative system acknowledging the significant role of women in natural resource management for community–based NRMCs • Train the selected community members of the NRMCs and establish direct linkages between the community training programmes and select other suitable project activities • Train selected community–based NRMCs in the identified unit area in sustainable natural resource management appropriate to the local conditions
	Implementation and Monitoring • Execute an appropriate number of pilot projects in natural resource management with trained community member under supervision from GOS extension officers and NGOs • Monitor and evaluate the effective participation of communities in natural resource management • Undertake or support research to identify and describe indigenous knowledge systems to manage natural resources in the identified unit with an emphasis on coping with drought and declining natural resource base and disseminate and transfer indigenous knowledge to other identified unit areas and communities through workshops, media and field visits
Catchment Management Plans *Strategic and practical rural water planning, development and conservation improved in identified unit*	Catchment Management Plan • Prepare a Catchment Basin Management Plan following the principles of the Water Resources Master Plan as defined in the Water Act 2003 and the UN Millennium Development Goals • Prepare an action plan for use in soliciting funds for implementation
	Water and Sanitation Plan • Review and appraise current water use and sanitation, planning and developments and identify critical areas for intervention. • Identify relevant and successful water utilisation, abstraction, conservation and protection strategies in use in the country and recommend and demonstrate to extension workers, NGOs and communities • Prepare a Community Based Management for Rural Water Supply Plan for rural water development in the identified unit in consultation with all major stakeholders and role–players (including Rural Water Supply Board and recent JICA funding options) with priority to provision of clean domestic water supply and sanitation

Project activities related to specific project interventions	
Intervention	**Activities**
Catchment Management Plans (cont.)	Water and Sanitation Plan (cont.) • Implement the Community Based Management for Rural Water Supply Plan in identified unit • Monitor and evaluate the implementation of the Community Based Management for Rural Water Supply Plan
	Soil Conservation and Land Rehabilitation • Identify, appraise and map degraded areas within the identified unit and assess their significance and threat to the overall productivity of the identified unit • Train the NRMC in soil conservation and rehabilitation methodologies and techniques for implementation in degraded areas of the identified unit • Design and implement community–based soil conservation land rehabilitation projects through the NRMC • Monitor and evaluate the land rehabilitation and conservation projects
	Land Management and Land Use Planning • Identify and review appropriate innovative and sustainable local land management approaches for improving land use in the identified unit in consultation with stakeholders and prepare a Land Use Plan • Distribute the Land Use Plan in the identified unit and appraise key stakeholders (mainly traditional authorities) on its purpose and relevance
	Rangeland Management Planning • Investigate options for improved communal grazing management and prepare rangeland management plans
Biodiversity Management Plans *Improved invasive plant control in identified unit area as part of overall protection of biodiversity*	Invasive Plants • Conduct inventory of invasive alien plant distribution and species composition in the identified unit and determine significance of the threat and map. Besides threats to biodiversity, consideration should be given to threats to ecosystems services, agriculture, forestry, health, and trade whilst taking into account the various human dimension and economic aspects of invasive alien species. Identify priority areas for intervention • Review and assess the most appropriate method of control or eradication for each species and problem area (e.g. mechanical clearing, herbicides, biological control) • Design and implement pilot projects in priority identified unit • Evaluate pilot projects results and submit to the Project Implementation Unit programme to eradicate and control alien invasive plants in the wider project area
	Habitat Rehabilitation • Review and assess the status and condition of important habitats in the identified unit including high altitude grassland and forest, wetlands and Lowveld riparian forest • Design and implement a Habitat Rehabilitation Plan applicable to the identified unit
Communal Forestry *Strategic and practical communal forestry planning, development and conservation improved in identified units*	Sustainable Forestry Management • Assist community–based NRMCs to formulate Sustainable Forestry Management Plans for natural forests and woodland in accordance with National Forestry Programme • Implement the Sustainable Forestry Management Plans in the identified unit • Monitor and evaluate implementation of the Sustainable Forestry Management Plans
	Carbon Sequestration • Explore and report on possibilities for sale of the carbon sequestered by newly established forests
	Medicinal Plants • Review and assess the status and condition of medicinal and culturally important plants in the identified unit and prepare a Medicinal Plant Management Plan with emphasis on replanting and enrichment planting • Implement the Medicinal Plant Management Plan in the identified unit • Evaluate and monitor the results of the implementation of the plan

Project activities related to specific project interventions	
Intervention	**Activities**
Crop Agriculture Management Plans *Conservation agriculture introduced and developed (conservation tillage, soil cover, crop rotation)*	<u>Conservation Agriculture</u> • Review existing conservation agriculture practices in the county with emphasis on replicability in the identified unit • Select three suitable demonstration areas (farms) (the size of which will be determined at the time of project formulation) in identified unit for the introduction and demonstration of conservation agriculture and train trainers to demonstrate techniques in conservation agriculture • Demonstrate conservation agriculture practices to local farmers and train these farmers in CA practices • Evaluate and monitor the results of the training <u>Crop Diversification</u> • Review options of crop diversification and appraise the introduction of appropriate species with a focus on species such as jubo beans (tindlubu), cowpea (tinhlumaya), peanuts, *Amaranthus hybridus* (imbuya), black jack–burmarigold (chuchuza), *Corchorus tridens* (ligusha), balsam pear (inkhakha), calabash (liselwa), pearl millet (nyawotsi or babhala), sorghum (emabele), cassava and pigeon pea • Implement pilot projects in the production of identified appropriate species for smallholder food security and income • Evaluate and monitor the results of the pilot projects <u>Small Agriculture–related Enterprises</u> • Develop, in consultation with key stakeholders and communities, small agriculture–related enterprises e.g. bee keeping, pigs, poultry, fisheries etc.
Tourism Development Plans *Community based nature conservation and eco–tourism promoted and developed*	<u>Community–based Conservation and Eco–tourism</u> • Review and assess the potential for community–based conservation and eco–tourism as an alternative livelihood for local communities in the identified unit • Identify suitable areas and communities to develop community–based nature conservation and eco–tourism focusing on cultural heritage and scenic landscapes • Train selected communities in communal nature conservation and the exploitation of the conserved area through eco–tourism and develop partnerships with the private sector • Develop tourism and conservation infrastructure and facilities in the selected areas in accordance with relevant legislation and project procedures and project selection • Promote the selected community–based tourism attractions areas nationally and internationally through the Swaziland Tourism Authority and develop partnerships with the private tourism organisations
Small Enterprises Development Plans *Non–agriculture income generation stimulated and developed in the identified unit*	<u>Small Enterprises Development</u> • Identify through consultation and promote the development of suitable small enterprises in the identified unit through existing or new marketing structures • Provide technical support and access to credit facilities to develop small enterprises • Implement non–agriculture based micro–projects in selected communities appropriate to the identified unit such as handicrafts, small service providers (equipment repairs, building, brick making, paper production using recycled and plant fibres and paper etc.)