GOVERNMENT OF THE REPUBLIC OF UGANDA

THE REPUBLIC OF UGANDA

PLAN FOR MODERNISATION OF AGRICULTURE: ERADICATING POVERTY IN UGANDA.

(GOVERNMENT STRATEGY AND OPERATIONAL FRAMEWORK)

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Contents

EXECUTIVE SUMMARY

1. The Plan for Modernisation of Agriculture (PMA) is a holistic, strategic framework for eradicating poverty through multi-sectoral interventions enabling the people to improve their livelihoods in a sustainable manner. It is an outcome-focused set of principles upon which sectoral and inter-sectoral policies and investment plans can be developed at both the central and local Government levels. The PMA is part of the Government of Uganda's broader strategy of poverty eradication contained in the Poverty Eradication Action Plan (PEAP) of 1997 which has just been revised and updated this year. The revised PEAP has 4 main goals: creating a framework for economic growth and structural transformation; ensuring good governance and security; directly increasing the ability of the poor to raise incomes; and directly increasing the quality of life of the poor. Modernising agriculture will contribute to increasing incomes of the poor by raising farm productivity, increasing the share of agricultural production that is marketed, and creating on-farm and off-farm employment. The poverty focus of the PMA is based on poor people's perspectives that are contained in various poverty studies in Uganda, especially the Uganda Participatory Poverty Assessment Project (UPPAP) which was carried out in 67 communities in 9 pilot districts of Uganda. The PMA will be implemented through decentralised planning processes which will identify the key constraints at the local Government level and help to remove these constraints through "joined-up" public sector interventions involving policy adjustments when required or public sector investments or new public service delivery mechanisms as will be found to be appropriate.

2. The agricultural sector presents a great opportunity for poverty eradication because it employs over 80 percent of the labour force, and because agricultural growth can be accelerated substantially by the uptake of modern farming techniques. Over 85 percent of Uganda's population live in rural areas where agriculture is the major contributor to their livelihoods. From the poor household's perspective, improving their agriculture-based livelihoods means transforming agriculture by enhancing their capital assets – natural, physical, financial, human and social. The interventions in this document are, therefore, intended to augment the poor farmers' capital assets, thus improving their livelihoods in a sustainable manner.

3. Based on the poverty focus and the need to transform agriculture, the vision of the PMA encompasses both the farmer and the sector. The PMA vision is *"poverty eradication through a profitable, competitive, sustainable and dynamic agricultural and agro-industrial sector"*. Achieving this vision will depend on two related processes: transforming the subsistence farmer, and transforming the agricultural sector in general. The objectives of the PMA are to: increase incomes and improve the quality of life of poor subsistence farmers, improve household food security, provide gainful employment, and promote sustainable use and management of natural resources. In a broad sense, to achieve the vision, it is essential to maintain prudent macroeconomic and sectoral policies, undertake institutional reforms and adjustments, and implement the identified priority interventions.

4. The mission of the PMA is *"eradicating poverty by transforming subsistence agriculture to commercial agriculture"*. Improving the welfare of poor subsistence farmers will require that they re-orient their production towards the market. More of their production must be marketed to enable them to earn higher incomes.

5. The broad strategies for achieving the PMA objectives include;

- making poverty eradication the overriding objective of agricultural development;
- deepening decentralisation to lower levels of local Government for efficient service delivery;
- removing direct government in commercial aspects of agriculture and promoting the role of the private sector;
- supporting the dissemination and adoption of productivity-enhancing technologies;
- guaranteeing food security through the market and improved incomes, thereby allowing households to specialise, rather than through household self-sufficiency;
- ensuring that all intervention programmes are gender-focused and gender responsive;
- promoting a two-way (bottom up and top down) planning and budgeting process by empowering local Governments and enabling them to influence public policy and allocate public resources to alleviate location-specific constraints in a non sectoral manner; and
- ensuring the co-ordination of the multi-sectoral interventions to remove any constraints to agricultural modernisation.

6. The PMA aims to accelerate agricultural growth in Uganda by introducing profound technological change throughout the sector. This technological change will keep downward pressure on real food prices, thereby raising the real incomes of the poor, including those in urban areas who are not direct producers of food but spend more than 60 percent of their incomes on food purchases. The declining food prices will also improve the terms of trade for manufacturing industry which will stimulate labour intensive industrialisation, increase in labour intensive exports across all sectors of the economy and therefore, generate higher rates of economic growth. Technological change will lower per unit costs of agricultural production, thereby increasing Uganda's agricultural competitiveness on international markets.

7. The faster growth of agriculture will drive growth in other parts of rural areas. Farmers will spend more on farm inputs, on processing, marketing, and transporting farm outputs, and on household goods and services. These increased expenditures of farm households will stimulate growth in the enterprises that produce and sell the things that farm households want, which are mainly produced in small, labor-intensive enterprises, concentrated in rural areas. As their incomes rise, rural people will also spend much more on agricultural goods themselves, especially higher valued products like fresh fruits and vegetables, fish, and livestock products, which can make an important contribution to rural employment because their production is labor-intensive.

8. Improved agricultural productivity will also stimulate structural change in the whole economy by improving inter-sectoral movements of labour and capital. The surplus generated by agricultural growth will contribute to expanding investments outside of agriculture. As employment opportunities grow in other sectors, people will leave agriculture, and the share of agriculture in employment will diminish over time. The PMA will lead to rural development as it will entail investments in rural infrastructure especially feeder roads, telephones, rural electrification, the development of markets and expansion of the service sector. Modernisation of agriculture will also entail significant land reforms that will provide security of property, develop land markets and increase efficient use of land and investments.

9. Uganda has three main categories of farmers: subsistence, semi-commercial, and commercial. The subsistence farmers who produce predominantly for household consumption are the majority. These are the farmers that Government expenditure will target in order to transform the agricultural sector. Transforming subsistence agriculture requires addressing the constraints of the subsistence farmers. Consultations with poor farmers revealed two types of constraints: productivity related constraints and constraints related to governance. Productivity related constraints include: lack of sufficient food, lack of land , soil infertility, lack of proximal water sources, lack of inputs, pests and diseases, lack of skills and knowledge, lack of capital and access to credit, market problems (low prices, lack of markets), poor roads and transport networks, lack of storage and processing, insecurity where it exists, and loss of oxen due to insecurity in areas where they are used.

10. Broad governance constraints faced by poor farmers include insecurity of persons and property, corruption, lack of accountability and transparency, poor delivery of basic public services, and weak local leadership. Lack of consultation of farmers by governmental and non-governmental organisations concerning their priorities, implementation and monitoring of programmes inhibit development and lead to the failure of programmes intended to benefit the poor. The PMA will ensure maximum consultation and participation of farmers in planning and monitoring outcomes. Further, the PMA principles will include transparency and accountability in all institutions and service delivery. In addition, the central and local Governments will work together in order to promote good governance and security.

11. The PMA will be implemented within the existing macro economic policy framework. The Government has successfully implemented sound macroeconomic policies aimed at providing a conducive and enabling environment for private sector participation in economic development and the generation of high quality growth. The implementation of prudent fiscal, monetary and exchange rate policies have restored investor confidence in the economy as well as public confidence in the currency, resulting in financial stability, balance of payments viability and steady growth with low and stable inflation. The maintenance of macroeconomic stability with low inflation continues to be a central objective of the government's current and future economic policies and will be vigorously pursued during the implementation of PMA.

12. The Government initiated the Economic Recovery Programme in 1987 and since then has successfully undertaken trade and structural reforms embracing liberalised systems for input and output markets, and trade, investment and tax regimes. The objectives of these economic reforms were to increase efficiency of resource allocation while reducing the direct role of Government in production and commercial activities. At the same time, the reforms were aimed at promoting the private sector as the main engine of growth. For the agricultural sector, these reforms have included liberalisation of agricultural input trade, liberalisation of domestic and export produce marketing and processing, removal of restrictive tariff and non-tariff barriers (particularly those for agricultural inputs), and abolition of taxes on agricultural exports.

13. Way back in 1992, the Government decided to devolve power to lower levels of government. This was followed by the Local Government Act, enacted in 1997. The decentralisation process involves substantial transfers of political, financial and planning responsibilities from the central Government to local Governments – districts and sub-counties. This empowers the local governments to take increasing responsibility for the delivery of services and promotion of popular participation and empowerment of local people in development planning and decision making. Decentralisation is based on the premise that local authorities are

better placed to respond to the needs of local communities who can in turn easily hold them accountable for use of public resources resulting in a more equitable allocation of resources among districts and within sub-counties. The PMA will empower local Governments further through the proposed non-sectoral conditional grants which the sub-counties will use on whatever they decide will enhance poverty eradication.

14 Civil service reform has been one of the major reforms undertaken by the Government since the early 1990s. The main objective of the civil service reform was to strengthen the public sector by producing an effective, efficient, well-remunerated and motivated civil service and also increase efficiency in public sector resource allocation while reducing the direct role of Government in production and commercial activities. One of the major actions already undertaken under civil service reform and decentralization has been to dissolve the Extension Directorate of MAAIF, and transfer the responsibility for provision of agricultural advisory services to local Governments.

15. The PMA recognises that gender has an influence on division of labour and power relations within households, which bring about differences in access to and control over production resources. The PMA, therefore, will ensure that gender concerns are routinely and adequately addressed in the planning, implementation, monitoring and evaluation of all interventions and institutions. Participation of both men and women will be promoted at all levels

16. The PMA aims at implementing a number of institutional reforms and adjustments designed to improve efficiency in service delivery so that agriculture can grow differently from the past and contribute effectively to poverty eradication. As noted earlier, the Government will not be involved in direct production, processing or marketing of agricultural products. In a general sense, the role of Government is to create an enabling environment for peasants to prosper by dismantling barriers to production, processing and trade. Government is also responsible for setting policies and regulations for the sector. The specific roles for the central Government have been clearly defined under the PMA.

17. The Government has decided that in the medium term its main thrust for public action in the modernisation of agriculture will be:

- institutional reform and strengthening for improved efficiency and effectiveness in service delivery;
- policy formulation and strategic planning;
- provision of regulatory services;
- provision of agricultural advisory services for farmers;
- agricultural research and technology development for farmers;
- agricultural statistical data collection, analysis and provision of market information;
- provision of market information for agricultural inputs and outputs;
- epidemic disease and pest control;
- soil fertility management, water conservation and environmental protection;
- formulation of a land use policy and implementation of the land Act;
- development of technologies for soil fertility management, water conservation and environmental protection;
- construction of infrastructure including feeder roads, rural electrification and fish landing sites;

- ♦ capacity building for irrigation and water harvesting including construction of community valley dams;
- ♦ capacity building for micro-financial services and risk management;
- ♦ capacity building for production of breeders, seeds, planting and stocking materials including fish fry;
- ♦ capacity building for marketing and agro processing infrastructure; and
- ♦ capacity building for agricultural education.

In short, Government will provide those services that are "public good" in nature.

18. The Government will withdraw itself from commercial activities that can be carried out by the private sector. Therefore, Government will not:

- supply or produce planting materials or other agricultural inputs (except for research and demonstration purposes);
- supply artificial insemination or proven bulls;
- process or market agricultural outputs;
- subsidise or provide credit directly to farmers; and
- construct large irrigation infrastructure.

19. Local Governments will be strengthened to ensure that they have the necessary capacity (both human and financial) to undertake their new responsibilities under the PMA. Some of the areas that will require such capacity building are strategic planning, financial and contract management and institutional building. Local Governments will have to design systems for financing and delivery of agricultural sector services in partnership with a wide range of local and external stakeholders including NGOs, CBOs, the private sector and the Donor community.

20. The PMA will benefit from active collaboration and support from international development partners, some of whom have supported the formulation of the PMA right from the start. Much of the funding for the PMA activities will come from development partners and international NGOs. Local NGOs, CBOs and civil society will also be crucial in PMA implementation because many of them are in touch with farmers in rural communities and have developed a strong relationship with them.

21. During PMA implementation, several institutional reforms and adjustments will need to take place. These changes are discussed under the relevant intervention areas. The PMA has seven main public expenditure intervention areas that will lead to poverty eradication and a more productive and commercial agricultural sector. They are: research and technology development, agricultural advisory services, rural finance, agro-processing and marketing, agricultural education, sustainable natural resource management, and supportive physical infrastructure.

22. The focus on research and technology development will be to make it more relevant and responsive to the needs of subsistence farmers. It must be client-oriented and ensure the participation of the key stakeholders including men and women in the formulation of the research agenda. Research will be conducted in a decentralised arrangement through the proposed Agricultural Research and Development Centres (ARDCs) to be strategically located across the country. Technology development and dissemination supported by socio-economic research will be intensified in partnership with the private sector and international research institutions. Farm

power and post harvest technologies will be developed to reduce drudgery and post harvest losses. Soil and water management technologies will be developed to contribute to increased agricultural productivity and sustainable natural resource management. In addition, on-farm research will be undertaken as part of the strengthening of research-extension-farmer linkages. A comprehensive and innovative research policy and strategy will be developed to guide agricultural research and technology development during the PMA implementation.

23. A National Agricultural Advisory Service (NAADS) will be created to co-ordinate service provision to subsistence farmers. Beyond the traditional advice on productivity enhancing technologies and soil conservation, knowledge and skills development, marketing, storage and agro-processing will feature highly as part of the content of the advisory services. The NAADS will have a secretariat reporting under MAAIF that will work closely with the Local Governments which have the mandate for delivery of agricultural advisory services. The purpose of this is to bring the services nearer to and under the control of the farmers. During PMA implementation, there will be a gradual shift from the public being the major provider to the private sector as the main provider. While in the short to medium term public expenditure will increase in this area to fund this public good, in the long term, private sector funding is expected to exceed public funding of agricultural advisory services.

24. The PMA recognises the importance of rural financial services in savings mobilisation and in the provision of production and marketing credit for subsistence farmers. However, Government should not become involved in the direct provision of micro-financial services to the public, because Government does not have the necessary expertise in this field and does not have the financial resources to develop the industry. Moreover, Government provided financial services, especially credit services, are inevitably subject to non-commercial pressures which undermine their viability and sustainability. The role of Government will primarily be to put in place a policy and regulatory framework in which the private sector providers of micro-financial services can thrive, in which the industry as whole can develop and which ensures appropriate protection for the public. Government can play a supportive role in building institutional capacity in the industry, but its main functions will be to provide suitable regulation for the microfinance industry.

25. It is important that Government does not impose economic regulations, such as controls over interest rates on micro-finance institutions. World-wide experience has demonstrated that to be successful, Micro Financial Institutions (MFIs) must be free to set their own interest rates, so that they can charge their borrowers interest rates which cover the cost of funds, the administrative costs of lending and the risk involved in lending. **World wide experience shows that it is the availability of capital, and not its cost, which is the key constraint to micro enterprises**.

26. Production, processing and marketing of agricultural products will be undertaken by the private sector. The role of the public sector is to create a conducive environment by setting policies, removing barriers at all levels, improving infrastructure and putting in place an appropriate legal and regulatory framework. These interventions will contribute to reduced transaction costs and improvements in efficiency leading to higher product prices, increased profitability and household incomes. Research will be intensified for the generation and demonstration of on- farm, cost-effective, storage and agro-processing/preservation technologies.

Agricultural training institutions will also strengthen skills development in agro-processing and in machinery and tools maintenance in their curricula.

27. Rural electrification in support of agro-processing and manufacturing in rural areas is critical to achieving agricultural transformation and creation of off-farm employment. The generation, distribution, and sale of electricity is undergoing privatisation. However, Government will support the private sector through the proposed Rural Electrification Fund (REF) for capacity building and assisting, through "smart subsidies", the private sector and Local Governments to build, own and operate electricity generation plants; for extension of the grid and the associated distribution network and for development of isolated mini grids.

28. Reliable domestic and world markets for agricultural products are crucial to the success of the PMA. Producers respond to and are sensitive to market incentives. Efforts to secure regional and international markets will be strengthened. Capacity for effective negotiations in regional and international fora especially the World Trade Organisation (WTO) is as critical as Uganda's ability to produce high quality products that are competitive in the global market on a sustainable basis. The WTO Agreement on Agriculture (AoA) and the Trade Related Aspects of Intellectual Property Rights (TRIPS) have significant implications to our capacity to access global markets and to benefit from the impact of globalisation of world trade. Uganda has to build the requisite capacity to understand, interpret and negotiate appropriate trade policies and create incentives for Ugandans to maximise the benefits and minimise the losses that might arise from the globalisation.

29. Agricultural education under PMA is of critical importance for human resource development to meet the challenges of transforming the agricultural sector. It has, therefore, been agreed that agricultural education will be fully incorporated in the educational curricula at all levels from primary through secondary schools, tertiary institutions and universities in order to produce commercial farmers. Continuing agricultural education (in service training) including adult education will also be supported under the PMA.

30. Natural resources must be used and managed in a manner that ensures their availability to both present and future generations. The key resources here are land, water, forestry, wetlands and environment. There is already a Land Act (1998) and what remains is its implementation and development of a comprehensive land-use policy to facilitate development of land markets, efficient land use and management and administration. The main focus on water for production will be on demonstration of on-farm, small scale irrigation and water-harvesting technologies, and strengthening the early warning system on weather and food supply. Soil and water conservation methods will be researched and appropriate technologies demonstrated to farmers. Agro-forestry will be among the mainstream activities of the agricultural advisory services and agricultural education curricula. Environmental issues and concerns will be incorporated in all programs to be implemented under the PMA.

31. Physical infrastructure for roads, electricity, water and communication are critical to agricultural modernisation. Roads and particularly rural feeder roads and the associated network of bridges, foot and bicycle paths are important because they open up rural areas to wider markets for their products and access to production inputs. This creates opportunities for competition, incentives for new innovations, reduced transaction costs, increased efficiency and improved quality of services. These translate into low costs of production, increased productivity, higher

farm gate prices and increased profitability at farm level. Capacity will be built and resources provided for the construction and maintenance of community roads.

32. Rural electrification infrastructure enhances the ability to store, preserve and allow for processing of agricultural products into less bulky, long shelf-life and high value products. Access to electricity enables producers to use high productivity technologies which are labour saving and reduce drudgery. Lighting also contribute to increased working hours for households and agro-industries, thereby improving incomes and quality of life. Needs assessments will be conducted to guide the Government's rural electrification programme to have a PMA focus. Water and irrigation infrastructure are critical to agricultural production particularly during periods of drought and for agro-processing. Communication infrastructure increase access to information technologies and markets. The expanding number of FM Radio stations, mobile phones, tele-centres, e-mail and internet connections are already transforming rural areas by narrowing the rural and urban divide. These forms of infrastructure will form an integral part of the PMA implementation.

33. Understanding the poverty focused, outcome- oriented, multi-sectoral approach is very crucial for the success of PMA. Government must ensure that all stakeholders understand the role they must play in partnership with the private sector and other stakeholders to eradicate poverty through agricultural transformation. A key area for emphasis will be mainstreaming programmes to address gender (including youth and women) and HIV/AIDS throughout the activities of the PMA.

34. Given that the PMA uses a two way, multi-sectoral approach to poverty eradication and agricultural transformation, its implementation will be co-ordinated by a stakeholders' non-sectoral planning and financing forum (PMA Forum) with an executive Steering Committee (PMA-SC) that will provide policy advocacy and harmonisation, and ensure that all partners adhere to the principles of the PMA. The Forum will ensure consistency of activities with PMA principles and provide resources for priority programmes. The PMA process will be a decentralised, two way planning and budgeting process between local Governments and sectoral ministries providing policy guidance, regulations and undertaking the monitoring functions. Institutional reform processes will be undertaken to improve institutional efficiency and effectiveness in service delivery. Institutions will pilot a number of programmes including cost-sharing and contracting service delivery to the private sector.

35. Because poverty eradication is the main focus of the PMA, a monitoring mechanism will be developed for periodic assessment of the impact of the PMA priority interventions on the livelihoods of farmers and other rural households. Among other things, the following will be monitored: poverty trends, desegregated by gender and location, food security, and environmental health. In addition, the impact of PMA activities on the agricultural sector as a whole will be monitored. Indicators will include production and productivity trends, technology adoption rates and impacts on the environment.

36. To fully operationalise the PMA, the full costing of public sector interventions will have to originate from local communities in a two way planning and budgeting process with guidance from sector ministries and the PMA-SC. This process will inevitably take some time to complete. In the interim however, resource requirements are estimated at Ushs.100 billion for its first year of implementation. In the short term, these resources are to come from re-allocations

from existing programmes and / or current Donor commitments. A phase one implementation project has been initiated and consultations with Donors indicate that resources will be available subject to completion of acceptable work-plans and modalities for financial management and accountability.

37. Central to the implementation of the PMA is the introduction of new, non-sectoral conditional grants (NSCG) sub-couties to empower the grassroots financially and thereby enhance the planning and budgeting process beginning at the sub-county with appropriate guidance from the Centre. The conditional grants will be non-sectoral in a sense that their end use will not be tied to any sector. The sub-counties will use the resources to finance PMA priority public sector interventions of their choice provided they follow appropriate guidelines and accountability procedures.

Acronyms

AADS	-	Agricultural Advisory Services
ACE	-	Agricultural Commodity Exchange
ADB	-	African Development Bank
ADCs	-	Agricultural Development Centres
AEP II	-	Agricultural Extension Project Phase II
AFRREI	-	Africa Rural and Renewable Energy Initiative
APC	-	Agricultural Policy Committee
ARDCs	-	Agricultural Research and Development Centres
ARF	-	Agricultural Research Fund
ARTP II	-	Agricultural Research and Training Project Phase II
ASPS	-	Agricultural Sector Programme Support
BFPs	-	Budget Framework Papers
BOU	-	Bank of Uganda
CAEC	-	Continuing Agricultural Education Centre
CBOs	-	Community Based Organisations
CDO	-	Cotton Development Organisations
CERUDEB	-	Centenary Rural Development Bank
CG	-	Consultative Group
CMB	-	Coffee Marketing Board
COMESA	-	Common Market for East & Southern Africa
CSDP	-	Cotton Sub-sector Development Project
DANIDA	-	Danish International Development Agency
DFI	-	District Farm Institute
DFID	-	Department for International Development
DPs	-	Development Partners
EAC	-	East African Community
EIA	-	Environmental Impact Assessment
EPRC	-	Economic Policy Research Centre
ERP	-	Economic Recovery Programme
EU	-	European Union
FPPH	-	Farm Power and Post Harvest
GDP	-	Gross Domestic Product
GTZ	-	German Technical Co-operation
IARCs	-	International Agricultural Research Centres
IFAD	-	International Fund for Agricultural Development
IMTs	-	International Means of Transport
ISAM	-	Institutional Strengthening for Agricultural Modernisation.
ITC	-	International Trade Centre
KFW	-	Germany Bank for Development Reconstruction.
LGs	-	Local Governments
LGDP	-	Local Government Development Program
LMB	-	Lint Marketing Board
MAAIF	-	Ministry of Agriculture, Animal Industry and Fisheries
MFIs	-	Micro Finance Institutions
MIS	-	Management Information System
MOES	-	Ministry of Education and Sports
MOEMD	-	Ministry of Energy and Minerals Development
MOFA	-	Ministry of Foreign Affairs
MFPED	-	Ministry of Finance Planning and Economic Development
MGLSD	-	Ministry of Gender, Labour and Social Development
MOH	-	Ministry of Health
MOIA	-	Ministry of Internal Affairs
MOJCA	-	Ministry of Justice & Constitutional Affairs
MOLG	-	Ministry of Local Government

MOPS	-	Ministry of Public Service
MTTI	-	Ministry of Tourism, Trade and Industry
MWLE	-	Ministry of Water, Land and Environment
MTEF	-	Medium Term Expenditure Framework
MUARIK	-	Makerere University Agricultural Research Institute Kabanyoro
MWH&C	-	Ministry of Works, Housing and Communication
NAADS	-	National Agricultural Advisory Services
NAARI	-	Namulonge Agricultural and Animal Research Institute
NARS	-	National Agricultural Research System
NARO	-	National Agricultural Research Organisation
NAROSEC	-	National Agricultural Research Organisation Secretariat
NEMA	-	National Environment Management Authority
NGOs	-	Non Government Organisations
NRM	-	National Resistance Movement
NRI	-	Natural Resources Institute
NSCG	-	Non-Sectoral Conditional Grant
NVRC	-	National Variety Release Committee
PAF	-	Poverty Action Fund
PAU	-	Policy Analysis Unit
PAP	-	Poverty Alleviation Project
PEAP	-	Poverty Eradication Action Plan
PMA	-	Plan for Modernisation of Agriculture
PMASC	-	Plan for Modernisation of Agriculture Steering Committee
PMB	-	Produce Marketing Board
RFSS	-	Rural Financial Services System
RSDP	-	Road Sector Development Programme
ROM	-	Result Oriented Management
RTTP	-	Rural Travel and Transport Programme
RNR	-	Renewable Natural Resources.
SFI	-	Soil Fertility Initiative
SWAPS	-	Sector Wide Approaches
TDMS	-	Teacher Development and Management System
TDS	-	Technology Development Sites
TRP	-	Transport Rehabilitation Project
UBOS	-	Uganda Bureau of Statistics
UCB	-	Uganda Commercial Bank
UCDA	-	Uganda Coffee Development Authority
UEPB	-	Uganda Export Promotion Board
UIA	-	Uganda Investment Authority
ULC	-	Uganda Land Commission
ULAA	-	Uganda Local Authorities Association
UNBS	-	Uganda National Bureau of Standards
UNCDF	-	United Nations Capital Development Fund
UNCST	-	Uganda National Council for Science & Technology
UNCTAD	-	United Nations Conference on Trade and Development
UNDP	-	United Nations Development Program
UNFA	-	Uganda National Farmers Association
UPPAP	-	Uganda Poverty Participation Assessment Project
USP	-	Uganda Seed Project
UTA	-	Uganda Tea Autholity
UTCs	-	National Teacher Colleges
UTGC	-	Uganda Tea Growers Corporation
UTTCs	-	Uganda Teacher Training Colleges
WRS	-	Warehouse Receipt System
WTO	-	World Trade Organisation

CHAPTER 1 INTRODUCTION

1.1 Background

The overarching goal of the Plan for Modernisation of Agriculture (PMA) is poverty eradication. The transformation of the agricultural sector through the multi-sectoral interventions outlined in this document will contribute to achieving this goal. The PMA is an outcome-focused set of principles upon which sectoral and inter-sectoral policies and investment plans can be developed at the Central and Local Government levels. The PMA is a crucial part of the Government's Poverty Eradication Action Plan (PEAP) which is Uganda's comprehensive development framework. In Uganda, the majority of the population lives in rural areas, is engaged in subsistence agriculture, and lives in poverty. Therefore, the interventions will seek to increase the productivity of factors of production in agriculture, to ensure food security, to create gainful employment, to increase incomes, and to improve the quality of life of those engaged in the agriculture sector.

The PMA has been formulated within the context of Uganda's ongoing policy and institutional reforms, as well as budgetary processes. The PMA presents a shared, long-term, strategic vision and principles for the development of the agricultural sector; medium-term priority areas for interventions; and recommendations for its implementation by all sectors which impinge on the livelihood outcomes of all those involved in agriculture.

The PMA is a strategic and operational framework for effectively transforming the livelihoods of the majority of the subsistence farmers in Uganda through reforming institutional and organisational structures and changing the type and methods of service delivery in the agriculture sector. The PMA will be implemented through a decentralised planning process which will identify the key constraints at the local level and help to remove these constraints through "joined-up" public sector interventions involving policy adjustments when required or public sector investments or new public service delivery mechanisms as is found to be appropriate. The PMA provides the direction, principles and guidelines upon which intervention programmes and institutions must operate in order to achieve agricultural transformation and hence poverty eradication. The PMA also recognises that, in certain circumstances, the Government may need to finance the delivery of public services by the private sector.

Given the limited Government budgetary resources, the target beneficiaries for public sector investment programmes will be subsistence farmers who are engaged in crop, livestock, fish and forestry farming – henceforth referred to collectively as "subsistence farmers". The PMA builds on and complements available opportunities, such as strong social networks existing within the rural communities. Commercial farmers will benefit from the creation, by the Government, of a conducive environment for production and trade. The PMA realises that there is a category of the poor who have no assets and may not benefit directly from the PMA interventions. In the short run, these will be catered for through special programmes or safety nets outside the PMA process. In the medium to long term, they will also benefit from the employment opportunities that will accrue from PMA implementation. In all cases Government will concentrate on provision of services that are public goods and promote the private sector as the engine for agricultural transformation.

The development of the PMA is unique in four fundamental aspects. First, its preparation benefited from the results of the Uganda Participatory Poverty Assessment Project (UPPAP) regarding the perceptions of the poor and about the nature, cause and dimensions of their poverty. Secondly, the PMA incorporates gender-focused strategies for poverty eradication. Thirdly, the PMA process is based on extensive consensus building and consultations involving all the key stakeholders in order to create a shared vision for the transformation of the livelihoods of subsistence farmers and the agriculture sector as a whole. Lastly, the PMA is not a traditional Agricultural Sector Investment Programme (ASIP) which normally focus on matters falling under the ambit of ministries of Agriculture. The PMA is an outcome oriented, multi-sectoral paradigm for the rural sector anchored into the Government's decentralised structures.

Wide consultations amongst key stakeholders resulted in the first milestone – a submission of a Government policy statement on Agriculture to the meeting of the Consultative Group (CG) in December 1998. The second milestone was the production of this strategic and operational framework which was presented to the CG meeting in March 2000;, which is based on detailed thematic reports on priority areas prepared by specialised task groups and guided by multi-sectoral Steering and Technical Committees[1]. The third milestone was the integration of the proposed PMA priority interventions into the Medium Term Expenditure Framework (MTEF) for 2000/ 01 to 2002/03. The process of wide stakeholder participation will be institutionalised in the PMA Planning and Financing Forum.

1.2 Poverty in Uganda

We know from the results of UPPAP that Poverty is defined by poor people as more than just the lack of incomes; it is also the *lack of the means to satisfy basic, social needs, as well as a feeling of powerlessness to break out of the cycle of poverty and insecurity of person and property.* Common features of a poor household include few assets for production; insufficient food; inadequate income to meet health care and education costs and to obtain basic household necessities; many dependants; vulnerability; poor health; or a lack of social support. This definition illustrates the complexity and multi-dimensional nature of poverty, emphasising that poverty is about more than income and expenditure data.

According to the Household Survey data (1997), 44% of Ugandans are unable to meet their basic needs and are living below the absolute poverty line, while 25% of the population cannot even meet their daily food requirements and live below the food poverty line. Although, in absolute terms, poverty has decreased by 21% since 1992, close to 9 million Ugandans still live below the absolute poverty line.

The principal dimensions of poverty in Uganda include location, gender, livelihood and seasonality. Although commonalities exist, poverty differs in its nature, extent, and trends between regions. Household Survey data of 1997 indicate that in the East, which has the greatest proportion of the population, 54% of the people live in absolute poverty, compared to 28% in the Central region. Whereas the North is the poorest in terms of development indicators[2], in terms of welfare indicators, the Western region faired worst[3], although this region has the second highest income levels[4]. Further, trends in absolute poverty indicate that in the East and the North,

[1] The thematic reports are available as separate working papers.
[2] *Determinants of Regional Poverty,* 1999 (Okurut, Odwee and Adebua – EPRC).
[3] *Uganda National Household Survey 1997* and *Background to the Budget 1999-2000.*
[4] *Changes in Poverty and Inequalities in Uganda in 1992-97 by Appleton, University of Bath, 1999.*

poverty has declined by only 8% and 13%, respectively, since 1992, compared to a decrease of 39% in the Central region[5]. However, the majority of local people, perceive that in relative terms "the rich are getting richer and the poor are getting poorer"[6].

Poverty is mainly a rural phenomenon as 48% of the rural population is below the absolute poverty line, compared with 16% of urban dwellers. Further, poverty has decreased by 43% in urban areas and only by 18% in rural areas in Uganda since 1992[7]. Since more than 85% of the population live in rural areas, the interventions to be implemented under the PMA will bring about significant reductions in poverty. Statistics show that one of the main ways of reducing poverty in rural areas of Uganda has been the ability to produce and market traditional cash crops, specifically coffee. Households in the food crop sector experienced only modest rates of poverty reduction compared to those producing cash crops.

It is possible that women have not benefited as much as men from the decreases in absolute poverty noted in recent years. First, women do not have as many opportunities for social and economic development in Ugandan society, particularly in rural areas. Second, the division of labour in agriculture is complex, varying with the season and ethnic group. Therefore, while women may partake in decision making, they have little control of the resources or the income realised from sales. Third, food production is the domain of women whereas men in general concentrate on livestock and cash crops, which have a higher potential for income generation. Fourth, the increasing workload of women in cultivating cash crops and the subsequently reduced cultivation and variety of household food crops may in some cases result in decreasing the welfare of the family although household incomes have increased.

It is obvious that poverty eradication must focus on transforming poor farmers, both men and women, from producing predominantly for their own households to producing for the market. The focus on subsistence farmers is to re-orient them towards commercial agriculture in order to have a significant impact on poverty eradication in the country.

1.3 The Framework for Poverty Eradication Action Plan (PEAP)

Poverty eradication is a fundamental objective of Uganda's development strategy, in which Government has resolved to reduce the proportion of the population living in absolute poverty from the level of 44% (1997) to below 10% by the Year 2017. Detailed programmes for achieving this goal are being developed by Government. The PEAP which has been revised and updated this year, is the guiding framework for eradicating mass poverty in Uganda. It adopts a multi-sectoral approach, recognising the multi-dimensional nature of poverty and the inter-linkages between influencing factors. The revised PEAP has 4 main goals:

- Creating a framework for rapid economic growth and structural transformation;
- Ensuring good governance and security;
- Directly increasing the ability of the poor to raise incomes; and
- Directly increasing the quality of life of the poor.

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[6] *Uganda Participatory Poverty Assessment*, 1999.
[7] *Changes in Poverty and Inequalities in Uganda in 1992-97 by Appleton University of Bath; 1999.*

The revised PEAP provides a comprehensive framework for overall development and for sector and district policies and plans, and donor and NGO investment programmes. The PMA fits within this framework. Further, in recognition of the multi-dimensional nature of reducing poverty in the agriculture sector, the PMA depends on involvement of other sectors and on partnerships with farmers, commercial private sector, civil society and donors.

Government has already began the implementation of the PEAP using the Medium Term Expenditure Framework (MTEF) which integrates policy-making with planning and budgeting, with expenditure based on strategic priorities and current budget constraints based on Sector Wide Approaches (SWAPS) to sectoral policy reform, strategic reprioritisation and investment programming. In addition, the Poverty Action Fund (PAF), created in 1998, has enabled the Government to double the resources available to programmes within the PEAP.

In order to eradicate poverty effectively, priority action areas have been identified under the PEAP, which include primary health care, roads, primary education and rural water, and the transformation of agriculture. This focus on agriculture provides an opportunity for poverty reduction because the sector engages approximately 80% of the Ugandan workforce, the majority of whom are poor.

1.4 Past Performance of the Agricultural Sector

After the positive growth in the 1960s, the agriculture sector experienced negative growth rates (average minus 2% per annum) in the 1970s due to civil strife, economic mismanagement, disintegration of public infrastructure and services, lack of private-sector investment, scarcity of foreign exchange for agricultural inputs, and the collapse of the emerging commercial agricultural sector. The Government's Economic Recovery Programme introduced in 1987 and the Structural Adjustment Policies of the early 1990s, have progressively achieved a stable macro economy, and have promoted economic growth through establishing a conducive and enabling environment for private sector investment. In the agriculture sector, the focus was on rehabilitation of the infrastructure for traditional exports (coffee, cotton, tea and tobacco); development of non-traditional exports; removal of physical, technical and institutional constraints for agricultural development; agricultural pricing, trade and marketing liberalisation and strengthening agricultural research and extension.

As a result of the implementation of the policy and institutional reforms mentioned above, the agricultural sector experienced a very high annual growth rate of 6% per annum (1992 –1996). Specifically, the marketing of agricultural produce was liberalised, export taxes abolished and other market distortions were removed, and regulatory and promotional agencies were set up for key export crops, quality control and market information dissemination.

Despite the above achievements, the welfare of the majority of subsistence farmers has not improved substantially, although the proportion of the population that lives under the absolute poverty level has declined from 56% in 1992/93 to 44% in 1997/98 according to household expenditure survey data by the Uganda Bureau of Statistics . Household incomes are still low and food security is not guaranteed. A recent survey by the Economic Policy Research Centre (EPRC) in 1998 in 14 districts indicated that at any one time, about 40% of the population are food insecure. The research system is not closely linked to the farmer. Extension services are not adequate and reach few farmers[8], while the rates of technology adoption is below 30%. Only one third of the total food production is marketed, up to 60% of household expenditure is spent on food[9], and 56% of total agricultural GDP is subsistence production for household consumption.

1.5 Enhancing Factors of Agricultural Production

The constraints and opportunities identified by subsistence farmers that affect their livelihoods[10] and productivity fall into five major categories:

(i) Natural environmental aspects that include limited access to land, poor soil fertility, unavailability of water for production, and wildlife pests.

(ii) Financial concerns such as limited income, low output prices, high cost of inputs, high taxes and limited access to credit either to finance the acquisition of non labour inputs or to finance their consumption during the low season.

(iii) Physical infrastructure, such as poor roads, lack of access to markets, lack of electricity, poor housing.

(iv) Human aspects, specifically ignorance, lack of information, few skills and poor health.

(v) Social capital is generally cited as strong in the areas of co-operation, local leadership, networks and groups and weaker in the aspects of accountability and transparency.

Based on the inter-relatedness of the constraints and opportunities listed above, the transformation of the agriculture sector requires multi-faceted, holistic approaches so that these five capital assets are enhanced. Therefore, constraints to increasing productivity, achieving food security, reduced vulnerability and reducing poverty cannot be addressed in isolation. The PMA recognises that overall poverty reduction must be based on approaches that link agriculture and other sectors - institutionally, organisationally and operationally at all levels from the farmer up to the centre. Clearly, there are policies and programs that will be designed and implemented outside the narrowly defined agricultural sector which are nevertheless crucial to improving the well-being of subsistence farmers. A healthier workforce, who is better informed and educated, operating within developed infrastructure, under good governance principles is fundamental to poverty reduction and therefore to the success of the PMA. However, these achievements fall under the mandates of sectors other than Agriculture. Therefore, co-ordination mechanisms will be required to foster this holistic approach and to develop commitment and collaboration of all the relevant sectors. This co-ordination will be provided by the PMA Planning and Financing Forum.

Broader issues, beyond their assets and resources, influence the environment in which local people live. These include culture, external shock (climatic changes, wars) and trends in population pressure, technology, politics and the economy. The institutional structures and processes (policies, governance structures, laws and regulations) also influence this environment. Therefore, interventions must include institutions and organisations, as well as processes to enhance the five capital assets of farmers, namely natural capital, physical capital, financial

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[8] Extension service reach of 5-10% of farmers; Reach to LC I areas – 16%, 33%, 9% and 45% in Central, Eastern, Northern and Western regions.

[9] Poverty Status Report, 1999.

[10] A livelihood is defined in this case as "the way in which a household or community supports its life on a regular basis". A more formal definition developed by Chambers and Conway is " a livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living" (DFID, sustainable rural livelihoods, edited by Carney, D. 1998).

capital, human capital and social capital. Multi-faceted approaches must operate within this context.[11]

On the other hand, the transformation of agriculture will benefit many other sectors. First, growth in the agricultural sector will result in increased output, which will in turn maintain downward pressure on real food prices. The effect of this is maintaining or increasing the real incomes of net food buyers, especially the urban poor who spend a large share of their incomes on food. However, subsistence farmers must absorb lower sale prices for their produce. This should be possible as a result of increased productivity, reductions in transaction costs and value addition processes.

Second, increased productivity, heightened food security and low food prices, means reduced expenditure on food. These savings can be spent on products from other sectors such as manufacturing and services, which in turn leads to expansion of employment in these sectors. Increased growth in off-farm employment will eventually lead to a reduction in the percentage of the labour force employed in agriculture. Higher incomes, both on- and off-farm will stimulate activities in trading, processing, marketing and transport throughout the economy contributing to general economic growth.

Third, low food prices stimulate the growth of labour intensive exports across all sectors, which in turn contributes to financing of increased imports and thus higher rates of economic growth. Fourth, increased agricultural productivity improves inter-sectoral movements of labour and capital thus contributing to expanding investments in the whole economy. Fifth, a transformed agriculture leads to more active land markets and increased efficiency of land utilisation. All these developments contribute to a radical transformation of the rural economy.

1.6. Structure of the PMA

Th PMA is organised in nine chapters. Chapter 2 presents the perspectives of the poor as derived from a wide range of social studies including the Uganda Participatory Poverty Assessment Project (UPPAP), followed by an overview of the agriculture sector and constraints hitherto (Chapter 3). The objectives, vision, mission and strategies for the modernisation of agriculture are presented in Chapter 4, followed by an assessment of the past and present state of the policy and legal/regulatory framework under which the PMA will operate (Chapter 5). The roles of the major stakeholders and strategies for strengthening the capacity of the public and private sectors are discussed in Chapter 6, and the priority public sector intervention areas are highlighted in Chapter 7 and Appendix 3. In addition, the PMA document provides a phased sequencing of actions by the various institutions for its implementation in the Plan Chapter 8 and Appendix 4. The interim indicative cost implications are drawn in Chapter 9.

[11] Section 4.7 discusses in more detail the development of capital assets.

CHAPTER 2 PERSPECTIVES OF THE POOR FARMERS

2.1 Introduction

This chapter aims to bring the perspectives of poor farmers to the fore, providing the basis for Government to address their constraints and to define priorities for action. The perspectives presented are those of poor farmers consulted during the PMA process, as well as during various poverty studies done by NGOs and other research institutions in Uganda. Specifically, data from the Uganda Participatory Poverty Assessment Project (UPPAP)[12] are used as they originate from a comprehensive consultation of the poor in field surveys conducted in nine pilot districts of Uganda.

This chapter also serves to highlight that the PMA must emphasise consultation and participation of poor farmers in order to design, implement and monitor the most appropriate and feasible public sector interventions. The PMA builds on the determination of the poor farmer to move out of poverty to overcome existing local constraints. Further, empowerment of subsistence farmers (i.e. motivation and support of farmers to help themselves) is paramount to agricultural transformation.

2.2 Nature of Poverty

What is poverty?

Poverty is defined by poor people in Uganda as not only *"a situation of perpetual need for the daily necessities of life…",* but also "*a feeling of powerlessness to influence the things around you"* . Poverty is therefore a complex, multi-dimensional phenomenon in which the influencing factors are inter-linked and often inter-dependent and include amongst others access to natural resources, human factors, financial assets, social capital and physical infrastructure. The interconnectedness of the causes and effects of poverty demonstrate the frustration poor people face in moving out of poverty as the many factors produce vicious cycles of poverty.

In addition, poverty is not a uniform condition affecting all groups of people and locations in the same way. Some factors are common (e.g., insufficient food, low yields and few productive assets, inadequate income to meet health care and education costs, restricted access to services, large families, lack of social support, and poor health), whereas other indicators are specific to a given situation (e.g., social or physical isolation, ethnic discrimination, low social capital, insufficient infrastructure development and insecurity). The extent to which such factors influence poverty and are inter-linked varies depending on the geographical location, the group of people, gender, the season, and the existing services and infrastructure.

This complexity and multi-dimensionality suggests that PMA interventions to address poverty must combine complimentary, sustainable and relevant interventions that are location-specific, inclusive in targeting, and mindful of pressures on all members of the household. Collaboration of agriculture programmes with other sectors is therefore paramount for effectively improving

[12] *Uganda Participatory Poverty Assessment* 1999 - UPPAP was developed specifically to bring the voices of the poor into planning for poverty eradication. The project consulted local people, using participatory methods, in 67 communities in nine selected districts across Uganda - Kumi, Kapchorwa, Kabarole, Kalangala, Moyo, Kotido, Kisoro, Bushenyi and Kampala.

crop, livestock, fishing and agro-forestry livelihoods, especially with regard to infrastructure development, delivery of basic services and natural resource management.

Who are the most vulnerable to poverty?

Local people defined vulnerability as the likelihood that an event could easily predispose a person or group of people to becoming poorer. Those who are vulnerable to increasing poverty, and who have the greatest difficulty in moving out of poverty are often disadvantaged in their ability to access developmental interventions and community activities. Such people were identified as follows:

- *Women.* Many women have limited economic opportunities due to their role in society and their relationships with men.
- *Widows and female-headed households*.
- *Male youth.* They are disaffected due to the lack of opportunities for financial gain and consequently, social well-being.
- *Households with large families.* Many dependants place a strain on meagre household resources.
- *People dependent on a relatively vulnerable source of income.* This group includes fishermen, nomads and small-scale farmers who rely on growing one low-value crop for sale.
- *Casual labourers.* These people rely on limited, seasonal work for other farmers.
- *Others.* Orphans and neglected children, the disabled, socially isolated, the sick and others.

When discussing the strategy to reduce poverty, it may be useful to categorise the poor into two groups:

- *The destitute.* These are people who do not have hope, and who have no assets. They need safety net interventions and will benefit from more general interventions indirectly through improved local well-being and existing social networks.
- *The poor.* This group represents the majority of those living in poverty. They have the will and the desire to improve and sustain their livelihoods, but they express frustration in their attempts to do so because of limited assets, skills and knowledge; restricted access to services, infrastructure and information; or social disadvantage. This group needs interventions that are inclusive, that build on their existing resources and activities, and that provide the impetus for development. This group also includes those who are particularly vulnerable to poverty. In these cases, poverty reduction interventions must be specifically targeted initially.

Based on the fact that many members of vulnerable groups engage in subsistence agriculture, PMA interventions must be inclusive and mindful of the vulnerable and disadvantaged. The Public sector interventions must be designed and implemented so that all groups are able to participate and benefit - particularly so that any group of farmers is not barred in any way from fully benefiting.

Further, isolation causes vulnerability to poverty. Some communities or districts are isolated in terms of distance, poor roads and transport, resource allocation, or insecurity. The consequences are lack of communication and information, restricted access to, and quality of, services, limited income generating and marketing opportunities, and consequently, exclusion from development processes. Further, certain groups of people are excluded by, or exclude themselves from, community affairs. Consequently such people lack information, social support and they do not benefit from community development.

Gender dimensions of poverty

In Uganda, women lag behind men in terms of education level and income earnings. Women have limited economic opportunities due to their societal roles and responsibilities, their low social status, relationships with men, lack of ownership and access to productive assets, low participation in decision making, and high workload. However, in situations where women are increasingly seeking employment outside the home, this economic empowerment has not been accompanied by concomitant social empowerment.

There is a clear division of labour between men and women. Women are more involved in reproductive activities, particularly care of the family, whereas men are more involved in community activities. Both men and women are involved in production. To be very general, men are involved in large livestock keeping, fishing and cash crop production, whereas women are involved in food crop production.

Intra-household benefit sharing from the sale of produce does not favour women. Thus, increases in household income do not necessarily mean increases in access to income for female members, or improved quality of life for all members, especially in terms of the nutrition of children. In addition, access, control, ownership and inheritance of assets also favours men, although the extent of the inequality varies with location. Most women are dependent on their husband or father for access to productive assets and income. In general, women do not own land, although they have access for growing food.

Women face barriers to participation in community development activities that include refusal by husbands, discrimination, subordinate roles, weak leaders, lack of mobilisation, lack of time and failure to see the benefit of their participation. Further, consultations with women also revealed that they are discriminated against in land and domestic disputes. Within the household, men make decisions concerning economic activities, involving women to an extent that differs regionally and depends on the level of understanding and co-operation within the household.

In situations where a woman heading a household has access to assets, she is often able to develop and may be better off than married women who are constrained by the existing unequal power relations within the household. However, in cases where the woman has many children and few productive assets – possibly grabbed by in-laws upon the death of the husband – she may be particularly vulnerable to poverty.

Given the gender inequalities in Uganda, operationalizing the PMA will require special considerations to gender issues. All interventions must be gender-responsive and gender-focused such that both men and women are included. Therefore, intervention planning and implementation should carefully consider men’s and women’s participation, roles and responsibilities and workloads, as well as control of, and access to, resources and existing power relations that may prohibit participation and benefit. Gender analyses are suggested in order to identify enabling factors that will ensure that information is provided to, and utilised by, both men and women, and that will motivate women as well as men to participate and benefit. In addition, an important role for community development practitioners is to foster the household to act as a unit in which the strengths and contributions of all members are recognised and there is a realisation that by working together as a team, poverty can be reduced most effectively.

Poverty trends
As highlighted in Section 1.2, overall household consumption data between 1992 and 1997 indicate that overall, poverty is decreasing in Uganda albeit faster in the central region than in other regions. However, as explained by the poor themselves, poverty is about more than income and expenditure. When poor farmers were consulted they commented that relatively, *"the poor are getting poorer and the rich are getting richer"*, although in some communities and for some groups of people, poverty was reported to be decreasing.

Long-term trends as well as external shocks influence poverty and appear to shape common perceptions of changes in poverty. In Uganda, poverty was seen to decrease under conditions of peace, market availability, livelihood opportunities, increasingly effective investments, improved housing and dressing standards, improved access to education and health care, good road connections, strong social cooperation and community participation in governance and development.

Well-being is also influenced by seasonal changes in climate and household expenses like school fees and taxes, particularly in rural areas where people depend on primary production – crops, livestock and fishing. The seasons dictate both resource generation – food and income - and consumption, resulting in times of relative abundance and times of hardship throughout the year. Times of hardship differ depending on the livelihood – pastoralism, cropping, fishing- and on climatic patterns – rainfall and drought. Additional stress is placed on households when times of income and food scarcity coincide with times of increased household and productive workload and with added financial demands.

The interventions under the PMA will use the cited criteria for decreasing poverty, being mindful of seasonal demands to address livelihood constraints, to design, implement and monitor interventions.

Locational dimensions of poverty
Although measurement of quantitative aspects of poverty fails to give a complete picture of this complex phenomenon, quantitative surveys indicate that Eastern and Northern Uganda have the lowest incomes, warranting a focus on income-generation in these areas. The North is the poorest in terms of development indicators, such as household size, education level, health expenditure, and child survival, warranting attention in these aspects. On the other hand, the West has the poorest indicators of welfare, such as diet, lack of clothing and inability to afford health care. Focus on these issues is needed in the West.

Consultations with poor farmers in the North highlight the influence of insecurity and restricted market access, and lack of water in Karamoja, as factors affecting poverty. In the East, lack of oxen, lack of access to clean water and poor road or transport networks were major constraints, whereas in the West issues of land shortage and soil infertility, as well as pests are factors contributing to low productivity. Common factors throughout most of Uganda included lack of food security, lack of income, inadequate extension services, restricted market access, low sale prices, and limited availability of inputs.

Even within a district, the face of poverty varies between communities. For example, in Bushenyi District, in which overall poverty had decreased in recent years, pockets of poverty still exist. By comparing communities, some important factors influencing community well-being are elucidated: security; good roads; proximity to urban centre; access to markets; regular and appropriate extension service delivery; proximal social services, particularly health care; community co-operation; strong, consultative leaders; involvement of women in decision making; flow of information through the LC system; and the presence of groups and community associations.

As the nature, extent and trends in poverty differ with location, PMA priority areas must be determined, focused and flexible so that the districts and sub-counties are able to develop appropriate interventions to meet the specific needs and priorities of local farmers. Consultation to tailor interventions to specific localities will provide the greatest feasibility of adoption and success in meeting the PMA goals. Decentralisation offers a perfect opportunity to achieve this.

Major causes and effects of poverty

Poor farmers stated that poverty was due to low production – crops, livestock and fish catch. They were (i) unable to provide sufficient food for the household throughout the year; (ii) unable to supply basic household essentials or to afford education and medical costs; and (iii) sometimes forced to sell assets such as land, livestock and produce meant for household consumption, in order to meet basic household needs.

In the UPPAP consultations, the causes of poverty cited by poor farmers in rural areas were ranked in terms of frequency of sites in which the factor was reported, as shown in Table 2.1.

Table 2.1 Ranking of Causes of Poverty (UPPAP, 1999).

FACTOR	% OF RURAL SITES
Lack of access to markets	63
Poor health	58
Lack of education and skills	58
Excessive alcohol consumption	54
Ignorance/ lack of information	54
Lack of access to financial services and capital	42
Large families	42
Insurgency (rebels and rustlers)	38
Idleness and laziness	33
Lack of co-operation	17

Analysis of the causes and effects of poverty gives the foci for developing PMA intervention, and highlights the need for integrated and holist approaches. From the above table, extension and education services to provide information and skills for increased productivity, coupled with rural finance and improved market access, appear as priorities that will help to overcome income and food shortages.

2.3 Focus on Increased Agricultural Production to Reduce Poverty

Although the majority of rural households engage in subsistence agriculture, many poor households cannot produce enough food to feed their families. Many cannot generate enough income to meet the household's basic requirements. In addition, on average in poor rural households who are net buyers of food, the purchase of food accounts for 60% of monthly expenditure. This situation may lead to the forced sale of assets in order to meet household needs. Therefore, increased production is vital for poor rural households in order to improve food security and promote income-generation.

Food security is the *ability to provide adequate food for the household throughout the year, whether through adequate food produced by the household or by households earning enough incomes to be able to purchase food on the open market.* Local people reported the effects of food insecurity as poor nutrition; hunger and starvation; disease; inability to work effectively; poor concentration of children in school; and stress on women in finding food for the family. All these factors lead to further poverty. Many poor households consulted reported that increased yields, increased income, access to cash and strategies to alleviate seasonal times of hardship – secure storage and processing - would assist in increasing food security. Presently, poor farmers cope with food insecurity by resorting to casual labour in return for food or cash; out-migration; sale of assets; and changed eating habits.

2.4 Constraints to Increased Productivity

Consultations revealed that the objective of most poor farmers is to move out of poverty by improving and sustaining their productivity. To do this, households that are engaged in agriculture and fishing must overcome the constraints that affect their productivity that are at the household level, and maximise the assets, resources and opportunities that are available to them. However, poor farmers are often frustrated in their efforts due to failure to access simple and basic requirements.

Constraints to improving productivity fall into two categories – those specifically pertaining to productivity, and those features of broad governance that inhibit development.

Productivity-related constraints

Constraints to increased production vary with location and with livelihood (detailed in Appendix 2). In general, these include the following:

- *Lack of sufficient food.* Local people relate poor diet with the susceptibility to disease and the inability to work. Local people recommend installation of small scale processing plants, and communal and improved market storage facilities.

- *Lack of land and soil infertility.* Production is constrained by shortages of land, for example in the South West, due to fragmentation, small holdings, population pressure and forced sale of land to meet necessities. Other constraints include declining soil fertility, overuse of small plots, poor methods, erosion and drought conditions. Local people recommend sensitisation on proper land management techniques, and demarcation of plots with title deeds to avoid disputes.

- *Lack of proximal water sources.* Lack of proximal water sources and pastures necessitates migration of cattle herds in search of water and pasture in the dry season. This is particularly striking in Karamoja, where transhumance is associated with cattle raiding in areas to the south. Local people recommend wind-mill (re-) installation, community maintenance of water sources, and construction of proximal, strategically located dams.

- *Unavailability of inputs.* Poor farmers and fishermen reported limited access to inputs, such as implements (hoes, ploughs, nets and boats), fertilisers, pesticides, spraying equipment, animal drugs, high yield and resistant seeds, improved breeds, and a variety of improved plant cuttings and seeds. Barriers to access and utilisation include cost; theft; unavailability in nearby markets;[13] poor quality; and lack of advice. Poor farmers recommend sensitisation of farmers, introduction of local supply programmes, encouragement of local stockists to operate closer to the community, rehabilitation of communal equipment (e.g. cattle dips), and reintroduction of the Tractor Hire Service.

- *Pests and disease.* The loss of 35-40% of crops to disease and pests severely limits productivity of both food and cash crops – cassava, coffee, banana, tobacco, groundnuts and cowpeas. Livestock diseases, particularly of cattle, and waterweed limiting the fish catch were also raised. Poor farmers and pastoralists are unable to cope with diseases and pests because of a lack of money, limited availability of drugs and pesticides, lack of or misguided advice, conflict with Government regulations and officers, and corrupt fisheries officers. Poor farmers recommend that district staff and wildlife officials collaborate to control pests such as monkeys, extension advice on control, and supply of resistant seeds, plant cuttings and improved breeds.

- *Lack of skills and knowledge.* Many communities blamed lack of productivity on lack of information, knowledge and skills concerning better methods of food and income-generation (crop production, animal husbandry, fishing methods and alternatives), soil conservation, pest and disease control, marketing opportunities, prices, processing and pertinent Government policies and regulations. Poor farmers blamed this on limited, poor quality extension services, which they desire because of positive experiences in the past. Poor farmers complained that agricultural officers are rarely seen in the community, whereas the cost and quality of service of veterinary extension workers are of concern. Poor farmers perceived problems as lack of extension staff;[14] lack of facilitation - transport and fuel; insecurity; poor feeder roads; poorly qualified extension officers; corruption; high charges; demotivation of staff due to low and delayed salaries; and use of expired drugs and poor techniques by veterinary officers. Further, in cases where extension is perceived as beneficial, the service providers are often private (e.g., UNFA), although the membership fee may be restrictive.

  Poor farmers recommend increased involvement of the private sector (NGOs and farmers organisations), an effective extension system delivering appropriate information, formation of

[13] Data from the *Uganda National Household Survey* indicate that in 1995-6, only 1% LC Is reported the use of improved seeds by poor farmers in the Central region, 8% in the Eastern, and less than 1% in the Northern and the Southern regions. An average of 20% of LC Is reported use of such seeds by better-off farmers in the central, eastern and western regions.

[14] National statistics (*Uganda National Household Survey, 1995-6)* indicate that extension officers only visited 16%, 33%, 9% of LC I areas in the Central, Eastern and Western regions in 1995-96. In the Western region, 45% of the LC I areas received a visit by extension staff.

groups (especially of women) to pool resources to improve farming collectively. They also recommend the re-employment of retrenched extension officers, deployment of more, better-trained, adequately remunerated and facilitated officers, and empowerment of communities to demand services.

- *Lack of capital and access to credit*. Lack of capital, limited financial management skills, and failure to access financial services due to concentration of credit facilities in urban centres; unfavourable borrowing terms particularly short and ill-timed repayment schedules. They stated that they need funds to tide them over during times of seasonal hardship, to purchase new inputs, and to start new income generation ventures. Further, public credit delivery, such as *"Entandikwa"*, was seen to have failed during implementation. Women report that small-scale informal credit for household items and service delivery fees is available to them through revolving savings groups in some communities. Poor farmers recommend credit in kind, as well as cash; user-friendly terms to suit their mode of livelihood; youth schemes; channels of distribution outside of Government.

- *Market problems.* Serious constraints exist to successful marketing, realisation of profits and thereby affordability of basic livelihood assets. Low and fluctuating prices resulting from seasonal fluctuations in the supply and demand for agricultural produce coupled by forced sale due to demand for cash to meet basic needs (health, education and food) do not allow farmers to strategically sale produces when prices are high. In many districts, ready markets are not available for sale of produce and purchase of inputs. Long distances to produce markets, impassable roads and lack of affordable transport, especially in the rainy season, further hamper market access[15]. High market dues for produce sales in general, licences for fisherfolk and traders, and livestock slaughter fees, relative to low incomes are said to eat into market profits. The market tendering system was seen by poor farmers as corrupt and exploitative. Although both men and women are involved in marketing, women may have limited access to the profit. Further, women appear to be most affected by inadequate market facilities, such as sanitation or shelter. Therefore, poor farmers recommend construction of communal collection facilities; organisation of farmers groups to bulk market produce; creation of a conducive environment for local trade; improvement of market facilities; improvement of rural marketing networks; development of strategies to eliminate exploitation by middlemen; access to marketing information; and a review of the current local market management, dues collection and tendering.

- *Poor roads and transport networks.* Lack of all-weather roads hinders community development. A poor road network not only means that poor farmers cannot reach health care facilities, schools, and markets, but that services, such as security bodies and suppliers, cannot reach the community. Of equal importance, lack of transport isolates communities and also contributes to poverty.

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[15] Statistics from the *Uganda National Household Survey* (1995-96) show that throughout Uganda the average distance to a periodic consumer market for sale of produce is 5 km (25% of the population living within 1 km) and that it is an average of 11 km to a major market; and that only 12% of LC I areas have a consumer periodic market. Half of the markets that sell agricultural inputs are located in the trading centres and/or municipalities. *Uganda National Household Survey 1995/96.*

- *Lack of storage and processing.* Lack of storage facilities limits the marketability of perishable goods, such as vegetables, fish and dairy products. Further, mention was made of the lack of grinding mills and fish processing facilities (drying, smoking, salting) close to communities.

- *Insecurity and agricultural production.* The threat of insecurity limits work in distant fields in Northern Uganda, particularly for women. Further, insecurity limits commodity availability, prohibits sale of cash crops to external markets due to insecure transport routes, and creates difficulties for extension services reaching communities. Fear of theft also limits storage of produce and encourages untimely sale at seasonal low prices.

- *Loss of oxen.* Cattle-rustling is also a serious problem in the north and east of the country. People are robbed of their savings, in the form of cattle, and their plough animals. Failure to plough has restricted the acreage of the land under cultivation and therefore production, especially in the Teso districts where much cultivation is now restricted to the hand-hoe. Poor farmers recommend restocking and improved security against cattle raiding.

Broad governance constraints

Constraints to good governance also limit poor farmers' ability to move out of poverty. Factors include corruption, lack of accountability and transparency, poor delivery of basic services, and weak leadership. In addition, although insecurity has specific effects on production and marketing, as mentioned above, general peace and security are seen as prerequisites for development and poverty eradication.

Lack of consultation of farmers by Governmental and non-governmental bodies concerning their needs, priorities implementation and monitoring of policies and programmes was said to inhibit development and lead to the failure of programmes intended to benefit the poor. Poor farmers complain of lack of information, particularly regarding marketing, policies, laws, credit availability, and development plans. The barriers to information flow include blockages in the LC system, poor farmers feeling powerless to change their situation, and their need to spend more and more time focusing on survival. The consequences of lack of information were identified as constraints to the functioning of lower LCs, failure to adopt and implement appropriate projects, constraints to livelihood, and failure to demand accountability. Poor farmers also saw deliberate withholding of information by leaders as an attempt to deny them access to development opportunities.

Given the above reports, the PMA will ensure maximal consultation and participation of farmers in interventions and monitoring. Further, the PMA principles will include transparency and accountability in all institutions and service delivery. Lastly, the PMA will liaise with central and local government in order to promote good governance and security.

- ***Opportunities for poverty reduction***

Poor farmers have several opportunities for improving productivity and reducing poverty. The majority exhibit the will to improve their well-being. In addition, social networks and local organisations are seen as important socially and communally for poverty reduction. Communities regularly work together effectively to develop their community, although resources are often limiting. Poor farmers identified the value of forming groups to market their produce collectively as a way of improving profits. LC I leaders and elders were also appreciated for their role in fostering community harmony and local development in many areas. The PMA must recognise this strong social capital, community co-operation, existence of local groups and local leadership. The PMA must build upon these opportunities during design, implementation and monitoring of the proposed interventions in order to transform agriculture successfully.

2.5 Poor Farmers' Priorities for Action

The priority areas for action given by poor farmers in order to increase agricultural production are listed as:
1. Access to credit and financial services.
2. Control of crop and livestock pests and diseases.
3. Improved market access.
4. Access to affordable inputs.
5. Improved access to arable land—soil fertility, maximal land use and increased access to land.
6. Extension services that reach the people and offer advice, information and training on more productive methods, marketing and alternative income generation activities.
7. Improving access to storage and processing facilities.

It should be noted that education is not listed among the priority areas for action, possibly due to the appreciation that UPE is addressing this issue. In addition, research is not a listed priority area, as it does not interface with the people directly, although farmers appreciate the introduction of new crop varieties, livestock breeds and soil management techniques.

Apart from the strategies addressed by communities, poor farmers implored Government to provide improved infrastructure and basic service delivery, as well as to improve security, eradicate corruption and to institute good and effective governance. The basic premise for operationalisation of the PMA must be one of transparency and accountability. Such a conducive environment is essential for the successful operationalisation of the PMA.

As empowerment of subsistence farmers is vital to agricultural transformation, participation of poor farmers, through consultation, and effective information flow, must be the rule rather than the exception for successful implementation of the PMA.

CHAPTER 3 THE AGRICULTURAL SECTOR

3.1 Introduction

The Ugandan Economy is dominated by the agricultural sector which accounts for 43 percent of Gross Domestic Product (GDP), 85 percent of export earnings, 80 percent of employment and provides most of the raw materials to the mainly agro-based industrial sector comprising coffee hulling, cotton ginning, tea processing, sugar production, textile mills, soap industries, edible oil industries, cigarette manufacturing, grain milling, meat processing, dairy and leather products manufacturing. Eighty five percent of the population of 22 million live in rural areas and depend mainly on agriculture for their livelihood. The agriculture sector is also the provider of food self-sufficiency and food security. Being the leading sector of the Ugandan economy, agriculture is the engine and major source of future growth.

Agricultural output at present comes mainly from about 3 million smallholder farmers who constitute three-fourths of the total. The hand-hoe is the predominant technology for cultivation. Only tea and sugar are grown on large estates. Food crop production predominates the agricultural sector, contributing 71 percent of agricultural GDP, while livestock products account for 17 per cent, export crop production 5 percent, fisheries 4 percent and forestry 3 percent. Only one-third of the food crop produced is marketed compared with two-thirds of livestock produced. About 42 per cent of agricultural GDP consists of subsistence crops for home consumption and is non-monetized. In terms of acreage, bananas constitute 28% total of cropped area, followed by cereals at 25%, root crops at 16.7% and pulses at 14% and oil seeds at 8%. Export crops constitute only 8% of total cropped area.

3.2 Resource Base and Production Systems

Resource base

The country is on the equator and temperatures average about 21 degrees centigrade, (ranging from 15 to 30 degrees). More than two-thirds of the country is 1,000 to 2,500 meters high. Precipitation is fairly reliable and varies from 750 mm per year in the Karamaja pastoral areas in the Northeast to 1,500 mm per year in the high-rainfall areas on the shores of Lake Victoria, around the highlands of Mt. Elgon in the East, the Ruwenzori mountains in the Southwest, Masindi in the West, and Gulu in the North. Near the equator and around the Lake Victoria Crescent there are two distinct rainy seasons.

The total geographical area of the country is 241,000 square kilometers, 75% of which is available for cultivation, pasture or both (Table 1). The remaining 25% constitute lakes, swamps and forestry zones. Of the 17 million hectares available as arable land, only about 5 million hectares are currently under cultivation, which constitutes less than 30% of total arable land. Although the above indicates very good scope for expansion of acreage under cultivation, land is increasingly becoming a constraint in some parts of the country particularly in the Kigezi area and southern and eastern regions, where population densities are high.

Land is fairly evenly distributed throughout the country and the average landholding is 2.2 hectares. However, there are large differences in rural population densities across regions. Population densities are highest in the districts around Lake Victoria, and in the highlands of the Southwest, the country's most fertile areas. The Eastern region has the highest population density (using projections for 2000) with an average of 143 rural persons per square kilometer, and 535 persons per square km in Jinja district, and 388 in Mbale. Central region has an average of 100 rural persons per square km, Western region has some 118 persons per district, and the Northern region has less than half the average rural population density for the country as a whole, with only 49 persons per square km. Within regions, there are also large differences in settlement densities. There are 13 districts, scattered through Eastern, Central and Western regions, with population densities of over 100 persons per square km. The districts with high population densities coincide with good agricultural potential, high rainfall, and consequently are those areas most at risk from soil erosion.

At the present time, there are three main types of land tenure, namely customs, freehold and mailo tenure.

Table 3.1 A Summary of Uganda's Agricultural Resource Base

GEOGRAPHICAL AREA (Sq. Km)			
Land Area	-		197,097
Water and Swamps	-		43,942
Total Area	-		241,039
POPULATION AND HOUSEHOLDS (2000)			
Total Population	-		22,210,000
Rural – Male	-		9,293,000
- Female	-		9,353,000
- Total	-		18,646,000
No. of Rural Households	-		3,056,418
Average size of Rural Family			7.3
Density	-		92
LAND UTILIZATION (Ha)			
Cultivable Land	-		16.7m
Forest Land	-		1.53m
Area Cultivated	-		5.20m
Av. Size of Land Holding			2.2
AGRICULTURE GDP – 1999 (Current prices)			
Monetary (Shs in Billion)		-	2,046
Non-monetary (Shs in Billion)		-	1,443
Total Agric. GDP (Shs in Billion)			3,489
Share of Agric. In Total GDP			44%
Share monetary Agric. GDP in Total Agric. GDP			59%
CROPPING PATTERN (1999)		Area (000 Ha	%
Banana		1510	28.15
Total Cereals		1341	25.00
Root Crops		895	16.69
Pulses		750	13.98
Oil Seeds		428	7.98
Export Crops		440	8.20
Total		5363	100.00
AGRICULTURAL EXPORTS (1998)		Amount	(US$ml)
Coffee			295.67
Other Traditional Exports			57.97
Non-traditional Exports			182.88
Total Exports			536.51
Share of Agricultural Exports			85%

Source: Agricultural Policy Secretariat.

The 1998 Land Act contains far-reaching provisions and lays a comprehensive framework for the development of a uniform freehold land tenure system throughout the country. It also provides the basis for development of sound land-use policies for placing the sector on the path for sustained future growth.

In comparison with many Sub-Saharan countries, Uganda enjoys many advantages which include *inter alia*:

- Reasonably fertile soils with about 34% of the cultivable soils classified as good to very good fertility, 40% moderate and 22% poor.

- Satisfactory and reasonably reliable rainfall falling in two main growing seasons over most of the main crop-growing areas.

- A combination of satisfactory temperatures, rainfall and soils provides a highly attractive agro-ecological environment with a wide diversity of agro-ecological zones allowing the production of a wide range of crops.

- The existing cropping systems include the use of legumes and, in most areas, the integration of crop and livestock systems.

- Labour costs are low which should contribute towards a competitive cost base for processing, marketing and pricing of export commodities.

- In many areas there are no land constraints and there is good scope for acreage expansion for a wider range of crops. The present low yields also provide good scope for increasing production through yield increase. Availability of grazing land also provides good scope for livestock development.

- The numerous lakes and swamps which constitute 18% of geographical areas provide good scope for fisheries and irrigation development.

- The use of agro-chemicals is low, pest resistance to chemicals is not a major problem and chemical residues in food products are not yet serious.

- Ugandan farmers have demonstrated that they are prepared to adopt new technology provided it is economically viable and risk acceptable. They are, moreover, responsive to changes in relative prices.

Given the above resource base, favourable climate and fertile soils, Uganda has a good potential for growing a wide range of agricultural commodities as summarised in Table 3.

Production Systems

Using soil, rainfall and cropping characteristics, Uganda’s crop farming systems have been classified into seven main categories summarised in Table 3.2.

Table 3.2 Uganda's Agricultural Systems and Major Crops

Farming System	Districts	Major Crops Grown
1. Teso System	Soroti, Kumi	cotton, finger millet, sorghum, groundnut, simsim, sweet potatoes, cassava
2. Banana/Coffee System	Bundibugyo, parts of Hoima, Kabarole, Mubende, Luwero, Mukono, Masaka, Iganga, Jinja, Mpigi and Kampala	robusta coffee, banana, maize, beans, sweet potatoes, cassava, horticultural crops, tea, groundnut.
3. Banana/Finger millet/Cotton system	Parts of Masindi, Luwero, Kamuli, Pallisa and Tororo	cotton, robusta coffee, beans, maize
4. Northern System	Gulu, Lira, Kitgum, Apac	cotton, tobacco, simsim, finger millet, sorghum, cassava, sunflower
5. West Nile system	Moyo, Arua, Nebbi	tobacco, cotton, arabica coffee, simism, millet, sorghum, cassava, groundnut
6. Montane System	Kabale, Rukungiri, Kisoro, Bushenyi, Kasese, parts of Kabarole, Mbarara, Mbale and Kapchorwa	arabica coffee, banana, cotton, maize, beans, wheat, millet, rice, irish potatoes and sweet potatoes
7. Pastoral System	Rakai, parts of Mbarara and Masaka, Kotido and Moroto	millet, cassava, sorghum, beans, maize

Livestock Production

In the case of livestock sub-sector, the main grazing management systems for cattle, which are superimposed in varying degrees and combinations on the above crop farming systems, have traditionally been defined as: communal grazing; pastoral herding; tethering; enclosed ranching; fenced dairy farms; and zero grazing (recent).

Several variants (particularly for fenced dairy systems) of these systems exist and their classification is mainly based on input usage, proximity to market outlets and potential for commercialization.

Forestry

Forest reserves cover 1.5 million hectares, being about 7% of the country and comprise 732,000ha high tropical forests, 775,000 hectares. in savannah forests as well as 25,000 ha in plantation forests. Forestry contributes about 2% of GDP and provides more than 95% of the county's timber requirements. About 400,000 hectares. are available for industrial use. The major potential products for exports include veneer, saw wood, and furniture items of Mahogany, Mvule, Elgon Olive and Nkoba.

Fisheries

Uganda is endowed with plentiful fresh water resources comprising natural lakes, rivers, valley dams, and swamps and covering about 17% of the total area. Fisheries account for about 3% of GDP. The sub-sector is dominated by private fishermen, traders and exporters. The largest and most resource-rich are Lake Victoria, Lake Kyoga, Lake Albert, Lake Edward and Lake George. There are 11 registered fish exporters mainly to the European markets. Sustainable harvest is estimated at about 300,000 mt/ annum and before the current ban on fish exports, peak level exports reached about US $50 million in 1995/96, making fish exports the second largest foreign exchange earner to coffee. There is scope for expanding the production of fish by developing aquaculture and provision for high yielding and quick maturing fish fry.

The main feature of the production systems in general is mixed enterprises with food crops as the dominant activity supplemented by a few export crops such as coffee, cotton, tea and tobacco and livestock. In the pastoral farming systems which exist in the northeast and a part of the west, livestock production constitutes the dominant activity supplemented by production of a few food crops.

3.3 Past Performance and Recent Developments

In the 1960's Ugandan agriculture enjoyed significant output growth rates averaging 10% p.a. During the 1970s and early 1980s, the sector, however, registered dramatic declines in growth rates averaging about minus 2% p.a. This poor performance may be attributed largely to years of misrule characterized by economic mismanagement, disintegration of public infrastructure and services, disinvestment by private sector and scarcity of foreign exchange for importation of agricultural inputs. With the breakdown of industrial and service sectors, the agricultural sector virtually returned to subsistence production.

Under the Economic Recovery Program Government policy aimed at achieving a stable and undistorted macro-economic framework and promoting growth by providing a conducive and enabling environment for private sector investment. In the agricultural sector, Government policy aimed at the following key areas:

i) Rehabilitation of traditional exports like coffee, cotton, tea and tobacco with a view to increasing export earnings and thereby improving balance of payments.

ii) Development of non-traditional exports to diversify export base.

iii) Removal of physical, technical and institutional constraints for sustainable agricultural development.

To achieve these objectives, Government designed and adopted a Policy Agenda for the Agricultural Sector in 1989, which focussed on the following, six critical areas of policy and institutional reforms:

- Agricultural pricing and incentives.
- Trade liberalisation and promotion.
- Restructuring of marketing boards.
- Rationalising crop-processing capacity.
- Financial rehabilitation of co-operative Unions.
- Strengthening agricultural research and extension services.

The implementation of the Policy Agenda, thus, emphasised the prevention of erosion of farmers' price incentives, increased efficiencies in the processing of crops and livestock products, improvements in marketing arrangements for agricultural products, removal of monopoly of marketing boards and strengthening of agricultural services such as availability of agricultural inputs and provision of research and extension services.

Removing the monopoly of marketing parastatals and freeing producer prices from Government control liberalized the markets for agricultural produce including export crops. Export tax and other market distortions were removed to provide incentives to producers. Regulatory and promotional agencies were set up for key export crops for promotion, quality control and market information dissemination. The National Agricultural Research Organization (NARO) was set up to strengthen research services in agriculture. A Unified Extension System was introduced for delivery of effective extension services to ensure technology transfer to smallholder farmers in order to improve their productivity.

Due to the various policy and institutional reforms implemented under the Policy Agenda, the agricultural sector registered a significant recovery achieving annual GDP growth rates ranging from 4 to 10% (but averaging 5%) between 1986 and 1999.

3.4 Agricultural Sector Constraints

Growth in the agricultural sector in Uganda during the 1970s and 1980s was hampered by a series of policy and structural constraints related to such factors as: (i) government and parastatal monopolistic control of food and export crop marketing and pricing that inhibited incentives to improve the quality and quantity of output; (ii) inadequate infrastuctural facilities; (iii) shortages of foreign exchange, for importation of critical agricultural inputs and high and unpredictable inflation; and (iv) insecurity. In addition, there were institutional constraints, which included; (i) ineffective and inefficient government research and extension services; and (ii) segmented, inefficient and discriminatory markets for capital, labour, land and agricultural inputs.

Most of the above constraints have been removed during the implementation of the Agricultural Policy Agenda of the Economic Recovery Programme during the past decade. However, there still exist fundamental constraints affecting growth in the sector arising either as uncompleted agenda from the recovery programme or as deep-rooted constraints that could not be addressed sufficiently. A brief description of these constraints is given in the following sections.

Marketing Infrastructure Constraints

Inadequacy of physical infrastructure such as feeder roads, communication facilities, power supply, education and health facilities, water supply and market infrastructure continue to constrain marketing of agricultural produce and investments in rural areas and are responsible for the high market transaction costs.

Technology Generation and Dissemination

The major constraints in this category include non-availability of high-yielding technological packages, efficient and cost-effective cultivation technology, low adoption rates of appropriate technology due to weak research, extension and farmer linkages, absence of effective delivery of extension services to farmers.

Financial Constraints

At present both investment finance and working capital are the main bottlenecks for smallholder agricultural production. Yet creation and sustenance of a dynamic and productive modern agricultural sector would require on a continuous basis the uptake of new, more productive and high-yielding technology by farmers. Thus creation of viable and sustainable rural financial systems is one of the key elements to agricultural development because most of the productive and high-yielding technologies have to be made available to farmers only as purchased off-farm inputs.

Land Tenure and Policy

Although a fairly comprehensive Land Act was enacted by Parliament in 1998, it still remains to be implemented to bring about the desired changes in land tenure systems, land policy and land registration as well as land administration improvements. Thus, the constraints of the land tenure systems that are not conducive to the emergence of land markets persist. Also the issue of land ownership and inheritance by women who are key stakeholders in agricultural production has not yet been resolved. In addition, the lack of a centralised land registry results in difficulties in getting land title deeds in rural areas.

Farmers' Organisations

At present there are no effective grassroots/village-based, commercially oriented institutions capable of mobilising the production capacity of small producers for the production of income-generating commodities. The co-operative movement, and other farmers' organisations are yet to be empowered, moved away from political hegemony, donor dependency and be allowed to operate independently and on a commercial basis.

Human Resource Constraints

The majority of Ugandan farmers are illiterate. There is therefore an urgent need to educate and empower them to undertake commercial enterprises efficiently and profitably. Fostering these skills is the surest way to economic growth and overall development.

Information Constraints

The availability of statistics regarding food crops and export crops is unsatisfactory. Many agencies are involved in the collection and dissemination of agricultural data and they are not well co-ordinated. Organisational and financial as well as managerial deficiencies are acute in most of these institutions. Also the potential users do not know the work of the various agencies. There is therefore an urgent need for the establishment of information services that is acceptable to producers and market operators.

On-farm and Off-farm Storage
Post-harvest losses, particularly for food crops, are very high, aggravating the food insecurity problem. In addition to timely harvesting, proper drying, protection from infestation with diseases and pests and storage are critically important and should be introduced. Today, few farmers have well-constructed storage facilities in rural areas. Off-farm storage facilities owned by traders, millers, processors, and exporters are generally lacking and need to be addressed.

Environmental Degradation
Increase in population pressure, intensive utilisation of land including restricted grazing, soil erosion, deforestation and the drainage of swamps have resulted in considerable environmental degradation and low productivity in many areas of the country. Therefore, environmentally friendly, socially acceptable and affordable technologies should be developed and disseminated for efficient use of natural resources in rural areas.

Effects of HIV Infection and AIDS
The AIDS epidemic continues to impact negatively on agricultural production. It has the impact of loss of skilled and unskilled labour, that would otherwise be engaged in production, research, extension services and in policy formulation and implementation. It has a direct impact on loss of assets and use savings for medical care and funeral expenses. AIDS mitigation measures therefore, will have a positive impact on agricultural production, household incomes and peoples' welfare. Malaria, which is also endemic in most parts of the counties also contributes to decreased human productivity and capacity to generate incomes.

3.5 Future Perspectives

The analysis of the past performance of the agricultural sector clearly demonstrates three main lessons to be taken into consideration while determining the future potential and pattern of agricultural growth. First, agricultural expansion has resulted mainly from the rapid increase in production of food crops for a resurgent domestic market and regional market. Second, the increase in food production has resulted mainly from expansion in the area cultivated, while yields of the major food crops have remained stagnant and in some cases declined. Third, the international markets for Uganda's traditional export crops have become much more competitive than in the early 1970s and Uganda has limited world market prospects for its food crops.

Most of the binding policy constraints in the agricultural sector have now been removed. Based on the recent past performance of the sector, the future focus of the sector to achieve accelerated growth should therefore concentrate on the following:

a) Development and adoption of high-yielding technology through strengthened agricultural research and extension delivery mechanisms.

b) Generation and adoption of appropriate labour-saving technology for expansion of acreage under cultivation.

c) Promotion of increased diversification of agricultural exports through production of high value-added commodities.

d) Creation of efficient and competitive systems for processing and marketing of agricultural commodities.

e) Development of rural financial markets to provide easy access to finance for smallholder farmers to invest in agricultural production.

f) Development of infrastructure such as rural roads, communication links and rural electrification to reduce transaction costs, develop marketing linkages, improve efficiency and provide power for agro-processing.

g) Development of cost effective irrigation and water harvesting technologies including community valley dams to mitigate against the potential impact of drought.

These are the key issues that will form the agenda for modernisation of the agricultural sector.

CHAPTER 4 THE VISION, MISSION AND STRATEGY

4.1 Introduction

The main objective of the PMA, as stated in Chapter 1, is poverty eradication through agricultural transformation. The interventions in the PMA will address the constraints on subsistence farmers presented in Chapter 2. There are three categories of farmers: subsistence farmers (the majority), semi-commercial farmers and commercial farmers. All three farmer categories will benefit from the PMA interventions, but most of the public resources will be spent on interventions that directly benefit the subsistence farmers. The PMA recognises that the majority of farmers are individual small scale private enterprises and individual decision makers and therefore, the challenge for Government is to create the enabling environment that allows these enterprises to thrive.

The PMA seeks to re-orient subsistence farmers from producing predominantly for household consumption, to producing for the market. The farmers must be commercially oriented. The goal is to increase the share of marketed output without increasing vulnerability to food insecurity. Transforming subsistence farmers is at the center of the PMA. This, together with institutional reforms will bring about dynamic changes within the agricultural sector as a whole.

Agricultural transformation in the Ugandan context must start with increased productivity per unit area or animal. Increasing yield per unit of land will require farmers to adopt high yielding, pest- and disease-resistant crop varieties, using proper crop and land husbandry practices, use of organic manure or inorganic fertilizers to maintain soil fertility, in addition to developing skills for water conservation for hedging against drought or poor rains. This will necessitate a new approach to agricultural research and advisory services, which stresses the screening of proven technologies for adoption. To increase yield per animal will require farmers to raise improved animal breeds that are less susceptible to diseases, and adopt proper feeding practices either on well-managed rangelands and/or using supplementary feeds to enhance productivity.

4.2 The Vision

Agricultural transformation in Uganda will lead to *“poverty eradication through a profitable, competitive, sustainable and dynamic agricultural and agro-industrial sector”*. Achieving this vision will depend on two related processes: transforming the subsistence farmer, and transforming the agricultural sector in general. The transformed subsistence farmer is envisaged to be one that:

- is producing and selling more to the market without compromising household food security;
- has access to information on market prices and is well linked to both product and input markets;
- lives on a well-planned and managed farm, has record keeping skills and is willing to adopt new proven technologies;
- manages farm activities in a manner that does not degrade the environment.

The transformation of the subsistence farmer, together with the macroeconomic and sectoral policies, the institutional reforms and adjustments, and the PMA interventions will result in an agricultural sector that is:

- competitive (with lower per unit cost of production, processing and marketing);
- transformed (using high-yielding, disease- and pest-resistant planting materials, fertilizers, pesticide, and high-yielding livestock and poultry breeds);
- diversified (producing high-value commodities and higher income-elasticity of demand commodities especially fruits, vegetables, fish and livestock products);
- export oriented (with increased trade in traditional cereals into regional markets and food contracts; and increased traditional exports of coffee, tea, cotton and tobacco, but in value-added forms rather than as raw materials);
- less vulnerable to food insecurity by balancing the supply and demand side of the food security equation;
- effectively utilizing resources such as land, water and forests in a sustainable manner for both the present and future generations.

4.3 Objectives

The PMA is a poverty focused framework of principles whose main objectives are to:
- increase incomes and improve the quality of life of poor subsistence farmers through increased productivity and increased share of marketed production;
- improve household food security through the market rather than emphasizing self sufficiency;
- provide gainful employment through the secondary benefits of PMA implementation such as agro-processing factories and services;
- promote sustainable use and management of natural resources by developing a land use and management policy and promotion of environmentally friendly technologies.

4.4 The Mission

In order to achieve the vision and its objectives, the mission of the PMA is eradicating poverty by *"transforming subsistence agriculture to commercial agriculture"*. This mission derives from the PMA's goal of poverty eradication through agricultural transformation and sustainable natural resource –based livelihood.. Improving the welfare of poor subsistence farmers will require that they re-orient their production towards the market. More of their production must be marketed to enable them to earn higher incomes. In a broad sense, achieving the vision will engender maintaining prudent macroeconomic and sectoral policies (Chapter 5), undertaking the institutional reforms and adjustments (Chapter 6), and implementing the interventions (Chapter 7).

4.5 Strategies

The broad strategies for achieving the PMA objectives are to:
- Making poverty eradication the overriding objective of agricultural development;
- deepening decentralisation to lower levels of local Government for efficient service delivery;
- removing direct government in commercial aspects of agriculture and promoting the role of the private sector;
- supporting the dissemination and adoption of productivity-enhancing technologies;
- guaranteeing food security through the market and improved incomes, thereby allowing households to specialise, rather than through household self-sufficiency;

- Ensuring that all intervention programmes are gender-focused and gender responsive;
- Promoting a two-way (bottom up and top down) planning and budgeting process by empowering local Governments and enabling them to influence public policy and allocate public resources to alleviate location-specific constraints in a non sectoral manner; and
- ensuring the co-ordination of the multi-sectoral interventions to remove any constraints to agricultural modernisation.

4.6 Target Beneficiaries

The main target beneficiaries of the PMA interventions are the subsistence farmers who constitute the majority of the poor in rural areas. However, in actual fact, the PMA will benefit all categories of farmers in Uganda, namely: subsistence farmers (the majority), semi-commercial farmers, and commercial farmers. Nonetheless it is important to differentiate between the interventions that will benefit all the categories and those that will be targeted specifically to the subsistence farmers. All farmer categories will benefit from an enabling environment (stable macro-economic policy, good governance, accountability, security of person and property, infrastructure, efficient financial sector, legal and regulatory framework) and agricultural research (Table 4.1).

However, the very nature of subsistence farmers and their attendant constraints (see section 2.4) makes them a special category and most of the public resources will be allocated to interventions that directly reach them to enhance capital assets and improve their livelihoods. These interventions include agricultural advisory services to transfer technology and skills, agricultural education to enhance human capital, access to markets for both inputs and outputs, and capacity building for rural micro-finance institutions. Details of these priority interventions are given in Chapter 6. All these interventions are intended to build on and expand the capital assets of the poor for better livelihoods.

4.7 Developing Assets of the Poor

This section builds on the multi-faceted approach to poverty eradication that was introduced in Section 1.5. To move the majority of the subsistence farmers out of poverty, interventions in the PMA must focus on all aspects of the farmers' lives and livelihoods. It is vital, therefore, that interventions are geared towards developing the five capital assets of subsistence farmers, namely natural capital, physical capital, financial capital, human capital and social capital. Quite often people refer to farmers' assets as just land and labour that are commonly used in agricultural production. However, poor people's livelihoods are influenced by more than the land they have and the labour to cultivate the land. Social relations within the household, with neighbours and membership in different groups; ability to save, access credit and obtain information on available technologies, are all important to the farmer and were identified as critical constraints by the poor people themselves. The fact that these critical issues emanate from the poor farmers points to their importance and gives credibility to the intervention mechanisms developed in this PMA (Table 4.2).

The Government is focussing on poverty eradication. The PEAP and the Poverty Action Fund (PAF) attest to this commitment. PAF funds are earmarked for primary education, rural feeder roads, agricultural extension, rural water and sanitation, and primary health care. However, a recent assessment as contained in the first Uganda Poverty Status Report (1999) shows that in implementing the PEAP, the areas that have been problematic and yet are relevant to the PMA include: streamlining credit delivery, promoting the adoption of appropriate technologies, supplementing rainfed agriculture, developing market infrastructure and services, and implementing the land law. Because not much success has been recorded in these areas, yet they are essential to enhance the capital assets of the poor farmers, more attention needs to be given to them if mass poverty is to be eradicated.

Table 4.1. **FARMER CATEGORIES, CHARACTERISTICS AND NEEDED PMA INTERVENTIONS[1].**

Farmer Category[2]	Characteristics	Needed Public Sector Interventions
A. Commercial Farmers (5%)	1. Possess or have access to critical skills and knowledge. 2. Produce for the market with a profit motive. 3. Engage in specialised production, marketing and processing agro- enterprises. 4. Use skilled and non-skilled hired labour. 5. Use high input / high output technologies. 6. Have access to local and international market information. 7. Have access to and use risk management instruments.	1. Provision of security of person and property. 2. Stable macro-economic environment (low inflation, low interest rates). 3. Good infrastructure- roads, energy and water and markets. 4. Access to domestic, regional and international markets. 5. Efficient banking services. 6. Legal and regulatory services including enforceable contracts, product grades and standards.
B. Semi-commercial Farmers (25%)	1. Produce both for home consumption and the market. 2. Use relatively improved methods of production. 3. Use both family and hired labour. 4. Maintain several enterprises. 5. Are partial risk takers.	1. Provision of security of person and property. 2. Business skills development 3. Access to product markets and market information . 4. Efficient and reliable inputs delivery systems. 5. Accessibility to post-harvest technologies and agro-processing services. 6. Access to production and marketing credit.
C. Subsistence Farmers (70%)	1. Have low literacy, skills and knowledge levels. 2. Produce mainly for domestic consumption. 3. Engage in a multiplicity of enterprises 4. Rely on low input /low output technologies 5. Depend on family labour. 6. Use small land holdings. 7. Often forced to sale produce to meet basic domestic needs(education, health, etc). 8. Highly exposed to risks (price, weather, yields, etc).	1. Provision of security of person and property. 2. Literacy, knowledge and skills development to effect positive attitudes and aspirations. 3. Involvement and participation in development activities / good governance. 4. Access to affordable, and improved technologies -high yielding, labour saving, disease and pest resistance, water harvesting and cost effective irrigation. 5. Access to market information and markets for their outputs. 6. Access to rural financial services for savings mobilisation, production and marketing credit. 7. Provision access to productive land, in some cases.

[1] The interventions are cummulative (interventions for category A are also essential to category B and so on) However, some of the interventions are repeated for emphasis.

.[2] The percentages in blackets are mere estimates generated during the PMA process.

Table 4.2 Capital Assets, Poor People's Concerns and Government Priorities

Capital	*Description*	*Poor People's Concerns*	*Current Government Priorities*
Natural	• Land • Water • Forests • Wildlife • Bio-diversity	• Soil infertility and soil erosion • Water for livestock • Drought • Lack of land • Deforestation • Women do not own land • Pests and diseases	• Irrigation information (water harvesting, soil and water conservation) • Implementation of land reform • Control of epidemic pests and diseases
Physical	• Roads • Transport • Housing • Markets • Communication • Machinery	• Poor roads • Inadequate transport • Lack of access to markets (distance, facilities, high dues)	• Rural Feeder Roads • Construction of model fish landing sites • Rural markets • Capacity building for production of foundation seed
Financial	• Credit supply • Savings • Livestock • Remittances • Income • Expenditure	• Low incomes • Lack of capital • Low and fluctuating produce prices • Lack of access to financial services • High taxes, including market dues • Unfair graduated tax assessment	• Capacity building for rural NGO financial institutions • Facilitate establishment of non-governmental institutions to provide finance and risk insurance • Establish a legal and regulatory framework for MFIs
Human	• Skills • Knowledge • Ability to work • Good health • Information	• Lack of employment • Low level of education • Low skills base • Lack of information • Poor access to health services	• Extension • Research • Agricultural statistical data • Market information • Agricultural education
Social	• Networks • Relationships • Memberships to groups • Access to wider institutions • Governance • Co-operation • Trust	• Household and community co-operation • Local groups and associations • Insecurity • Good governance are important • Husbands usually restrict their wives' involvement	• Promotion of community based organizations • Promotion of farmer organizations • Strengthening local governments

CHAPTER 5 POLICY, LEGAL AND REGULATORY FRAMEWORK

5.1 Introduction

The policy, legal and regulatory framework within which PMA will be implemented is derived from the 1995 Constitution which recognises the principles of good governance as the cardinal requirement for sustained economic development. The framework is therefore derived from a number of fundamentals. First, to restore the private sector as the main engine of economic growth in an environmentally sustainable manner to ensure security of person and property, to guarantee the rights of citizens, to establish publicly accountable institutions for making and executing Government budget, to ensure efficient and equitable tax administration, to ensure effective management of public expenditure, and a viable external balance of payments. The PMA framework must be based on the Government's commitment to developing a fair and transparent legal and regulatory framework, political accountability in free and fair elections, grassroots self-determination in economic and political affairs and the observance of fundamental freedoms and rights of human beings as well as the recognition of the role of independent and free press. A summary of the key policies and regulatory framework within which PMA will be implemented are provided here and details on the action plans for their implementation are given in the intervention matrix (Appendix 3).

5.2 Government Policies

Macro-Economic Policies
The Government has successfully implemented sound macro-economic policies aimed at providing a conducive and enabling environment for private sector participation in economic development and the generation of high quality-growth. The implementation of prudent fiscal, monetary and exchange rate policies has restored investor confidence in the economy as well as public confidence in the currency, resulting in financial stability, balance of payments viability and rapid economic growth with low and stable inflation. The maintenance of macro-economic stability with low inflation continues to be a central objective of the Government's current and future economic policies and will be vigorously pursued during implementation of the PMA. The following targets have been set for medium-term macro-economic management:

(i) Achieving real GDP growth rates of 7% each year.
(ii) Maintaining a competitive exchange rate of the shiliing.
(iii) Maintaining gross international reserves at around 5 months of imports of goods and non-factor services.
(iv) Maintaining low inflation (no more than 5% p.a.).

The key objective of the Governments' macroeconomic agenda is to provide the framework for sustainable, rapid and broad-based economic growth. Rapid broad-based economic growth is necessary, although not sufficient, for achieving the key development objective of eradicating mass poverty by 2017. In Uganda, as in most low income countries, per capita GDP is simply too low to enable mass poverty to be eliminated without a major expansion of output and increases in incomes per capita. Quantitative analysis undertaken as part of the revision of the PEAP indicates that the minimum growth rate of real per capita needed to support poverty eradication objectives is about 4% annum sustained over a period of period of twenty years. Given that population growth is projected at 2.9% per annum, over this period, there is need to sustain real GDP growth of around 7% per annum to meet the poverty eradication objective.

For achieving economic growth, the strategy entails three elements: the maintenance of macroeconomic stability ; liberalised markets and a business friendly policy and regulatory environment for the private sector; and structural reforms to remove crucial bottlenecks to growth and to rise productivity in key sectors such as agriculture.

Macroeconomic stability
Macroeconomic stability, especially low inflation, is the essential foundation for economic growth. Without macroeconomic stability, the business sector cannot plan for the future with any confidence and hence business will not undertake the long term investments in productive capacity which are necessary needed to support sustained high rates of economic growth. Macroeconomic stability is also to generate the increased rates of saving that are required to finance investment rates, because savers must be confident that the real value of their financial assess will not be eroded by inflation.

The key policy inputs needed to maintain macroeconomic stability are prudent fiscal policies, because of the link between excessive Government borrowing and inflationary money supply growth. Since 1992/93, Uganda's fiscal policies have been premised on the need to restrict aggregate Government expenditures to the available budgetary resource envelope (composed primarily of domestic tax revenues and donor support) in order to ensure that Government does not have to resort to inflationary borrowing from the domestic banking system to finance fiscal deficits. Indeed, Government has been able to accumulate fiscal savings in the domestic banking system which have provided additional resources to fund both the rebuilding of the foreign exchange reserves and the expansion of bank lending to the private sector. Government will continue with this strategy, whereby expenditures will be constrained by the imperative of living within the available budgetary resource envelope. This does not mean that Government will not incur fiscal deficits, but it does mean that these deficits must be financed in a non- inflation manner.

The increased fiscal deficits in the medium term, funded by additional donor support, will not undermine macroeconomic stability or the long-term sustainability of public finances. These fiscal deficits will not entail Government borrowing from the domestic banking system. The policy of accumulating modest savings in the domestic banking will continue. Neither will the deficits entail external borrowing, except on highly concessional terms in line with the Governments' external debt strategy. The fiscal deficit, when measured to include grants alongside revenues, will remain at very modest levels of less than 3% of GDP over the medium term.

Government will continue to emphasise domestic revenue mobilisation in order to ensure that, in the long run, dependence on external finance to fund the budget can reduce. Tax mobilisation suffered a setback in the 1999/2000 financial year, principally because of the reduction in expenditures on imports. Although most of the available tax policy reforms had already been implemented, government continues to pursue reforms to strengthen tax administration in order to ensure that tax revenues rise as a percentage of GDP.

Since 1992/93, Government has been able to maintain control over inflation, mainly because of strict adherence to prudent fiscal policies, with inflation averaging only 5.6% per annum over this period. Government has established credibility for its anti-inflationary policies because of this sustained record of success over nearly seven years. The Governments' anti-inflation credibility will have been enhanced because, in the second half of 1999, when Uganda was faced with rising inflation as a result of drought, exchange rate depreciation and higher oil prices, the Government was able to restore control over inflation through a combination of tighter monetary policy and fiscal restraint, and as a result inflation was brought back to well within the target level of 5%. The Government's ant-inflationary credibility is a vital asset for economic management in this country, because rational people in the private sector should expect low inflation, and therefore set the prices of their goods, assets and services accordingly. It has also boosted private investment, which rose from 9% of GDP in 1992/93 to 13% of GDP in the last fiscal year.

Liberal and Open Markets

The second key element of the Governments' macroeconomic strategy is to maintain liberalised markets for domestic and external trade, and an open and transparent regulatory and policy framework for the private sector. Uganda has already liberalised the key markets of trade and foreign exchange, coffee marketing and the financial system, and is committed to maintaining liberal market policies.

The PMA recognises that open trade policies are essential to promote poverty reducing economic growth. This is because the comparative advantage of Uganda lies in agriculture and labour intensive industries. Agriculture and labour intensive industries are the sectors in which the majority of poor people in this country earn their living, and those they are the sectors which make the maximum use of the major assets of the poor. notably unskilled labour and land. Open trade policies promote a pattern of economic growth which will clearly benefit the poor, because these policies shift incentives towards the sector in which the poor earn their living, raising returns to factors of production owned by the poor and generating employment. In contrast, protectionist trade policies, or policies which promote capital intensive production, are likely to be highly regressive in their impact on the poor.

Structural Reforms

The third element of Governments macroeconomic agenda involves the critical structural reforms which are needed to remove bottlenecks to the growth of the private sector and to raise productivity and out, especially in small holder agriculture.

It is known from surveys of businesses in Uganda that a major constraint facing the private sector is the poor state of the infrastructure, especially in the power sector and the transport network. Government intends to address these constraints through the reform and privatisation of the Uganda Electricity Board and the licensing of independent power producers. The constraints in the transport sector will be addressed through the sector-wide transport strategy which involves a major programme of road rehabilitation and expansion. Government will also continue to improve the operation of the commercial justice system in Uganda because an efficient and transparent legal system is essential for private sector development. Government also intend to continue its efforts to reform the financial system to ensure that the private sector has access to a broad range of efficient and competitive financial services.

Trade and Structural Polices

Since 1987, Government has been successfully implementing trade and structural policy reforms embracing liberalised systems for input and output markets, trade, investment and tax regimes. The objectives of these measurements were to increase efficiency of resource allocation while reducing the direct role of Government in production and commercial activities. At the same time, they were aimed at promoting the private sector as the main engine of growth. For the agricultural sector, these reforms have included liberalisation of agricultural input trade, liberalisation of domestic and export produce marketing and processing, removal of restrictive tariff and non-tariff barriers (particularly those for agricultural inputs), and abolition of taxes on agricultural exports. The measures implemented also included institutional reforms resulting in privatisation and divestiture of public enterprises.

The key public enterprises that were successfully transformed in these programs in the agricultural sector include removal of the marketing monopolies of the Coffee Marketing Board (CMB), Lint Marketing Board (LMB) and Produce Marketing Board (PMB) for coffee, cotton and food crops, respectively. Under these programs, CMB and LMB were successfully disbanded and replaced with regulatory and promotional bodies with strong private sector representation in their Boards of Directors. Also, the Uganda Tea Growers' Corporation (UTGC) and the Uganda Seed Project (USP) have been privatised.

Also, of fundamental importance to poverty eradication, is the fact that as a result of increased competition brought about by the liberalization policies, the farmers share in the realized international prices and overall farmers' terms of trade for traditional export crops, have improved significantly. Thus, most of the decline in absolute poverty registered between 1992/93 and 1996/97 may be attributed to this development, particularly in the coffee growing areas. The reforms have also boosted the growth in non-traditional exports which have registered steady expansion from US$ 2.2 million to US$ 183 million between 1986 and 1997 representing 0.54% and 34% total export earnings, respectively.

With regard to international trade, Government has continued to pursue prudent bilateral and multi-lateral trade agreements and will continue to be an active member of trading organisations such as the World Trade Organisation (WTO), the United Nations Conference on Trade and Development (UNCTAD), the International Trade Centre (ITC), the LOME Convention, the Common Market for East and Southern Africa (COMESA) and the East Africa Co-operation (EAC). During PMA implementation, Government will undertake periodic reviews of trade policies governing the above arrangements and take strategic measures to ensure market access to regional and international markets for Uganda's agricultural commodities on competitive and favourable terms.

Civil Service Reform

Government has been implementing the Civil Service Reform aimed at restructuring and re-organising Government ministries and agencies and national reduction of civil service work forces. This measure had the dual objective of strengthening the public sector by producing an effective, efficient and well remunerated and motivated civil service and also increasing efficiency in public sector resource allocation while reducing the direct role of Government in production and commercial activities. Government Ministries were merged and some departments restructured or abolished altogether. The civil service has been reduced by half. Central functions of Government Ministries and Departments have been re-defined and retained at the centre or decentralised to local Governments while some have been divested to Government agencies or the private sector.

Under these reforms, the Extension Directorate of MAAIF was disbanded and the responsibility for provision of agricultural extension services was transferred to the Local Governments. The staff of the Ministry was reduced from 1,400 to about 300. The key functions of MAAIF as derived from the Constitution (1995), Local Government Act, (1997) and the Public Service Reforms have been re-defined.

The details on MAAIF roles and the decentralised and divested functions are presented in Chapter 5. During PMA implementation, government will ensure that MAAIF is strengthened and availed the required resources in order to discharge the new functions effectively.

Decentralisation

Decentralisation is a national policy officially launched in 1992 and enshrined in the 1995 Constitution, leading to the enactment of the Local Governments Act of 1997. The decentralisation process involves substantial transfers of political, financial and planning responsibilities from the Central Government to Local Councils. This empowers the Local Governments (districts, sub-counties and urban authorities) to take increasing responsibility for the delivery of services and promotion of popular participation and empowerment of local people in decision making. Decentralisation is based on the premise that local authorities are better placed to respond to the needs of local communities who can, in turn, easily hold them accountable for use of public resources resulting in a more equitable allocation of resources among district and within sub-counties.

Actual implementation and delivery of agricultural services will be left to the local governments. Thus, the local governments will be free to choose different ways of implementing the programs based on the client needs in their districts, while the Central Government will be expected to offer policy guidance and define expected outputs and how the policy will be monitored. Thus policy formulation by the center will be undertaken through a participatory process involving the local governments and other key stakeholders and communicated widely.

As required by law, the Central Government in consultation with the districts will mobilize resources and channel them to the districts through conditional, unconditional and equalisation grants to supplement locally generated resources for effective implementation of PMA.

The problems that have so far been faced by the decentralisation process include:

(i) Inadequate human resource capacity to implement the various programmes at the district and sub-county levels.

(ii) Inadequate resource base at the district level so that in reality the districts still depend largely on transfers from the centre. At present, conditional grants are still the main sources of funding from the centre. Although agriculture is one of the priority areas for funding, in most districts agriculture, particularly extension, lags behind the other areas, i.e., roads, health, evaluation and water.

(iii) New districts, particularly those located in remote areas without adequate infrastructure, are less likely to attract qualified and experienced personnel particularly with regard to the new programme of deploying graduates to sub-county levels which are conceived as entry points for provision of extension services to the grass-roots level.

In view of this, Government will put in place comprehensive programmes to build human resource capacity at the district level for planning, budgeting and program implementation in order to ensure efficient resource use and management at this level. Capacity will also be built for staff at the sub-county level to ensure efficient delivery of services to the grassroots. Government will also review the current criteria for conditional and equalisation grant allocation in order to ensure that PMA activities are funded adequately. Also under the PMA, the Government will introduce a non-sectoral conditional grant for the implementation of bottom up planning for poverty eradication.

Policies on Food Security, Food and Nutrition Standards

Currently, Government has not yet developed comprehensive policy on food security. The existing food and nutrition policy, food law and the Uganda National Plan of Action for Nutrition (UNPAN) need to be revised. In regard to food security, as was indicated in the Government Statement to the December 1998 meeting of the Consultative Group for Uganda, Government has considered several options. The options considered include (a) large scale irrigation; (b) publicly held grain reserves; and (c) compulsory retention of reserve of designated food crops by farmers.

Experience from other countries suggests that large scale irrigation, as an emergency strategy for alleviation of intermittent drought is not an economically viable proposition. In the context of smallholder production in a rain-fed agricultural system as is the case in Uganda, irrigation is expensive and, where installed, is best used to facilitate increased and more reliable production of high value crops on a continuous basis. While these may not add to food security directly, they do so indirectly by providing cash resources to purchase foodstuffs. During PMA implementation, Government will continue to study irrigation, both as an agricultural growth measure and as a food security measure. Irrigation will also be studied with a view to providing information and extension demonstrations of viable schemes for smallholder production. For food security purposes, there is a need to undertake careful farm budget studies based on probabilities of rainfall and adverse yield effects, together with uses of irrigation for supplementation of rain-fed agriculture. Emphasis should be on flexible, low-cost water harvesting technologies that suit subsistence farmer needs rather than large irrigation infrastructures that are not cost effective and rapidly turn into white elephants.

The Government recognises that publicly held food reserves are very expensive under the best of conditions and require careful management to minimise losses due to spoilage. Such schemes have had limited success in other countries, but have certainly exerted substantial demands upon public funds. Therefore, government will not adopt any policy to accumulate such stocks unless and until careful studies in Uganda have determined their efficacy. Similarly, developing country experiences with compulsory stocks held by farmers would imply very cautious consideration of such measures for increasing food security as the levels of public intervention needed would mark a major retreat from the successful liberalisation programme of the past decade.

Under PMA, Government will promote national food security through interventions geared towards increasing household incomes by increasing agricultural production and productivity and farm use storage to reduce post-harvest losses. The Government will, therefore, encourage the private sector to improve markets so as to increase incentives for farmers and traders to engage in inter-temporal crop storage. Eventually increasing food exports into regional markets, entering into contracts with international food aid agencies and developing Uganda's domestic livestock and fisheries production should allow establishment of several different ways of buffering any short-falls in food production for Uganda's own needs. In other words, such shortfalls should be handled increasingly through market mechanisms.

Recently, there have been interesting ideas about establishing private sector insurance schemes for the agricultural sector to respond to the adverse impact of droughts and diseases on farm incomes. In order to provide a basis for dialogue and attracting insurance industry interests into the agricultural sector, Government will undertake studies of major disasters so as to give an indicative actuarial database. Such information will permit assessment of feasibility and level of launch premiums for agricultural insurance. More importantly, Government will devise other mechanisms to reduce risk in agricultural investments, so as to attract insurance operators. After a careful study of the options, Government will develop a comprehensive food security policy including food policy and nutrition standards for implementation during PMA.

Gender Policies

A comprehensive National Gender Policy was formulated in 1997 under the auspicies of the Ministry of Gender, Labour and Social Development (MOGLSD). Its overall goal is to mainstream gender issues and concerns into the national development process in order to improve the social, legal, political, economic and cultural conditions of the people of Uganda, particularly women. Consistent with this policy, the PMA will ensure that gender concerns are routinely and adequately addressed in the planning, implementation, monitoring and evaluation of all interventions and institutions. Participation of both men and women will be promoted at all levels and all institutions will be oriented to be gender-responsive. Equality of access and control over economic resources and benefits will be rigorously pursued and recognition of women's roles and contributions to national development efforts will be accorded the priority it deserves.

Land Policies

At present, there is no formal land use policy at the national or local levels. Thus, during the PMA implementation, a comprehensive land-use policy will be developed as matter of priority, from the Land Act (1998), the Constitution (1995) and other relevant laws. The policy will also be developed through a participatory and inclusive process in order to take into account the varied interests of the key stakeholders. The Ministry of Water, Lands and Environment (MWLE) will be the lead agency in the preparation of the national policy in collaboration with other key institutions including MFPED, the Uganda Land Commission (ULC), Ministry of Gender (MOG), and NGOs working on land issues (maybe through the Uganda Land Alliance), the donor community and other key stakeholders particularly farmers (See Appendix 3). The key issues to be addressed by the national land policy, as recommended by the recently concluded Land Act Implementation Study (1999), include the following:

- Redressing historical injustices and providing more equitable access to land.
- Providing livelihood security through employment or access to land for more intensive use.
- Facilitating appropriate development, delivering land-use services and protecting fragile environments.
- Registering formal and customary rights to land and fixed property.
- Generating revenue from land and property tax.

- Providing effective land administration.
- Phasing and targeting priorities in the implementation of tenure reform.

At the district level, Government will ensure that land policy development reflect local land tenure and land-use patterns, in order to facilitate flexibility in land tenure institutions and ensure that the implementation process takes into account the diverse socio-economic circumstances in each district. Thus, land policy will be harmonised with district development plans for each district. The process will also be carried out in a participatory manner, through consultation and public debate within each district, spearheaded by District Councils and involving key stakeholder groups, including women, minority groups and other land users.

Agricultural Sector Policies

As presented in the interventions matrix (Appendix 3) and discussed in detail in Chapter 6, under PMA, Government will develop and implement a number of specific policies for the agricultural sector. The key policy areas in this regard include:

a) Agricultural Research – The main policy thrust in this area under PMA will be to make agricultural research farmer-oriented and farmer-driven. The challenge will also be to increase private sector participation and funding for the agricultural research agenda.

b) Agricultural Advisory Services – Government will formulate an agricultural extension policy that will strive to promote an efficient extension service primarily based on private sector delivery. Given that in the foreseeable future, the provision of agricultural extension services to smallholder resource poor farmers will continue to be regarded as public good, Government will increase its overall annual spending on provision of extension services to poor farmers.

c) Farm Power and Agricultural Mechanisation – Past programs of Government tractor hire services and tractorisation have largely performed unsatisfactorily and under PMA Government will not engage the public sector in the direct provision of these services. However, through the research and extension services, Government will promote the adoption and use of intermediate technology; namely, animal traction particularly under smallholder agriculture, where appropriate. Adoption of motorised farm power will be encouraged, but acquisition of these technologies will remain purely private sector activities based on individual farmer needs.

d) Dairy Sub-sector – Government has liberalised the dairy sub-sector and the monopoly of sub-sector activities by the Dairy Corporation has been removed. As a consequence, a number of private sector milk processing facilities have started operating in several areas. In addition, through the Dairy Master Plan, government will support interventions that will expedite development of the sub-sector.

e) Beef Sub-sector - Government policies for the beef sub-sector are contained in the recently prepared Beef Master Plan. The Plan provides the framework for increased production of meat for both domestic and export markets mainly through increased private sector investments. Of critical importance is the government's role in providing the necessary legal and regulatory frameworks as well as standards for meat quality and hygiene.

f) Fisheries Sub-sector – In the context of PMA, the fisheries sub-sector is of strategic importance not only as a means on increasing household incomes but also as a critical item in fulfilling the nutritional needs of the family. In addition, in the recent past, it has been one of the fastest growing non-traditional exports and foreign exchange earners. Government will, therefore, promote fish farming mainly through agricultural advisory services and fishing in Ugandan water-bodies using carefully selected public sector interventions. In this regard, initial support will be provided in the form of demonstration sites for improvement of landing sites. The fisheries sub-sector advisory services will be stepped up in order to develop farm level commercial fish farming enterprises.

Other policies

In order to achieve the objectives and aspirations of PMA, Government will also implement policies aimed at addressing other multi-sectoral issues which include (a) investing in the kind of literacy training and education that will make for a more productive farm labour force; (b) narrowing the gaps between men and women's literacy and improving the relationships and roles within the household; (c) improvement in basic health services, provision of water and sanitation services (including the welfare of those affected with HIV/AIDS); and (d) developing labour-saving technologies that reduce the workload of women.

Government will take steps to develop a national capacity for responding to severe economic set-backs and emergencies. Research will be needed to establish the cost effectiveness of solutions including preparedness, rain harvesting and linking these to irrigation and insurance as discussed in Chapter 4.

5.3 Legal and Regulatory Framework

Within the context of PMA implementation, it is crucial to ensure that the provisions of laws governing the activities and relationships between the various actors are adequate and proper and effective arrangements are put in place for their enforcement. In this regard, the issues that are discussed briefly will be adequately addressed during the implementation of PMA.

(i) Land – Although the Land Act was enacted in 1998, there is a general perception that in its current form, it does not address the issue of land ownership and inheritance by women and youth. Given the central role that women and youth play in agricultural production, government will endeavour to resolve this issue as soon as possible.

(ii) Micro-Finance Industry – Development of a viable and sustainable rural financial system is considered vital for the development of the agricultural sector and currently there is no legal and regulatory framework to govern and promote the activities of the key players in the industry. However, BOU in collaboration with other stakeholders, is developing the appropriate law for the industry. The details of this are given in Chapter 7 in the section on Rural Finance.

(iii) Commercial Legal Sector – One of the critical problems for many businesses in Uganda particularly as they relate to private sector operations, is that contracts are very difficult to enforce because of weakness in the commercial justice sector which has resulted in a backlogs of cases, inefficiencies, and lack of confidence in arbitration mechanisms. Government is currently undertaking far-reaching reforms to ensure that commercial justice can be delivered in Uganda. The areas of focus specifically include reforms in the commercial courts and drafting new commercial laws for Uganda. These activities are crucial for implementation of PMA given the fact that the private sector will have the prime responsibility for moving agricultural development in the long run.

CHAPTER 6 INSTITUTIONAL ROLES, REFORMS AND ADJUSTMENTS

6.1 Introduction

In order for the agricultural sector to contribute effectively to the eradication of poverty, there must be organisational and institutional arrangements that provide for the delivery of the requisite services in an efficient, effective and sustainable manner. It is, therefore, important that an institutional framework be designed and developed in a way that provides for an effective contribution to the objectives of agricultural modernisation. The key players in Uganda's agricultural sector include: (i) the public sector - Central Government and Local Governments (LGs);, (ii) private sector - farmers, livestock keepers, fisher-folk, foresters, traders, small-scale entrepreneurs and manufacturing, and processing industries; (iii) civil society – Non-Government Organisations (NGOs), Community Based Organisations (CBOs), academic institutions and the general public, and (iv) Development Partners (DPs).

This chapter highlights the roles of the various categories and the necessary reforms and adjustments for delivering on the objectives of the PMA.

6.2 Public Sector

Central Governmen.

The Central Government comprises of a number of bodies including the Executive, Parliament, security, and law and order. The Central Government role for the PMA is to ensure the security of person and property, the provision of a stable macroeconomic environment, basic infrastructure and social services (health care, education, safe drinking water) to the population.

The 1995 Constitution, the Local Government Act of 1997 and the post-Constitution restructuring of public sector institutions provide the basis for reforms in the agricultural sector institutions. The new mandate of MAAIF is "to support, promote and guide the production of crops, livestock and fisheries, so as to ensure improved quality and increased quantity of agricultural produce and products for domestic consumption, food security and export". In implementing the above mandate, MAAIF will undertake the following functions:

(i) Formulation and review of national policies, standards and plans for the agricultural sector.
(ii) Control and management of crop and animal epidemics and disasters.
(iii) Setting and enforcement of standards and regulations for agricultural inputs and practices pertaining to crop, livestock and fisheries.
(iv) Provision of technical advice, support supervision, and training to local governments in areas relating to decentralised services.
(v) Designing, developing and maintaining a national information base on the agricultural sector.
(vi) Monitoring to ensure that providers of agricultural services comply with national policies, registration and standards.
(vii) Co-ordination, facilitation, and supervision of national projects and projects and programmes on agricultural development.
(viii) Mobilisation of finances and technical assistance for the development of agriculture.

During PMA implementation, Government will ensure that the capacity of MAAIF is strengthened in terms of personnel as well as physical and financial resources in order to perform the above functions effectively. In providing services to the local government, MAAIF will have to work closely with the Ministry of Local Government (MOLG) which has overall responsibility for LGs including capacity building for planning, financial management and service delivery.

The following functions have been decentralised for implementation by LGs:
(i) Agricultural extension for crops, animals and fisheries;
(ii) Entomological services and vermin control;
(iii) Design of development plans;
(iv) Land administration and surveying;
(v) Management of forests and wetlands;
(vi) Control of soil erosion, bush fires, local hunting and fishing; and
(vii) Licensing of produce buying.

The following functions have been divested as specified below:

(i) Research and development activities on crops, animals, fisheries, soils, and
(ii) water for agricultural production were divested to NARO;
(iii) District Farm Institutes (DFIs) were divested to NARO. However, the PMA recommends that apart from DFIs that NARO will need to transform into ARDCs, DFIs should be divested to districts governments as elaborated in this chapter;
(iv) Agricultural colleges including the Fisheries Training Institute are to be semi-autonomous under the policy guidance of the Ministry of Education and Sports;
(v) Production of media materials for agricultural information is to be privatised and services contracted by the relevant institution. This will ensure cost-effectiveness, reliability of delivery and transparency;
(vi) Bush clearing, previously under Namalere Mechanisation unit is to be divested to the private sector for the same reasons as in (iv) above; and
(vii) Coffee and cotton are divested to the Uganda Coffee Development Authority (UCDA) and the Cotton Development Organisation (CDO), respectively.

Whereas the divested bodies will be operationally autonomous, they will depend on the Ministry for policy guidance. The Ministry, however, will ensure that the bodies operate efficiently without getting involved in or interfering in their management.

Some functions will be shared between MAAIF and other Ministries. A case in point is the sharing of functions between the Ministry of Health (MOH) and MAAIF in the areas of nutrition, public health and control of vector-borne diseases. Whereas MAAIF will be responsible for the promotion of appropriate foods, the control of hazards caused by animals, plants/crops and vectors that spread disease from animal to man, MOH will be responsible for feeding (foods and fluids intake), setting and enforcement of health standards, advising on preventive measures and controlling human diseases. Pests like the water hyacinth also present wider environmental concerns that stretch beyond the mandate of MAAIF. The modernisation of the agricultural sector will require the involvement of other ministries that have mandates over industry roads, power, water, communications, health, education, finance and planning, gender and local government. Inter-sectoral co-ordination will therefore be critical to the success of MAAIF in implementing its mandate.

There are a number of other parastatals that help MAAIF in implementing its mandate. These include the Uganda Tea Authority (UTA), the Uganda National Bureau of Standards (UNBS); the National Environmental Management Authority (NEMA), the Uganda National Council of Science and Technology (UNCST), the Uganda Investment Authority (UIA), Uganda Export Promotion Board (UEPB), and institutions of higher learning.

Makerere University (MU) through the faculties of Agriculture, Forestry and Nature Conservation, Veterinary Medicine, and Science produces agricultural graduates, conducts agricultural research and carries outreach programmes. This contribution has been expanded with the introduction of Makerere University Agricultural Research Institute, Kabanyoro (MUARIK) and the Continuing Agricultural Education Centre (CAEC) which offers demand-driven short-term courses for farmers, policy makers and other agro-based stakeholders.

The decentralisation, liberalisation and privatisation policies have necessitated reforms in the organisational structures and institutional arrangements at the centre and local level for service delivery. For example, the structure and staffing level in MAAIF has been significantly reduced from about 1,400 in 1998 to about 300 in 2000. MAAIF will have to create a conducive policy and regulatory environment for the private sector to engage actively in the importation, storage and distribution of agricultural inputs and products, and agro-processing and provision of financial services and other services required by the majority of the subsistence farmers. Additional reforms will be effected to enhance service delivery by the public sector by deepening the focus on the needs of the poor, being more responsive to the different abilities and opportunities available to men, women and youth and ensuring efficiency and effectiveness in service delivery. Greater partnerships will be built with the private sector in the delivery and financing of such services.

Local Government

The decentralisation process has given greater authority to local governments at the district and sub-county levels to plan and implement programmes as spelt out in the previous section. This has increased the people's participation in the decision making so as to make development relevant to their needs and decisions more transparent and public officers accountable.

For the agricultural sector, LGs will be responsible for, among other functions, designing local government agricultural sector plans; delivery of extension services; entomological services and vermin control; land survey and administration; forestry and wetlands management and licensing produce buying. The responsibilities will be effected at district and sub-county levels and could be delegated to even parish and village councils.

LGs, and especially standing committees for production, will therefore be strengthened to ensure that they have the necessary capacity (both human and financial) to undertake the new responsibilities. Some of the areas that will require such capacity are strategic planning, financial and contract management and institutional building. Production committees will also have to widen their scope and take a more holistic, multi-sectoral approach to agricultural transformation. These committees will be central to the national planning system in Uganda to be built on a bottom-up planning approach.

LGs will have to design systems for the financing and delivery of agricultural sector services in partnership with a wide range of local and external stakeholders including NGOs, CBOs, the private sector and the donor community. A local governments grant will be created to mobilise local and external resources for the delivery of services. Existing institutional arrangements will be strengthened to enhance service delivery. Greater emphasis will be put on improving market information flow to farmers, access to inputs and markets by improving infrastructure, management, and dissemination of information at district level and promotion of agro-processing. Rural electrification is expected to be a government priority in the medium to long term taking advantage of existing renewable resources including solar energy, hydropower, geothermal power and bio-gas.

6.3 Private Sector[1]

The private sector is the largest category of stakeholders in the agricultural sector. It includes the subsistence farmers, traders, processors and service providers in rural finance, land surveying and legal profession. This sector, however, is dominated by subsistence farmers producing a wide range of products mainly for domestic consumption. Agricultural transformation and structural change will demand that other segments of the private sector services be expanded and the quality of services improved. This will create employment opportunities, which in turn will increase the demand for farm products. Agricultural transformation will imply that farmers will use more and more hired labour, more external inputs which will increase farm output. The increases will require more markets, more transport services, more storage, more agro-processing industries, more packaging, more production and marketing credit, and other financial and legal services. This will expand business and job opportunities for the private sector. To deliver effectively the services demanded, the private sector has to undergo a process of capacity building and transformation.

The Government's role will continue to set conducive policies, rules and regulations, and to improve social and economic infrastructure. Capacity building for private sector institutions, commodity associations, farmer organisations and co-operatives will be critical during the formative stage. Government will also promote the private sector by expanding opportunities for the private sector to participate in policy formulation processes and implementation of publicly funded programmes. The private sector will be empowered through their involvement in sector plans and by being contracted for direct delivery of public services to farmers on a commercial basis. Opportunities will be explored for the involvement of the private sector in research and delivery of advisory services.

6.4 Civil Society

Civil society is comprised of NGOs, CBOs, individuals, unions, professional bodies and associations that are involved in the promotion of effective and sustainable delivery of agricultural related services. Since the mid-1980s, there has been phenomenal growth in the number of NGOs, CBOs and other categories of civil society organisations, all of which enjoy freedom of operation and collaboration with the Government. This is a reflection of the respectable mileage covered by the country in the road to good governance over this period.

[1] This section is based on the Government's Medium Term Competitive Strategy for the private sector (1999 – 2005), 1999.

Government recognises the importance of national partnerships with NGOs and CBOs in the delivery of basic services. The civil society is already a key player in the design and management of the programmes financed under the Poverty Action Fund (PAF). While it will continue to co-ordinate, direct and facilitate the provision of basic services, Government will continue to support the empowerment of organisations, targeting women, youth and local communities and also ensuring their participation in agricultural modernisation. NGOs, CBOs and the poor will be involved in the process of planning, implementing, and financing and delivery of services especially at local levels of Government. Public sector resources will be used in building the capacity of the civil society, facilitating their participation in public sector activities and in contracting them in the delivery of public sector services. The civil society organisations will also be expected to integrate and harmonise their programmes with those of other players especially at local government level. This will allow for ease in monitoring the impact of their activities especially when they use public sector resources.

6.5 Development Partners

Development Partners (DPs) in the PMA context include the multilateral and bilateral organisations and agencies that support government and community organisations in the agricultural sector through grants and soft loans. The term is also used to include international NGOs through which such agencies operate in the channelling of funds to intended beneficiaries and in the implementation of programmes. The DPs have not only been significant in providing development resources but they have also sometimes dominated the process of policy formulation articulating sector support areas and determining the manner in which the resources were put to use. This had often taken the form of “conditionalities” and technical support in implementation of the agreed programmes.

Recently, however, there has been increasing ownership of reform programmes by the Government and by Ugandans. There has been growth in confidence on the part of government in initiating reforms and entering into dialogue with the DPs to evolve common principles and objectives that culminate into new programmes that have attracted DP’s financial support. This increasing ownership of reforms by the domestic stakeholders has allowed a genuine partnership to develop between DPs, the Government and civil society in the Sector-Wide Approaches (SWAPS) to policy reform investment programming.

There is an emerging trend of having partnership among the DPs themselves through formal DP sub-groups for aid co-ordination. Currently, the DPs have sub-groups for education, health, decentralisation, agriculture, the private sector and legal reform that meet regularly to review and harmonise their activities with GOU programmes. This has made it possible for DPs to speak with one voice while interacting with government but also to harmonise their own positions on priority action areas and to minimise conflict and overlap in their support programmes. The DPs are expected to, in conjunction with GOU, evolve consensus on mechanisms and procedures for financial disbursements and accountability that would apply in funding agreed upon programmes at the centre and at local government levels.

Improved co-ordination within DPs and with GOU will create a suitable environment for a shift from project funding to programme funding; multi-donor funding of programmes and gradual evolution of “ basket” funding mechanism. It is hoped that in the medium to long-term, increased transparency and accountability in the implementation of publicly funded programmes will pave the way for increased funding through budget support.

6.6 Institutional Reform Processes

Sustainability is a factor that is of critical significance to every institution. An institution is deemed to be sustainable if (a) its services continue to be desired/demanded by the clients and/or (b) it has the capacity to generate or attract sufficient resources for its operations. Ensuring institutional sustainability is the essence of institutional reform and strengthening.

The overarching objective for institutional reform is to improve efficiency and effectiveness. This will entail formal institutional assessment and functional analysis leading to reform and strengthening of the agricultural sector institutions.

The first step will involve a review of the policy and legal basis for the current mandate and roles of respective institutions. This is to ensure that the mandate and roles derive from existing policies and law. Otherwise appropriate revisions or enactment of new ones will have to be carried out.

Functional analysis would be conducted to articulate the roles, assess operational capacity, recommend the necessary restructuring and reforms. Adequate human, physical and financial resources and appropriate management systems are critical to the performance of every institution. In order to maintain focus and ensure good performance, a monitoring and evaluation system has to be established for each institution. Information and communication systems have to be built. Such systems will provide for vertical and horizontal linkages, co-ordination and collaboration mechanisms with other stakeholders.

Resources will be provided under the PMA implementation process to enable key sector institutions to undertake priority reforms and strengthening processes.

CHAPTER 7 PRIORITY AREAS FOR ACTION

7.1 Introduction

The priority areas for Government action under the PMA are derived from the perspectives of farmers as generated from existing studies and from consultations during the PMA process (Chapter 2). For the agricultural sector to be the engine for economic growth and poverty eradication in Uganda, institutional reforms and strengthening processes have to be undertaken immediately as elaborated in Chapter 6. Secondly, sector institutions have to review, update, and/or formulate policies and regulations that will guide the activities of the sector. Research and extension policies will be formulated and harmonised with the PMA principles and objectives, and with the existing policy environment of decentralisation, privatisation and liberalisation. Grades and standards for service delivery, for chemicals, seeds, fertilisers/and human and animal feeds will be put in place for the smooth operation of the public and private sectors, thereby reducing transaction costs and providing opportunity for increased efficiency and effectiveness.

In this chapter, specific focus is on intervention areas that will require sustained investment of public sector resources, targeting subsistence farmers in order to effect agricultural transformation and structural change. These interventions are in research and technology development, agricultural advisory services, agricultural education, access to rural finance, agro-processing and marketing, natural resource utilisation and management, and supportive physical infrastructure.

7.2 Research and Technology Development

Agricultural research and development has to derive priority research areas from the perspective of the majority subsistence farmers. As presented in Chapter 2, priority action areas, from the perspective of poor farmers that relate to research and technology development include access to improved technologies; control of diseases and pests; access to storage and processing facilities; access to markets; and access to productive land. This section will describe the current situation with respect to agricultural research, define the mission, the research and elaborate on strategies and priority areas for action for the immediate, medium and long-term perspective.

Current Situation

The Uganda National Council of Science and Technology (UNCST) is the apex organisation for Uganda's research system. It has the mandate of promoting, advising and co-ordinating the formulation of national research policies and fostering the integration of science and technology in Uganda's economic and social development. The mandate for agricultural research under UNCST was delegated to NARO whose mandate is to undertake, promote and co-ordinate research for crops, livestock, fish and forestry and to ensure the dissemination and application of research results. NARO implements her mandate through nine institutions supported by a secretariat (NAROSEC) located at Entebbe. Other institutions that form the National Agricultural Research System (NARS) include the Makerere University Faculties and Institutes, Economic Policy Research Centre (EPRC), Uganda Institute of Ecology, the Private Sector especially large commodity companies and agro-processors, NGOs and International Agricultural Research Centres (IARCs) located in Uganda. These institutions engaged in agricultural research are not adequately co-ordinated nationally. The capacity for UNCST to play this role is limited by lack of adequate human and financial resources.

Subsistence farmers need improved planting and stocking materials, tools for tillage, agro-processing and post-harvest handling facilities, and information on input and output markets. Their major constraint to increased agricultural production and productivity are lack of access to appropriate and affordable technologies and information.

Until the creation of NARO, research was scattered among different government Ministries and departments with little capacity to generate demand driven technologies. In most cases, research operated independently with little involvement of farmers in the identification of research priorities, implementation, testing and evaluating the impact of the technologies. Second, often technologies have not been adequately tested under farmers' circumstances so as to assess their suitability and performance. Third, the technology delivery mechanisms have often been ineffective and at times non-existent or not linked with the technology generation process. Fourth, a number of technologies have been disseminated without complementary inputs and packages that are essential to exploit the benefits arising from any one given technology. Fifth, for some time technologies have not been evaluated in terms of their socio-economic contribution and impact and there has been little or no regard for the different roles and opportunities available for men, women and the children.

Consequently, it has been estimated that less than 30% of subsistence farmers use improved seeds less than 10% practice any form of plant protection and few subsistence farmers use inorganic fertilisers or other soil and water amendments. On-farm yields are less than one third of the yields on research station and most households continue to depend on low input – low output technologies, particularly the hand-hoe (93% of the farm households rely almost entirely on the hand-hoe for cultivation). Post-harvest losses remain high, at about 25%, and most of the agricultural produce is sold in its primary form with little or no value addition. Most farmers continue to produce a wide range of commodities on their farm due to lack of guidance on selection of profitable enterprises and knowledge of product markets and prices.

The PMA vision for the agricultural research system is “a farmer responsive research system that generates and disseminates problem-solving, profitable and environmentally sound technologies on a sustainable basis”. Such a system should operate in a decentralised, private sector-led co-ordinated manner. In order to achieve the vision, the mission for research is “generation, adoption and dissemination of appropriate and demand-driven technologies, knowledge and information through effective, efficient, sustainable, decentralised and well co-ordinated agricultural research system”.

Strategies

Agricultural research that will benefit the poor and contribute to food security has to operate with the participation of farmers, have the capacity to perceive and interpret the poor peoples’ needs, constraints and resources, and generate practical options to improve them. The agricultural research system will, therefore, adopt the following strategies:

(i) National Agricultural Research Policy and Strategic Plan

As already implied, agricultural research is not adequately co-ordinated and the mandates and roles of different institutions in the sub-sector are not harmonised for maximum efficiency and effectiveness in the delivery of services to the subsistence farmers. The UNCST, as an apex organisation in the national research system, is compromised by lack of adequate human and financial resources. This is partly due to lack of a comprehensive agricultural research policy that would define the goals, objectives, institutional roles and resources for agricultural research. Government will undertake to formulate a national agricultural research policy that will provide the objectives and principles for agricultural research, define the institutional arrangements including roles and linkages among key players. The research policy will have to address the existing weaknesses in co-ordination of research and define the roles and responsibilities of the private sector and local authorities in research. The national agricultural research policy will provide a basis for the design of institutional strategic plans to guide the implementation of research.

There will be need for a mechanism for co-ordination of agricultural research and providing support to the policy formulation and regulatory functions under the mandate of MAAIF. Such a mechanism would also provide for the co-ordination and support to private sector research institutions for the public good. It would also have a monitoring function for agricultural research including the monitoring of resources going to agricultural research.

NARO will revise its strategic plan for the agricultural sector taking into account the achievements and constraints faced over the last six years. The plan will also take cognisance of the decentralisation policy and the need to address unique constraints faced by subsistence farmers in the different ecological zones of Uganda.

(ii) Decentralisation of research

The existing National Agricultural Research System (NARS) is heavily concentrated within the central region, the coffee/ banana/ maize belt around Lake Victoria and within the vicinity of Kampala. Three quarters of NARO institutes are within a radius of 30 kilometres of Kampala. This is partially due to the history of the evolution of the research system and the existing amenities and facilities offered by the city. Rationalisation of the existing institutions, taking into account the need to establish strategic Agricultural Research and Development Centres (ARDCs) in key ecological zones will contribute to the decentralisation and improving the efficiency and effectiveness of agricultural research.

Therefore, it is imperative that the ARDCs should be given autonomy to take advantage of indigenous knowledge and technologies in their respective regions and also to ensure that research priorities are in line with the needs of the farmers within the given location. The ARDCs will also be avenues for technology adaptation, planting and stocking materials multiplication, demonstrations, training, and technology dissemination. The existing institutions under NARO will also be given greater autonomy in financial and administrative management.

(iii) Stakeholder involvement

The subsistence farmers, processors, traders, NGOs and CBOs will have a primary role in priority setting, planning, implementation and evaluation of research under PMA. This will ensure that a greater proportion of research effort will be directed towards problem solving and on-farm adaptive research conducted in collaboration with farmers. In order to ensure effective participation of female farmers, emphasis will be placed on developing technologies that respond to the need of female while also taking into consideration the indigenous knowledge of farmers.

NARO will review the current mechanisms for involvement of farmers, processors, input suppliers and other stakeholders in the research process to ensure ownership and relevance of research programmes. The participation of a wide range of sector interested partners in research will be enhanced at the district and sub-county levels through production and marketing committees and empowerment of local authorities with resources to buy research outputs.

Extension staff will contribute to enhancing accessibility and appropriateness of the technologies through stronger linkages to be built through Agricultural Development Centres (ADCs) and Technology Development Sites (TDSs).

(iv) Private sector involvement

Agricultural research is traditionally the domain of the Government. This is essentially because all research has been categorised as a public good. However, given the persistent human and financial resource constraints, options for involvement of the private sector in the financing and delivery of research must be explored. The public sector (especially NARO) will engage in a dialogue with private sector institutions to define roles and responsibilities and components of research that can be privatised. This process may take 1 to 3 years while capacities are developed. The following options will be used to enhance private sector participation in agricultural research:

(a) Taking advantage of private sector sources of financing for research especially from commodity sectors. These will, in the medium to long-term, include commodity research for tea, cotton, coffee, fish and selected areas of horticulture. This development has already taken root in the sugar and tobacco industry. The privatised commodities will have the opportunity to contract the public sector research institutions in the actual delivery of research services. Government will, however, continue to play a regulatory (e.g phyto-sanitory services), facilitating and monitoring role in these areas including genetic resource conservation;

(b) Contracting the private sector to conduct some aspects of research using public sector resources especially in socio-economic research, technology adaptation and on-farm adaptation and demonstration studies and;

(c) Development of incentive structures including legal and regulatory framework and a system of incentives for private sector involvement in research. These will include intellectual property rights, patents and copyrights, tax exemptions and deductions for research investments.

Public resources will be used to build the capacity, through training, information sharing and provision of facilities such as land and equipment to enable the private sector to participate in research effectively. Appropriate incentives will also be used to attract the private sector in contributing to funding of research through grants and partnerships with the public research institutions. In this regard, the operationalisation of the Agricultural Research Fund (ARF) will be imperative.

(v) Financing Research

For sometime to come, financing of agricultural research will be dominated by the public sector. Currently, about 75% of agricultural research is financed by the donor community with the balance emanating from the government.

One of the key elements for addressing sustainability, effectiveness and relevance of research is to ensure that it is conducted in an efficient, transparent and accountable manner. This can be achieved at least partially, by separating the functions of financing (allocating resources) from the function of implementing research. The establishment of an ARDF will be the initial step in that direction. Such a Fund will manage resources, which would be competed for by researchers in a transparent and accountable manner. Government will ensure that the ARDF concept operationalised within the current Agricultural Research and Training Project phase two (ARTPII).

Efforts should be made to increase government's contribution to research so that research pace is always ahead of problems and can explore new technological frontiers. The NARS will also critically explore avenues for sustainable funding of research from within the research system (self-financing) such as:

(a) Generation of funds from resources that are not utilised including excess land and buildings through lease arrangements;
(b) Selling the products of research (including technologies, planting and stocking material and foundation seed); and
(c) Selling services including professional consultancies and laboratory services (soil and plant analysis, pest and disease diagnosis).

Financing agricultural research will also be enhanced by having a clear categorisation and prioritisation of research into strategic, basic and adaptive research, including definition of aspects of research that have "public good" elements and/ or "positive externalities" and those where the private sector is most suited to carry out. This would help shade off aspects of research that are most suitable for private sector funding. Research funding should also be addressed by rationalising the number and operational capacities of institutions in the research system and the number, competency and management of the human resource in the research system through institutional assessments and functional analyses.

Priority Research Areas

Most research institutions in Uganda do not undertake regular and formal priority setting exercises apart from NARO which sets five-year plans. All research institutions need to institutionalise regular strategic planning exercises. The following priorities will be built into the research plans of NARO and other research institutions in Uganda:

(i) Technology Development and Multiplication

A review of technologies existing within the NARS shows that Uganda has no shortage of improved technologies. However, a number of these technologies remain on the "shelf". Some have not been commercially developed, packaged and marketed for the benefit of the majority of subsistence farmers. Even when technologies have been developed for transfer, there has been, in many cases, the problem of inadequate multiplication by both the public and private sector for distribution to farmers. The Uganda Seed Project (USP) which is to be privatised limited its activities to a few commodities including beans, maize and soya-beans. Propagation of vegetative materials is outside the mandate of the USP and yet, vegetatively propagated (e.g. coffee, irish and sweet potatoes, cassava and bananas) are important in the economy of Uganda. Even where the private sector has developed interest in the multiplication of the planting materials, the NARS has not had the capacity to avail adequate foundation seed. This state of affairs has been attributed partially to the poor linkage between research, extension and the private sector. The research system has lacked the resources to produce adequate breeder and foundation seed and there are currently no modalities by which the research system could invest in production of foundation seed and sell them to the private sector on a commercial basis. A review and operationalisation of the Seed Industry Statute should pave the way for alleviating some of the existing constraints.

Research must emphasise development or importation, adaptation and adoption of improved high yielding, disease and pest resistant plant and stocking materials. Research must also put additional emphasis on farm power and tillage, post harvest handling and agro-processing technologies to reduce drudgery particularly on women, increase productivity, reduce losses, add value and improve quality.

(ii) Socio - Economic Research

Socio-economic research is essential for providing the necessary inputs to ensure that research is generating technologies and information that meet the needs of the farmers and contribute to the objectives of food security, poverty eradication and sustainable resource use. It also provides tools for monitoring, assessing impacts and providing interpretations to human and market behaviour. The need to assess the profitability of technologies, monitor adoption rates and assess impacts on poverty and food security is paramount for the research systems and the beneficiaries of the products of research.

Needs assessment, technology adoption and impact studies, policy research and analysis will be institutionalised and conducted regularly to ensure that research meets the needs of farmers and that the technologies and farm enterprises are appropriate and profitable so as to contribute to the objectives of the PMA (poverty reduction, food security and environmental protection).

Social economic research that incorporates gender analysis will provide gender disaggregated data and information for gender responsive planning to address food security, poverty and sustainable natural resource utilisation.

Under the implementation of the PMA, resources will be made available for economic assessment of the existing and imported technologies especially in the area of agro-processing, farm power and farm machinery; and for the adaptation, demonstration and dissemination of promising technologies within easy access of farmers.

(iii) Strategic Research

The current developments in biotechnology and the globalisation of World markets as provided for under the World Trade Organisation (WTO) impose new demands on the NARS in developing countries such as Uganda. Uganda can only afford to develop minimal capacity to be able to engage in dialogue with developed countries in such areas of research. It will be necessary to establish (possibly from existing institutions within the central region) a research capacity on strategic research to include genetic resources conservation and biotechnology to ensure the country's capacity to cope with the global scientific trends so as to be able to take advantage of the technological advances for the benefit of farmers. Of immediate interest will be research in the area of Genetically Modified Organisations (GMOs), Trade Related Intellectual Property Rights (TRIPS) and their implications to the PMA.

(iv) Farm-power and Post-harvest Technologies

The modernisation of agriculture depends on increasing the productivity and efficient use of all factors of production. This will call for availability and utilisation of sustainable Farm-Power and Post-Harvest Technologies (FPPHTs), including agricultural transport and marketing. Research and outreach efforts will be geared at increasing the availability and use of animal, solar, wind, biogas, hydro and geothermal forms of power by subsistence farmers. These will include power sources needed for operations including tillage, planting, weeding, chemical application, harvesting and post-harvest handling and processing. It is important to recognise the importance of using a multiple range of technologies. For example, increased use of animal traction and tractorization on farms will not necessarily diminish the relevance of a hand hoe in farm operations.

(v) Land and water resources management

Soil productivity presents one of the major challenges to agricultural modernisation in Uganda. Therefore, research will also put emphasis on arresting soil degradation arising from current practices and identify practices and technologies that will restore and increase soil fertility in a sustainable manner. These measures will take into account the differences in soil structure and chemistry (moisture, nutrient and organic matter content) and the production systems (crops, livestock and forests) for which the soils are to be used and the appropriateness and profitability of the enterprises. Simple technical solutions based on traditional technologies and proven practices (minimum tillage, agro-forestry, water harvesting, and soil and rain-fed water management) will have greater effects on the lives of the poor. The World Bank/FAO/GOU Soil Fertility Initiative (SFI) will provide a good starting point for the necessary interventions under the PMA. Resources will be mandate available to conduct studies on options for increasing land use and productivity including land resettlement for the landless and displaced peoples and group farming.

7.3 National Agricultural Advisory Service

The delivery of technical messages to farmers has been associated with Government agricultural extensionists who have also administered the delivery of various inputs and / or support and service programmes. Prior to the 1970s, Government Agricultural Extension Service had greater impact because of the focus on cash crops and the support it had from local and cultural systems through appropriate by-laws. The political turmoil in the 1970s and early 1980s led to the collapse of the extension service system. Efforts to revive the Agricultural Extension Services since 1986 have made very little impact.

Realising the importance of agriculture to the national economy, government is to place greater emphasis on extension delivery. In this context, under the PMA, a National Agricultural Advisory Service **(**NAADS) will be put in place that will institute a new paradigm, and will advocate for an agricultural advisory service (AADS) that is owned by stakeholders, effective, efficient, sustainable to deliver and market targeted. Rather than engaging in “delivery” of messages or inputs, the agricultural advisors (AS) will engage their clients in critical thinking and discussions about their agricultural endeavours, and about the management of their farms as a business enterprise rather than engaging in delivery of messages and inputs for its own sake. The underlying principle being adopted is to have advisory services where the farmers are empowered as partners and have a role to play. The work programmes and activities of these advisors will be determined by farmers themselves. This will allow for broadening of advisory services to include dissemination of market information, agro-processing and environmental management. The advisors will therefore effectively become *de facto* employees to farmers, rendering advisory services to help farmers make better decisions about their farms. It is with this vision in mind that **NAADS** will be instituted under the PMA in place of the current Agricultural Extension system.

Current Agricultural Extension System

As already presented in Chapter 3, agricultural extension in Uganda has served few farmers. Its messages and approaches have not been effective. Financing and delivery mechanisms have not been efficient and sustainable. For a long time extension has been inherently exogenous, donor-driven and non-participatory. It is characterised by too much bureaucracy and low responsiveness to the farmers’ needs, making it susceptible to diminished budgetary support. Lack of financial and performance accountability and client ownership have further aggravated the situation.

The research-extension-farmer linkages and the delivery systems and mechanism have also been inadequate. This is compounded by lack of access to sustainable knowledge, information and communication; lack of access to productivity enhancing technologies; lack of extension policy; and poor linkages, empowerment and co-ordination mechanism.

The above issues, viewed within the context of the current policy, legal and institutional frameworks, have been central in the design of the NAAS strategy and thus to the PMA. The common concepts behind the NAAS, amongst others are;

- A shift from the concept of farmers as beneficiaries to users and clients and thus making them play a much larger role in controlling the NAADS, and own the system, making it more demand driven and committing farmers to specific responsibilities
- A shift from system operated by public employees to that largely operated through contracting arrangements and by private Institutions thus, encouraging partial privatisation of provision of advisory services
- A shift of the public sector, the provider of services to the role of stimulating the development of a private market for advisory services.
- Provide for flexibility and dynamic linkages with other services e.g. marketing, credit, research, infrastructure, other assets.

With these concepts, the vision for the advisory services will be **"decentralised, farmer owned and private sector serviced advisory services, contributing to the realisation of the agricultural sector objectives".**

The mission of the NAADS will be **"Increased farmer access to information, knowledge and technology through effective, efficient, sustainable and decentralised advisory services with increasing private sector involvement in line with government policy**."

To realise the vision and mission for the agricultural advisory services, the contextual issue areas that will be addressed will relate to;

- Increasing effectiveness, efficiency and sustainability (including financing, private sector participation, farmer responsiveness, deepening decentralisation, gender sensitivity) of the Extension Delivery service;
- Increasing farmers' access to and sustaining knowledge (education), information and communication to the farmers;
- Increased access to and sustaining effective and efficient productivity enhancing technologies to farmers;
- Creating and strengthening linkages and co-ordination within the overall extension services;
- Aligning extension to Government policy particularly privatisation, liberalisation, decentralisation and democratisation.

Under this arrangement, advisory services will take a more holistic approach with the scope of services embracing business management skills, market information and financial management.

NAAS Priority Areas of Intervention.

The following will constitute the key priority intervention areas under the proposed NAADS:

(i) NAAS policy

Currently there is no comprehensive and coherent policy on extension. There is a need for MAAIF to formulate a national agricultural advisory services policy that is consistent with the PMA framework. It should attempt to address the main issues and problems in the delivery and financing of advisory services. The strategies being formulated need to be elaborated further to specific actions to be adopted for achieving the set objectives. An institutional framework covering the organisational and legal aspects of delivery and financing has to be defined clearly. The role of key players could be reviewed and where necessary, appropriate new functional roles, in line with the current government policies, be recommended and adopted. Linkage and co-ordination mechanisms have to be clearly defined in the policy to ensure harmony in the system. The extension policy to be formulated should include farm-forestry.

Further to the legal framework stipulating the laws, rules and regulations, administration institutions and / or standing orders need to be defined and made known to the responsible organisations. Formulation of a NAAS policy will provide a basis for the production of a NAAS strategic plan.

ii) Development of District and Sub-County Extension Strategic Plan

Currently, few districts and no sub-county has a coherent strategy for agricultural development. Therefore, there is a need for districts and sub-counties to develop strategic plans for agricultural development in a participatory manner to build consensus and ownership of the agricultural development process that will ensue from the strategic plan (See Appendix 3, Section C). Government recognises that capacity building is needed by local governments. While this inevitably will take some time, the work must start immediately. The detailed strategic planning activities which need to be undertaken in this regard, with assistance from the centre, are given in Chapter 6. They will include:

- Review of Legal Frameworks and Mandates of Districts and Sub-counties
- Synchronising Vision and Aligning Strategic Purposes
- Functional Review and Priority Setting
- Organisational Restructuring
- Operational Capacity Assessment

(iii) Developing / Improvement of Operational Capacity

This component of the extension strategy centres on functional capacity as it relates to personnel, equipment, transport, supplies and operational funds**.** Whereas the Local Government Act 1997 has transferred the mandate and responsibility of extension service implementation function to district and sub-counties, their capacity for designing and implementing multi-sectroal programmes and tapping into private sector attributes, in particular sub-counties, is very limited and a considerable capacity-building programme will be undertaken as per interventions matrix in Appendix 3, Section C. Staffing at sub-counties with respect to the sub-county Chief, the Sub-county accountant and professional line staff (agriculture, veterinary, fisheries, marketing and forestry) is generally weak. Most sub-counties do not have the requisite staff. There will also be a need to determine physical resource requirements and their sources. Government will provide resources to support the functional operations of the agricultural line staff at the sub-county and district levels.

In terms of financial resources, each Sub-county and District Council will receive an annual operational fund from the Central Government (a Non-Sectoral Conditional Grant) to support PMA activities. In order to provide incentives for local Governments to give priority to poverty reduction programmes, the level of central Government contribution will be dependent on the level of funds which the districts and sub-counties will allocate to PMA related activities. Out of their annual budgets (i.e., from the unconditional grants and locally raised funds), as a principle, a Local Government will receive a matching grant, if it can allocate at least 15% of its budget towards PMA activities.

(iv) Improvement / Development of Management Systems

The focus of this component is Results Oriented Management (ROM) ,targeting value for money. At District and Sub-county level, important areas of improvement relate to;

- Programme development and management
- Financial Management
- Administration and Physical Resources Management
- Management Information System (MIS)
- Monitoring and Evaluation systems
- Administration and management skills
- Human Resources management

(v) Developing Delivery and Financing Mechanisms

The strategy developed has the following objectives:

- To increase overall spending in agricultural extension in relation to AGDP, and specifically increase public spending to about 2% of AGDP in year 25.
- To shift from public delivery to private delivery and or through contracts within the first five years.
- To gradually increase private finance so that by the end of say 25 years public finance accounts for not more than 50%.
- Given that the transformation from subsistence to commercial will be gradual, mechanisms for implementing the strategy embody the following principles:
- Empowering subsistence farmers to access extension services,
- Developing private sector delivery capacity and systems, and
- Developing sustainable financing institutions and mechanism.

vi) Strengthening Technology System and Pathways

Agricultural transformation to a large extent, will depend on innovative technological flow and involve the identification of farmers' technological needs, especially targeting market oriented needs and requirements. The understanding of market demands and needs at all levels (local, national and international) will be the perquisite. The needs identification will follow a bottom's up participatory approaches at sub-county, district and regional levels with options for differentiation to suit the various farmer groups. These have to be reviewed annually to keep pace with the ever-changing environments.

Once appropriate productivity enhancing technological packages and innovations have been identified, the following transfer mechanisms will be used to deliver advisory services:

- At sub-county, the lowest level, the following mechanisms will be used: Outreach, Technology Development Sites (TDSs), stockiests, contract farmers and Training / Workshops/Seminars.
- At district level, Agricultural Development Centres (ADCs) will be used.
- At agro-ecological zones, Agricultural Research and Development Centres (ARDCs) will be used.

(vii) Strengthening Knowledge Information and Communication

As a first step in enhancing knowledge base, the MOES will ensure that practical agricultural skills are integrated in the curriculum of schools, colleges and universities.

At the farmer level, the MOES and other relevant line ministries will ensure that practical functional literacy programmes are developed for agricultural enterprise development.

At national level, MAAIF in collaboration with NARO, will ensure that a national programme is put in place to access, package and disseminate information to local governments. Each district will establish an operational training, information, and communication Centre linked with the national network. The ADCs will play the role as training centres. In order to get all levels of training and information needs, a gender desegregated agricultural statistics and farmer-differentiated needs assessment will be conducted by the centre. This will be updated annually to keep pace with new developments. It will be used to develop an annual training, information and communication plan.

Multi-media approaches will be used in information dissemination and communication to target social diversity of clientele.

Agricultural statistics is a very important tool in agricultural development and will thus be an integral component of the strategy. In this respect, MAAIF in collaboration with Uganda Bureau of Statistics, will assist or support each district to develop and operationalise its agricultural statistics for use by the lower local governments and central governments, line ministries and other stakeholders. To be of relevance, the data will be used for developing agricultural plans and strategies and project implementation and monitoring.

(viii) Stronger and effective linkages and co-ordination

Stronger and effective linkages and co-ordination in the agricultural sector are important for a modernised Agriculture. The linkage mechanism recognises the major players as farmer, district extension systems, MAAIF, Agricultural Training Institutes. The NARS, the Private sector, the Parliament/Cabinet and the Donor communities/External Institutions. To foster better co-ordination and linkages and, to bring in an element of participation and ownership to the Advisory services there will be a need to develop institutional arrangements that bring together all stakeholders at National, District and Sub-county level. This will mostly target service delivery, and capacity development.

Institutional arrangements

Achievement of the desired reforms in the delivery of agricultural advisory services will require new institutions at farmer, sub-county , district and national level as stipulated below:

(i) Farmer, Sub-county and District Institutions

The current farmers organisations with a national outlook are parochial in nature and none can be used as the basis for aggregating the diverse farmer types and interests. The institutional arrangements for farmer participation in the NAAS will be rooted in village level farmer common interest groups which will form the building bricks for a hierarchy of federated farmer fora. The grass-root farmer common interest groups will be formed by the farmers themselves along lines that may, among other things, reflect special interests, gender, and farmer type.

The NAAS will therefore spearhead the formation of all-embracing farmers' fora bringing together the variously constituted farmer groups at village, parish, sub-county, district, zonal and national levels. In line with the desire to deepen decentralisation, democratisation and sustainability, the formation of this institutional structure will not be prescriptive from the top but, rather, aggregative from the bottom. Hence the role of the NAAS in the institutional development at the farmer level will be, initially, to facilitate the farmers' grass-root group-formation initiatives and, subsequently, the formation of coalitions of the groups into the co-ordinating fora for the functions of the farmers. This implies a strong role for the NAAS in building the capacity of the farmers in agenda setting and the management of activities and resources.

A complement to the farmer groups will be a network of link farmers. These will be selected not only on the basis of their innovative practices and progressive outlook, but also on the basis of endorsement by the community of their ability to provide an alternative net for catching the farmers who link farmers groups. They will be the focal points for development of technology development sites.

(ii) National

National Agricultural Advisory Service Body with a secretariat has been recommended. The Advisory Body would bring in stakeholders participation; in particular, it would create opportunities for greater private sector participation and farmer empowerment. The greater independence is likely to guarantee enhanced effectiveness, efficiency and sustainability and would auger well with the principles of privatisation, liberalisation and decentralisation adopted by Government.

It will be the apex body built up from the various fora from the Sub-county and District levels, thus with full farmer representation. The overall function of the “Body” will be to co-ordinate, promote and streamline the delivery of agricultural advisory services. The “Body” shall have a Secretariat with "think-tank" units to collect, collate and analyse information on technical back-up requirements of service providers and to ensure implementation of resolutions.

Transitional Arrangements

The development of the fully-fledged NAAS will not happen all at once, a number of transitional arrangements will be required to facilitate the full implementation of the programmes. These will involve capacity development of District and Sub-county levels specifically targeting service provision, programme management, setting standards, etc. It will also involve mentoring of District and Sub-county institutions. It will require the development of an appropriate legal and institutional framework. It will also include piloting of start-up programmes and activities.

Thus, at National level, it will call for a transitional institutional arrangement in form of a NAAS Support Secretariat managed by a Steering Committee composed of representation from key stakeholders and reporting to the Permanent Secretary, MAAIF. This will be funded in a project mode until the creation of an appropriate NAAS body.

7.4 Agricultural Education.

Poor farmers identified low education levels, ignorance, lack of information and lack of skills – particularly in primary production and financial management - as factors influencing their inability to access and benefit from livelihood opportunities, and subsequently as causing poverty[16]. As such the human capital of all stakeholders – pupils, parents, farmers, local government, implementers, researchers - must be developed in order to transform agriculture and consequently eradicate poverty. This can be achieved through informal education, such as efficient extension (Section 6.3) and more formal or targeted interventions in the education sector.

Current Situation

- *Agricultural Education Policy:* Currently, there is no agricultural education policy. The absence of such a policy means that agriculture is not accorded due status as a business or a profession, and there is no strategic mobilisation of resources for such education. The Ministry of Education and Sport is responsible for formal agriculture education.

- *Functional adult literacy:* In Uganda, illiteracy[17] is a barrier to accessing information and profiting from livelihood opportunities, therefore compounding poverty, especially for women[18]. The Government has developed a National Plan for Functional Literacy, although it has yet to be implemented. However, private sector and civil society organisations have embarked on functional literacy programmes, mainly targeting women.

- *Basic Education*: The first step to improving education levels is to ensure that all people receive a minimal education level. The Government's policy of Universal Primary Education (UPE) aims at ensuring universal access to primary education. Under UPE, enrolments of boys and particularly girls have increased, although concerns over high pupil to teacher ratios and education quality exist[19]. However, currently courses are theoretical and examination-oriented, and are not linked to practical experiences nor to the activities of community and other local stakeholders. Currently, co-ordinating Centres under the MoES TDMS enable teachers support and outreach.

- *Tertiary Institutions:* The tertiary institutions offering agriculture education in Uganda include 4 agricultural training colleges: Arapai, Bukalasa, Busitema (agricultural mechanisation) and Entebbe (fisheries); and Makerere University Faculties of Agriculture, Forestry, Zoology, and Veterinary Medicine. Recently, Makerere University has made significant steps towards reviewing the curricula by introducing, degrees in Agricultural Extension Education, Agribusiness Management, Fisheries and Aqua-cultural Sciences, Food Technology and Food Business Management; as well as a Continuing Agricultural Education Centre and various relevant new courses. However, currently, the general approach to tertiary agriculture education is not largely based on practical experiences, nor is it responsive to farmer needs or farmer participation, and does not generate multi-disciplinary graduates.

The vision of agriculture education under the PMA, therefore, is one in which "agriculture is treated as a business and an honourable profession and farmers, farmers acquire knowledge and skills that enable them to increase productivity, profits so as to improve their quality of life". In order to achieve this goal, agricultural education should first effect change of attitude towards agriculture by demonstrating that agriculture is an enterprise that can generate profits and enable

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[16] *Uganda Participatory Poverty Assessment* 1999
[17] At present, 38% of Ugandans are illiterate – 27% of men and 49% of women. In 1995, 36% of rural women and 15% of rural men had never been to school - *Uganda National Household Survey* 1995-96
[18] *Uganda Participatory Poverty Assessment* 1999
[19] *Poverty Status Report* 1999

one to eradicate poverty on a sustainable basis. Second, agricultural education must enable beneficiaries to acquire knowledge and skills that enhance their capacity to produce, manage, process, market, distribute, regulate and sustainable use resources professionally. Third, agricultural education must be delivered in such a way that the participants are empowered and motivated to apply the knowledge and skills acquired. Agriculture education demands vast resources and therefore, prioritisation will be necessary to maximise the use of scarce resources.

Proposed Strategies

- *Agriculture Education Policy:* The Ministry of Education and Sports must develop an engendered policy that encompass the following: Promotion of agriculture as a business; Treatment of agriculture as a branch of applied science focusing on experiential learning; Discouraging the use of agriculture as punishment in schools; Application of multi-disciplinary approaches; Encouragement of participation; recognition of indigenous knowledge; as well as incorporation of the community and the decentralised system of local government in the implementation of agricultural education. In order to promote agriculture education as a priority under the PMA, enhanced co-ordination between the MoES and MAAIF is suggested to develop appropriate teacher guidelines, design curriculum, establish experiential methodologies, such as demonstration farms, to orient education to farmer needs, and to improve effectiveness and quality of service delivery. In order to advance agriculture education, which is a cornerstone of agricultural transformation, earmarked funds from Government and donors must be transferred to the MoES. Cost-sharing initiatives at tertiary levels should also be explored.

  - *Functional Adult Literacy:* Current government plans[20] and private sector and civil society organisation programmes must be co-ordinated and focused in order to be effective. All such initiatives should be linked with PMA principles, such as rural finance and extension delivery in rural areas, in terms of the information and skills delivered. Curricula must be relevant to people's livelihoods, aimed at life skills for increasing incomes and quality of life.

  - *Agricultural education in the formal sector:* At primary and secondary levels, education for agriculture must aim at educating people into agriculture rather than out of agriculture. Enhancement of knowledge of agricultural practices can be achieved through integration of agriculture into curricula; interesting, participatory and multi-disciplinary approaches; and engendered curricula in the formal education sector at all levels. In order to achieve this, strengthening of the Local Government and formation of linkages between agriculture, production, extension and education sectors at district level is necessary.

  - *Primary Schools:* Integration of vocational skills, including the reintroduction of a broad, well-packaged agriculture component, into the primary schools curriculum would provide practical knowledge and skills for many young people – boys and girls. This may better equip them for engagement in the agricultural sector either through their own efforts or by passing the information and skills learnt onto other household members. The activities existing under the Co-ordinating Centres Infrastructure (TDMS) should be strengthened to enhance outreach and linkages. Appropriate educational material, and adoption of experiential approaches –demonstrations, school farms and farm visits- for enabling problem-solving and enhancing pupil enjoyment is required and must be supported by

[20] National Plan for Functional Adult Literacy, MGLSD, 1996.

district and sub-county extension services. In addition, training of teachers in teachers colleges (NTCs and TTCs), as well as in-service training at the district level, must be reviewed in order to create a system (harmonised, integrated, experiential, increased competencies, and promoting role modelling) that enables more effective teaching of agriculture. The district education and agriculture staff can adapt the curriculum to focus on district specific aspects of agriculture and aquaculture. Involvement of community members, parents and extension staff would further broaden the scope of such education.

- *Secondary Schools*: The system commenced at the primary school level must be continued at the secondary level, expanding on the basic vocational knowledge built for those students who would like to pursue agricultural studies options. Pre- and in-service teacher re-orientation for agriculture education is necessary to enhance competencies, as above. Increased co-ordination and linkages amongst schools, extension services, youth groups and community and business members.

- *Tertiary Education:* Training must be holistic, responsive and relevant to the labour market in agriculture and peripheral sectors, as well as to community and self-development needs. Further, agriculture, agro-forestry and fisheries must be promoted as business enterprises. Curricula must include farming, livestock management, forestry, fisheries and environmental aspects – the depth of study depending on the area of speciality. Courses in each discipline should include marketing, processing, management, livelihood/farming systems approaches, participatory methodologies, communication and training.

To achieve the desired transformation, rural areas have to have a critical mass of skilled people that can use and maintain the necessary labour saving machinery and tools that are needed to reduce drudgery and increase productivity. Institutions like Busitema will need to be expanded and possibly replicated in each region of Uganda.

Internships should be mandatory for any courses oriented towards fieldwork and extension. Lastly, linkages must be created between these tertiary institutions in order to harmonise curricula and approaches.

- *Agricultural colleges:* Colleges must be oriented to produce graduates who have appropriate skills to engage in various areas of the agricultural sector – training, academic institutes, civil servants as well as extensionists, farm managers, and those involved in manufacture, marketing and agro-processing. As such the curriculum must contain theory and practical application, as well as agri-business skills and management. Training–of-trainer skills and community development skills should also be developed to encourage farmer participation, to mobilise farmers, assess their needs, develop packages to meet those needs and train and sensitise farmers. In addition, infrastructure and equipment as well as well-motivated and qualified staff must be in place to implement appropriate curricula and produce labour market-oriented graduates.

- *Universities:* Universities must continue the recent progress towards adopting the recommendations made under the agricultural colleges. Graduates must have practical skills and experience to be able to engage in agriculture as a profitable business. They must have a good understanding of farmers' constraints and livelihood systems to be able engage farmers in all levels of implementation and to apply their knowledge to address practical situations. Graduates must appreciate the implications of the policies within the sector and the country in general and how the policies and regulations impact on agriculture. This is imperative given the policy to recruit graduate extension staff at sub-county level. Collaboration between faculties and departments is advised. In addition, while one fisheries college exists at Entebbe, higher level fisheries officers hold Bachelor of Science degrees and have not received specialised training in fisheries livelihood systems and management. Tailored courses are recommended at degree level. Such courses could also target individuals who are already engaged in agriculture but desire to improve their academic qualifications.

- *Agricultural education in the informal sector*: Informal agriculture education will be delivered to farmers, youth, extension workers, trainers and teachers through the district Agricultural Development Centres (ADCs) as well as through established farmer's, women's and youth groups. Such education should be experiential, participatory through the creation of dynamic networks, and based on role models, such as farmers, teachers and extensionists, within the community. In particular, re-establishment of voluntary youth clubs, as in the past, or vocational training courses through district ADCs or outreach programmes would foster attitude changes as well as deliver and demonstrate simple skills training in sustainable methods, marketing and processing. As a result, youth may become empowered to be pro-active, rather than complacent, in improving their livelihoods. Such schemes must be self-sustaining with little local government intervention, to a large extent, through crop production and marketing, small projects, and competitions between groups. Other potential activities include farmer's fora, seminars and workshops, open days, competitions, exhibitions, exchange visits or study tours, and twinning arrangements between local and eternal institutions. The mass media and groups can also be utilised.

7.5 Improving Access to Rural Finance

Available evidence shows that poor people need the whole range of financial services catering for credit to purchase non labour productive inputs, consumption credit for tidying farmers over a low season for savings, for remittances, and for financial transfers and insurance programs. Reliable and effective rural financial services are needed to enable farmers to invest in land improvement, acquire new high yielding and labour saving technologies which increase farm household incomes or to enable farmers to have a capacity to cope with the vulnerabilities of the farm production cycle. Even for rural off-farm, non-agricultural activities, effective financial services can help establish or expand family enterprises and, therefore, make the difference between abject poverty and economically secure life.

Farmers need for credit varies from year to year and from season to season. At critical or peak farming periods during the year, farmers need rural financial services because the realisation of income from the sale of farm produce and patterns of household expenditures do not often coincide. Production credit requirements by farmers can be put under three categories:

(a) Short-term Production or working capital required by farmers for production inputs or operational expenditure;
(b) Medium-term Investment loans for acquisition of assets; and
(c) Long-term Investment loans required for investment in such areas as development of farm, construction of land infrastructure (e.g. farm buildings/stores, irrigation facilities, dips/spray races, fencing, milking sheds, paddocks, water supply, purchase of farm machinery etc).

Of the three types of loans above, which are also commonly referred to as direct agricultural finance, the one which is of immediate concern today and will be needed by the majority of the farmers on priority basis during PMA implementation, is short-term loans.

In the PMA process, the establishment of a viable and sustainable rural financial system is considered as one of the key intervention measures for sustained development of the agricultural sector.

Current Situation

The rural financial system in Uganda is still largely undeveloped, fragmented and not integrated into the formal financial sector and operates in an environmental faced with many daunting challenges. At present, there are two systems that operate and provide financial services to the Ugandan population. The first system is the formal financial sector, which comprise 17 commercial banks, 3 development banks and 8 credit institutions. In general, currently the commercial banks do not have an adequate branch network and comparative advantage to operate in rural areas. Most of the banks have their headquarters and branches in the major towns particularly Kampala and / or Jinja. The only banks with extensive branch outreach are the Government owned Uganda Commercial Bank, and the Centenary Rural Development Bank (CERUDEB) particularly following the latter bank's purchase of 10 up-country branches from the recently closed Co-operative Bank. All the development banks, credit institutions and insurance companies are also located mainly in Kampala and Jinja. The Second system, the other set of institutions providing financial services to the Ugandan population comprise the Micro-Finance Institutions (MFIs) Community Based Organisations (CBOs) and Rural Financial

Intermediaries (RFIs). The micro-finance industry and the associated institutions have emerged mainly during the last 10 to 15 years to fill the gap created by the absence of full banking services in most parts of the country and to provide services needed by the poor but cannot be accessed from the commercial banks. Their type of product and mode of operations differ from those of commercial banks and experience elsewhere as well as here in Uganda demonstrate that they have developed sufficient comparative advance to provide financial inter-mediation in rural areas on a viable and sustainable basis.

The institutions currently involved in the Uganda micro-finance market include CERUDEB (a private commercial bank which has taken initiative to provide micro financing), Non-Governmental Organisations (NGOs), savings and credit societies, so called “village banks”, Government projects (Poverty Alleviation Project- PAP, *Entandikwa*, Cotton Sub-sector Development Project- CSDP), etc.

Uganda is one of the most severely under-banked countries in Africa with the ratio of 115,000 persons per formal bank branch (before recent closure of the 3 commercial banks) compared to the average of 7,000 persons per branch in the COMESA countries. Also the savings ratio at 4.9% GDP compared with 17.7% for Africa’s average, is one of the lowest in the world. In addition quite a large segment of the Ugandan economy remains non-monetary. It is estimated that only about 77% of total GDP is monetary and the ratio of broad money (M2) to GDP is 10% compared to 40% for Kenya and 35% for Tanzania. This means that most of the currency in circulation is outside the banking system. The above situation limits rate of investments and employment creation particularly in rural areas and therefore, constrains overall economic growth. Any program adopted for development of rural financial system should therefore aim at both financial deepening and widening in order to engage the bulk of Uganda population in productive economic activities. A key general principle to be considered for adoption under PMA in this regard, is having a large number of branches for financial institutions with a small area per branch and wide coverage/outreach of the country so that a large proportion of the population has access to financial services. This also requires that the physical infrastructure (roads, communication systems, efficient transport, security of movement, etc.) are in place to encourage micro finance institutions to easily locate up-country.

Strategy for Development of Rural Financial System

Vision and Mission

In order to meet the aspiration and objectives of the PMA, the long-run vision for the rural finance intervention has emerged as **“**an efficient nationally integrated system of financial institutions and intermediaries capable of accomplishing financial intermediation in rural sectors”. The mission for achieving the above vision has therefore been formulated as “to put in place a system and institutional arrangements that will ensure increased availability of market-based rural financial services in Uganda on sustainable basis”.

Key Strategy Elements

On the basis of the extensive reviews of the current status of rural finance in Uganda as well as the domestic and international experiences with rural finance, Government will consider the following key strategy elements for developing rural finance under PMA:

(a) The immediate or short-run strategy for establishing the rural financial system should be hinged mainly on the MFIs because they have demonstrated overwhelming comparative advantages for operation at the grass- roots in many developing countries. MFIs at present are well placed to meet the most urgent financial needs of the rural poor namely, short term financial needs. However at the same time, formal commercial banks that have taken initiative to undertake lending in rural areas should be encouraged and promoted as the long run objective is to integrate MFIs with the formal financial sector (including development banks and insurance companies) in order to provide the array of financial needs for sustainable rural development.

(b) A high geographical density should be encouraged i.e. (a large number of branches with small areas per branch) because the current agricultural production units are widely dispersed, small scale and diverse. This is a necessary condition for rural financial market development, transfer of new technologies and mobilisation of deposits from rural areas.

(c) A large proportion of the rural population should be covered by the institutions. The rural finance policy should aim at promoting larger and wider coverage of rural households not only to meet credit needs but also to provide a place for deposits whenever the need arises. It should also provide among others financial services including remittances, transfers, insurance, etc.

(d) MFIs together with their clients should be trained and strengthened for effective rural finance intermediation through promotion of use of international best practices that have yielded positive results in other countries. It is absolutely essential that emphasis must be placed on savings mobilisation and loan repayment but not on pushing credit volume which may be detrimental to farmers. It is also important that in the short-run the focus should be on building on what exists, starting with RFIs that are, or near creditworthiness and other borrowers, branches and groups with good track records.

(e) Women groups have demonstrated that they can effectively mobilise savings, put them into agricultural related enterprises and through group pressure ensure loan repayment. Women groups should be specifically targeted in the delivery of MFI services.

Priority Areas

(a) Legal and Regulatory Framework

The Bank of Uganda in collaboration with the micro-finance industry and other stakeholders is currently formulating a law to govern the operations of the different players. The framework so far emerging is based on a four-tier system, which emphasises protection of depositors’ interests. The approach involves categorising institutions into four groups, namely, Commercial Banks, Credit Institutions, Micro-finance Deposit Taking Institutions (MDIs) and Non-Deposit Taking Institutions (NTIs). The first three categories will be regulated by BOU under the existing statutes while the fourth category will be regulated under a new law to be enacted. The categorisation scheme also provides for institutions at lower levels to graduate to higher levels. This approach appears to be favourable to all players in the industry and will be enacted into law before end of 1999.

(b) *Capacity Building for Micro Finance Institutions (MFIs)*
Government will vigorously pursue actions that promote and encourage capacity building for the MFIs. Efforts will be geared towards ensuring that the policy as well as legal and regulatory framework provide conducive environment for the operations of MFIs. In addition, part of public resources currently available for provision of credit to MFIs will also be earmarked for capacity building of MFIs .

(c) Privatization of Government Credit Projects/Programs

The current Government policy on the micro-finance industry as stated in the CG statement (December 1998) is that, Government will withdraw from direct delivery of credit and restrict itself to capacity building and policy formulation in order to provide a conducive environment for the private sector to operate efficiently. In the context of PMA implementation, therefore government will consider restructuring existing credit projects (e.g. PAP, Entandiikwa and BOU based credit projects) and programmes to create a private sector based Rural Financial Services Systems (RFSS) that would also carry-out capacity building functions for rural financial institutions.

(d) Government Transfer of UCB Branches

Government will study the option of transforming some rural UCB branches into rural financial intermediaries. These branches would link up with existing MFIs operating at district level, particularly in areas where no other banks exist.

(e) Promotion of Other MFI Initiatives

Government will also provide conducive environment for other micro-finance initiatives including foreign-based NGOs to enter and operate freely within the MFI legal and regulatory framework in the micro-finance business. Foreign-based NGOs that have demonstrated considerable success in this area include FINCA, PRIDE Africa, FAULA, VEDCO and PRESTO.

(f) Promotion of Formal Banking System Involvement in Rural Finance

Government will develop strategies for promoting the involvement of commercial banks, development banks and insurance programs with the aim of eventually integrating them into the rural financial system. Government may consider the option of lowering the capital asset requirement for establishment of branches in rural areas. Also, designing of insurance schemes based on needs assessment and a variety of risk minimization measures will have to be examined through well focused studies under PMA. Government through RFSS and other MFI initiatives will continue to devise innovative strategies for savings mobilization in rural areas. Banks will be strengthened to undertake effective savings.

7.6 Agro-processing and Marketing.

Improved market access is essential because the mission of the PMA is to transform subsistence agriculture to commercial agriculture. Farmers will only produce when their products are assured of a market outlet. On the other hand, increased productivity demands use of external inputs including planting and stocking materials, implements, fertilisers, pesticides and herbicides, human and animal feeds and other inputs. “Market access” implies that the key players in the marketing chain, including farmers, processors, inputs suppliers and other service providers have sufficient information and the physical and financial as well as social means to purchase inputs and sell agricultural produce on favourable terms.

An efficiently functioning market has the capacity to transfer information that allows for the free flow of factors of production to profitable enterprises. The major determinants of market access for agricultural inputs and outputs may be grouped into two main categories. First, are the determinants in the domestic markets which include conducive environment, infrastructure, information and facilitating functions. Second are the determinants of international markets which include international trade rules and policies, comparative advantages and market opportunities. These will be discussed below before presenting the strategies to be implemented under the PMA.

Current Situation

Agricultural marketing in Uganda is currently constrained by a number of factors related to the road network, transportation, market facilities, communication and information system, and facilitating services including research and extension.

Road infrastructure in Uganda, while improving is still under-developed in terms of its network and state. More that 90% of Uganda’s road network consists of earth and gravel roads and about 25% of the rural feeder roads are impassable during the rainy seasons. In addition there is a myriad of community roads that are in poor state but yet very important to linking local communities with the market. Given that poor road infrastructure is the most significant constraint to subsistence farmers’ accessibility to the market, the construction and maintenance of feeder roads as well as community roads will become top priority for LGs during the PMA implementation.

Agricultural exports are constrained by poor trunk roads, an inefficient railways and water system, lack of landing sites with adequate facilities to handle quality exports and an inadequate airline system.

For the majority of agricultural produce, the main means of transport is through carrying of load on the head, which is estimated to amount to about 70% of total marketed produce in Uganda and is undertaken mainly by women. The bicycle transports about 20% of marketed produce while motorised transport carries about 8%. Donkeys and ox-carts are used for transporting the remaining 2% of marketed produce. To improve marketing access the subsistence farmer has to shift in the short to medium term to Intermediate Means of Transport (IMTs) including bicycles, donkeys, ox-carts and motorcycles. Although means of transport was ranked as the second most constraining factor to market access in the NRI/APSEC study, little attention has been paid to it by policy makers in Uganda over the past years.

In rural Uganda markets generally lack essential facilities like all-weather structures, secure storage, safe water and healthy sanitation structures. These amenities have significant impact on market access.

Post harvest losses in Uganda are unacceptably high and are estimated at 5 – 15% for non-perishable crops (grains), 20 – 35% for semi-perishables (root crops) and 40% for perishables.

Apart from inefficient primary processing facilities, the other key factors responsible for post-harvest losses are lack of appropriate storage facilities and inadequate cold storage facilities for perishables such as fish, meat, fruits and vegetables.

The communication system in Uganda composed of radios, print media, telephones, faxes, etc are beginning to pick up but their coverage of up-country towns and rural areas is still grossly inadequate.

There is general inadequacy, unreliability and lack of timely agricultural information reaching farmers, traders and consumers. This problem covers the whole range of market, commercial, technical and institutional information. This current state of affairs of inadequate, unreliable and untimely information flow constrains market access and at the national level it also contributes to the situation whereby food surplus in some parts of the country co-exist with transitory and even chronic deficits in other parts. At policy level, it renders meaningful planning impossible.

Facilitating functions for market access including promotion and development of community organisations, rural financial systems, research and extension services are covered extensively elsewhere in this document and will not be dealt with in this section except to note that they are absolutely crucial in improving marketing access.

Strategies For Improving Marketing Access

The vision for improving market access has been developed under PMA as **“**increased and sustainable supply of and demand for competitive processed and non-processed agro-products on domestic regional and international markets”. The mission is "to implement measures that facilitate increased supply of requisite inputs in order to ensure increased and sustained supply of competitive processed and unprocessed Uganda agricultural products in domestic, regional and internationals markets consistent with the economic growth objectives of the country.”

To the extent that issues pertaining to conducive environment and facilitating functions have been handled in other sections, this section will deal with strategies envisaged under PMA for improving infrastructure, information and international market determinants, as they will affect marketing access during PMA implementation.

(i) Road Network

There are numerous road projects in the road sector funded by donors such as the World Bank, DANIDA, DFID, ADB, EU, KFW and most of these projects are part and parcel of the Ten Year Road Sector Development Programme (RSDP) budgeted at US $ 1.5 billion. The World Bank is also providing institutional support for the road sector (US $ 30m) mainly for establishment of the Road Agency Unit.

Given the overarching importance of the road network in improving market access under PMA, RSDP will be implemented rigorously and effectively. In addition, the following specific measures derived mainly from the recent survey results of NRI/APSEC study, will be implemented.

(a) Greater involvement of private sector contracts and local community participation in road and track maintenance will be pursued
(b) Guidelines will be developed for road construction and maintenance at different levels and while those for national and regional roads will be centrally established village access roads will be designed at community levels.

(c) External and domestic resources will be mobilised for construction of bridges, culverts, etc. to overcome difficult terrain imposed by mountains, wetlands, swamps, etc.

(d) Self help road construction and maintenance will be encouraged at the local level, particularly where such roads are for the exclusive benefit of the community.

(e) In the short term, Government will endeavour to build capacity for private sector contractors and LG personnel.

(f) Effective, co-ordination of all road construction and development programmes for road construction will be undertaken by the responsible authorities.

(ii) Means of Transport

Given its crucial role in promoting market access, the Central and Local governments will implement measures to encourage the growth of a competitive transport sector. The following specific recommendation based on the NRI/APSEC will be considered for implementation in the context of improving market access under PMA:

(a) Government will continue to avoid discriminatory regulatory barriers (including taxes) that block the widespread uptake of motorised and non-motorised means of transportation.

(b) Adequate accessibility and availability of credit to farmers as well as traders and workshop owners will be provided for the uptake of appropriate means of transportation (see recommendations for rural finance).

(c) Intermediate means of transportation (IMTs) will be given more prominence in training and extension education curricula.

(d) Due to the socio-cultural constraints, awareness building amongst the rural population will be encouraged to promote acceptability of certain means of transport (e.g., bicycles, donkeys and ox-carts).

(e) Pilot projects will be carried out to test specific IMTs before recommendation for widespread use.

(iii) Market Infrastructure

Establishment and rehabilitation of rural markets are considered crucial for improving markets access under PMA. Public funds will be invested initially in these ventures but later the markets will be privatized. The following specific guidelines have been recommended and will be considered for implementation.

(a) Markets should be located at strategic central points in order to minimise distance for both producers and traders. Such locations already exist in many areas in the form of rural markets but are typically characterised by lack of even the very basic of amenities.

(b) Markets need a minimum of infrastructure to be provided by LGs, such as platforms, permanent shades for all weather business, sanitary facilities and water supply. The construction of warehouse will be undertaken by the private sector.

(c) Following an initial moderate investment by the LGs, the running of the markets will be tendered out to private operators.

(iv) Market Information

The need for effective market information for improving market access is absolutely crucial. It is also clear that the different types of stakeholders require many different types of information on timely basis in order to make informed decisions crucial for the success of their business operations. Based on the study by NRI/APSEC, a decentralised, flexible information system bringing on board all the main stakeholders (e.g. LG, private associations, NGOs, local radio stations etc.) will be adopted for implementation under PMA. Government (central and local), donors and NGOs have to acknowledge the importance of information and make the necessary resources available particularly in regard to provide information to poor farmers where such services may be viewed as public good. The system will be demand driven and reacting to the needs of the target population and starting with a needs assessment of the services. Local radios could be one of the principle mean of disseminating such information.

(vi) International Market Access

The International trade rules and policies as provided for currently under WTO, UNCTAD, ITC, LOME, COMESA, East African Co-operation (EAC), etc provide both challenges and opportunities for market access for agricultural commodities from developing countries. The opportunities exist mainly on account that as countries the world over lower their trade barriers, developing countries that depend mainly on agricultural exports, will have increased market access, at least in theory, to international markets provided they are able to produce competitive products with the quality standards desired in such markets. The challenges are envisaged to come mainly from failure or inability to align domestic with international trade, develop domestic markets and generally harness comparative advantages through proactive Government polices.

Uganda has made great strides in realigning its trade policies to take full advantage of the international trade rules. However, the following measures will be considered to ensure that it benefits maximally from the international markets:

(a) Given the importance of international trade in economic development it is absolutely important that Uganda, together with its regional partners and the rest of the other developing countries, negotiate for substantially improved market access for agricultural commodities from developing economies to developed countries. It is therefore, essential that Uganda builds adequate capacity in terms of competent personnel for international trade negotiations. Capacity will be built for policy formulation , monitoring and enforcement especially in the area of international agreement on Agriculture (AoA) and the Trade Related Intellectual Property Rights(TRIPS).

(b) Existing trade related institutions (UEPB, UIA, UNCCI and UNBS) will be reviewed, restructured and strengthened so that they can effectively and efficiently perform their functions.
(c) Quality is an important factor, which cuts across the entire production, processing and marketing chain. Government will, therefore, facilitate the development of product grades and standards for domestic and international markets.
(d) In regard to regional trade, Government will exploit existing opportunities through;
    - Facilitating the private sector to enter into procurement contracts with international agencies (e.g. WFP);
    - Initiating bilateral trade negotiations with neighbouring countries; and
    - Accelerating the implementation of the East African Co-operation Treaty.

(e) The private sector will be supported with resources to undertake studies and other public sector investments for establishing a warehouse receipt system (WRS) and an agricultural commodity exchange (ACE) in Uganda.

(vii) Storage and Agro-processing

Lack of appropriate storage facilities is serious at all levels of the marketing chain. However, in the context of PMA, the decision to invest in storage facilities is a private sector activity and the most that Government can do is to provide the appropriate incentives and technical information through research and extension services in order to facilitate private sector investment in this area.

Experiences in many countries particularly the developing countries of Asia (China, Indonesia, India, Malaysia etc) demonstrate that promotion of agro-processing industries in crucial for improving market access not only in rural areas but also at the national level. Agro-processing generally serves the following functions to:

(a) Add value to the good, thereby increasing the potential marketability and profitability of the product.
(b) Preserve the produce, thereby increasing the longevity or shelf-life of the produce before marketing.
(c) Reduce transportation and distribution costs in that it normally tends to result in use of convenient packages and removal of un-necessary and sometimes bulky components from the produce.
(d) Generate effective demand for agricultural raw materials, including crops that may be traditionally viewed as food crops.
(e) Increasing export earnings and improving the balance of payments position through exports of both processed and semi-processed products.

In order to promote agro-processing, the following actions will be implemented:
- Development of infrastructure including provision of low cost energy sources and water supply countrywide;
- Reviewing the tax rates and tax administration arrangements for the agro-industrial sector;
- Putting in place appropriate policies and laws in the areas of contracting and contract enforcement in support of the agro-industrial sector;

- Establishment of appropriate grades and standards for agro-industrial products and putting in place effective enforcement procedures.
- Strengthening market information on production, supply and demand for products and availing product prices in a timely manner through agricultural advisory services;
- Promotion of the agro-industrial sector through training, and support to processors and their associations.
- Promotion of rural electrification through the provision of a Rural Electrification Fund (REF) as provided for under the electricity law. The fund will enable the private sector and local Governments access funds for capacity building (e.g through training) and enable them build, own and operate power supply facilities through "smart" subsidies. A proposed energy for rural transformation program has already been initiated under the African Rural and Renewable Energy Initiative (AFRREI).

Agro-processing is a private sector activity. Therefore, the role of government will be limited to creating a conducive environment for the private sector.

(vii) Agricultural Inputs

Improved productivity in terms of yield per unit area or per unit livestock is envisaged to be one of the main areas of focus for agricultural transformation under PMA. Yet current productivity amongst the farming community is very low and for most commodities it is much lower than the genetic potential expressed under optimal conditions in research stations. This low productivity in Uganda can be traced to a virtual absence of modern inputs such as lack of improved varieties of crops and livestock breeds, absence of improved agronomic and post-harvest, handling practices, and very low use of critical inputs including fertilizers, pesticides and irrigation. A critical issue that is connected with the low level of input usage is the virtual absence of an efficient distribution network. Strategies to address the challenges facing agricultural input market access and promote use of critical inputs are discussed below.

(a) Planting and Stocking Materials

The availability and timely distribution of high yielding, quick maturing, pest and disease resistant planting and stocking materials is vital for sustained growth in the agricultural sector. This requires a dynamic, competitive and viable private sector led seed industry to produce and distribute quality seeds, stocking and planting materials to farmers on time. The seed industry encompasses development of breeders' seed by research stations, production of foundation seed from the breeders' seed, multiplication of certified seed for commercial production and its distribution to farmers.

The seed industry in Uganda is largely undeveloped, with farmers relying almost entirely on their own low-yielding seed supply. The Uganda Seed Project (USP) which has been the main producer of improved is in the process of being privatised. The 1993 Seed Industry Statute is yet to be operationalised to pave way for a greater participation of the private sector in seed importation, production, multiplication and distribution.

Government recognises that both the public and private sectors have critical roles to play in the development of the seed industry. Therefore, the following strategies will be pursued:

- A national seed policy will be formulated and the Seed Industry statute reviewed and operationalised.
- Within the framework of NARO and NARS, the public sector will play the lead role in seed research including production of foundation seed and developing a gene bank for the country.
- The private sector will be facilitated to enter in the multiplication of foundation seed, certified seed, and seed processing and marketing.
- Government will set up a seed certification service for quality control and issuance of phytosanitory certificates.
- MAAIF will, in conjunction with NAADS promote seed stockists and the adoption of improved seed varieties by farmers.
- Institutional arrangements will be put in place to maximise the opportunities offered by the existence of improved seeds and planting materials from beyond our borders while minimising the potential dangers such imports could bring.

(b) Soil Fertility

Fertiliser use in Uganda, particularly in smallholder agriculture, is among the lowest in the world. The current level of application is estimated at less than 1kg of plant nutrient per ha compared to 9 kg/ha, the average for Sub-Saharan Africa which in turn constitutes only 20% of that used in Latin America and 5% of that used in East Asia. In addition, while the rest of the world, particularly the developing world taken as a whole and virtually every African country taken individually increased fertiliser use by two or three (and by much more in many cases), Uganda has fallen behind the rest of the world in fertiliser use by a factor of about four over the course of the past quarter century. One of the major reasons for this is that it is widely believed, particularly amongst policy makers that Ugandan soils are exceptionally fertile. However, available evidence, particularly from soil scientists and agronomists demonstrate that whereas once soil fertility may have been naturally high in Uganda, there has been considerable mining and drawing of nutrients without systematic replacement over the years. There is, therefore, a good basis for launching an intensive fertiliser drive in Uganda along-side the other critical interventions envisaged under PMA. However, such a drive must be based on the farmers needs and must be linked to the farmers resource availability in order to produce the desired impact. Government has recently launched a Soil Fertility Initiative (SFI) in collaboration with IDA, FAO, IFPRI, IFDC and other donors which focuses amongst other things on increasing fertiliser usage at the farm level. Government will consider, for immediate implementation, the SFI as part of the implementation of the PMA.

(c) Stockist Distribution Network

The distribution of a wide range of agricultural inputs including chemicals, feeds and agricultural implements will remain largely in the domain of the private sector. However, to ensure development of an effective network of stockists for timely availability and easy access of inputs by the farming community, Government will work very closely with the private sector in the following areas:

- Set up on-farm demonstration plots in collaboration with distributors of inputs at national, district and sub-county levels with a view to encouraging demonstration of profitability of critical inputs.

- Through the Agricultural Advisory Services, offer training of technical staff and rural stockists and farmers on handling of inputs, record keeping and financial management for the input business.

7.7 Sustainable Natural Resource Utilisation and Management.

Land Utilisation

It is estimated that only one third of Uganda's 18 million hectare of arable land is under cultivation. Productivity of the land under cultivation is low and declining. Access to land is varied among varied social and economic groups and by region. However, most people in Uganda have access to some land. The Land Act of 1998 provides for security of tenure for the citizens of Uganda and also for land management including provision for land titling, registration, land dispute resolution (land tribunals), a land fund and implementation modalities.

A review of the Land Act and lessons from other countries show that there are other factors that are essential for land reform and management and administration as they affect agricultural transformation. These include: Investment in rural infrastructure, particularly transport, irrigation and telecommunication; generation and dissemination of agricultural technologies; low levels of direct and indirect taxation; Increased use of productivity enhancing agricultural inputs; Increased use of institutional credit and efficient production with factors of production moving from less efficient to more efficient users.

Land is an essential factor of production and therefore, land reform, improved management and administration would contribute to PMA by:

(i) Enhancing food security through redistributing land to the landless and land poor thereby giving them opportunities to be directly productive.
(ii) Facilitating investment and enhancing efficiency in the use of factors of production.
(iii) Contributing to resource conservation by providing up to date inventories of the natural resources and by improving the allocation of land to its optimal use.

Experiences from Asia also demonstrate that land reform, management and administration is a long-term, costly investment that needs sustained political support and commitment. In the case of Uganda therefore, the medium term priorities should be limited to the reconstruction of existing land records, the land registry and the national geodetic network, together with the staff to manage them. Also Government will establish and strengthen district and sub-county land management institutions.

In the longer term emphasis should be shifted to implementation of a selective, systematic land titling program starting with areas which are most economically active, strengthening the sub-county registries of certificates of customary land ownership; and building the capacity of district land offices to deal with land titling and management of land records.

The fact that only 30% of the arable land is under cultivation and yet 44% of the population lives under absolute poverty presents challenges for the PMA. Within the provisions of the Land Act, land belongs to the citizens of Uganda. However, most of the land is un-or under-utilised and therefore it presents the following opportunities:

(i) Government buying land for resettling or distribution to the land resource poor. The amount of land owned by Government is currently not adequately documented and the current use has not yet been harmonised with recent policies. A study should be conducted to ascertain the size, location, current use and advise on the optimal use and management of government land.

(ii) Private individuals (both Nationals and Foreigners) getting access to medium-term land lease arrangements with landowners.

(iii) Increasing and sustaining the productivity of the land currently under utilisation. This entails adoption of sustainable soil and water management practices including increased use of improved inputs, undertaking measures that reverse land degradation and improving the opportunities for profitable use of small units of land. Government will take measures to provide optimal use of land resources.

There is a potential in Uganda for rental and land lease markets to redistribute access rights to land. In land constrained areas, this increases access of poor farmers to adequate land resources, and access to specific types of land resources in order to diversify their production. The Land Fund will provide opportunity for tenants to buy out the interests of land lords, assist poor farmers acquire land titles and enable governments to pay compensation to people disposed of land for public use.

Government, in the immediate medium term, will:

(i) Initiate actions leading to the formulation of a national land use policy;
(ii) Implements the Land Act of 1998 to enable farmers get certificates of occupancy/customary ownership;
(iii) Undertake institutional reforms in the land registry so as to make land surveying, administration and titling easier and;
(iv) Build capacity of local Governments for land administration and management including the implementation of the Land Act, 1999.

Water for Production

Water is a major resource of direct importance to man for drinking and other domestic uses; for production of crops, livestock and fisheries; and for industry. Uganda is well endowed with water resources both surface and underground. It has 42,942km^2 of surface water, which is 18% of the total geographical area, and much of the country receives over 750 mm of rainfall annually, although it is unevenly distributed. However, of recent rainfall has been erratic and unreliable in terms of onset prediction.

Past efforts to mitigate drought have included establishment of several pilot irrigation schemes and construction of about 1,250 valley dams/tanks and about 6,200 fish ponds. These currently require re-appraisal and rehabilitation.

Experience from other countries suggests that supplementary irrigation, as a drought alleviation strategy, especially when handled on an ad-hoc basis -waiting for drought to strike and then mobilising for irrigation and valley dams/tank construction, is not an economically viable proposition. It should be well conceived within the national economic and disaster preparedness plans. Irrigation is an expensive venture, which should be built as a long-term investment infrastructure to facilitate increased and more reliable production of high value crops with ready markets. One way for increasing agricultural production in Uganda is to increase the options and opportunities for subsistence farmers to take up irrigation. Using very localised low cost water harvesting technologies.

The challenge to the PMA, therefore, is how best to put to optimal use the available water resources to increase production and productivity in crop, livestock fisheries and forestry sectors all year round. This could be handled through building capacity to develop water resources to avail water for production on a sustainable basis throughout the year.

For most commodities, use of simple water harvesting equipment, improved rain water management and effective use of timely and accurate early warning systems are key to the strategy for optimum use of the water resources.

The vision for this sector is "availability of water all year round for increased and sustainable commercial agricultural production without degrading the environment". This will be achieved by instituting an appropriate policy and regulatory framework, building the requisite research capacity for generating and demonstrating water harvesting and irrigation technologies, rehabilitating existing infrastructure including meteorological stations and soil laboratories to support early warning systems.

In specific terms, the following actions will be undertaken:

(i) Provision for research and demonstration of on-farm small-scale irrigation and water harvesting technologies, small to medium scale valley dams/tanks and fishponds.
(ii) Construction of strategic small scale irrigation schemes, valley dams/tanks and regional fish hatcheries by local Governments in partnership with the private sector.
(iii) Private sector and Local Governments' capacity building to effectively take over the planning, designing, construction/installation and management of water for production facilities.
(iv) Establish fish farming laboratory and equipment for research, setting standards and quality control.
(v) Re-appraisal and rehabilitation of all existing irrigation schemes and valley dams/tanks in partnership with the private sector.
(vi) Acquiring a strong database for early warning systems by renovation and equipping of all strategic agro-meteorological stations and soil physics laboratories.
(vii) Provision of regularly updated information on weather, through media (radio and newspapers), supplemented by advice on appropriate agricultural practices given the forecast conditions. This will require strong linkages between the MAAIF (NARO and NAADS) and the Meteorological Department in the MWLE.
(viii) Curriculum development to effectively address water resources exploitation and management for production.

Forestry

Forestry management in Uganda has been heavily biased in favour of forests in protected areas. The public sector exercised a command and control and exclusionary style of management. The contribution of the forest resource especially in the energy sector has been undervalued and the management of forestry has been scattered under several uncoordinated government agencies and ministries. This has led to duplication of effort, poor performance and unnecessary competition for funding. Current policies and constitutional provisions are also contradictory and sources of confusion. Farm forestry and forests outside protected areas received little attention beyond the rhetoric in government pronouncements. The forestry sector is currently under review and this provides a good opportunity for rationalisation in favour of farm forestry.

The way forward for the forestry sub-sector is to review the current policies, regulations and institutional arrangements with the view to:

(i) Putting in place a comprehensive agricultural policy and legal framework that provides for forestry. This would also remove, amend and/or harmonise the inconsistent constitutional provisions.
(ii) Agro-forestry will be treated like other crop commodities and be provided with extension services at farm level as a decentralised function.
(iii) The natural/protected forests/trees mandate will be consolidated and put in one ministry together with Wildlife.
(iv) The forestry curriculum will be reviewed to provide adequately for farm forestry.
(v) Consolidating forestry research under one umbrella government agency.

Environment Issues

The PMA's mission is to increase production and productivity that contribute to food security and poverty eradication without degrading the environment. Although the agricultural sector has grown at a rate of 4 percent per annum in real terms over the last 10 years, it is not clear if some of it was not realised through depletion of natural capital and particularly if increases in agricultural production are not being achieved by "mining" of the soil.

Estimated conservatively, the cost to the national economy due to environmental degradation lies between 4% and 12% of GDP (Slade and Weitz, 1991). This takes the form of biodiversity loss, deforestation, soil erosion, water hyacinth and water contamination. Therefore, if one attributes biodiversity loss, deforestation and soil erosion to activities in the agricultural sector, then the agricultural sector alone is responsible for 86% to 91% of the environmental degradation, in monetary terms.

The Vision of the National Environment Management Policy 1994 of sustainable socio-economic development, is to enhance environment quality and resource production on a long-term basis – meeting the needs of the present generation without compromising the ability of the future generations to meet their needs. In a heavily agrarian, low input, low output, economy, a wide range of environmental concerns exist. These include biodiversity loss, wetland degradation, declining and degraded range-lands and forests, increasing surface and groundwater scarcity, environmental pollution and contamination, and technological obsolescence.

Considerations will be made to address environmental concerns in the priority programme areas (research, extension, agro-processing, natural resource management, etc) and resources allocated to ensure that the National Environment Management Authority (NEMA) can play its role effectively and where necessary amendments to the National Environment Statute 1995 will be effected. Mechanisms for greater private sector and NGO involvement in the implementation of environment related programmes will be made and capacities built at local government levels to plan and manage environment activities.

Studies will be conducted to identify inconsistencies in the existing laws and regulations and environmental monitoring mechanisms will be established within the implementation arrangements for the PMA. A baseline will be established, through a formal, structured environmental impact assessment (EIA) of the PMA investment interventions to monitor impact and undertake timely mitigation measures.

Recognition is also given to the fact that Uganda's natural resources, particularly land, are being utilised wastefully. A key activity under the PMA will be to prepare national, district, sub-county, parish and village participatory land use plans as provided for in the National Environment Statute 1995. Complementary to the land use plans will be the preparation of district, sub-county, parish and village-level environment action plans as provided for under the National Environment Statute 1995.

The private sector, through it's numerous associations will be encouraged to regulate itself in matters related to the environment through the adoption of best practices. The long-term objective is to persuade members of the private sector to view investments in the environment as beneficial not only to society but also to their own enterprises. Otherwise, appropriate economic instruments (such as pollution taxes) will be identified and policymakers encouraged to approve as incentives and disincentives measures for encouraging environmental protection and natural resources management by the private sector .

Emphasis will be put on ensuring effective linkages between the Agricultural Advisory Services, the Production and Environment Committees at various local government levels, and the environmental awareness activities of NEMA to influence the attitudes of those presently contributing to environmental degradation. Over the long-term, attitudinal changes will be effected through the formal education sector by promoting the inclusion of environment in school syllabi. To this end, NEMA's strategy for promoting environmental education in the formal sector will be operationalised.

7.8 Physical infrastructure.

Physical infrastructure for roads, electricity, water and communication are critical to agricultural modernisation. Roads and particularly rural feeder roads and the associated network of bridges, foot and bicycle paths are important because they open up rural areas to wider markets for their products and access to production inputs. This creates opportunities for competition, incentives for new innovations, reduced transaction costs, increased efficiency and improved quality of services. These translate into low costs of production, increased productivity, higher farm gate prices and increased profitability at farm level. Capacity will be built and resources provided for the construction and maintenance of community roads.

Rural electrification infrastructure enhances the ability to store, preserve and allow for processing of agricultural products into less bulky, long shelf-life and high value products. Access to electricity enables producers to use high productivity technologies which are labour saving and reduce drudgery. Lighting also contribute to increased working hours for households and agro-industries, thereby improving incomes and quality of life. Needs assessments will be conducted to guide the Government's rural electrification programme have a PMA focus.

Water and irrigation infrastructure are critical to agricultural production particularly during periods of drought and for agro-processing. Communication infrastructure increase access to information technologies and markets. The expanding number of FM Radio stations, mobile phones, tele-centres, e-mail and internet connections are already transforming rural areas by narrowing the rural and urban divide. These forms of infrastructure will form an integral part of the PMA implementation.

CHAPTER 8 OPERATIONAL FRAMEWORK

8.1 Introduction

This chapter presents the operational framework and methods for the implementation of the PMA. The first section presents the sequencing of actions in 4 main phases, beginning with the activities that need immediate action for implementation. The second section gives the co-ordination mechanism for the PMA to ensure that all relevant ministries and other key stakeholders are kept on board during implementation. The third section proposes a monitoring mechanism to track the progress of PMA implementation.

The operationalisation of the PMA will introduce new, Non-Sectoral Conditional Grants (NSCGs) for Sub counties to empower the grassroots financially and thereby enhance a two way planning and budgeting beginning with sub-county production committees but under the overall guidance of the central Government through the PMA Planning and Financing Forum. Figure 1 presents the institutional arrangements that will support the implementation of the PMA. The PMA will support capacity building of local Governments to plan strategically and in a PMA compatible manner. Sector ministries will also be supported to strengthen their capacity for strategic planning, policy formulation, resource constrained budgeting, provision of technical back-up to local Governments and private sector institutions, and for monitoring the PMA. As elaborated in Chapter 6, Donors will be encouraged to support the PMA through a “basket” funding budget support mechanism which will be disbursed under the guidance of the PMA Steering Committee (PMASC, Appendix 5.)

8.2 Sequencing of Interventions

This section presents the operational framework of the PMA over the medium-term, arising from the priority intervention areas outlined in Chapter 7 and based on the sequencing matrix in Appendices 3 and 4. The sequencing matrix highlights the activities in terms of the sequence of what must be done to commence implementation the forward movement of the PMA, who will be responsible for actions, and the expected time within which it must commence or be completed.

This summary matrix lists the sequence of activities in four phases. The first phase consists of actions that are on-going and those that require immediate action. The second phase highlights actions that are needed within the twelve months of PMA implementation. The third phase outlines actions to be undertaken or at least initiated in the second year, while the fourth phase lists the actions that must be initiated and continued in and beyond the first two years. It is realized that available resources may not permit the proposed timetable to be achieved. Therefore, the matrix should be considered as a guide to priority actions to be considered in a phased implementation framework.

Phase 1: Immediate and in-progress actions
Consultations and dissemination of the PMA objectives, principles and priority interventions that are already on-going will continue with policy makers, DPs, and other key stakeholders including the Cabinet and Parliament. The exercise will be extended to local Governments, which will to a large extent be responsible for the implementation of the PMA. Within this time framework, key actions required will include:

Fig. 1

1. MFPED:

- Finalise consultations on the mechanisms for the co-ordination of the PMA implementation phase.
- Put in place a legal and regulatory framework for micro-finance institutions.
- Re-align current agricultural sector programmes and solicit for funding.
- Provide sector sealings for GoU and external budget support resources for the agricultural sector.
- Participate in the functional analysis exercises that will include districts, parastatals and private sector agencies (UIA, PSF, etc.)
- Review sector policies, laws and regulations(taxation, investment code, MFIs, etc).
- Put in place modalities and guidelines for operationalisation of the PMA NSCGs.

2. MAAIF:

- Strengthen the PMA Secretariat to enable it to adequately support the PMA implementation process.
- Finalise the institutional functional analysis and strengthening exercise for the Ministry, government parastatals/agencies (NARO, UCDA, CDO, etc) and local Govenments. This will include agencies of other Ministries and the private sector institutions such as UNFA, PSF, UEPB, UIA, and UNBS.
- A review of sector policies, legal and regulatory frameworks and their implications to the PMA.
- Review of the existing sector projects and programmes and consultations on modalities for their re-alignment within the context of the PMA principles and objectives.
- Preparation of the sector Budget Framework Paper (BFP) in consultation with stakeholders within the context of sector budget sealings and the PMA.
- Assist districts in formulating agricultural sector plans and district budget framework papers.
- Consultations with DPs and other stakeholders on the PMA and putting in place co-ordination and funding mechanisms and modalities.
- Finalise for operational modalities for NAADS.
- Sensitisation of stakeholders on PMA.

3. MWLE:

- Review policies and legal provisions on land, water and forestry.
- Put in place a legal framework for the Forestry Authority.
- Begin implementation of most aspects of the Land Act working closely with stakeholders.
- In collaboration with NEMA, assist central ministries, Local Government and other stakeholders mainstream environmental issues in planning and implementation of PMA activities.

4. MOLG:

- Develop the strategic planning capacity of LGs and ensure that district plans are in harmony with the principles of the PMA.
- Develop capacity for data collection and management.
- Develop capacity for planning, implementation and accounting for use of non-sectoral conditional grants.

5. The Ministry of Public Service (MOPS) is expected to provide leadership to the Civil Service reform based on the PMA principles and the outcomes from the functional analysis exercises.

6. Other Sector Ministries including MTTI, MGLSD, MEMD and MOH will also review their sector related policies re-align the programmes with the PMA principles, and strengthen the capacity for implementing priority programmes.

7. The private sector institutions, MFIs, NGOs and civil society organisations (CBOs) are expected to develop capacity in service delivery, in partnership with public sector institutions, especially with local Governments.

The details of other actions for implementation within the first phase are presented in the annexes 3 and 4.

Phase 2: First 12 months

In this phase, all actions proposed in phase I which will not have been completed will be completed. Actions to be undertaken in this phase will include the following:

1. MAAIF:

- ♦ Complete the restructuring of MAAIF guided by the functional analysis exercise.
- ♦ Revising and developing policies in the areas of agricultural advisory services, research, fertilisers, seed (planting and stocking materials), human and regulations with emphasis on effective co-ordination and supervision.
- ♦ Reviewing sub-sector policy guidelines especially in the fisheries, agro-forestry, livestock and crop sub-sectors.
- ♦ Developing a medium term plan for agricultural research that will include the establishment of ARDCs, a review of the existing technologies and their dissemination (outreach).
- ♦ Operationalising the Policy Analysis Unit.
- ♦ Finalise modalities for operationalisation of NAADS.
- ♦ Developing detailed budgets for agreed upon priorities.
- ♦ NARO and other sector parastatals will review and update their legal and regulatory frameworks with a focus on corroboration and co-ordination.
- ♦ NARO and other parastatals undertake strategic planning exercises and development of medium term plans including operationalising the Agricultural Research Fund.
- ♦ Assist districts in the implementation of PMA compliant programmes and operationalisation of NAADS.

2. MFPED:

- ♦ Operationalise, by funding and staffing, the co-ordination mechanisms for the PMA.
- ♦ Provide an institutional framework for the capacity building of MFIs.
- ♦ Strengthen sector agencies following the functional analysis of phase one.
- ♦ Adopt detailed budgets for the MTEF including provisions for the PMA NSCGs and NAADS.

3. MLWE:

- ♦ Operationalise the land use policy and continue the implementation of the Land Act.
- ♦ Access available government land and provide guidelines for use and management.

- Operationalise the Forestry Authority.

4. Various other actions will also be implemented as presented in matrices 3 and 4.

Phase 3: First 24 months

Actions slated for the second year will depend to some extent on the outcomes of immediate actions and those in the first twelve months of implementing the plan. During this phase, PMA co-ordinating body must ensure that line ministry programs are in harmony with PMA principles. MFPED must continue to develop a broad-based poverty monitoring system that will capture the impact of PMA activities on poverty eradication, in addition to monitoring the impact of other initiatives and the PEAP. Also, MAAIF must strengthen collection of agricultural data and build capacity for planning and monitoring.

In this period, MAAIF will:

- Operationalise sector policies and regulations by putting in place appropriate guidelines and procedures
- Clear farmer – research – extension and market linkages will be formalised.
- Co-ordination and monitoring mechanisms for all aspects of agricultural research will be put in place in consulation with NARO, UNCST and other institutions (including the private sector) engaged in agricultural research.
- The Agricultural Research Fund will be fully operational.
- NARO will operationalise geographical and institutional decentralisation of her institutes and ARDCs.
- Districts and sub-counties will operationalise ARDCs and DTCs and farmer responsible action plans based on needs assessment of farmers.

Phase 4: First 36 month.

Agricultural advisory delivery mechanisms should be fully operational by this time and effective delivery undertaken. All other program activities commenced earlier will continue. The PMA principles and objectives should be fully owned and put in place by relevant sector institutions. The PMA co-ordinating body will be fully operational and capable of effective monitoring of programs and having an influence on the necessary policy adjustments.

Phase 5. After the 1st MTEF

After the first three years of PMA operationalisation, there will be a review of the PMA implementation process and its performance based on monitored indicators. This will form a basis for reviewing and revising the PMA document and redesigning the second MTEF of PMA implementation.

Principles of operationalization

Implementation of the PMA must be undertaken under three basic premises:

(i) Regular consultations must be among and within all stakeholders in order to ensure that their needs are addressed and the focus kept on poverty eradication.

(ii) Farmer participation is essential in the design, implementation and monitoring of programs and projects to ensure that they are oriented to overcome their production constraints. This must be done at the sub-county level.

(iii) Two-way information flow must be operationalized and maintained, between the centre, through local Governments and with farmers.

8.3 Co-ordination and linkages

PMA will be implemented on a sector-wide basis involving several ministries and their agencies, development partners and the private sector, civil society, local governments (districts, sub-counties and urban authorities). In order to ensure harmonious implementation, this arrangement will necessitate horizontal co-ordination (i.e. sequencing of events and activities, organising the activities and assuring performance) and linkages (i.e. ensuring flow of information and funding) for the activities within the institutions as well as vertical co-ordination and linkages between the institutions. In addition, PMA implementation will necessitate strong co-ordination and linkages with international development partners. A summary of the co-ordination and linkage arrangements envisaged during PMA implemented is presented in the section below.

Co-ordination and Linkages at the Centre

The co-ordination and linkage arrangements at the Centre will focus mainly around policy matters for guiding PMA implementation. The key ministries and agencies to be responsible for implementation of the various components and therefore co-ordination of activities and ensuring the requisite vertical linkage within their institutions as well as forging the horizontal linkages with other ministries/agencies include:-

(i) MAAIF – for agricultural policy formulation, planning, sector monitoring, and guidance. NARO – agricultural research policies and programmes. Other sub-sectors (UCDA, CDOs, local Governments, etc.) – implementation of divested and decentralised functions.

(ii) MFPED – for public financing, co-ordinating with Donors, national planning and monitoring.

(iii) MWLE – for land use policy and land reform programs, water for agricultural production and agro-forestry and environmental protection.

(iv) MWHC- for roads (trunk, feeder and community or access roads, means of transport and communication.

(v) MTTI – for domestic, regional and international trade and marketing (including WTO matters), marketing, agro-processing and industrial use of raw materials including provision of grades and standards.

(vi) MOES – for human resource development including agricultural education and promotion of adult literacy and other aspects of informal and formal education.

(vii) MGLSD – for gender, labour and social development issues. including rural financial services.

(viii) MOLG and local Governments – building the capacity of institutions for planning and delivery of public services including decentralised services.

(ix) MOMD – rural electrification and energy related matters.

(x) MOH – for nutrition and health services.

Other key stakeholders in the PMA process include:

- Farmers and farmers organisations (especially UNFA and the Agricultural Council of Uganda(ACU).
- Private sector associations (e.g. UNCC, PSF, UNFA, etc)
- Association of local Governments (e.g. Uganda Local Authorities Association and Uganda Urban Authorities Association)
- Development Partners under the sub-groups on agriculture, decentralisation, private sector and micro-finance.
- Civil society (NGOs, CBOs, churches, media organisations and trade unions)
- National and district women and youth councils.

The PMA Planning and Financing Forum (the PMA Forum) and the PMA-SC will provide the co-ordination mechanisms for the diverse functions of the various stakeholders who are to be involved in the agricultural transformation process, The PMA-SC will comprise Permanent Secretaries of the relevant ministries and heads of key agricultural regulatory/promotional bodies, private sector associations, farmers representatives, DPs and civil society. The PMA-SC will provide a forum, for consensus building on progress, assessment of constraints and development of new strategies to ensure harmonious implementation of programmes and allocation of resources as appropriate.

The roles of the PMA Planning and Financing Forum will be:

1. To provide advocacy, policy harmonisation and management support for the implementation of the PMA and maintain a high profile for the PMA as a national, multi-sectoral poverty eradication strategy under the PEAP.
2. To mobilise adequate funding for the PMA from the central and local government budgets and from the donor community.
3. To ensure that all programmes are aligned with the PMA principles and objectives.
4. To ensure that those PMA agencies supporting farmers and traders to implement the PMA do so, in a timely and effective manner and maintain a poverty focus in their activities.
5. To ensure that key stakeholders, especially the civil society effectively participate in the PMA dialogue and implementation activities and are kept informed of the PMA implementation process.
6. Based on research and statistics, to monitor and make adjustments in the implementation to ensure achievement of the PMA objectives.
7. To provide a mechanism for addressing cross-cutting, multi-sectorial issues (gender, environment, etc) and ensure timely resolution of constructions.
8. To provide a mechanism for regular dialogue with DPs through regular meetings and consultations on issues related to poverty reduction and the PMA in particular.
9. To approve the work plans and budget of the PMA-Secretariat.

The DPs in Uganda have established a forum where they meet on monthly basis to discuss various issues pertaining to the development process in Uganda. Several Donors have been actively participating as part of the Steering Committee that has been guiding the PMA process and this has immensely enriched the strategic sector-wide approach and the decisions that were undertaken during the process. Donors will continue to be represented on the PMA-SC in recognition of their role in providing resources for PMA implementation and bringing into the Steering Committee international best practices undertaken during the process.

To ensure that the PMA SC discharges its' functions efficiently and effectively, a small, semi-autonomous technical secretariat will be established to provide the necessary analytical and technical support. The key duties of the secretariat will, among others, be to provide technical analysis of sector issues to enable PMA SC make informed decisions, to follow up on decisions agreed upon for implementation and to ensure that the stakeholders are kept informed of the decisions of the PMA SC. The PMA SC Secretariat, to be housed in MAAIF, will support the PMA Forum but report to the Chairman PMA SC. The PMA SC will also operate through specialised sub-committees or task groups, contract out studies to the private sector or use technical assistance to address identified needs. The technical units in the sectoral ministries including the Policy Analysis Unit (PAU) of MAAIF will also provide critical inputs into the work of the PMA SC and the implementation of the PMA. In order to provide a wider forum for enhancing the scope of debate and generation of innovative ideas to ensure broad ownership of the PMA programmes, a PMA Forum will be constituted. It will have no executive powers but will have a consultative body to which the PMA SC will regularly (quarterly) present reports and allow for new ideas and proposals into the PMA implementation. The terms of reference for the PMASC, PMA Forum and Secretariat are spelt out in annexes 5,6 and 7, respectively.

A similar arrangement to the above has worked very well in the past under the auspices of the Agricultural Policy Committee (APC). Successful policy and institutional reforms were implemented and these resulted in the reversal of the decline of the agricultural sector and the turn around that gave positive growth rates of 4% p.a. that have been registered since the beginning of the 1990s.

For intra-ministerial/agency co-ordination and linkages, individual arrangements will be put in place by the respective ministries/agencies to ensure that their mandated programs are efficiently and effectively implemented as required by PMA. This arrangement will partly take the form of institutionalising sub-committees that will address specific sub-sectors of the agricultural sector.

Co-ordination and Linkages at District Level

In the context of the decentralization process, implementation of PMA activities will fall under the overall responsibility of districts. The line ministries will have to establish the necessary co-ordination and linkages with the districts who will in turn put in place the coo-ordination and linkage arrangements with the sub-counties, NGO/CBOs and farmers. Horizontal linkages between districts are envisaged through Uganda Local Authorities Association (ULAA), ARDCs and between ADCs.

Co-ordination and Linkages at Sub-county and Community Levels

Sub-county local councils will implement PMA activities amongst the communities and their activities will be co-ordinated by the districts. At sub-county level, farmers and farmer groups /organisations, CBOs, NGOs, and the private sector (traders, stockists and processors) will have to be integrated in all planning and implementation arrangements.

8.4 Monitoring

It is imperative that areas related to the modernisation of agriculture are monitored and evaluated against meeting the stated objectives of the PMA. It is proposed that such monitoring falls under four broad areas: (i) implementation of PMA activities; (ii) performance of the agriculture sector; and (iii) consistency with the PMA principles and framework; and (iv) impact on poverty reduction as elaborated below:

PMA Implementation:
The efficiency of implementation of PMA overall, of general intervention areas, and of individual programmes must be monitored to ensure that the PMA is on track. The PMA –SC must ensure that the proposed operational activities at the centre, particularly in Government ministries and parastatals, have occurred efficiently, observing the PMA operational principles, with accountability and transparency of operations.

In addition, it is vital that MAAIF and parastatals develop decentralised systems to monitor the efficiency, effectiveness and impact of the implementation of activities in all the priority intervention areas (Chapter 7) on the beneficiaries, particularly subsistence farmers and against the achievement of PMA strategic and operational objectives. Centrally, the development of such systems and guidelines for districts could be performed by task groups lead by an appropriate external facilitator. In the districts, data collection could be decentralised to sub-counties and even farmers themselves. Using extension activities in districts as an example, indicators would include attendance, farmer interest and technology adoption rates. Research is another critical area for monitoring, particularly in terms of appropriateness of technology development and transfer for the subsistence farmers.

Agriculture Sector:
The third area involves monitoring the performance of the agricultural sector from both a sectoral angle and from the farmer's perspective. In this regard, it is vital that as MAAIF's implementation role diminishes, in favour of developing a stronger capacity for monitoring and evaluation. Currently, the system of data collection, analysis and dissemination is weak, and must therefore be reviewed and strengthened. Further, it is important that indicators are developed to assess short-term, medium-term and long-term trends and changes in the sector as well as at the level of the farmer. In the latter regard, participatory methods must be utilised.

PMA Consistency:
Lastly, it is fundamental that PMA-SC ensures that programs, activities, ministry policies, district and sub-county development plans - now and in the future, are consistent with the principles of the PMA strategy. Criteria for monitoring consistency must be developed by MAAIF, in conjunction with the PMA-SC which will have a central role to play in monitoring. In order for such a cross-sector monitoring framework to be effective, consultations and collaborations between stakeholders at all levels must be strengthened and maintained. The criteria for PMA consistency will include:

1. Contribution to the aims and objectives of the PMA:
   - ♦ Poverty eradication.
   - ♦ Food security (and improved nutrition).
   - ♦ Increased farm and off-farm employment.
   - ♦ Environmental sustainability.

2. Extent to which project can be fit into the identified priority areas.

3. Implementation within the PMA policy framework and principles:
   - Privatisation;
   - Decentralisation;
   - Liberalisation;
   - Democratisation and stakeholder participation; and
   - Gender sensitivity.

Poverty Reduction:
The impact and outcomes of broad interventions across sectors and districts on poverty over the long term must be monitored if the PMA is to achieve its goal of agricultural transformation and poverty reduction by the Year 2017. Important indicators must be dis-aggregated by sex, age, location and livelihood system. These include health, education, income/expenditure, service, infrastructure, governance and security indicators, as outlined in the PEAP. However, more attention will need to be paid to creating long range indicators that enable measurement of multiple aspects of poverty in 2017. The Poverty Monitoring Unit in the MFPED will provide the indicators to be monitored and the link with relevant bodies such as the Uganda Bureau of Statistics, (UBoS), MAAIF and donor initiatives (e.g. Danida supported Agricultural Sector Programme Support-ASPS) at the centre. This unit will therefore be strengthened. Data collection will be the responsibility of the UBoS, sectoral ministries, district administration and NGOs. Further consideration must be given to decentralising regular monitoring of poverty. The planning and population officers, in the districts will work in conjunction with agriculture and production officers to achieve these objectives.

The initial step in the formulation of such a monitoring mechanism is a review of existing and proposed monitoring systems and linkages, and development of appropriate and co-ordinated systems.

CHAPTER 9 INDICATIVE COSTS FOR INTERIM PRIORITY PROGRAMMES

9. 1 Introduction

The PMA sets out a broad vision of how agricultural transformation and the associated investments in the supporting sectors can contribute to sustainable livelihoods of the rural poor. Its implementation depends primarily on the actions of the private sector as enabled by the actions of Central Government, Local Governments and donor partners. Private sector actions - encompassing the actions of commercial and subsistence farmers, traders, processors and service providers in the rural areas – will play a central role in implementing the PMA. The PMA is premised on the active participation and involvement of these individuals, acting through community organisations, local political structures (district and sub-county production committees) and other associations, in designing, implementing and monitoring of the proposed interventions to transform agriculture. These actions include the cost of people’s time and other resources needed to mobilise the private sector to play this role. Once capacity for participatory planning is built the proposed interventions to be undertaken by local government will be costed by district planners, donor partners and the other non-government and private-sector organisations who will deliver the services or goods required for the interventions. But until this capacity is built, plans are formulated and strategic priority actions for agricultural production identified and agreed upon, it is not possible to estimate the full costs of implementing the PMA.

In the meantime, there are priorities that will have to be carried out for which immediate funding is required. For some activities, determination of the resource requirement exercises are underway and more elaborate cost requirements could be generated soon.

This chapter, therefore, attempts to highlight the current and projected Government funding of the PMA priority areas. It presents interim indicative resource requirements for investment areas where increased or continued public expenditure will be essential to implement the PMA. The costings presented are not, and should not be equated to, the cost of implementing the PMA.

9.2 Government Spending in the Agricultural Sector

The agricultural sector, when defined in a restricted sense to include agricultural research, advisory services, policy formulation and management, receives about 1.4% of the total annual national budget. Over the last three years, spending in the agricultural sector has increased from Ushs 47bn in 1996 / 97 to 56bn in 1998/99, of which 75% comes from the Development Partners and 25% represents direct Government contribution. These expenditures fall under MAAIF and NARO and constitute 75% of the total sector expenditure with 10% passing through other Government ministries and agencies and 15% passing through NGOs. For a long time, the activities of NGOs in the agricultural sector have been appreciated. However, the fact that most of them use “public” resources had not been realised by most policy makers and other stakeholders. Most of the funding for the agricultural sector has been project funding with specific, short-term objectives and therefore frequently characterised by the problems of sustainability on project completion. Projects were also essentially designed and supervised from the centre. Consequently, stakeholders were not adequately involved in the priority setting, implementation and monitoring of projects. When the projects came to a close, in most cases there would be no resources to sustain the activities. This is expected to change under the PMA.

A shift will be made from the project-financing approach to programme financing. DPs will be encouraged to support programmes jointly and through a “basket funding” or budget support mechanism. Implementation of programmes will have to take into consideration the current policies of privatisation and decentralisation giving greater involvement of the private sector and local governments.

Table 9.1 derived from the Audit of 1999[1] presents levels of expenditure and projections in the agriculture sector for 1996/97 to 2001/03. Between 1996/97 to 98/99, actual spending in the sector was UShs. 47.4 bn, 57.1 bn and 56.0 bn, respectively giving an average spending of about UShs. 53.5 bn. Overall spending in the sector was projected to increase to U.shs. 104bn in 1999/2000, falling to 80bn in 2000/01 and to 66bn in 2001/02. This gives an annual average spending of UShs. 83.3 bn over the period representing an increase of 56% over the spending levels of the previous years.

The figures represent resource availability of GoU and donor funded expenditures. However, as they are based on 1998 data, some of the estimates were not realised. For example, the most significant resources that had been envisaged to be on board in 1999/2000 were to come from the World Bank funding through the second phase of the research (ARTPII) and extension projects (AEPII). However, taking a three year average gives a realistic indication of expected resource availability in the medium term. The table does not include projects that are yet to be identified. It is likely that as some of the existing projects come to an end new projects will be identified for funding.

It should be stressed that taking the figures of Government spending through the Ministry of Agriculture to represent Government support to farmers grossly under estimates Government’s contribution to agriculture because it excludes spending on truck roads, feeder roads, primary education, primary health care and other social and economic infrastructure which are critical determinants of the performance of the agricultural sector.

[1] The Agricultural sector resource audit was conducted in mid 1999 as part of the process leading to the design of the PMA.

9.1 Total Expenditure (current Shs. billions)

	Actual Expenditure			Projected Expenditure		
	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02
Extension						
Unconditional grant (wages)[2]	0	0	2.9	3.1	3.4	3.9
Unconditional grant (non-wage recurrent)[3]	0	0	0.6	0.6	0.6	0.6
Conditional grant (graduate specialists)	0	0	0	4.3	4.7	5.4
Development	9.1	15.0	10.9	18.3	20.2	22.0
Sub total	9.1	15.0	14.4	26.2	20.2	22.0
Research						
NARO recurrent	1.7	1.7	2.1	2.8	3.0	3.6
Development	16.1	11.3	12.3	21.1	18.7	16.8
Sub-total	17.9	13.1	14.7	23.9	21.7	20.4
Pest and disease control	1.9	3.1	2.1	8.3	8.1	6.7
Management and Institutions						
MAIF recurrent	4.0	4.0	3.5	3.3	3.6	4.1
Development	6.8	9.4	9.0	12.2	7.2	5.1
Sub-total	10.8	13.4	12.5	15.5	10.8	9.2
District /Community Support	0.8	1.2	2.8	6.8	4.7	4.8
Other[3]	7.2	11.3	9.5	23.1	14.7	2.5
TOTAL EXPENDITURE	47.4	57.1	56.0	103.7	80.1	65.5
Of which recurrent spending	5.7	5.7	9.1	14.1	15.3	17.6
Total GoU contributions (dev. = rec.)	11.2	11.9	14.6	22.9	22.4	23.7
GoU contributions as % total expenditure	24%	21%	26%	22%	28%	36%

The 1999 expenditure audit reported that in the medium term 53% of the planned expenditures would go to research and extension, 14% to management and institutions, 9% to pests and diseases, 6% to districts and community support and 16% to other projects. However, in terms of consistency with the principles and objectives of the PMA, the audit reported that 48% of planned development expenditure was consistent, 36% required review to assess the extent to which public expenditure is warranted and explore alternative financing and delivery approaches that may enhance effectiveness and efficiency (mainly going to research and extension) and 16% requires re-alignment. This implies that there is scope for review and re-alignment of existing projects for new projects to be funded from existing allocations.

[2] Assumes 9 percent of total unconditional grant (wage component) for salaries of district extension staff; 3 assumes two percent of unconditional grant for non-wage recurrent expenditure.
[3] Values include funds for constructing fish landing sites

9.3 Interim Indicative Costs for Priority Programmes

The Government has decided that in the medium term its main thrust for public action in the modernisation of agriculture will be:

- institutional reform and strengthening for improved efficiency and effectiveness in service delivery;
- policy formulation and strategic planning;
- provision of regulatory services;
- provision of agricultural advisory services for farmers;
- agricultural research and technology development for farmers;
- agricultural statistical data collection, analysis and provision of market information;
- provision of market information for agricultural inputs and outputs;
- epidemic disease and pest control;
- soil fertility management, water conservation and environmental protection;
- formulation of a land use policy and implementation of the land Act;
- development of technologies for soil fertility management, water conservation and environmental protection;
- construction of infrastructure including feeder roads, rural electrification and fish landing sites;
- capacity building for irrigation and water harvesting including construction of community valley dams;
- capacity building for micro-financial services and risk management;
- capacity building for production of breeders, seeds, planting and stocking materials including fish fry;
- capacity building for marketing and agro processing infrastructure; and
- capacity building for agricultural education.

This section gives indicative resource requirements for an interim period of one year for the priority public sector intervention areas.

Priority 1. Institutional reforms, policy formulation and provision of regulatory services

The PMA calls for institutional reform and strengthening at all levels including sector ministries, local governments and private sector institutions. This is essential for increased efficiency and effectiveness in service delivery. Institutional reform and strengthening for districts is already being supported through various grants. The Local Government Development Programme (LGDP) with a budget of US $80.9m over the next three years will provide investment funds and capacity building for 31 districts. The remaining 14 districts are supported by bi-lateral and other donor programmes (These include the Irish, Dutch, Austria, IFAD/Belgium Survival Fund and UNDP/ UNCDF).

These resources should be adequate to enable districts to undertake the necessary institutional reforms and strengthening and cater for some of the decentralised functions envisaged under the PMA. MAAIF has already started on this exercise under the support of the Royal Danish Embassy through the Agricultural Sector Program Support (ASPS). Therefore, under the PMA, additional resources for institutional reform and strengthening will be required for sector ministries (especially MWLE and MGLSD) and parastatals, various commodity bodies, promotion and regulatory agencies and key private sector agencies. It is estimated that Ushs. 1bn. would be adequate for this exercise.

In addition, policy formulation and strategic planning, and provision of regulatory services and development of regulations, grades and standards are critical to the PMA. The resource requirements under this area are estimated Ushs. 2.1bn and 2.2bn shillings, respectively for the first year of PMA implementation. These resources could be sourced externally or from re-allocation of resources from existing projects. Under this category, there will also be a provision for district level dissemination of PMA and capacity building for productive sector planning (policy formulation, gender mainstreaming and strategic planning for production at the local government level) which is estimated at 0.13bn for the first year.

The additional expenditures required to integrate the PMA into the LGDP include activities in support of:

- Production of a shortened version of the PMA geared towards use at the sub-county and district level, translated into local languages
- Training materials aimed at districts, sub-county committees, to ensure that the gender content of the PMA is mainstreamed into its dissemination and,
- Mainstreaming gender into all local government programmes and activities to be co-ordinated by MGLSD.

Priority 2. Advisory Services for Subsistence Farmers

NAADS will be producing estimates of costing extension services compatible with the PMA in their Programme Document due for completion in September 2000. As a preliminary guide to likely long term future spending on extension. Table 9.2 below shows the hypothetical case of extension spending of 1% of the value of agricultural GDP (an amount spent in many countries), assuming that agricultural GDP grows at 5% per annum.

Table 9.2 Actual and projected values of agricultural GDP and extension expenditure

	1998/9	1999/00	2000/01	2001/2
Ag GDP, Shs bn	3489	3838	4222	4644
1% Ag GDP	34.9	38.4	42.2	46.4
Planned extension expenditure.	14.9	26.2	20.2	22
Amount needed to increase expenditure to 1% of Ag GDP		12.2	22.0	24.4

Table 9.2 shows that in 1999/0 planned expenditure on extension falls short of the international benchmark of 1% of agricultural GDP by Shs12.2 bn and that this increases to about Shs 24.4bn in the next two years. Evidence from other countries shows that the sort of extension services envisaged in PMA - –demand driven with research and advise close to the farm- is no cheaper than the traditional training and visit extension services used to date in Uganda and many other countries. It is likely therefore, that over the longer term expenditures on extension services – even allowing for greater private sector role in their delivery - will increase.

Interim measures at district level

NAADS is tasked with designing an advisory service that will be demand driven and responsive to farmers needs. However, low productivity in agriculture is an issue that needs urgently addressing and supply side constraints – knowledge, access and information to improved varieties, new technologies and other agricultural inputs- are identified by the Poverty Status Report as a key cause of rural poverty. Few farmers see an extension worker at present. The government has already taken important steps to alleviate this constraint by appointment of graduate level extension workers at sub county level funded through a district conditional grant. Other extension staff are retained by the district and paid out of the unconditional grant but there is little, if any provision for facilitation and operational equipment for these staff. At the moment a dual structure operates in the districts, with different pay and facilitation conditions applying to the new recruits and the old staff. Indications are that the organisation, planning and delivery of extension services is constrained by this dual structure.

In order to get maximum outputs of current expenditures devoted to extension some short term measures are needed. These measures should enable the rural poor to receive the maximum possible services from the district until the point when the NAADS recommendations can be effectively implemented. Adding relatively small amounts of incremental expenditures to the current resources allocated to districts can have several benefits. In the short term increased numbers of visits to farmers by extension workers could help establish community entitlements to agricultural advisory services. In addition improving the pay and service conditions of extension staff and enabling them to carry out the functions for which they are paid can help ensure they are well motivated to work to achieve PMA goals over the longer term in either the public or the private sector.

Presented below are indicative costings of incremental spending at the district level. The goal is to identify relatively small amounts of spending for well specified items, which districts will have the capacity to deliver. A vital preliminary step will be for MAAIF to carry out a sector audit which can be used to collate accurate payroll information which is not currently available. Two items of expenditure are identified:

- Facilitation for extension staff paid from non-conditional grant (at an amount equal to their salaries) and
- Developing minimum operational packages for extension workers.

Expenditures allocated to allow districts to fulfil other decentralised functions formerly under MAAIF – pest and vermin control and entomology will also have to enter into district budget allocations in the near future once districts have developed guidelines appropriate to district specific needs for these services.

Table 9.3 Actual, planned and identified additional district level extension expenditure, Shs Bn.

	1999/00	2000/01	2001/2
Actual and planned exp.			
Unconditional Grant			
Wages(1)	3.1	3.4	3.9
Conditional Grant	4.3	4.7	5.4
Total (wages and facilitation)	7.4	8.1	9.3
Additional exp.			
Facilitation		3.4	3.9
Operational package		1.5	1.5
Total additional exp.		4.9	4.4

(1) Assumes districts allocation of 9% of the unconditional grant (wage component) to extension wages.

Table 9.3 above shows that increasing expenditure by about Ushs 4.9bn over the short term could provide the minimum resources needed to enable existing extension staff to deliver services to farmers. The operational package includes field kits for crop production and marketing, extension kit for fisheries staff, equipment for the entomology sector and motor vehicles operation and maintenance.

MAAIF estimates that 688 Veterinary Officers are employed in the districts –to equip them would potentially add a further Ush 3.39bn to the total – a level of expenditure that would have to be justified with reference to long term future plans for veterinary services formulated by NAADS. MAAIF has also further identified that about Ush 1bn would cover MAAIFs functions of supervision and monitoring at district level and provide some equipment for district farm institutes and training for extension officers and farmers. It is recognised that the success of the PMA is critically dependent on the delivery of extension and other related decentralised services for the sector. It is for this reason that so much attention is being paid to the development of NAADS.

In the interim period, however, it is proposed that some immediate action should also be taken to increase the level of extension services currently being provided. In line with the longer term strategy envisaged under NAADS and building on the success of many NGO operated extension services (which often use Government extension officers), there is need to provide support to such efforts. A project entitled “Enhanced support for NGO activities” is proposed. This will be used to increase funding for 5 or so successful NGO programmes. NGOs would be invited to tender for these funds and the selection will also be based on compatibility with NAADS approach – i.e. those NGOs which encourage low level decision making on type of extension service. As many of these NGOs use Government extension workers, this would have the effect of increasing the facilitation of these workers but with the benefit of involving successful NGOs in the management of these funds provisional budget of Ushs. 2bn is made to support this activity. Therefore, the overall budget estimate for delivery of agricultural advisory services in the interim period is in the range of Ushs 5 to 12bn with the upper limit set by decisions about the provision of veterinary services and the support to NGO activities.

Priority 3. Research and Outreach

Table 9.1 showed the actual and projected allocations to research between 1996/7 and 2001/02. Funding to NARO over the last three years averaged at about Ushs 15.35bn. The projections for the 1999/2000 to 2001/02 averaged at about Ushs22bn. However, the audit indicated that even under current levels of funding, there was scope for realignment of NARO's programs thus scope for funding new activities. Consultation with NARO identified two priority areas for PMA delivery that are not fully covered under current projections:

- Capacity building for production of seeds, planting and stocking materials
- Strengthening outreach and transfer of research technologies to farmers

Seed multiplication and generation and supply of other agricultural planting and stocking materials is envisaged by the government as a private sector activity. Foundation seed and other agricultural materials will be produced by NARO institutes and passed on to the private sector for marketing. However, the private sector may need some interim support to take up this role and, in some geographical areas, private sector operation may not be profitable for some time as effective demand will be low (due to low income levels) and operating costs high. In some districts there will be a continued case for government supply of planting and stocking materials, either directly or through sub contracting arrangements.

Better outreach is key to achieving PMA results as there is considerable evidence that well established technological packages have not reached many Ugandan farmers, especially in poorer regions and districts. The challenge is to get the research from the institutes to the farmers. Mass media radio campaigns and new information technologies can be used effectively to achieve this goal.

In addition, an item for gender capacity building has been added. The PMA notes the link between agricultural productivity growth and gender roles in agricultural production. It emphasises the need to develop technologies that alleviate the burden of work for rural women. In order to achieve this, an item for capacity building for gender relevant agricultural research in NARO institutions such as KARI and NARI is estimated (Table 9.4).

Table 9.4 Research and outreach: Costs for priority expenditures (Ushs. Bn,).

	1999/00	2000/01	2001/02
Seeds, etc			
Development foundation seeds etc (1)	0.45	0.45	0.45
Capacity building for supply (2)		1.80	1.80
Outreach			
Telecentres(3)		0.38	0.38
Mass media(4)		0.07	0.07
Gender Training (5)		0.01	0.01
Total additional		2.71	2.71

Notes: (1) US$100,000 to 3 NARO institutes per year to develop foundation seed;
(2) US$200,000 to six private of public sector institutions per year to multiply seed, planting and stocking materials; (3) US$250,000 for 1 telecentre a year (4 additional needed to cover 12 agro-ecological regions); (4) Radio campaigns 6 spots a day in 3 languages Shs 72 million per annum; (5) National level gender training workshops for 2 activity days Shs 100 million.

Priority 4. Capacity building for micro-financial services

The Government policy on rural finance is that ultimately it should be privately run. In the interim, in order to develop rural finance markets it is recognised that some public support is necessary. However, micro credit schemes should primarily be based on private savings mobilisation and public support will be mainly capacity building.

The Poverty Alleviation Project (PAP) and Entandikwa are Government initiatives targeted at the poor, particularly in rural areas. PAP has been very successful in targeting the rural poor with 60% of its loans going to finance crop and animal husbandry enterprises and an average loan recovery rate of 93%. The recovery rates for the Entandikwa scheme have been poor.

Most rural households are likely to need access to credit – so demand for these funds is potentially large. The main constraint is on the supply side. PAP unlike many of the other MFIs has been able to devote considerable resources to building the capacity needed for micro finance institutions to reach the rural poor. In order to assess what resources could be allocated to stimulate private sector MFIs to provide credit to rural households likely future supply of rural credit needs to be calculated.

Table 9.5 Micro Finance Credit Supply 1994-8 and 2000-5 Projections.[1]

	1994-8	2000-5
PAP financing, US$M	15	20
PAP loan portfolio, US$M	7.3	10
PAP clients	25,000	34,400
PAP Av Loan, US$	291	291
Other MFIs loan portfolio, US$M	19.6	38.19
Other MFIs clients	100,000	194,872
Other MFIs Av Loan, US$	196	196
Total clients	125,000	354,272
Total hh	2,700,000	2,894,765
% hh with loans	5	12

Table 9.5 shows that between 1994 and 1998, PAP received US$15M with which it created a loan portfolio of US$7.3M. This loan portfolio provided about 25,000 clients with access to finance of an average loan size of US$291.

Between 1994 and 1998 it is estimated that the other micro finance institutions held a loan portfolio worth US$19.6M with 100,000 clients. The average loan for each client was $196. Therefore, altogether 125,000 clients had access to micro finance loans between 1994 and 1998. This is roughly 5% of the total 2.7M households in Uganda. It is important to note however that

[1] Notes: 1994-8; PAP financing and loan portfolio taken from PAP Status and Prospect Report, May 1999; Other MFI loan portfolio based on other MFIs supplying 70% of the estimated total MFI loan portfolio of US$28M in 1998; 2000-5 Total PAP financing $US18M AfDB plus US$2M GOU; PAP has 2:1 Financing: Loan portfolio ratio (approx. 1994-8 ratio); Other MFIs expand client base by 10% per annum, 1999-2005; Average loan size for PAP and other MFIs remains at 1994-8 levels; 2.7 million households in 1998, estimated to increase at 1% per annum; 1 loan per household assumed.

less than 5% of rural households will have access to loans as many of the non PAP MFIs are in urban areas.

The second column of Table 9.5 shows the likely expansion of rural credit in the next 5 years. PAP has finances of US$20M for the period and based on 1994-8 performance, it can be assumed that it will generate a loan portfolio of about half this amount, US $ 10M. This will cover 34,400 clients for a loan size of US$291. Other micro finance institutions expect to be able to expand their client base by about 10% per annum which will result in a loan portfolio of US$38.19M by the end of 2005, given an average loan size of US$196.

If all micro finance schemes established to date are sustainable, there will be roughly 354,000 people with access to loans at the end of 2005, covering about 12% of all Ugandan households.

Table 9.6 presents some indicative figures for Government support to private sector MFIs. The estimated value of the loan portfolio is expected to grow by 10% a year reaching US$38.2M (Shs 57.3bn) by 2005.

Table 9.6 Projected value of MFI loan portfolio (US$ excl. PAP) and projected government expenditure (Shs Bn) required to support the sector

	2000/01	2001/2	2002/3	2002/3	2003/4	2004/5
US$M Other MFI	23.7	26.1	28.7	31.6	34.7	38.2
Bn Shs	35.6	39.1	43.0	47.3	52.1	57.3
GoU Fund	3.56	3.91	4.30	4.73	5.21	5.73
Start up costs	0.06	0.06	0.06	0.06	0.06	0.06
MIS		0.45				
Total exp.	3.62	4.42	4.36	4.79	5.27	5.79

One option is for government to set up a fund to provide support to private sector MFIs. Support could be used for capacity building and enabling MFIs to meet the requirements of new supervisory laws for micro finance institutions and to extend their reach to rural areas. Criteria for selecting MFIs eligible to receive these funds could include their ability to reach rural clients as well as past records on loan recovery and other indicators of good financial management.

Table 9.6 shows the cost of such a fund calculated at 10% of the value of the total loan portfolio. A further component of Shs 0.6bn a year is added to cover the start-up costs of about 8 new offices a year and a one-time cost of setting up a Management Information System (MIS) to track clients and their money at district level. The total cost of providing this support would be Shs 3.6bn in 2000 rising to Shs 5.8 bn in 2005.

Priority 5. Implementation of the Land Act and integration of environmental issues into the PMA

The GoU Report on the Implementation of the Land Act has calculated an indicative annual budget of Shs19bn if the entire implementation structure was established as described in the Land Act or Shs 16bn if the Land Act was revised to reduce the number of Land Offices and Land Tribunals. Neither option is considered affordable in the short term, and current allocations for Land Act implementation are Shs 2.5,2.9 and 4.4bn in 1999/00, 2000/01 and 2001/02 (Table 9.7)

Table 9.7 Expenditures allocated for Land Act implementation and the Land Fund (Shs bn).[1]

	1999/00	2000/01	2001/02	2002/3
Land Act Implementation	3	5	8	10
Expenditures				
Land Tribunals		1.7	2.5	3.2
Decentralised Land Management Activities		2.4	4	5
Land Fund and Central Administration		.9	1.5	1.8
Total		5	8	10

*Estimates

Setting up Land Tribunals is identified as a priority by Cabinet and a proposed amendment to the Land Act will allow for 18 Circuit tribunals each serving approximately 3 districts. It is envisaged that a third of the money allocated to implementing the Land Act will go to reducing the backlog of land cases. The MWLE has therefore identified key additional expenditures needed to support sustainable resource utilisation and management described in Chapter 7. They include; Rehabilitation and development of the Land Registry, development of a National Land Information System, Formulation and development of a National Land Use Policy and Development of District Land Plans In total it is estimated that these would cost Shs 5.5bn in 2000/01 increasing to Shs 10bn in 2002/03. It should be noted, however, that the bulk of the funds allocated in the 1999/00 financial year remain unutilised, pointing to absorption capacity problems which might restrict productive use of additional funds.

Based on the budget allocations of Ushs 5bn for 2000/01 and the additional requirements of about 5.5bn for the year, the interim estimates are in the range Ushs of 5-11bn, assuming that existing capacity constraints are addressed. These values would cater for establishment of tribunals.

Priority 6. Agricultural Education

The PMA recognises that increased access to primary education will play a vital role in the modernisation of agriculture. A recent study of agricultural productivity has shown that an additional year of education of the head of household increases agricultural productivity by 5%. Therefore, resources will be provided for formulation of primary school agriculture curriculum teacher training and support establishment of school gardens and demonstrations tools at about Ushs. 1 bn for the interim phase. These resources will also assist to support curriculum development for framing as a business at tertiary institutions and Universities.

Many Ugandans are illiterate and adult education in functional literacy and numeracy can play an important role in accelerating the modernisation of agriculture. Indicative costs of a three year programme for functional adult literacy, linking adult literacy groups to micro finance schemes has been provided by MGLSD (Table 9.8). These resources estimated at (Ushs. 1.2bn) would also enable the PMA provide support to community development programmes including sensitisation of rural finance and capacity building for women and youth farmer groups.

Table 9.8 Indicative costs of functional adult literacy programme for 34 districts, (Shs M)

[1] Total allocations based on budget allocations by MFPED.
Tribunal estimates are extrapolated forward from MWLE estimates for 1999 /2000
Decentralised activities estimates are extrapolated forward from MWLE proposals for conditional grants for Districts for 2000/2001.

Item	Cost Shs M
Training supervisors	139.5
Training instructors	170
Teacher guides and learning materials	123.2
Linking to Micro finance schemes	396
Community Based management	200
Supervision and monitoring	75
Logistical Support	75
Total	1177.7

Other PMA priorities

The other critical priorities of PMA include; support to agricultural statistics including funding for an agricultural census (critical for establishing baseline data for monitoring the PMA); disease and pest control (especially control of the coffee wilt disease); soil fertility management; water for production including irrigation and strengthening the early warning system and activities to support agro-processing and marketing. The indicative interim resource requirements are presented in Table 9.9

9. 4 Summary of the Indicative Resource Requirements

Table 9.9 shows the indicative interim resource requirements for the first year of implementing priority programmes as defined under the PMA. The selected programmes have been described in this Chapter. The interim resource requirements are in the range of Ushs 64.4 bn to 101.4bn. However, the largest item is feeder roads at Ushs 20-40bn. Estimates without this figure give a range of Ushs 44.4 to 61.4bn. For subsequent years, costings will be generated through the proposed bottom-up planning and budgeting process.

Table 9.9 Indicative Annual Spending Levels for PMA Priority Programmes (Ushs bn)

	Current levels[1]	**Projected (1999) estimates**[2]	**PMA interim Estimates**[3]
1. Institution Reform and Strengthening	-	-	1.0[4]
2. Policy formulation and Strategic Planning	-		2.1[4]
3. Provision of regulatory services	0.21	2.2	2.2[4]
4. Provision of advisory services	14.4	22.8	6-12[5]
5. Agricultural Research	14.7	22.0	2.7[6]
6. Agricultural Statistics and census	-	-	1.5[5]
7. Control of epidemic diseases and pests	2.1	7.7	3.2[7]
8. Soil fertility and environment		2.0	2.3[4]
9. Land Policy and Land Reform	3.0	-	5-11[5]

[1] Based on actual budget allocations for 98/99.
[2] Three year average based on projections from the audit of 1999.
[3] First year estimates from various services.
[4] Estimates from MAAIF and/ or MWLE.
[5] PMA estimated additional resource requirements for the first year.
[6] The additional estimates include Ushs 1.8bn for private sector capacity for seed, planting and stocking materials and streamlining gender.
[7] Based on current levels of spending plus Ushs. 1 bn to cater for containment of coffee wilt disease.
[8] MAAIF estimates for 8 fish landing sites.
[9] Estimate from the 1998 Consultative Group statement. A separate sector programme is currently being prepared and this estimate will be revised shortly.
[10] Estimate for the proposed Rural Electrification Fund (REF) given by the Ministry of Energy and Minerals Development (MEMD).

10. Fish landing Sites	-	2.1	5.2[8]
11. Irrigation , water harvesting technologies and early warning system.	1.35	-	1.5[4]
12. Capacity building for rural finance	-	-	4.0[5]-
13. Agro processing and Marketing - Rural feeder roads - Rural electrification - Agricultural Commodity Exchange and Warehouse Receipt System.	-	-	20-40[9] 5-10[10] 0.5[5]
14. Agricultural Education - Adult literacy and community development - Primary, Secondary and Tertiary Institutions	-	-	1.2[11] 1.0[5]
Total			**64.4 – 101.4**

It should be emphasised that the figures cited above are indicative and the items are not exhaustive. In addition, the figures do not represent funding requirements. Firstly, they do not take into account the possibility that these interim requirements may be met through reallocations from exiting funding levels, e.g. research. Secondly, the estimates do not take into account additional funding which is in the process of being mobilised. For example, funding needs for feeder roads maintenance, for which interim funding of Ushs. 20-40 billion if proposed, are currently being developed by the MWHC and donor support for this is anticipated under the second phase of the on-going roads program. Thus, the figures in Table 9.9 are best viewed as initial estimates of interim funding needs, a significant portion of which are likely to be met through reallocations within existing spending programmes or through new programmes for which donor financing is already being mobilised. However, the figures do serve to identify interim programmes needed for PMA implementation and the possible costs associated with these programmes which need to be taken into account in future budgeting exercises.

Further work will be undertaken to refine the estimated costs of the various programmes and the scope within the estimated resource envelope for additional expenditures. Major inputs will have to come from the districts that will have to identify the priority areas for funding and cost requirements. In the interim period, the PMA SC and Forum will have the mandate of approving such cost estimates. This will involve extensive consultations with donors over both the level of funding and to what extent this can be programmed to support the above priorities. Only then will it be possible to decide which of the programmes can be realistically and sustainably funded over the next three years.

[11] Includes costs for teacher training, production of materials and community development programmes in support of agricultural modernisation. A full scale five year programmes to increase adult literacy rates from 35% nation wide has been separately costed at Ushs. 23.3bn a year.

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APPENDICES

Annex 1.

KEY STEPS IN THE PMA PROCESS

ACTIVITY	YEAR /MONTH				
	1996	1997	1998	1999	2000
1. Presidential Manifesto setting the stage for poverty eradication by modernising agriculture	March 1996				
2. Tororo Participatory Planning Retreat	August 1996				
3. Poverty Eradication Action Plan (PEAP)		June 1997			
4. Operationalisation of the Medium Term Plan for the Modernisation of Agriculture in Uganda ,1997/98 – 2001/2002			January 1998		
5. Steering and Technical Committees set up to revise the PMA			August 1998		
6. 1st Technical Workshop on PMA			September 1998		
7. Sector wide Consultations, Research and Studies.				May to September 1999	
8. Statement to the Consultative Group (CG) meeting			December 1998		
9. Top Policy Consultations (Ministers and committees of Parliament)				August 1999	
10. Revised PMA Strategy and Operational Framework				September 1999	
11. District Consultations				December 1999	
12. Integration of the PMA into the Medium Term Expenditure Framework (MTEF) process				October 99 to May 2000	
13. Presentation of final PMA draft to the Consultative Group (CG) Meeting					March 2000
14. Presentation and approval by Cabinet.					August 2000

Appendix 2: Poor Peoples Perceptions of Constraints to their Livelihood

STRATEGY	CONSTRAINTS[21]
Crop farming	• Poor yields • Limited productive assets, such as land and improved seeds • Seasonality • Low prices and lack of credit exploitation by middle men. • Loss of cash and food crops to disease and pests. • Low income and capital for buying inputs, improving or starting new income-generating ventures. • Crop pests and diseases . • Lack of input unavailability. • Restricted access to markets. • Lack of knowledge and skills regarding improved methods of income and food generation • Lack of information, particularly regarding prices and markets, which would reduce exploitation by middle men and improve profits for farmers.
Livestock-keeping	• Dry season search for water – lack of nearby dams – leads to migration in search of water and pasture or travelling long distance to source. • Poor pasture. • Indigenous animal low yield and few high yield cows. • Expensive drugs to treat diseases. • Few veterinary extension staff. • Cattle raiding leading to loss of livestock. • High slaughter and market charges. • Lack of markets.
Fishing	• Seasonality and unreliability of fish catch • Low prices and profits for small-scale fishermen • Lack of ready markets in other districts and in Kalangala in low season • Lack of processing plants and cold storage • Decreasing fish size and numbers in Lake Victoria • Corrupt Fisheries Officers • Lack of inputs • Poor methods • Dependency on one income • Water hyacinth • Theft of nets

[21] Agro – forestry was not explored in community consultations, although in Kalangala local people perceived that the time industry was not benefiting the poor. Further, local people were aware that environmental protection and conservation – soil conservation, bio-diversity were important but lack of awareness of policies and lack of alternatives offered them little choice.

APPENDIX 3: INTERVENTIONS MATRIX

A: POLICY

WHAT	LEAD AGENCY(IES)	HOW	WHEN
1. Review existing agricultural policies and standards to ensure effective operationalization of the PMA to achieve objectives	MAAIF/ PMA Forum	• Contracted under established criteria, • Collaborate with relevant line ministry. • Review existing policies, • Identify gaps on regulations, laws, and policies.	Immediate
2. Review General Trade Policy: international trade policy, commercial law, taxation policy, tariffication, market policy (licenses, dues, tendering).	MFPED/MoJ/MoLG/ MTTI	• Task group or committee to review and prepare report.	Immediate
3. Trade policy review on implications of WTO, COMESA, EAC.	MTTI/MOFA/MAAIF/ MFPED	• Assess implications for Uganda, • Develop strategies for negotiations and incentives to enable farmers to cope.	Immediate
4. Micro-finance: policy reviews and regulatory framework.	MFPED, BOU	• Stakeholder Committees and staff of relevant ministries and departments • Policy review, coordination and capacity building. • Put in place legal and regulatory framework.	Immediate
5. Land Policy: incorporate Land Act Implementation Study recommendations where appropriate.	MWLE	• Committees to set priorities and define implementation modalities. • Conduct studies and draft policy and regulations. • Consult Cabinet, Parliament.	First 12 months
6. Development of Food Security, Food and Nutrition Policy: including food security, nutrition, standards	MAAIF, MoH, UNBS, MTTI, Department of Disaster Preparedness, MGLSD	• Studies designed and implemented to inform policy; • Committees established to produce policy Review Food and nutrition policy.	First 12 months
7. Development of an Agricultural and statistical information system.	UBOS, MAAIF, LGs	• Committees to set priorities and oversee development of data production system. • Conduct annual agricultural surveys • Conduct census of agriculture • Establish early warning system for food security.	Immediate and continuous

B: PUBLIC SECTOR – CENTRAL GOVERNMENT

WHAT	LEAD AGENCY(IES)	HOW	WHEN
1. Disseminate PMA and build partnerships	RP/PMA, MAAIF, MFPED, Local Governments	• Regular workshops/seminars • District workshops for senior staff and local government staff and local leaders/farmers • MPs + Ministers • Seminars for civil society and private sector	} Over next 6 months
2. Re-align programs and funding inline with the PMA	PMA implementing agencies, donors, MFPED	• Review PMA documents (internal) • Rewrite, alter and build consensus	Immediate and on-going
3. Institutional Functional analysis: • Agriculture Sector institutions- broadly to define roles and avoid duplication by MAAIF and its agencies (NARO, etc) / • MoLG • LGs • NGOs	MAAIF and parastatals }MoLG and LG NGOs	• Contract consultant; develop TOR (should include NARO re-alignment and assessment of research institutes and appropriate personnel to reflect diverse farming systems); perform functional analysis.	Immediate and on going. Within 6 months
4. Line ministries to incorporate PMA into their plans and programs	MAAIF, MoLG, MoES, MWHC, MoH, MTTI, MoGSD, MWLE, OPM, Office of Pres.	• Ensure their programs are compatible with PMA vision, objectives and program interventions • Act on agreed areas of their involvement	Over next 12 months

B: PUBLIC SECTOR – CENTRAL GOVERNMENT – (continued)

WHAT	LEAD AGENCY(IES)	HOW	WHEN
5. PMA coordinating body	Current PMA Steering Committee	• Create and operationalise: 1. PMA Steering Committee 2. PMA Planning and Financing Forum 3. PMA Secretariat	Over next 6 months
6. Organizational development for MAAIF and parastatals	MAAIF/PMASC with external consultant	• Based on institutional functional analysis, PMA vision, strategic planning, organizational restructuring, resource needs assessment, participatory priority setting, administrative system, monitoring	Commence as soon as possible.
7. Capacity Building based on identified needs under functional analysis	Each institution/ line ministries and parastatals	• Following identified needs based on institutional analysis and organizational development	Commence within 12 months and on-going
8. Guidelines and standards for: (a) Processing (b) Marketing (c) Agricultural Advisory Services (NAADS) (d) Research (e) Financial resource management (f) Planning (g) Monitoring	(a) UNBS, MAAIF, Private Sector (b) UMA, MTTI/UNBS (c) MAAIF, MoLG and Private Sector (d) MAAIF, NARO, MoLG, Private sector (e) MFPED, MoLG, MAAIF, Civil society, Private sector (f) MFPED, MoLG, MAAIF (g) MoLG, MAAIF, MFPED,	All performed with: • Committees involving key stakeholders • Review existing situation • Committee development • Dissemination	Within first 12 months

B: PUBLIC SECTOR – CENTRAL GOVERNMENT - (continued)

WHAT	LEAD AGENCY(IES)	HOW	WHEN
9. Continue to develop a broad based system for monitoring and evaluation . • Poverty (indictors, impact) • Implementation of PMA • Agricultural sector • Agricultural Statistics • Agricultural Census	MFPED MAAIF, MFPED and all other relevant line ministries. MAAIF MAAIF, UBS MAAIF, UBS	For all : • Review current system • Continue to develop system • Develop system of monitoring sector and cross-sectoral interventions rather than projects • Strengthen planning units. • Develop network for data collection • Design and implement	6 months and in progress Immediate As soon as possible
10. Improved Government Coordination to ensure that all government bodies harmonize their efforts for poverty eradication	MFPED/ PMA Forum	• Create a national forum on PEAP and PMA.	In progress
11. Infrastructure development	MoWHC, MoLG, MoEM, Private sector/MAAIF, MOES, MOH, MWLE	• Develop infrastructure and as appropriate in line with PM.A (Feeder roads, rural electrification).	Immediate

C: PUBLIC SECTOR – LOCAL GOVERNMENT

WHAT	LEAD AGENCY(IES)	HOW	WHEN
1. Coordination of PMA activities and linkages (district, ADC, sub/county, NGOs/CBOs)	PMA Forum /District/ LC III Production Committees.	• Regular meetings • Review work-plans and budgets • Coordinated planning	• Commence in next 6 months • Next 12 months / ongoing • Ongoing
2. District capacity building: • Strategic planning and participatory planning and monitoring. • Financial • Management information system • Training of trainers (see extension) • Communication (see extension)	MAAIF/MoLG/ MGLSD/MFPED/PMA/PFF	• Workshops – regional by topic based on need, district people to take to lower levels	Start in next 6 months and in progress
3. Sub/county Production Committees activated	MoLG, District Councils, LC III, Sub/county admin.	• District By-laws for production committees • Reliable flow of funds from within and outside Sub-county	6 months
4. Sub/county capacity development: • Planning and monitoring • Financial accountability and management • Advisory services	Local Governments and MAAIF/ MFPED/PMA/PFF	• Workshops • Guidelines from Centre (MoLG, MAAIF) and Districts	Start in 6 months provided district has capacity
5. Review funding of district activities: (ADC, District and Sub/county agriculture staff)and logistics)	MoLG, MFPED, MAAIF	Review Budgetary allocations and arrangements (a) Central government funds: • Conditional grants for agriculture • Equalization grants – unallocated funds for disadvantaged districts. (b) District grants, Sub/County (15% of 65% of local tax collection) (c) NGO and private sector resources. (d) Donors (core/basket, program/district specific)	As soon as possible.
6. Monitoring system	District Planning Unit/MAAIF	• Ensure that collection and analysis system instituted at S/C and supervised by District includes indicators relevant to PMA interventions (Section 7.3)	Based on guidelines in B8

D: PRIVATE SECTOR – INDIVIDUAL SUBSISTENCE FARMER (Note there will be no barrier to semi-commercial farmers)

WHAT	LEAD AGENCY(IES)	HOW	WHEN
1. Mobilize and sensitize farmers about: a) Benefits of operating in groups b) Confidence in Agricultural Advisory Services (NAADS) and benefits c) Avail AAS advice and information at sub/county and ADC. d) Uptake of improved technologies and improved farming practices.	Agricultural Advisors/Farmers organisations MGSLD	Tour sub/county, community meetings; feedback regarding needs. No barrier to semi-commercial Build capacity and have personnel in place.	On-going.
2. Extension service delivery (see Extension)			

E: PRIVATE SECTOR – GROUPS OF SUBSISTENCE and SEMI-COMMERCIAL FARMERS

WHAT	**LEAD AGENCY(IES)**	HOW	WHEN
1. As per D1 (b) and (c)	Sub/County, MGLSD	Workshop at sub-county for several groups	Start 12 months
2. Build capacity to operate in groups	Sub/County, MGLSD	Workshop at sub-county for several groups	Start 12 months
3. Review regulations governing associations	MTTI Sub/county	Contract study	12 months
4. Agricultural services delivery (see NAADS)			
5. Extension promotion of linkage development	MAAIF & other	Enactment	12 months

F: PRIVATE SECTOR- SEMI-COMMERCIAL AND COMMERCIAL FARMERS

WHAT	**LEAD AGENCY(IES)**	HOW	WHEN
1. Group formation 2. Creating an enabling environment 3. Information sharing -Research /methods /technology	• UCFA • GoU • Commercial farmers • UEPB	Government to create a conducive matrket, policy, regulatory and legal environment	12 months

G: PRIVATE SECTOR - MICRO- AND SMALL-SCALE ENTERPRISES

WHAT	LEAD AGENCY(IES)	HOW	WHEN
1. Enabling policy, legal and regulatory framework	GoU -Various line ministries	• Develop policy and frameworks as per government processes	Immediate
2. Infrastructure (water, communication, electricity)	GoU -Responsible line ministries, Private sector	• Identify needs and develop infrastructure	Immediate
3. Review investment code	MFPED/UIA/MTTI	• Committee or task group to review and report. • UIA to make recommended adjustments	In progress
4. Credit access	BOU/MFPED	• See Rural Finance	
5. Develop incentive package	MFPED/UIA	• Task group and UIA staff	In progress
6. Capacity building + vocational training	PSF/BUDS/PS Development partners	• Training	12 marks
7. Awareness enhancement and coordination of MSEs	PSF/MFPED	• Establish MSE forum, sensitization campaign	Immediate
8. District investment profiles	MoLG	• As per District Resource Endowment Profiles (DRPS)	In progress

H: PRIVATE SECTOR – REMAINDER OF COMMERCIAL SECTOR

WHAT	**LEAD AGENCY(IES)**	HOW	WHEN
1. Provision of efficient financial sector machinery	MFPED/BOU	Regulation, policy formulation	In progress
2. Provision of relevant skills	MoES/PSF	Training courses, establish colleges, develop suitable curricula	In progress
3. Adequate infrastructure (See B-11)	GoU		In progress
4. Commercial laws and regulations	MoJ	Continue review of commercial laws and regulations	In progress
5. Bring on board to poverty focus	MFPED/PSF	Direct contact/PSF/PSDP	Within first 6 months
6. Review roles of private sector organizations.	MFPED, MTTI	Review roles of PSF, PSDP, UIA, UEPB, RSDP, etc. and possible areas of duplication	Within first 6 months

I: CIVIL SOCIETY

WHAT	**LEAD AGENCY(IES)**	HOW	WHEN
1. Awareness of PMA, encourage collaboration and influence PMA implementation.	MAAIF, PMA – PFF	Document dissemination Dialogue for small and larger players	In progress

J: DEVELOPMENT PARTNERS

WHAT	**LEAD AGENCY(IES)**	HOW	WHEN
1. Continued commitment and collaboration	PMA- PFF/MFPED / MAAIF	Dialogue	In progress
2. Coordination of donor efforts to achieve PMA	PMA-PFF/ MFPED / MAAIF	Donor forum Budget support – “basket funding”.	In progress

K: RESEARCH

WHAT	**LEAD AGENCY(IES)**	HOW	WHEN
1. Institutional reform; Strategic planning, program development and operational planning, operational capacity development, management system development	(see B.3) MAAIF/NARO/MTTI and others	• Develop strategic plans in collaboration with stakeholders.	Immediate and on going.
2. Organizational development	MAAIF/ NARO and others	• Consultant lead review and internal restructuring, training, and systems development	First 6 months
3. Develop farmer – oriented programs	NARO, LGs and private sector	• Collect information from farmers prior to program development • Social development research - surveys • Program Development Review Committee to re-orient and develop programs • Operationalizing client-oriented program: ARDC links to ADC and extension system • Program Planning Meeting – ARDC, NGO, Farmers, Local government, all ADCs • Extension – two way flow of information, feedback • Needs/priorities, feasibility of methods, appropriateness/ adoption	In 6 months
4. Establish ARDCs	NARO, LGs and private sector	• Establish premises • Staffing/management • Priority setting and client-oriented program development	First 12 months
5. Establish linkages with • Farmer/extension system. • Other research institutions (national and international), not to re-invent the wheel.	• NARO, MAAIF, Private Sector • NARO, Private sector	• Establish linkages between ARDC / ADC / farmer • Promote and link farmers organizations (national and district) and farmers • Collaborative research • Information sharing – bulletins, reports, seminars • Establish networks (by commodity /institutions)	Over next 12 months

K: RESEARCH (continued)

WHAT	**LEAD AGENCY(IES)**	HOW	WHEN
6. Funding mechanisms	MAAIF/ NARO GoU/Donors, Commodity institutions and private sector	• Facilitate private sector involvement in research funding through dialogue. CESS revenue used partially for research, eg coffee, cotton, tea, fish, etc. • Self-supporting measures (Sale of produce from farms, Consultant services, Service delivery e.g. soil analysis, Rent facilities e.g. large buildings) • Establish and operationalise the Agricultural Research Fund (ARF) • Direct from GoU and donors	Commence within 6 months
7. Re-align and decentralize NARO's research institutes to reflect farming systems priorities as well as research priorities	MAAIF/ NARO, LGs	• ARDC <=>ADC in area through joint programs • NARO <=> ARDC by reviewing/exchanging quarterly reports	Within 12 months
8. Social development focus	MAAIF/NARO MGLSD	• Social Development strategy and plan (extension. liaison, community development) • Operationalize Outreach Department- to include a social development specialist • Social development personnel in all ARDCs	Within 12 months
9. Review, update and implement NARO information strategy	NARO	• Review and update strategy. • Stakeholders workshop • Develop program	Immediate

L: AGRICULTURAL ADVISORY SERVICES

WHAT	**LEAD AGENCY(IES)**	HOW	WHEN
1. NAADS policy as central/separate document for distribution to lower levels. Establish guidelines.	MAAIF,LGs and stakeholders	• Utilize PMA framework and principles • Elaborate using extension task group report • Simultaneously develop guidelines for advisory services at district and s/county level • Small team to formulate policy • Investigate forestry staffing issues at local government	First 6 months

2. Strategic plan for extension
(a) National
(b) District
	MAAIF, LGss and Stakeholders.	• Workshop to develop consensus
		• Needs assessment of:
		  • Farmers priorities/constraints
		  • ADC (location, what, how, who)
		  • District capacity (include budget)
			Complete by 12 months.
			On going, complete within 12 months.

3. Establish ADCs	LG and Stakeholders	• Funding Eg. District and conditional grant • Staff (manager, trainers) and training them • Logistics in place	12 months
4. Capacity development	See C2, C4 – local government capacity building		
5. Farmer – responsive advisory services plan	S/county production committee with district support (Planners, DAO, DEC, CDO)	• Consultation and surveys • Utilise principles of participatory planning • District circular and guidelines, offering technical support • Nature of delivery of advisory services. (TDS Including contact farmers, seminars, w/shops)	Complete within 12 months

L: AGRICULTURAL ADVISORY SERVICES (continued)

WHAT	**LEAD AGENCY(IES)**	HOW	WHEN
6. Staff a) Ensure a full complement of staff vis-à-vis s/county extension plan and farming system	(a) Sub-county District Production Committees	1. Employment of staff • According to extension plan ensure at least one of agriculture, veterinary, fisheries, or environment officer. • Community development officer 2. Skills • Phasing in graduates • Ensure certain skills (meet min. criteria) 3. Employment • Contracting should be by period and performance oriented ⇒ private sector • Ensure all officers working on site	After 2 years Begin within 6 months and on-going Within 12 months
b) Capacity building for EXTENSION staff	(b) Training • ADC • District staff • Sub-county staff	(b) Depending on existing capacity: • Re-orient to PMA, farmers constraints. • Communication (information, delivery, participatory methods) • Training skills. • Group formation/facilitation. • Monitoring.	In progress and complete in 24 months
c) Logistica support	(c) Sub-county Committees	(c) Determine needs, funds, purchase and supply.	Depending on staffing

L: AGRICULTURAL ADVISORY SERVICES (continued)

WHAT	**LEAD AGENCY(IES)**	HOW	WHEN
7. Delivery of advisory services (a) Staff/Logistics and TDSs (b) Stockists/Nursery (c) Outreach: promote men and women working together (d) Training/Workshop/Seminars	Sub/county, supported by ADC Sub/county Sub/county Sub county	• Sensitization, mobilization, consultation • Identify farmers/plot • Demonstrate technology • Sensitize to convince about benefits • Nursery • Link to credit (stock – voucher) • Visits to farmers • Linked with TDS and ADCs	Based on staffing
8. Supervise and monitor advisory services regarding • Delays: advisory • Activity (occurred/adoption) • Plan/program at S/county • Plan of district/sector • Objectives of PMA	Sub/county, District, MAAIF/ MGSLD/ PMA-PFF	Activities: • Occurred/adoption/needs of farmers • Program/Plan of S/county and district • Impact on poverty and sector • Sector + district program implementation • Gender, planning and responsive/monitoring • Provision of guidelines, • Spot monitoring • Collection, analysis and dissemination of progress in implementation and achieving objectives	Based on system and activities in place.

M: RURAL FINANCE

WHAT	LEAD AGENCY(IES)	HOW	WHEN
1. Legal and regulatory framework	See Government policy – Table A4		
2. Develop Rural Finance Policy	MFPED and BOU	Committee finalize on-going process	First 6 months
3. Promote MFI including savings and loan groups within the law a) Farmer • Group formation • Capacity in financial management • Link to MFIs • Promote savings • Promote NGO involvement • Link to currently available public credit funds b) Microfinance Finance Institutions (including community-based organisations) • Develop capacity • Align to legal and regulatory framework • Mobilization of funds	• MF Association/ NGOs /CBOs- ROSCAs / S/county • PAP, NGOs • PAP, MFPED • NGOs county extension • PAP • RFS System, NGOs RFS system, NGOs, donors	▪ Meetings, seminars, extension ▪ Workshops, training (use ADC) ▪ Discussions, newsletters, fora ▪ Through programatic action, LCs ▪ Building confidence in sector , Sensitization regarding net benefits ▪ Training, seminars ▪ Institutional revision of policy and operations ▪ NGOs, remainder of existing GoU credit funds	Immediately the law is in place (next 6 months) When extension operating In progress In progress In progress In progress Next 12 months Next 12 months
4. Maximizing benefit from existing public funds ear-marked for rural credit	GoU and RFS system/network	Creating a Rural Financial System (RFSS)	Next 6 months

M: RURAL FINANCE (continued)

WHAT	**LEAD AGENCY(IES)**	HOW	WHEN
5. Other MFI initiatives, e.g. foreign funded and others to continue operation and encourage focus on poverty	BoU/MFPED/DP'S/NGOs	• Enabling legal and regulatory framework in place, working well (accountability, transparency), through information/report dissemination	Start in 6 months
6. Linkages to banking system	NGOs, RFSS, BOU	• MFI – bank with system • Encourage large organizations to use banks (not mandatory)	On-going
7. Promote banking system involvement	MFPED, BOU, RFSS	• Disseminating information, sensitization, dialogue, • Incentives – lower capital required for establishing branches	Start now and on-going 12 months
8. Market research	BoU/RFSS / MFPED	Establish borrowing and savings needs of the poor.	After RFSS/ Association is in place
9. Solicit donor additional funds for MFI system	MFPED	• Once system is in place, increase streamlining linkage with: banking system; MFI at all levels; out reach; building capacity.	Start in 12 months
10. Strengthen MFI Forum	Government and Donors	• Broaden membership • Publicize • Increase scope of work	In progress
11. Enhance capacity of BOU for MFI Activities	MFPED, (Danida/DFID programme)	• To handle MFI system • Training, re-orientation, attitude change	In progress

N: MARKETING, PROCESSING and STORAGE

WHAT	LEAD AGENCY(IES)	HOW	WHEN
1. Improved infrastructure: (a) Roads (b) Fish landing sites	MWHC, LGs MWHC, MAAIF, LGs	• Community involvement for feeder road and community roads maintenance. • Identify strategic locations, set standards and operational modalities with cost recovery .	6 months, on-going 6 months, on-going
2. Regular, reliable, safe, affordable transport networks	MWHC, lGs andPrivate sector	• Develop and increase access. • Promote intermediate transport by sensitization, develop needs assessment, change attitudes	On going and continuous.
3. Market Information (a) International (b) National (c) Local – Farmers	MTTI, Private Sector MAAIF, MFPED, Private sector LG, Private sector UEPB	a) International • UEPB Re-orient and linked to all levels of farmers especially through traders accessing information • Strengthen UEPB b) National • Develop networks of information for distribution of commodities throughout Uganda • Investigate the operationalization of the commodity exchange • Line with disaster preparedness c) Local – Farmers • Mass media – radio • Agricultural advisory services system • District marketing office through s/county	Within 6 months and continuous Within 6 months and continuous Within 6 months and continuos

N: MARKETING, PROCESSING and STORAGE (continued)

WHAT	**LEAD AGENCY(IES)**	HOW	WHEN
4. Development of International markets	MTTI , UEPB, MAAIF	• Enabling environment: • Policy (refer to Policy- Table A / Chapter 5) • Financial service mechanism • Promoting bilateral trade • Export infrastructure (export processing zones) • Standards • Packages developed	Immediate and ongoing
5. Local output markets	LGs	• Strategic proximal location of markets where needed (demand driven) • Improve market facilities (storage, shelter, platforms, etc)	Within 12 months Within 12 months and ongoing
6. Review local market tendering	MoLG/ LGs	• Review system policy • Tendering transparent • Guidelines and standards for dues and operation of managers • Supervision to ensure compliance and accountability • Sensitization (officials and public) about benefits of paying dues under revised system	6 months 12 months
7 Other taxes and dues (eg Market dues and licensing)	MoLG with LGs	• Review impact of taxes and licenses on subsistence and large business enterprise	Commence within 6 months
8. Weights and measures	UNBS	Develop and enforce	On-going
9. Ensure access and availability of inputs to farmers.	MAAIF, LGs and Private sector/Farmer Organisations	• Promote stockists – demonstrating viability of inputs • Linkage to credit system. • Study to investigate linkages and promotion of stockists(refer to SG2000 approach). • Complete Privatisation Uganda Seed Project. • Promote private sector seed multiplication and distribution. • Establish Seed Quality Control/Certification System. • Implement Recommendations of the Soil Fertility Initiative.	6 months and 0n-going

N: MARKETING, PROCESSING and STORAGE (continued)

10. Storage a) Farm-level: • Develop appropriate methods • Disseminate appropriate methods • Establishment of facilities b) National: • Privatization of existing GoU silos • Promotion of strategic silo locations throughout Uganda • Warehouse receipt system and Commodity Exchange System	• NARO, private sector, farmer • NARO/ NAADS Private sector • MFPED • MAAIF, MTTI, UIA, private sector • UIA, MTTI, Private sector	• Research, development and promotion of appropriate technologies • Advisory services • Consultation, construction by local government, communities, commodity marketing groups • Operationlisation. • Linkage, dialogue with PSF/PSDP,UIA • Operationalization and expansion	In progress In progress 24 months In progress 6 months
11. Processing • Promote adoption • Link farmers to processing technology • MSE and larger agro-processors • Rural electrification	• LGs. UIA, Private sector. • LGs, Private sector (USSIA, UMA, UNFA) MoEM and Private sector	• Delivery through advisory servies • Farmer => MSE processor => large processor • Information dissemination • See Table H - Remainder of commercial sector • See Table B 11	12 months 12 months In progress

O: LAND

WHAT	**LEAD AGENCY(IES)**	WHO	HOW	WHEN
1. Land Policy	MWLE	• Committee to draft policy on use, management, investment on land • Fertilizer development and use policy	6-12 months	
2. Adopt recommendations of Land Act implementation study	MWLE	• Check study recommendations • Facilitate acceptance and implementation of recommendations	6-12 months	
3. Operationalize Land Act recommendations	MWLE	• Sensitization • Land registry established • District boards/land tribunals functional and operating transparently	6 months	
4. Review status of government land	MWLE	• Review location, acreage, use, access by the poor, restrictions (gazetting) • Purpose is to investigate optimal utilization of the land	6 months	
5. Actions to improve soil productivity	NARO, District, ADC, S/county extension, TDC, stockists, Private sector.	• Advisory services to promote fertilizer use and soil management • See matrix table N9- agricultural inputs	In progress	
6. Sensitization about land act, conservation and options to maximize land use	MWLE, Districts, Sub-county, MoES	• Education, advisory services, mass media • Discourage land fragmentation. • Encourage collective farming where feasible. • Resettle to proximal land if available, encourage leasing • Promote yield enhancing technologies to optimize use and production.	In progress	

P: FORESTS

WHAT	**LEAD AGENCY(IES)**	HOW	WHEN
1. Forestry Policy	MWLE	Multi-sectoral committee: (MTTI, UWA, NEMA, MAAIF, MLWE)	On going
2. Include farm agro-forestry in agricultural advisory services	MAAIF, MWLE	• Review team • Introduce agro-forestry into agricultural advisory services. staffing training, dissemination .	6 months
3. Establish National Forestry Authority (NFA)	MWLE	• Committee to draft statute • Locate and staff NFA • Establish funding mechanism • Mandate is to manage and conserve the resource	On going
4. Re-orient training	Tertiary institutions, Forestry – Makerere, MLWE, MAAIF	Review and harmonize curricula.	12 months

Q: ENVIRONMENT

WHAT	**LEAD AGENCY(IES)**	HOW	WHEN
1. Harmonize environmental institutional instruments with PMA	NEMA, MWLE, MAAIF, MTTI, MoJ	• Harmonize environmental policies with PMA • Revise deficient or outdated laws and regulations • Develop subsidiary legislation to accompany the National Environment Management Statute 1995	12 months
2. Capacity building for environmental management at district level	NEMA, MFPED, MWLE, MoLG, Districts	• Support district environment office • Strengthen/operationalise district, sub-county, parish and village Production and Environment Committees (PECs) • Support community-based associations (CBOs and CBAs) active in environment and natural resources management	12 months and on-going
3. Promote environmental education in the formal education sector	NEMA, MoES, (NCDC) MTTI,, (WCU), NGOs	• Include environmental education in the school syllabus at primary and secondary schools, and tertiary institutions • Support schools and institutions to join the Wildlife Clubs of Uganda	12 months and on-going
4. Promote private sector and NGO involvement in environmental management	NEMA, MTTI, NCC, UNFA, International NGOs	• Encourage private sector to self-regulate through creation of roundtable forums on environment • Sensitise farmers, agroprocessors on land degradation and pollution arising from their activities • Promote tree planting, soil and water conservation, agroforestry and wetlands conservation • Promote best practices in industry and on farms	In progress

Q: ENVIRONMENT (continued)

WHAT	WHO	HOW	WHEN
5. Conduct research related to the environment	NARO, Makerere (Law, Technology Agriculture, Forestry, MUIENR) NEMA, UNBS	• Develop low-cost, energy-saving technology • Early warning/ disaster preparedness systems • Environmental standards • Economic instruments as incentives and disincentives to promote environmental protection and management • Integrated pest management and pesticide use • Monitoring systems • Data management systems	12 – 24 months
6. Improve upon institutional linkages	NEMA, Sectoral agencies, Districts, Sub-County, private sector	• Review institutional roles in environmental management and the PMA with a view to eliminating duplication • Review the mandates of the Environmental Liaison Units (ELUs) in the various institutions • Ensure that agricultural extension works closely with the Production and Environment Committees at district, sub-county, parish and village levels • Create a formal inter-agency body to coordinate, steer or advise upon environmental issues related to PMA	12 months and on-going
7. Improve environmental management	NEMA, MWLE, MAAIF, MoLG, Districts	• Prepare national, district, sub-county, parish and village land use plans • Assist districts, sub-counties, parishes and villages to prepare environment action plans that also address the PMA	12 –36 months
8. Develop baseline parameters and manage the environmental aspects of the PMA	NEMA, MFPED, MAAIF,	• Carry out a formal structured environmental impact assessment of the expected investment of the PMA identifying positive and negative impacts, mitigation measures and monitoring plan • PMA Co-ordinating body to manage the process of incorporating environmental issues in the PMA.	6 months

R: WATER FOR PRODUCTION

WHAT	**LEAD AGENCY(IES)**	HOW	WHEN
1. Water policy	MAAIF, MWLE, MFPED	• Finalization of current study and policy formulation process	On going
2. Cost effectiveTechnologies for water harvesting and irrigation	MAAIF, NARO and Private sector	• Research and development • Advisory services for delivery	On going
3. Early warning strengthening (weather and food security)	MAAIF, MWLE (Met. Dept), LG	• Renovate and equip agro-met • Link units nationwide and with international weather systems • Develop effective system to disseminate information to farmers • Link with food production and food security information system	Stations
4. Update legal framework for fisheries	MAAIF,UNBS LG, Private sector	• Committee to review and amend legal framework. • Disseminate to fisheries officers, and other stakeholders. • Supervise and monitor Standards	On going
5. Training of fisheries staff	See Table S - Agricultural education - Makerere , training colleges	• Development of programmes	On going
6. Develop strategic fish fry centres.	MAAIF, NARO, LG, Private sector	• Conduct studies and assess needs. • Develop private sector capacity.	6 months and on-going.
7. Desilting of dams	MWLE, MAAIF, LGs	• Access needs and mobilize funds for implementation • Contract and / or privatise Management	12 months and on going
8. Strategically located dams for livestock and crops	MWLE	Conduct studies to access needs. Mobilize funds for construction Set up effective management system for accountability and transparency (contract, standards, supervision, monitoring).	

S: EDUCATION – BASIC AND ADULT

WHAT	**LEAD AGENCY(IES)**	HOW	WHEN
1. Address issues of infrastructure, education quality and administration at primary and secondary levels	MoES MOLG, MGLS, NGOs, donors	• Sensitization of community, teachers, parents to inform and build partnerships • Construction of classrooms, provision of materials • Improvement of teacher numbers, motivation, training, qualification, remuneration and supervision • Promote accountability and transparency of district officers and School Management Committees • Prioritize by under-served a***reas*** • Institute framework for cost effective and efficient delivery systems	On-going
2. Address problems of access for disadvantaged children who cannot afford costs- very poor households, orphans, street kids and homeless	MoES, MGSLD Districts, Community, NGOs	• Develop policy to ensure access for homeless children and children from very poor households; prohibition from sending children home for failure to pay for uniforms, materials and extra costs • Implement policy (access by disadvantaged children)	6 months 12 months
3. Promotion of functional adult literacy programmes	MoES, MGLSD, MOLG, NGOs	• Government plan and curriculum • Building capacity of trainers • Sensitize and mobilize community • Establish community library • Develop adult education into channel for maintaining and using literacy skills and exchange information	} 6 months 12 months

S: EDUCATION – AGRICULTURAL EDUCATION IN PRIMARY AND SECONDARY SCHOOLS

WHAT	**LEAD AGENCY(IES)**	HOW	WHEN
4. Curriculum development and implementation, teaching material production	MoES NCDC/ MOLGSD	• Staff and consultants • DEO to add location specificity, implement, sensitize and train teachers	12 months
5. Train teachers - Pre–and In-service	MoES– NTC/TTC, DEO, ADCs and schools	• Develop curricula for teachers training • Training at ADCs and in schools on curriculum and how to teach and demonstrate	12 months
6. Demonstrations	Schools/CBOs/ NGOs/ MoE, DEO, ACDs/TDCs	• Acquisition of land • Contract demonstration people • Supervise and train teachers • Commence gardens/support of TDSs	24 months
7. Establishment of Agricultural Clubs	Schools, local government, NGOs	• Develop sustainable enterprise oriented - Gardens grow and cells produce • Sensitize others, including parents and farmers clubs	24 months

S: EDUCATION – TERTIARY INSTITUTIONS

WHAT	**LEAD AGENCY(IES)**	HOW	WHEN
8. Infrastructure	MoES	• Number of students to match facilities • Renovate structures and equip classrooms, labs, workshops	12 – 24 months
9. Teachers	MoES, local government	• Salary and living conditions improved (accommodation) • Assess training needs upgrade • ROM and incentives to improve staff performance	12 months
10. Curriculum/Quality	MoES/ MAAIF	• Survey for needs • Strategy for better equipping graduates • Modify curriculum accordingly on opportunities in job marketing and farmer needs, and to deal with gaps such as irrigation technology, livelihood systems analysis and fisheries management, practical farm management and technical skills • Participate in community development • School farms established	6 months 12 months 12 months
11. Funding	MoES/MFPED	• Strengthen administration • Investigate cost-sharing by students and private sector • MAAIF and agriculture sector donors to transfer funds to MoES earmarked for agriculture education	12 months 12 month 6 months – next budget
12. Direction/leadership	Colleges	Board of Governors (all stakeholders and local autonomy • Strategic plans • Deans (well grounded and motivated)	12 months

S: EDUCATION – YOUTH

WHAT	**LEAD AGENCY(IES)**	HOW	WHEN
13. Assess needs	MAAIF,MGLSD	• Determine needs and viability of clubs to decreasing poverty – focus groups, surveys	12 months
14. Design location specific skills/knowledge packages	MOLG, MGLSD, ADCs,MAAIF, NARO, MoES, NGOs	• Curriculum development, materials development, piloting • Implementation through groups, ADC, TDCs, NGOs	12 months
15. Mobilize youth to participate	LCs, Extension officers,Youth, councilors	• Posters, media, • Organise meeting places • Meetings	24 months
16. Change attitudes to "agriculture as a business"	LCs, councilors, extension staff,	Meetings, seminars, workshops, courses, clubs	24 months
17. Funding	Local government members of club	• Local government funding on a proposal- grant basis • Memberships expanded • Profitable mechanisms developed • Central government to kick-start	12 months
18. Demonstration plots	Youth, ADCs, NGOs, schools, churches	• Consult ADCs/Schools, Churches, Local government	24 months

APPENDIX 4: SEQUENCING MATRIX

PERIOD	LEAD AGENCY(IES)	ACTION	INTERVENTION AREA (reference to Matrix 3)
Immediate And In-progress and on-going	PMA –RP (with other actors)	Disseminate PMA, enhance awareness and establish partnerships	*B1*[22]*, I1*
	MTTI	-Immediate review of the implications of COMESA and WTO -Development strategies for international trade	*A3* *N4*
	MAAIF (some with external consultant)	-Institutional functional analysis of major players in the PMA -Review polices regarding PMA objectives -Development of international trade markets	*B3, K1* *A1* *N4*
	MFPED	-Realign current programmes and funding with PMA -Micro-finance legal and regulatory framework / to MSE legal framework -Provide efficient financial sector machinery -Dialogue with development partners/donors re funding and programming -Strengthen MFI forum -Enhance capacity of BoU	*B2* *A4, G1, M1* *H1* *J1, J2* *M10* *M11*
	NARO	-Strengthen development of appropriate storage and processing technology -Strengthen development of measures to improve soil productivity	*N10a, N11* *O5*
	MoLG	-Review funding of district activities -District investment profile development	*C5* *G8*
	UIA	-Review investment code -Develop incentive packages	*G3* *G5*
	MoES	-Agriculture education	*H2*
	PSF	-Facilitate capacity for MSEs and other commercial bodies -Awareness enhancement and co-ordination	*G6, H3* *G7*
	Ministry of Justice	-Continue review of commercial laws and regulations	*H4*
	MWHC	-Continue to improve roads, transport and fish landing sites -Implement RSDP.	*N1, N2*
	Private sector	-Establish appropriate storage facilities	*N10a*
	MWLE	-Sensitise public about the Land Act -Develop water policy.	*O6* *R1*

[22] Intervention area refers to the Intervention/Actor matrix which is tabulated by letter and number – Appendix 3

PERIOD	LEAD AGENCY(IES)	ACTION	INTERVENTION AREA (reference to Matrix 3)
Immediate and In-progress and on-going	**NGOs (involved in micro-finance**	-Capacity development in financial skills of clients and organisations to continue. -Promote savings of clients and client groups -Establish strong linkages with banking system	*M3a* *M3a* *M6*
	PAP	-Capacity development in financial skills -Promote NGO involvement	*M3a* *M3a*
	UNBS	-System of weights and measures	*N8*
	All responsible line ministries	-Infrastructure development (roads, transport, electricity, communication, landing sites)	*B11, G2, H3, N1, N2, N5, N11*
First 12 months following completion of PMA document	**MAAIF**	-Develop guidelines and standards for research and extension -Develop monitoring systems -District capacity building re: extension system -Organisational development of MAAIF and its parastatals -Extension policy -Develop detailed strategic plan for extension -Process to ensure access and availability of inputs -Promotion of strategic silo locations -Include agro-forestry in MAAIF extension activities -Strengthen early warning system -Update legal framework for fisheries	*B8* *B9* *C2* *B6, K2* *L1* *L2a* *N9* *N10b* *P2* *R3* *R4*
	NARO	-Organisational development after institutional functional analysis -Develop farmer-oriented programmes -Social development focus	*K3* *K9* *K2*
	MFPED	-Review all trade policies -Bring commercial sector on-board *vis-à-vis* poverty reduction -Review private sector umbrella organisation -Rural finance policy developed -Maximise benefits from existing public funds ear-marked for rural credit (include creation of RFS System) -Promotion of continued involvement of other MFI initiatives and encourage focus on poverty	*A2* *H5* *H6* *M2* *M4* *M5*
	Current PMA Steering Committee	-Creation of Rural Development Committee (RDC) and secretariat	*B5*

PERIOD	LEAD AGENCY(IES)	ACTION	INTERVENTION AREA (reference to Matrix 3)
	Office of the Prime Minister	-Improved co-ordination of government bodies to ensure conducive environment during PMA implementation	*B10*
	MLWE	-Develop land policy -Fertiliser policy -Land Act – Incorporate appropriate recommendations -Implementing recommendations of Land Act Implementation Study -Review government land – location, size and utilisation -Develop forestry policy	*O1* *O1* *A5,O2, O3* *O4* *P1*
	RDC	-Dialogue with development partners/donors	*J1, J2*
	MoLG	-Implement District capacity building -Review of market tendering -Review impact of local taxes and dues	*C2* *M6* *N7*
	Districts	-Activating Sub-county Production Committee -District and sub-county capacity building -Develop District strategic plan for extension -Develop marketing information networks for farmers	*C3* *C2, C4, L4* *L2b* *N3*
	MTTI	-Develop national mechanism for information exchange (including operationalisation of commodity exchange)	*N3*
	Private Sector	-Strategic silo construction	
	UEPB	-Strengthen operations -Re-orient UEPB and link to all levels of farmer organizations	*N3* *N3*
	UIA	-Warehouse receipt system	*N10b*
	Line ministries and parastatals involved in institutional analysis	-Organisational development and capacity development based on identified need	*B7*
	MFPED	-Continue to develop a broad based poverty monitoring system, including guidelines for data collection -Promote banking system involvement in the micro-finance sector	*B8, B9* *M7*

PERIOD	LEAD AGENCY(IES)	ACTION	INTERVENTION AREA (reference to Matrix 3)
	MWLE	-Establish National Forestry Authority -Harmonise environmental policies with PMA -Rehabilitation of dams -Develop strategy for location of new dams	*P3* *Q1* *R6* *R7*
	MUK	-Re-orient forestry training programs to PMA -Conduct forestry and environmental research	*P4* *Q5*
First 24 months	**NEMA**	-Develop capacity for environmental management at districts -Promote private sector and NGO involvement in environmental management -Improve institutional linkages for sharing environmental concerns -Facilitate the improvement of environmental management programmmes -Monitor environmental impact of PMA activities	*Q2* *Q4* *Q6* *Q7* *Q8*
	MoES	-Include environmental education in school curricula -Include training on water management in school curricula -Include agriculture education in school curricula	*Q3* *R5,R8*
	MAAIF	-Develop National Food Security and Food and Nutrition Policy (in collaboration with MoH) -Develop advisory service linkages and farmer organisation linkages -Linkages between research and farmer, other research institutions and funding mechanisms -Realign and decentralise NAROs research institutes	*A6* *E5* *K5, K6* *K9*
	NARO	-Establish ARDCs -Linkages between research and farmer, other research institutions and funding mechanisms -Promote development of appropriate storage and processing technology	*K4* *K5, K6* *N11*
	MoH	-Develop National Food and Nutrition Policy in consultation with MAAIF	*A6*
	UNBS	-Develop standards for processing and marketing	*B8*
	MTTI	-Develop standards and guidelines for manufacturing -Review regulations governing associations	*B8* *E3*
	MoLG	-Develop and disseminate guidelines for district financial resource management; and participatory planning	*B8*

PERIOD	LEAD AGENCY(IES)	ACTION	INTERVENTION AREA (reference to Matrix 3)
	Districts	-Co-ordination of PMA activities -Data collection systems in place -Establish ADCs -Develop market infrastructure (strategic locations and facilities) -Sensitise officials and public about revised market dues system -Promote adoption of storage and processing technology -Information dissemination on marketing, storage and processing	*C1* *C6 (also B8)* *L3* *M5* *M6* *N11* *N11*
	Sub-county	-Farmer-responsive extension plan -Mobilise and sensitise local farmers -Promote micro-finance and marketing group formation amongst farmers -Extension service delivery -Promote savings of clients and client groups	*L5* *D1, E1, E2* *M3a* *D2,E2, E4* *M3a*
	Rural Financial Services System (Eg RFS System)	-Maximise benefits from existing public funds ear-marked for rural credit (include creation of RFS System) -Link MFIs to funds and banking system, and solicit additional donor funds -Develop capacity of MFIs and align to legal and regulatory framework under RFS S -Market research to develop client-oriented packages	*M4* *M3a, M6, M9* *M3b* *M8*
	UCFA	-Promotion of group formation, and information sharing	*F1, F3*
	PMA Co-ordinating body	-Ensure line ministry programmes are not contrary to PMA, etc.	*B4*
	UMA	-Link farmer with processing technology	*G9* *N11*
	USIA	-Link farmer with processing technology	*N11*

PERIOD	LEAD AGENCY(IES)	ACTION	INTERVENTION AREA (reference to Matrix 3)
First 36 months	**Sub-county**	-Complement of necessary extension staff in place -Staff capacity development -Logistics support available -Continued delivery of extension services -Supervise and monitor extension service delivery	**L6a** L6b L6c L7 L8
	MFPED	-Privatisation of silos	N10b
	NARO **PMA - SC**	Develop Technologies for water harvesting and irrigation Review PMA implementation process and make recommendations for next phase	R2
After next MTEF	**PMA – SC**	Redesign the PMA strategies and operational framework	
	All PMA implementing agencies	**- Continued implementation by line ministries, agencies, private sector, farmers and CBOs.** -Continued co-ordination by PMA - SC to ensure program is on track -Continued monitoring and impact assessment for poverty and agricultural growth.	

Annex 5. TERMS OF REFERENCE FOR THE PMA PLANNING AND FINANCIANG STEERING COMMITTEE (PMA SC)

I. Background

The Government of Uganda (GoU) with the support of the Danish International Development Agency (Danida) and the British Department for International Development (DFID) has completed a strategic and operational framework for modernisation of agriculture. The overarching objective of the PMA is poverty eradication through agricultural transformation to improve the natural resource based livelihoods of the poor in a sustainable way both economically and from the point of view of the environment. The PMA was designed through a wide stakeholder participatory and consultative process. Building on the perspectives of poor farmers, the PMA spells out the vision and mission for the agriculture sector, the roles of key stakeholders (public, private, civil society and donors) and the priority areas for pubic sector investments in the agricultural sector.

The implementation of the PMA will involve policy decisions and resource allocations to ensure that the agreed actions are implemented on time and appropriately sequenced. All programmes will have to be aligned to the PMA principles and objectives. This will demand that some of the existing programmes will need to be re-aligned. Donors will be expected to support PMA based programmes jointly through budget support mechanisms or other modalities as appropriate.

The implementation of the PMA, therefore will require the guidance of a multi-sectoral planning and financing forum (PMA Forum) with an executive Steering Committee (PMA SC) The terms of reference for the PMA SC are defined below.

II. Terms of Reference (TOR):

The terms of reference for the PMASC will be:

1. To provide advocacy, policy harmonisation and management support for the implementation of the PMA and to maintain a high profile for the PMA as a national, multi-sectoral poverty eradication strategy under the PEAP.
2. To mobilise adequate funding for the PMA from the central and local government budgets and from the donor community.
3. To ensure that all programmes are aligned with the PMA principles and objectives by setting minimum standards and providing an incentives and sanctions framework.
4. To ensure that those PMA agencies supporting farmers and traders to implement the PMA do so in a timely and effective manner and maintain a poverty focus in their activities.
5. To ensure that key stakeholders, especially the civil society effectively participate in the PMA dialogue and implementation.
6. Based on research and statistics, monitor and make adjustments in the PMA implementation to ensure achievement of the objectives.
7. To provide a mechanism for addressing cross-cutting multi- sectoral issues (gender, environment, etc) and ensure timely resolution of constraints.

8. To approve the workplans and budget of the PMA Secretariat, the PMA Forum, to take any steps that are required to ensure the effective in plantation of the PMA and to report to the Government on PMA implementation through the Ministry responsible for economic planning.

III. Modalities.

1. The PMASC will be appointed by the Minister responsible for Planning who will determine the terms and conditions under which they will serve.
2. The membership will be limited to about 20 people to facilitate discussions, deliberations and minimise costs (time and facilitation).
3. The following key stakeholders should be represented as shown below:
   - (a) Central Government,
   - (b) Local Governments (Districts and Urban),
   - (c) The Private Sector (Processors, Traders and Exporters, Micro Finance Institutions),
   - (d) Civil Society (Farmer Organisations, NGOs, CBOs and Media), and
   - (e) Development Partners.

4. Government ministries shall be represented by the Permanent Secretary of the respective Ministry or on occasions by his /her nominee.

5. Local Government representatives shall be Chairmen of LCV Councils or Chairman of an Urban Authority and in the absence of a member, representation should be by another Chairman of LCV Council or Urban Authority, respectively.

6. Private sector and civil society interests should have membership through the national level representative body of a relevant stakeholder category in the agricultural sector.

7. An institutional representative of the private sector or civil society should be the most senior official or chief executive of his/her organisation, or a nominee capable of representing a particular category of stakeholders.

8. Where there is a broad category of stakeholders, e.g. private sector and civil society associations that desire to join the PMASC, the practice of rotating membership on a 1 or 2 year term should be used.

9. A new representative of the private sector, civil society or Donors will have to be vetted by the PMASC before formal appointment by the Minister responsible for Planning.

10. The meetings of the PMASC will be held at least monthly while meetings of the PMA Forum will be held quarterly.

11. The PMA SC will be provided with a budget to support its activities including contracting studies to provide information for policy formulation and the operations of the Technical Committee.
12. The PMASC will establish adhoc sectoral or specialised committees to facilitate it's work.
13. Donors will be encouraged to support the PMA implementation through a "basket" funding mechanism to enable the PMASC to allocate resources to priority activities in a timely manner.

Annex 6: TERMS OF REFERENCE FOR THE PMA SECRETARIAT:

I. Introduction

A PMA Secretariat will be established to support the PMA SC and PMA Forum based on the following principles:
A member proposed the following principles upon which the Secretariat would be formed:

1. Able to function, and operate cross-sectorally,
2. Be part of the Government structures under MAAIF, and
3. Responsible to the PMA Steering Committee through the PS, MAAIF who shall be the Secretary to the PMA SC.

II. Terms of Reference

The functions of the PMA Secretariat will include:

1. To provide cross-sectoral linkages between the PMA-SC, PMA Forum and the PMA implementing ministries, institutions and agencies.
2. To provide cross- sectoral technical and policy analysis - directly or through task groups and /or consultants - to enable the PMA-SC make informed decisions.
3. To monitor and produce performance reports on the implementation of the PMA including monitoring the utilisation of PMA non-sectoral conditional grants.
4. To carry out the decisions of the PMA SC, follow-up and monitor the implementation of the PMA.
5. To facilitate the PMA task forces and consultants.
6. To provide secretariat services to the PMA.
7. To liase with donors supporting the PMA cross-sectoral programmes and projects to ensure sustainable funding and reporting on progress.
8. To prepare draft workplans and budgets for the approval of the PMA-SC and manage the PMA Secretariats' operational funds.
9. To prepare papers on specific agenda items that summarise the content of reports and issues to be considered, clearly indicating decision required at meetings.
10. To initiate and organise PMA seminars and workshops.
11. To publish reports and studies on the PMA.
12. To liase with all stakeholders to facilitate the smooth functioning of the PMA.
13. To prepare press releases of the PMA activities and liase with the media.
14. To prepare annual activity and financial reports of the PMA, and
15. To carry out any other duties as assigned by the PMA SC.

III. PMA Secretariat Structure, Staffing and Facilitation.

The Secretariat will be established as a new structure reporting to the PS, MAAIF who will be the defacto secretary to the PMA Steering Committee, which will be chaired by the MFPED. The secretariat will be a small but effective unit, which will carry out some of its functions through sectoral and cross-sectoral task groups and consultants. The head of the secretariat will be employed on terms equivalent to those of a Director in order to attract

individuals with the qualifications, skills and experience to perform cross-sectorally. The linkages with other departments in MAAIF would be formalised as part of the on-going functional analysis exercise. It is proposed that the Secretariat should have a staff of about four technical staff that may include:
1. Director/Head/Manager.
2. Economist/Statistician.
3. Monitoring and Evaluation Specialist.
4. Administrative Officer/Finance Officer.

The staff would be employed on contract terms and be adequately facilitated so as to perform the cross-sectoral functions of the PMA secretariat. Such facilitation will include transport for official duties, computers, telephone, photocopiers, and E-mail and Internet services.

Annex 7. **TERMS OF REFERENCE FOR THE PMA FORUM**

I. Background

The successful implementation of the PMA will depend on the actions of a wide range of stakeholders. These include Central Government Ministries and Parastatals, Local Governments, the private sector, the civil society, educational and research institutions, and Development Partners. The implementation of the PMA will be guided by a Steering Committee (PMASC) which will have executive powers with respect to the planning and financing of PMA programmes. The PMA Steering Committee (PMA SC) will be composed of representatives of key stakeholders. However, because the number will be limited to less than 30 people, it was agreed that a wider representation in form of a PMA Forum be created to allow for broader participation of stakeholders in PMA matters.

II. Terms of Reference (ToR)

The PMA Forum will provide a mechanism for:

1. Soliciting stakeholder inputs (monitoring and evaluation reports) into the PMA implementation process.
2. Dissemination of the decisions of the PA SC and progress reports on policy developments and financing and other PMA implementation issues.
3. Harmonisation of cross-sectoral implementation policies and constraints and
4. Sharing of best international and local practices and other lessons from PMA implementation among stakeholders.

III. Composition of the PMA Forum

The composition of the PMA-Forum will be as follows:

I. Central Government

1. The Permanent Secretary /Secretary to the Treasury, MFPED
2. The Permanent Secretary, MAAIF.
3. The Permanent Secretary, MWLE.
4. The Permanent Secretary, MOLG
5. The Permanent Secretary, MGLSD.
6. The Permanent Secretary, MTTI
7. The Permanent Secretary, MOWHC
8. The Permanent Secretary, Prime Ministers Office
9. The Permanent Secretary, MOH.
10. The Permanent Secretary, MEMD
11. The Permanent Secretary, MOES.
12. The Presidential Advisor, on Agriculture.

II. **Local Government.**

1. The President, ULAA.
2. The Representative of the Association of CAOs.
3. The Representative of the Association of DECs.
4. The Representative of the Association of Sub-county Councils.
5. The Regional Chairmen, Uganda Local Authorities Associations.

6. The Chairman, ULGFC.

B. Private Sector.
1. The Director, Private Sector Foundation.
2. The President, UNFA.
3. The President, Agricultural Council of Uganda.
4. The President, Uganda Commercial Farmers Association.
5. The Executive Secretary, Uganda Coffee Trade Federation.
6. The Chairman, Uganda Oil Seeds Processors Association.
7. The Chairman, Micro Finance Forum.
8. The Director, Uganda National Chamber of Commerce and Industry.
9. The President, Uganda Animal Traction Association.
10. A representative of the Uganda Beef Producers Association.
11. A representative of the Uganda Fish processors and Exporters Association.
12. A representative of the Uganda Small-Scale industries Association.
13. A representative of the Uganda Importers and Exporters Association.

C. Parastatals.
1. The Director, Uganda Bureau of Statistics.
2. The Director General, NARO.
3. The Managing Director, Uganda Coffee Development Authority.
4. The Executive Director, Uganda Investment Authority.
5. The Director, Uganda National Council of Science and Technology.
6. The Director, Uganda National Bureau of Standards.
7. The Director, Uganda Export Promotion Board.

D. Civil Society.
1. AUPWAE – Association of Uganda Professional Women in Agriculture and Environment.
2. BUCADEF – Buganda Cultural Development Foundation
3. NAWOU – National Association of Women Organisations of Uganda.
4. UWONET – Uganda Women Network.
5. UEPF – Uganda Environmental Protection Forum.
6. The NGO Forum
7. Deniva.
8. Uganda Debt Network.
9. Food Rights Alliance/VECO-Uganda.
10. The Director SG 2000.
11. Representative, AT (U).
12. Representative IDEA (USAID).
13. A representative of the Uganda Participatory Poverty Assessment Project.
14. A representative of the Uganda Catholic Secretariat.

E. Donor Community.
1. Royal Danish Embassy/DANIDA.
2. World Bank.
3. FAO.
4. DFID.
5. EU, and other members of the Donor Sub-Group on Agriculture.

F. Universities and Research Institutions.

1. Makerere University Institute of Environment and Natural Resources (MUIENR)
2. The Dean, Faculty of Agriculture, Makerere University.
3. The Dean, Faculty of Forestry and Natural Conservation, Makerere University.
4. Centre for Basic Research (CBR)
5. National Union of Researchers and Research Users (NURRU)
6. Centre for Industrial Services
7. Uganda Management Institute (UMI)

IV. Modalities.

1. The PMA Steering Committee will constitute the PMA Forum.
2. The PMA Forum will be constituted by representatives of the following stakeholders:
   a) Central Government.
   b) Local Governments.
   c) Parastatals
   d) The Private Sector.
   e) Civil Society.
   f) Development Partners.
   g) Educational and Research Institutions.
3. The PMA Forum will be chaired by the PS/ST and supported by the PMA Secretariat.
4. Meetings of the PMA Forum will be held quarterly or as decided by the PMA SC.
5. The PMA Forum may establish specialised committees or task group to facilitate its work.
6. The PMA Forum will be composed of 50 to 100 members.
7. The decisions of the PMA Forum will not be binding to the PMA SC but will receive serious attention by the PMA SC while carrying out its work.

Annex 8. Composition of PMA Committees and Task Groups.

A. Steering Committee.

NAME	TITLE	INSTITUTION
Mr. E. Tumusiime-Mutebile	Permanent Secretary /Sec to Treasury	MFPED
Mr. O. O. Obong	Permanent Secretary	MAAIF
Mr. V. B. Ssekono	Permanent Secretary.	MOLG
Eng. B.K. Kabanda	Permanent Secretary	MWLE
Mr. Amooti Muganzi	Permanent Secretary	MWHC
Mr. J. Lwamaffa	Permanent Secretary	MOPS
Mr. Kakiima Ntambi	Permanent Secretary	MGLSD
Mr. F.X. Lubanga	Permanent Secretary	MOES
Mr. S. P. Kagodda	Permanent Secretary	MTTI
Prof. J. Mukiibi	Director General	NARO
Hon. Chebet Maikut	President	UNFA
Dr. J. J. Otim	Presidential Advisor	OP
Ms. Angela Katama	Director	PSF
Prof. E. Sabiiti	Dean	F/A, MUK
Dr. J. R. Kabogoza	Dean	F/FNC, MUK
Mr. T. N. Buchanayandi	Managing Director	UCDA
Mr. V. Ssempijja	Vice Chairman	ULAA.
Mr. C. Gashumba	Director	APSEC
Dr. E. Katunguka	Dean	F/VM, MUK
Mr. Hans Lillelund	Development Counsellor	Danish Embassy
Mr. Robert Blake	Country Programme Manager	World Bank
Mr. Ajamal M. Qureshi	Resident Representative	FAO
Mr. Erling Rasmussen	Chief Sector Adviser	ASPS
Mr. Alwyn Chilver	Renewable Natural Resource Advisor	DFID

B. Technical Committee.

NAME	TITLE	INSTITUTION
Mrs. R.P. Tumusiime	Commissioner Agric. Planning (TC Chairperson)	MAAIF
Mr. Mark Otim	Principle Economist (TG Chairman)	MAAIF
Mr. Robert Rutaagi	Executive Director	UEPB
Mr. F.X. Wagaba	Chief Planning Division	MOLG
Dr. Willie Odwongo	Principle Policy Analysis	AGPSEC
Dr. Godfrey Bahiigwa	Senior Research Fellow	EPRC
Mrs. Harriet Ssali	Managing Director	Bamuharu Florist (PSF)
Dr. Silim Nahdy	Director	KARI
Mr. Daniel Wanzala	Vice President	UNFA
Mr. Wilber Ainebyona	Principal Economist	MFPED
Dr. Peter K. Ngategize	Resource Person, PMA	PMA

Thematic Areas, Task Managers and Consultants.

THEMATIC AREA	TASK MANAGER	CONSULTANTS
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2. Institutional Reform and Strengthening	Mrs. R.P. Tumusiime	Dr. D. Kisauzi J. Grosen T. Lang
3.Private Sector Involvement	Mrs. H. Ssali	Ms. G. Kyokunda,
4. Agricultural Extension	Dr. Silim Nahdy	Prof. J. Nsereko, IDC
5. Agricultural Research and Development	Dr. J. Aluma	Prof. P. Rubaihayo, IDC
6. Agro-Processing and Marketing	Mr. R. Rutaagi	Mr. Eriab Kiiza, Clear Consult
7. Rural Finance	Dr. W. Odwong	Mr. L Eturu
1. Water for Production	Mr. J. Mackay Ogwang	Mr. P. Mulumba
2. Land and Land Management	Mr. F. X. Wagaba	Ms. R. Mwebaza
10. Forestry	Dr. J. Aluma	Mr. J. R. Kamugisha
11. Environment	N/A (Across-cutting issue)	Dr. Y.Z. Moyini
12. Gender Analysis	N/A (Across-cutting issue)	Ms. M. Sengendo
13. Sector Investment Audit and Resource Envelope	Mrs. E. Kateme-Kasajja	Dr. Luke Abe, Mr. S. Akroyd
14. Farm Power and Machinery	-	Dr. Odogola Dr. Pascal Kaumbutho
15. Optimal Land use and Resettlement.	-	Mr. Kalule-Ssewali
16. Agricultural Education	Ms. Maud Magara	

C. PMA Drafting Team

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D. PMA Implementation Task Group.

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Mr. Wilber Ainebyona	Economist	MFPED
Mr. Godfrey Bahiigwa	Senior Research Fellow	EPRC
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Mr. Francis X. Wagaba	Chief Planning Div	MOLG
Mr. Sam Bikanganga	Economist	MWLE
Dr. J.J Otim	Presidential Adviser on Agriculture	OP
Mr. Daniel Wanzala	Vice President	UNFA
Mr. Tim Williamson	Desk Officer Poverty Action Fund	MFPED
Mr. J. J. Oloya	Rural Development Specialist	IDA
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