



**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 REPUBLIC OF MOZAMBIQUE

SUPPORT TO NEPAD–CAADP IMPLEMENTATION

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Volume V of V

BANKABLE INVESTMENT PROJECT PROFILE

Maputo/Gaza Pilot Livestock Development Project

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MOZAMBIQUE: Support to NEPAD–CAADP Implementation

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

Bankable Investment Project Profiles (BIPPs)

Volume II: Small–Scale Irrigation Project II

Volume III: Small Dams Rehabilitation and Construction

Volume IV: Improving Small–Scale Fish Farms Production

Volume V: Livestock Development Project

NEPAD–CAADP BANKABLE INVESTMENT PROJECT PROFILE

Country: Mozambique

Sector of Activities: Livestock

Proposed Project Name: Maputo/Gaza Pilot Livestock Development Project

Project Location: The south of Mozambique

Duration of Project: 5 years

Estimated Cost: Foreign Exchange.....n/a
Local Cost.....n/a
Total.....US\$30.0 million

Suggested Financing:

<i>Source</i>	<i>US\$ million</i>	<i>% of total</i>
<i>Government</i>		n/a
<i>Financing institution(s)</i>		n/a
<i>Beneficiaries</i>		n/a
<i>Private sector</i>		n/a
<i>Total</i>	<i>30.0</i>	<i>100</i>

MOZAMBIQUE:
NEPAD–CAADP Bankable Investment Project Profile
“Maputo/Gaza Pilot Livestock Development Project”

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Abbreviations

CAADP	Comprehensive Africa Agriculture Programme
FMD	Food and Mouth Disease
MADER	Ministry of Agriculture and Rural Development
NEPAD	New Partnership for Africa’s Development
NSP	Non–starch Polysaccharides
OIE	World Organisation for Animal Health (<i>Office internationale des epizooties</i>)
ProAgri	National Agricultural Development Programme (<i>Programa Nacional de Desenvolvimento Agrário</i>)
RFID	Radio frequency identification devices
SADC	Southern African Development Community

I. PROJECT BACKGROUND

A. Project Origin

I.1. This pilot project represents a holistic approach to the development of the meat and livestock industry in Mozambique. It is a component of a wider livestock development programme, and is designed to address all factors influencing the production of livestock and meat and to focus on the reduction of poverty and the well-being of the rural population by means of market orientated cattle production.

I.2. The project is an integral part of the *National Agricultural Development Plan* (ProAgri) and some of the funding for components of the project is already included in the national budget. The all-encompassing nature of the project requires inputs from the public sector, from donor agencies, from the private sector and from the beneficiaries of the project.

I.3. In the past, livestock development projects have failed because of the *ad hoc* approach adopted by the implementers. There is general consensus that long term success will only be achieved if all factors which have a negative effect on the industry are addressed within a comprehensive project. It is therefore imperative that adequate funding and technical support is secured before the project is commenced.

I.4. A recent *Livestock Development Policy* document commissioned by the *Ministry of Agriculture and Rural Development* (MADER) provides a comprehensive background for this project. A South African company, Vleissentraal, has also put forward a proposal for a large scale joint venture with the MADER in the field of livestock development and the creation of marketing infrastructure. This proposal is also incorporated in most of the elements of this project.

B. General Information

I.5. Despite the economic growth recorded in recent years, the incidence of absolute poverty in Mozambique is very high (70%), and most severe in rural areas. The specific objective of the government’s development strategy is to reduce this level to 50% by the end of the first decade of the millennium.

I.6. During the civil war, between 1982 and 1992, Mozambique’s cattle population was decimated, with serious consequences for the lives of small-scale farmers and heavy losses for commercial producers. In 1994, the cattle and goat populations were estimated at 300,000 head and 800,000 head respectively. By 2004, as a result of the *Livestock Restocking Programme*, and improvements in livestock health services, these numbers had risen to approximately 1 million and 5 million respectively. However, while cattle numbers have recovered, the number of commercial cattle enterprises has not. Before the war there were some 12,000 commercial beef producers, but it is estimated that of the 140,000 farmers currently owning cattle, there are only 340 medium- to large-scale producers which are market-orientated. The country now imports 40% of its meat consumption (including beef), and almost all of its fresh milk and dairy products.

I.7. Apart from the collapse of the beef production industry, Mozambique also lacks appropriate infrastructure, such as water reticulation, fencing, market and slaughter facilities.

I.8. Mozambique is a vast country with a diversity of agro-ecological conditions, food resources and genetic resources that are extremely favourable for the production of cattle. There exists an area of

at least 12 million hectares of good pasture, which is at present utilized to less than 50% of its potential. The rural population has a tradition of keeping cattle and using draught animals in agriculture. Cattle play an important economic and social role in the lives of rural Mozambican families. Extensive areas of fertile natural pastures and the under supply of cattle to the local markets are good indicators of the potential for the development of the national cattle herd as a means to reduce poverty and improve the national welfare in Mozambique.

I.9. Livestock production is a relevant activity in the agricultural sector because of its role in the poverty reduction strategy and its growing contribution to the country’s socio-economic development. Raising cattle is a vital component in the peasants’ livelihoods; it is a source of income and an economic reserve; it contributes to maintaining balanced production systems, increasing agricultural output and food security through draught animals and fertilizer and has a social role in rural communities.

I.10. To realise the potential for the livestock and meat industry, a number of issues must be addressed:

- The rural population should be involved in all aspects of the planning and implementation of the project. This will be greatly aided by supporting the creation of organised agricultural groups such as co-operatives and farmers’ associations. Elected and traditional leaders have an important role to play and all groups should be encouraged to take ownership of the project.
- Supporting and enabling legislation must be drafted, and existing legislation updated. This should form part of the project.
- The upgrading of the capacity of government departments is a vital component of the project. This includes the expansion of the veterinary department to provide adequate vaccination and inspection services. The enforcement of veterinary public health measures is imperative to improve the image of the industry in Mozambique.
- The establishment of a disease-free zone in the pilot project area is a logical part of the project as Mozambique has a great potential to provide meat to neighbouring countries and eventually to the rest of the world. This component includes the visual and electronic identification of cattle in the buffer zones and the establishment of physical barriers for quarantine facilities and restriction of the movement of meat and livestock into these zones.
- The provision of suitable genetic material to enable the rapid increase in the number of cattle and an improvement in the quality of the herds.
- The encouragement of foreign investment is an important part of the project. This includes investment in commercial farming projects, the provision of farming inputs and eventually the development of feedlots and the running of modern slaughter facilities.
- The encouragement of commercial cattle farming enterprises to enable subsistence farmers to become commercial producers. This can be done by ensuring the availability of the required resources such as veterinary services, extension, breeding stock, finance, farming inputs and marketing infrastructure.

- The establishment of a representative industry body to assist the government with the regulation and development of the meat and livestock industry and to encourage the participation of producers’ organisations in taking responsibility for their industry.

II. PROJECT AREA

II.1. The area in the south of Mozambique is a low rainfall, sporadic drought area not suitable for crop production. The raising of cattle is therefore the most promising source of agricultural income and is a suitable and sustainable farming enterprise.

II.2. A study commissioned by MADER indicated that livestock production contributes more to household incomes in the more arid parts of the country, and less to households in the more agriculturally productive areas, or coastal areas, which provide alternative livelihood and business opportunities.

II.3. The area is delineated in the west by South Africa and Swaziland, in the north by the Elephants and Limpopo Rivers, in the south by South Africa and in the east by the sea. The northern and eastern limits border on the *Limpopo National Park* in Mozambique and with the *Kruger National Park* in South Africa. Both parks are in the process of merging within the *Great Limpopo Transfrontier Park*.

II.4. The neighbouring countries have a developed cattle industry within disease free zones (FMD) aimed at the export market. It is believed that the disease free zone status (FMD) with vaccination (as defined by the *OIE Terrestrial Animal Health Code* Article 2.1.1.5) can be achieved in this area. The existing infrastructure lends itself to the creation and maintenance of buffer zones and marketing channels. The infrastructure also enables regular inspection of livestock and the provision of veterinary inputs and extension services.

II.5. The human population in the area is relatively low, due in part to the low agricultural potential of the area, and there is therefore not great pressure on the available natural resources. Land for commercial or semi-commercial ventures is available. The cattle population is relatively low, facilitating the implementation of a national livestock identification scheme and the implementation of movement control and a traceability scheme.

II.6. There is no evidence of any buffalo occurring in the area and there is very little other game. This facilitates the creation of a disease free zone.

II.7. There is a ready market for meat in Maputo, which is the destination for most of the meat imports. This is a stable and growing market which has potential for substantial growth. The culture of commercial production of cattle is relatively strong in this area as many small-scale farmers have some experience in selling livestock. Maputo is the seat of government and the entire designated area for the project is within easy reach of this city. The provision of services and the availability of human resources is less of a problem than in the remote rural areas elsewhere in the country.

II.8. This area is close to South Africa and has all the facilities required by potential investors from South Africa. Maputo has good banking facilities, an international airport, a good harbour and most inputs can be sourced from Maputo or Nelspruit in South Africa, reducing delays in getting urgently needed farming and production inputs. In the slightly longer term, this area is suitably located for the export of meat to South Africa by road or to other destinations by sea.

III. PROJECT RATIONALE

III.1. This pilot project is designed to take advantage of Mozambique’s huge potential for beef production, the potential for substituting domestically produced beef for imported beef, and the possibility of creating a disease-free production zone adjacent to existing such zones in Swaziland and the Republic of South Africa. Eventually, once disease-free status has been established, further (export) markets would be exploited. It is anticipated that the governments of Swaziland and Republic of South Africa would be keen to cooperate in the expansion of the disease-free zone.

III.2. The country has only 140,000 cattle farms, mostly small, and the most recent livestock census indicates a serious shortage of breeding animals. This project is designed to create a conducive and enabling environment necessary to encourage the rapid increase in the cattle population and to encourage subsistence farmers to adopt more market-orientated production systems.

III.3. This entails developing the institutional capacities of government departments, and the active investment and participation in the production and marketing of cattle by the rural population and private sector investors, both domestic and foreign.

III.4. Clearly, this project fits within the framework of the CAADP insofar as it involves trans-border cooperation to the benefit of at least three nations; is linked to the “livestock, forestry and fisheries” pillar; and contains elements which link to other CADDP pillars (sustainable land management, improvement of rural infrastructure and trade-related capacities, increasing food supply, and agricultural technology dissemination and adoption).

III.5. Successful implementation of this (pilot) project will lead to expansion of the project into other Strategic Livestock Zones and to the inclusion of other livestock species.

IV. PROJECT OBJECTIVES

IV.1. A thriving livestock sub-sector in which government conducts its core functions effectively and efficiently in a demand-driven way, and enables all client groups to maximise the contribution of livestock to their livelihoods and businesses, leading to poverty reduction and national economic growth.

IV.2. The pilot project is the first stage of the *Livestock Development Project* which is designed to provide an enabling environment to the livestock and meat industry in Mozambique. The rural population is the primary beneficiary, but the secondary benefits will have a major impact on the Mozambique economy as a whole.

IV.3. The overall objective is to increase the numbers of cattle, and eventually other appropriate livestock, to ensure sustainable utilisation of the natural grazing resources in the identified Strategic Livestock Zones of Mozambique. To achieve this objective, a number of components must be put in place. The *key performance indicators* for the pilot project are as follows:

- An increase in the number of cattle under extensive grazing systems in the area to the south of the Elephants and Limpopo rivers. This includes the availability of breeding stock and genetic material for herd improvement.
- The drafting/revision of appropriate enabling legislation.

- Improved access of the rural population to the required farming inputs including veterinary drugs, capital, and production material.
- Improved marketing infrastructure to ensure that a realistic price can be established for cattle being sold. This includes auction/marketing facilities (associated with dipping facilities), secondary production such as rounding off of cattle, and slaughter facilities for both domestic and export markets.
- Non-market-related infrastructure, such as fencing for the disease control barrier, boreholes etc..
- The upgrading and the provision of resources to government institutions to enable them to provide a high level of services, including regular veterinary inspections, dipping services, vaccination campaigns and veterinary public health services. Training and extension services will be improved to meet the demands of the primary producers.
- The establishment of an internationally recognised disease free zone to enable the export of meat and livestock. This includes the implementation of a livestock identification system, movement control and traceability.
- The emergence of both small and large scale commercial production systems, including co-operative production units and out-farming projects.
- The establishment of formalised agricultural structures such as farmers associations, farmers unions and co-operatives and a statutory representative body to assist the government with the development and regulation of the meat and livestock industry.
- A substantial reduction in the amount of meat imported into Mozambique and a gradual increase in the production of meat and livestock for export.
- A substantial improvement in the social well-being of the rural population and a marked improvement in the food security situation both in the pilot project area and the country as a whole.

V. PROJECT DESCRIPTION

V.1. The pilot phase of the *Livestock Development Project* has been designed to address the high level of rural poverty in the area to the south of the Elephants and Limpopo Rivers by means of encouraging the increase in cattle production activities. This project is the first phase of a comprehensive livestock development project which will span the whole of Mozambique. The project addresses all the factors required to create a conducive and enabling environment for the re-establishment of the cattle herd in this area to alleviate rural poverty and improve food security.

V.2. Because of policy shifts at the national level, government can no longer play the role it has traditionally done in the livestock sub-sector. It needs to liberalise, decentralise, privatise and withdraw to ensure effective and efficient performance of its core functions. It must shift from the direct provision of services towards an enabling role for the private sector. This will require major adjustments to current approaches as well as to structures, staffing and the way the MADER interacts with other role players in government and the private sector.

V.3. The objectives of livestock development focus on increasing the contribution of livestock to reducing absolute poverty and to the country’s economic growth by creating a favourable environment for all kinds of animal keepers and one that enables other sectors to participate in the provision of goods and services. The project encourages the development of partnerships between the state and the private sector and civil society in the various fields of livestock development. It also encourages effective human resource management at all levels, including promoting their qualification.

V.4. This project is designed to address the following factors influencing the economic viability of the meat and livestock industry. Each component interacts with other components and should not be addressed in isolation, despite the fact that in many cases, the solutions proposed for the meat and livestock industry will be equally beneficial to other sectors of the economy or the population in general.

V.5. **Enabling Legislation.** The *Livestock Policy* document, the *Strategy* document and the implementation plans will identify the legislative requirements of the project. Where necessary, new legislation should be enacted or existing legislation should be amended to meet the requirements of a modern meat industry. Legislation and Fiscal policy should also ensure that the operating environment for the livestock and meat industry is as attractive as possible to encourage both local and foreign investment.

V.6. **Institutional Capacity** (CAADP Pillar 4: *Development of agricultural research, technological dissemination and adoption to sustain long-term productivity growth*). The single most important constraint to the meat and livestock industry at present is the lack of institutional capacity. The main limiting factor for livestock development on small rural farms is the prevalence of disease in the most relevant species, affecting productivity and impeding effective growth. The institutional capacity required to address the need for disease prevention comprises veterinarian, epidemiological and extension staff, and their training. Basic staff costs would be borne by government. The training component would be submitted for donor funding.

V.7. **Investment in Infrastructure** (CAADP Pillar 2: *Improvement of rural infrastructure and trade-related capacities for improved market access*). The project requires an on-going investment in transport infrastructure, communications infrastructure, electrification, and the supporting and production infrastructure required by the meat and livestock industry. Industry-specific infrastructure includes rural veterinary centres, regional laboratories and research centres, dip tanks, fencing around disease free zones (where necessary), auction and handling facilities (in conjunction with dip tanks), quarantine facilities, water supply, and slaughter facilities. Some of these facilities already exists but need to be rehabilitated and or re-equipped.

V.8. Commercial concerns will be encouraged to invest in marketing infrastructure and to manage state funded projects such as an export abattoir, which will be constructed when cattle numbers justify the investment.

V.9. **Provision of Agricultural Loans.** An important part of the project is to provide a fund for agricultural credit to farmers and agri-businesses. This fund would be administered, on behalf of the project, by a commercial lending institution.

V.10. **Establishing Formal Representative Structures.** The project will encourage and support the creation of formally constituted representative structures such as farmers associations, farmers unions and co-operatives to facilitate the consultative process and assist with the implementation of the project. These organisations will be given certain responsibilities such as maintaining rural facilities (fences, dip tanks, stockyards etc), providing labour for vaccination campaigns and quarantine

facilities, and organising livestock auctions in return for financial reward. Administrative support will be provided for these organisations to ensure that they function efficiently.

V.11. ***Establishing a Statutory Regulating Body.*** The project requires the formation of a statutory body to assist the Minister of Agriculture and Rural Development with the development, organisation and control of the meat industry. This body will require some initial funding, but will be financed by means of levies on meat and livestock transactions. The body will report to, and advise the Minister on all factors and events influencing the meat and livestock industry as well as to suggest policy and changes in the legislative framework governing the industry. Nominations for representation on the Board of the Regulating Body will be invited from the following associations or representative bodies:

- small scale farmers associations/co-operatives;
- commercial farmers association;
- livestock auctioneers, brokers and traders association;
- abattoir association;
- meat wholesalers and retailers association;
- government: MADER.

V.12. The Body will also be authorised to perform certain functions on behalf of the Minister. These functions may include meat inspections, meat classification, monitoring of imports and exports, data collection, generic promotion of meat, livestock and game products, promoting the production of livestock, collecting levies from the industry and enforcing industry standards. The Body will employ and train the necessary staff to conduct these duties on behalf of the Minister and the industry.

V.13. ***National Livestock Identification System, Traceability and Movement Control (CAADP Pillar 5: Sustainable development of livestock, fisheries and forestry resources).*** Visual identification of livestock will be implemented throughout the country in compliance with the proposed SADC livestock identification program. Visual identification will be by means of brands, tattoos and, in some cases, ear or tail tags. These identification marks will be registered to individual commercial farms or to groups of small scale farmers according to villages or dip tank areas. A letter in the brand will also indicate the region, and for export purposes, the national mark can be included where necessary.

V.14. The visual identification system will also be implemented in Disease Free Zones and will be augmented by a system of individual identification for cattle by means of radio frequency identification devices (RFID). This will enable secure identification of disease free cattle, and by default, cattle which are not disease free.

V.15. A movement control system will be implemented throughout the country. All livestock movements to and from commercial farms (Property of Origin) must be subject to movement control. In the case of small scale farmers, movement control will be at a village or dip tank level (Holding of Origin) in the Disease Free Zones and Buffer Zones, and at a regional level (Region of Origin) in the rest of the country. These Properties, Holdings and Regions will be indicated by the stock brands or marks.

V.16. Local Authorities and leaders will have a significant role to play in policing movement control. Where it comes to their notice that animals bearing brands from outside areas are in their area, they should notify the relevant authority (veterinary or police) as soon as possible. They should also

have the authority to impound and quarantine the animals until the animals have been cleared by the necessary authorities.

V.17. ***Establishing a Disease Free Zone (CAADP Pillar 5).*** To achieve the FMD Disease Free Zone with vaccination status the Veterinary Services in Mozambique will need to put in place a number of measures to ensure that the area is not only free from infection and disease but is also prevented from being re-infected. According to the OIE guidelines, (Appendix 3.8.6 of the *OIE Terrestrial Animal Health Code*) the following pre-requisites are mandatory:

- a passive and active surveillance system for FMD (with expertise in the epidemiology of FMD);
- access to a diagnostic laboratory capable of undertaking FMD diagnosis and serology including to tests able to detect antibodies to NSP;
- a farming community committed to the recognition and reporting of FMD;
- veterinarians, (state or private), animal health auxiliaries, in the clinical recognition of FMD and the collection and dispatch of samples;
- programme directed at farmers and other animal workers on the importance of early notification of disease outbreaks;
- a procedure for the rapid transport of samples to the laboratory, and access through the laboratory for onward dispatch of samples to the national, regional or world reference laboratories;
- demonstrate that FMD has not occurred in the country or zone for the past 2 years and FMDV has not been circulating in the vaccinated population within the past 12 months;
- evidence to show the effectiveness of the vaccination programme.

V.18. To achieve the FMD disease free status with vaccination a number of physical barriers and infrastructure must be in place:

- separation of domestic and wildlife ungulates; the African buffalo is a reservoir of the SAT virus;
- creation of buffer zones between the infected and the non-infected zones and quarantine facilities;
- creation of the conditions for, observation and vaccination of ungulates in the infected, buffer and free zones.

V.19. ***Establishment of Breeding Herds (CAADP Pillar 5).*** Commercial farmers and foreign investors will be encouraged to participate in the re-establishment of breeding herds in the area. This can be done by means of purely commercial ventures with investors acquiring grazing rights and conducting farming operations, or by means of joint ventures with existing land holders or communities. A number of possible arrangements will be considered. Based on existing experience in Mozambique, these are likely to include credit scheme facilities through commercial banks as well as in kind credit facility arrangements by means of offspring payment of the loan.

V.20. To have a meaningful impact, it is evident that a significant number of high quality breeding stock will have to be imported and distributed throughout the area under the above mentioned credit mechanisms. Some 13,500 animals should be brought into the country to make sure that the goal of 200,000 cattle in the pilot area is realised within the 5 year period. In addition from previous restocking programme, some 5,000 animals of commercial bred can also be sourced locally within the country.

V.21. The implementation of this initiative will allow a predictable production of over 100 tonnes of beef per year with an established base of over 30,000 breeding stock. This means by project year 10 over 1,000 tonnes of beef can be expected.

VI. INDICATIVE COSTS

VI.1. The table below gives a rough estimate of the cost of the main components of the project. Greater detail is provided in Annex 1.

Component	Total (US\$)
1. Purchase of cattle breeding stock	9,550,000
2. Technical assistance	500,000
3. Capacity building and institutional support	500,000
4. Programme coordination	726,000
5. Veterinary laboratory	200,000
6. Infrastructure for disease free zone	1,800,000
7. Abattoir infrastructure	4,000,000
8. Agricultural finance	8,000,000
9. Rural infrastructure	1,800,000
Total Baseline Costs	27,076,000
Physical Contingencies	1,462,000
Price Contingencies	1,462,000
Total Project Costs (rounded)	30,000,000

VII. PROPOSED SOURCES OF FINANCING

VII.1. At this stage a comprehensive budget has not been prepared, and sources of financing have not been approached. It is envisaged that up to 10% of the required funding for the project will be derived from the government under the existing *Agriculture Development Fund* as well as through the recurrent budget as well as from special allocations for the development project.

VII.2. The private sector has indicated that it is prepared to invest in certain components which have commercial value such as farming ventures, the establishment of marketing facilities and the provision of farming inputs, The private sector has also indicated that it is willing to form joint ventures with the government in certain areas, such as the management of a state funded abattoir. In addition, some funding for physical infra–structure to establish the buffer zone of the FMD free area can be sourced through the *Limpopo Transfrontier Park*.

VII.3. The rest of the funding will have to come from donor organisations and financial institutions.

VII.4. There are a number of areas where the provision of technical assistance would be of great value and this form of assistance will be actively sought as soon as the scope of the project has been defined more clearly.

VIII. PROJECT BENEFITS

VIII.1. The most important benefit of the project is the reduction in absolute poverty levels in the pilot target area by pursuing development approaches that enable poor rural families to build the capacity, goods and activities that make up a viable and sustainable livelihood.

VIII.2. Experience gained in the implementation of this pilot project can then be transferred to other strategic livestock zones, and can be expanded to include other species within the initial project zone.

VIII.3. Institutional and legislative reforms will have an impact on the entire country as soon as the resources have been put in place to enable their implementation. Improvements to communications infrastructure and the establishment of a veterinary laboratory will improve the situation in all regions as will the development of a representative body for the livestock and meat industry. Organised agricultural groups will be able to improve the situation of the rural population wherever they are formed.

VIII.4. Downstream benefits include a drop in imports and potential export earnings. At present Mozambique is heavily dependent on the external market for meat supplies for its main urban centres. Over 40% of all the beef consumed is imported from neighbouring countries. The tourist industry will benefit from improved veterinary public health services and the urban population will have access to safer sources of animal protein.

VIII.5. Finally, this project will enable Mozambique to comply with a number of SADC development goals such as livestock identification, disease control, genetic improvement and research. This will enhance the position of Mozambique within SADC and NEPAD and improve the image and status of the country.

VIII.6. The project will add value to a large area of marginal lands in semi-arid zones and it is estimated that up to 1,500 new job opportunities will be generated.

IX. IMPLEMENTATION ARRANGEMENTS

IX.1. While the implementation of this project falls within the scope of the MADER, the project is a joint venture between the Ministry, the rural population and selected private sector companies, both domestic and international. A joint task team will be established with representation of all the stakeholders to ensure that all parties are involved in all stages of the project. An experienced project manager will be appointed to co-ordinate all the actions taking place during the planning and implementation process.

IX.2. Wherever possible the rural population and the private sector will be used as implementing agents, and will be given a share in the ownership of facilities such as dip tanks and auction/sales pens

in return for their provision of services such as the provision of labour and the ongoing maintenance and security of the facilities.

IX.3. Certain aspects of the project fall outside the scope of the MADER. Law enforcement, fiscal measures, international trade negotiations and the attracting of foreign investment and donor funds will resort under the auspices of the relevant Ministries. The project will also address aspects such as public health standards, occupational health and safety and the training and qualifications framework. While this will be driven by the requirements of the livestock and meat industry (and international standards) they too will resort under the relevant Ministries.

IX.4. An important component of the project will be the creation of a *Statutory Regulating Body* to assist the Minister in the administration of the livestock, meat and game industry, the enforcement of the applicable legislation as well as to implement policies for the development of the livestock, meat and game industry. This body will report to, and advise the Minister on all factors and events influencing the meat livestock and game industry as well as to suggest policy and changes in the legislative framework governing the industry.

IX.5. The first task of this body will be to assist with the design, planning and implementation of the pilot project. The body can also act as the co-ordinating agency between the various government departments, private sector companies, farmers groups and development agencies.

IX.6. The first step will be the involvement of the farmers and the rural population as a whole in the planning of the project. They will be advised on the scope and complexities of the project design, the interaction between the stakeholders and the various components, and the required outcomes of each element of the entire project. Once the communities are comfortable with the design of the project, they will be encouraged to actively participate in the planning of each element, which will determine the level of involvement and the resources to be provided by each community or group, as well as the financial benefits to the involved parties.

IX.7. Finally, wherever large domestic or international companies are selected to participate in the design, planning or implementation process, these companies will be required to provide some of these services in return for the right to participate in the on-going commercialisation of the livestock and meat industry, or related industries.

X. TECHNICAL ASSISTANCE REQUIREMENTS

X.1. Technical assistance is required in the following areas:

- The establishment and maintenance of a disease free zone and the related traceability systems and movement control measures will require both expertise in epidemiology and technical and administrative capacity within the Veterinary Department. Assistance for the training of veterinarians as well medium level technicians and farmers must be carried out to develop their skills and awareness to ensure the effectiveness of inspections. Staff training will have to be carried out at all levels to ensure that both office and field staff are fully aware of the measures and processes that must be put in place and maintained. This is an ongoing process, which must be assumed in the medium and long term by the Veterinary Services, which must be adequately trained and funded to carry out this activity. The secondment of experienced epidemiologists from donor countries or an organisation such as the FAO would expedite the process.

- The establishment of a *Veterinary Laboratory* is a fundamental requirement for combating livestock diseases. The existing laboratory will have to be upgraded and equipped and staffed with appropriately trained personnel. The secondment of experienced and appropriately qualified staff would be most helpful.
- Livestock improvement and extension capacity will have to be developed. Administrative staff will have to be trained to keep breed registers and to map genetic improvement. Researchers will have to be trained to identify appropriate genetic material and conduct meaningful research. Extension staff will have to be trained to disseminate information with regard to breeding and selection and market requirements.
- An effective livestock identification system (SADC compatible) as well as a practical traceability system will have to be implemented to ensure the success of the movement control system.
- Marketing systems will have to be put in place. This should be done by experienced operators within the private sector in return for commercial opportunities.
- The standard of veterinary public health must be greatly enhanced, Veterinarians, technicians and inspectors will have to be trained to ensure the enforcement of legislative obligations in the meat industry and meat classification.
- Project administration capacity will form an important part of the success of this project. This expertise lies within the scope of the private sector or within the capacity of the public sector in many donor countries and should be provided in the form of technical assistance to the project.
- The drafting of appropriate supporting legislation or the amendment of existing legislation forms an integral part of the project. Technical assistance in this regard can be provided by donor countries.

XI. MAIN ISSUES IDENTIFIED AND PROPOSED ACTIONS]

XI.1. This project is still in the preliminary planning stage and the cost estimates are not yet available. Negotiations with a private company (Vleissentraal) operating within the region are progressing and it is envisaged that this company will assist with the development of the project proposal. The *Livestock Development Policy* document and a proposal from Vleissentraal form the basis of this document. Work is currently underway to determine the financial implications for each component and develop a realistic timeframe for implementation of the project.

XI.2. Other areas of concern that call for more in-depth analysis can be summarised as follows:

- While the specific shortcomings within the institutional structures has been identified, the solutions to the problems faced by these departments has not been clearly defined.
- The level of private sector contributions and the extent of direct foreign investment have not been determined. This will play an important role in the commercialisation of the industry.
- No work has yet been done on including the rural population in the development of this project and the level of resistance to the implementation of elements such as movement control is unknown. It is imperative that this part of the project should be addressed as soon as possible.

XII. POSSIBLE RISKS

XII.1. *Natural Disasters.* The region is subject to sporadic droughts and flooding and these natural disasters can have a very negative effect on the project. Natural disasters such as droughts are a huge setback to any rural population and there is no social support system apart from some food aid to mitigate the effects on the livestock producers. Droughts can decimate the cattle population and negatively affect the number and value of marketed animals. Floods can cause serious material damage and can destroy or damage essential infrastructure, setting the project back until this can be replaced. The outbreak of disease in the area could set the project back and lead to the loss of livestock. Any loss of livestock poses a huge food security risk to impoverished rural populations.

XII.2. *Institutional Capacity.* The inability of the government institutions to provide an acceptable level of service provision because of a lack of human resources or financial resources poses a substantial risk to this project. The establishment of a viable livestock and meat industry requires large investments and a high level of support over a long period. A reduction in the level of support, be it veterinary, extension, financial or even security, can cause the failure of the project.

XII.3. *Involvement of the Local Population.* The lack of acceptance of the project by the local population can lead to dissent and the failure of the project. It is essential that the beneficiaries and the rural population as a whole are involved in the planning process and are made aware of the importance of each element and the consequences of the failure of any element. A typical example of this is the identification of animals and the movement control measures which are required to ensure disease control. The local population must be encouraged to form well structured representative bodies to take part in the planning of the project and to take ownership of relevant elements of the project. Successful implementation depends on the support and involvement of the rural population.

XII.4. *Lack of Focus.* This is a complex project, and will become even more complex as it is expanded throughout the country. It requires the services of a full-time, experienced and highly competent project manager. Any reduction in the momentum of the project due to lack of finance or lack of the political will to see it through, can lead to the failure of the entire project. An ad-hoc approach will not realise the required results. It is therefore essential that the project manager should remain focussed, and make sure that all the role-players and the political decision-makers remain motivated and focussed on the desired outcome of the project.

ANNEXES

Annex 1: Map of Project Area

Annex 2: Relationship of Project Components with ProAgri and CAADP Pillars

Annex 2: Preliminary Cost summary, by Component (for a 5–year Period)

#	Component	Quantity	Unit Cost	Total (US\$)	Remarks
1	Purchase of cattle breeding stock <ul style="list-style-type: none"> For 100 commercial farmers (80 heifers and 3 bulls each) For 100 SMEs (50 heifers and 2 bulls each) 	13,500 heads 8,300 heads 5,200 heads	Heifers \$700 Bulls \$900	9,550,000	
2	Technical assistance requirements <ul style="list-style-type: none"> Short-term external support/development of a traceability system, and studies Development of livestock improvement and extension capacity Training of technicians on meat inspection and meat classification Drafting of appropriate supporting legislation/amendment of existing one Project administrative capacity support 	5 Task force	 \$50,000 each \$70,000 study \$30,000 \$70,000 \$78,000	500,000	<ul style="list-style-type: none"> Skills, awareness and establishment Includes breed registers and mapping (studbook) A list of legislation to be reviewed already elaborated Develop skills & awareness
3	Capacity building & inst. support <ul style="list-style-type: none"> Establishment of a representative body to assist the government Support enforcement of veterinary public health measures and legislation 			500,000	<ul style="list-style-type: none"> Encourage producers association Equipment to be purchased (motorbikes etc.)
4	Programme coordination <ul style="list-style-type: none"> General Coordinator Project Advisors Administrative Staff Vehicles (4x4) Equipment, stationary and others 	1 2 2 2	\$2,500/month \$1,800/month \$1,000/month \$35,000 \$170,000	726,000	<ul style="list-style-type: none"> 1 x animal prod. +1 x an. health
5	Veterinary Laboratory			200,000	
6	Infrastructure for disease-free zone <ul style="list-style-type: none"> Elephant-proof fence Creation of buffer zone Identification of cattle Handling facilities in infected, buffer, free zones 		\$350,000 \$600,000 \$550,000 \$300,000	1,800,000	<ul style="list-style-type: none"> This component includes the visual and electronic identification of cattle in the buffer zone, and the establishment of physical barriers
7	Abattoir infrastructure			4,000,000	<ul style="list-style-type: none"> Construction of an export abattoir to ensure viability of investment
8	Agricultural finance			8,000,000	<ul style="list-style-type: none"> Loans of about \$100,000 each for agribusiness (auction/marketing facilities, fencing, stockyards, feeding, breeding stock)
9	Rural infrastructure <ul style="list-style-type: none"> Improving roads and market access Electrification of premises 			1,800,000	<ul style="list-style-type: none"> Basic infrastructure for the meat and livestock industry
Total Baseline Costs				27,076,000	
Physical Contingencies (5%)				1,462,000	
Price Contingencies (5%)				1,462,000	
Total Project Costs (rounded)				30,000,000	