

# **Agricultural Sector**

## **Background Review for the PRSP**

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## List of Acronyms

ADF	African Development Fund
ADB	African Development Bank
ASR	Agricultural Sector Review
CBO	Community Based Organisation
DFID	Department for International Development, U.K.
EU/GOSL	European Union/Government of Sierra Leone
FA	Farmer's Association
FAO	Food and Agricultural Organisation
FFS	Farmer's Field School
GDP	Gross Domestic Product
GOSL	Government of Sierra Leone
GTZ	German Technical Cooperation
HIES	Household Income and Expenditure Survey
IFAD	International Fund for Agricultural Development
IMF	International Monetary Fund
IVS	Inland Valley Swamp
MAFFS	Ministry of Agriculture, Forestry and Food Security
MCS	Monitoring, Control and Surveillance
MEP	Ministry of Energy and Power
MFMR	Ministry of Fisheries and Marine Resources
MLGCD	Ministry of Local Government and Community Development
MMR	Ministry of Marine Resources
MOWTM	Ministry of Works and Technical Maintenance
MTASP	Medium Term Agricultural Strategic Plan
NAFSL	National Farmer's Association of Sierra Leone
NAPCO	National Agricultural Production Company
NGO	Non Governmental Organisation
PASCO	Poverty Alleviation Strategy Coordinating Office
PEMSD	Planning Evaluation Monitoring and Statistics Division
PPA	Participatory Poverty Assessment
PRSP	Poverty Reduction Strategy Paper
PS	Private Sector
RRRS	Rokupr Rice Research Station
SLAPCO	Sierra Leone Agricultural Production Company
SLPMB	Sierra Leone Produce marketing Board
SLRA	Sierra Leone Roads Authority
SSA	Sub Saharan Africa
SSL	Statistics Sierra Leone
WFP	World Food Programme

# Agriculture Sector PRSP Background Paper

## Executive Summary

### Overview of the Sector

Agriculture is the largest provider of employment in Sierra Leone, and is the largest single sector in the economy, producing around 45% of GDP and giving jobs to an estimated 2.5 million people. In order to achieve the government's target for real annual GDP growth, of 7% between 2004-2006, strong and sustained growth in agriculture will be required. At the same time 75% of the population are farmers, both men and women, living in rural areas, therefore any strategy to achieve broad based poverty reduction must focus on agricultural and rural development. The agriculture sector is crucial in addressing issues of food security, poverty alleviation, economic growth, increased exports and social development. A careful balance has to be achieved in pursuing these different objectives.

Food crop production levels, which had dropped during the 1990s, are returning to pre-war levels. Paddy production levels in 2002 reached 422,000 MT, as compared to a low of 198,000MT in 2000. However there is still some way to go before the level of 543,000MT in the early 1990s is reached. There has been a similar pattern for other crops. There is little reliable information about livestock numbers in Sierra Leone. Pre-war, 70% of households held livestock as a store of wealth. This was probably the sub-sector most hit by the war, but indications are that livestock numbers are again increasing slowly.

Fisheries have also been affected by the war throughout the 1990s. The number of vessels in the industrial fleet has fallen considerably since the early 1990s, and the catch has fallen to a quarter of what it was. In 2002, artisanal fishing production was about three times the level of industrial production.

Despite the abundance of land and water resources, the majority of farmers have smallholdings of 0.5 to 2 cropped hectares, operating as basic subsistence food production units. Farm size is determined mainly by the limitations of labour availability, the fertility of the rotational slash, burn and fallow land use system, and the acreage that can be managed by manual methods based on the hoe and cutlass. These productive constraints are being made worse by absolute shortage of cash income and indebtedness; the non-monetary nature of the household economy; and the remoteness and paucity of social and welfare services available in rural areas. These farms should be the primary focus of poverty reduction efforts.

Rural areas in Sierra Leone have the highest levels of poverty in the country, and this is closely linked to the situation in the agriculture sector. Particular issues are the high dependence on female labour and labour shortage at peak production periods. These have been characteristic of agriculture in Sierra Leone for many years, but have been intensified since the war, because of difficulties in keeping youths, males in particular, in the villages and participating in farming. The recent Integrated Household Survey shows quite high levels of inactivity in males under 30.

The percentage of domestic rice requirements met by local production has fallen since 1990, and the production of cash crops has also fallen. Both these declines have implications for food security, as, where a substantial proportion of households are farming in large part for subsistence, increasing production in those farms will be an important element in increasing their food security. However for others, food

security may be achieved through increasing employment opportunities, or by encouraging cash crop production where this is more profitable.

### **Policy Framework**

The Ministry of Agriculture Forestry and Food Security (MAFFS) seeks to improve agricultural production and productivity in order to achieve food security, by providing an enabling environment for farmers and promoting appropriate research, extension, input delivery and market systems, thereby improving rural incomes, reducing poverty and maintaining the natural environment. To this end MAFFS formulates and implements policies and coordinates, designs and monitors programmes for the development of the agricultural sector with the following objectives: (a) to increase diversified domestic production of food, with a view to achieving food security in the medium to long term; (b) to increase agricultural productivity, output, rural incomes and employment, while ensuring adequate protection of the environment; (c) to ensure balanced regional agricultural growth and equitable distribution of income; and (d) to maximize foreign exchange earnings from the agricultural sector.

The Interim Statement of Policy Intent for the Agriculture Sector lays out how the government intends to proceed in key areas for agriculture. However, this has not, as yet, been adopted by government and, although it is the guiding document for the concerned government ministry, it is not communicated or understood at local levels. The role envisaged for the state in the Interim Statement of Policy Intent is to:

- provide public goods, such as research, foundation seed, rural infrastructure such as roads, crop and livestock extension packages, and an early warning system
- facilitate private sector delivery of services such as seed multiplication and marketing, and rural finance
- regulate and enforce standards, for example in crop and livestock grading and certification, quality control of animal drugs and vaccines, and agrochemicals
- make and implement policy in areas such as land tenure and natural resource management
- build capacity and empower local communities, farmer associations and marketing cooperatives
- mobilise external resources, co-ordinate donor activities, and monitor and evaluate the general processes of agricultural development.

There is a formal policy for the Fisheries sector which aims to promote responsible fishing, increase employment opportunities, raise the socio-economic status of those involved in fishing, including women, and increase export earnings.

Although MAFFS and the Ministry of Fisheries and Marine Resources (MFMR) are the two key technical ministries in the agriculture and fisheries sector, there is need for close coordination with development partners both within and outside of government to achieve a productive and progressive basis for pro-poor economic growth and the objective of a food secure nation. Growth in the agriculture sector is dependent on the improvement of rural infrastructure, and increasing access to education and health services, which are important elements in addressing rural poverty. These are dependent on improved service provision by other government ministries.

The private sector has an important role to play in providing services for local communities and as the main source of inputs and credit for agricultural activities. NGOs, farmers' groups and cooperative groups also have a role to play, particularly in capacity building. The activities of all of these organisations need to be properly

coordinated so as to harmonise and improve provision of services, to improve capacity in a consistent manner, to encourage good practice and to avoid duplication. The government aims to withdraw from physical involvement in the supply of inputs and services to the agricultural community.

Sierra Leone is committed to a process of decentralisation, as laid out in the Local Government Act of 2004. Many important services and responsibilities will be devolved to district councils, and it is hoped that this will allow the provision of services such as agricultural extension to become more responsive to the requirements of farmers who should be in control of their production process.

## **Challenges for the Agriculture Sector**

### *The vision for the agriculture sector*

Agriculture in Sierra Leone is dominated by smallscale farmers, operating on a semi-subsistence basis, and these should be the key target for poverty-focussed activities in the agricultural sector. The government, both district and national, should provide improved infrastructure, in particular roads, but the private sector should be the major provider of agricultural inputs and output marketing. However, it will be very difficult to stimulate increased private sector activity in these areas on the basis of smallscale farming, at least initially. Medium and largescale farmers must also be encouraged, to allow the development of good market systems that will, over time, provide the environment from which the smallscale farmer can benefit, when he or she feels able to move into more commercial activities. It will also provide more employment opportunities in the rural sector, both farm and non-farm. To encourage larger scale farming, access to rural finance must be improved.

Smallscale farmers need support to address the technical problems they face, in terms of improving agricultural productivity and diversifying production patterns, to reduce their vulnerability to climate, pest and market conditions. They should be encouraged to take an active role in developing demand-driven research and extension services. In ten years time, the agriculture sector in Sierra Leone should have increased production and yields, through a combination of greater use of improved seed, better equipment to address labour shortages, including mechanisation on middle and larger farms, and an improved marketing system.

### *Service provision and gaps*

#### **- Agriculture production and technology**

With the right type of technological packages developed by research, agriculture can contribute to reducing poverty and meeting food needs at affordable prices without necessarily causing irreversible degradation of the natural resource base. Public sector expenditure on agricultural research is very small and there is poor linkage with the extension system. Extension has been top-down in the past, and since the war, has increasingly involved NGOs, with their decentralised structure. This has substituted, to a large extent, for the poorly performing and under-resourced state system. Both research and extension must put the farmer in decision-making roles, recognising their own knowledge of their immediate environment.

Most farmers have poor access to rural financial services, to support a modernisation process. There is need for the development of a variety of financial options, from improved informal savings clubs, to access to formal bank credit, to meet the differing

needs of the farmer, from seasonal credit to tide the farmer through until harvest time, to funds to finance increased mechanisation.

#### - **Input markets**

The use of purchased inputs is, for the most part, very low in Sierra Leone. Fertiliser usage was less than half that for Sub-Saharan Africa (SSA) in the mid 1990s, and has fallen since then. Seeds and planting materials are the most important input for most farmers, and discussions show that the unavailability of planting materials at the right time is the single most frequent complaint that farmers have.

The seed market in Sierra Leone comprises of a formal and non-formal sector. Government of Sierra Leone (GOSL) has established a Seed Multiplication Project with assistance from German Technical Cooperation (GTZ) and a number of donors are supporting NGO intervention in input markets, in particular with seed provision, as part of the rehabilitation effort. The agricultural input supply sector with its numerous resource poor farmers, poor road infrastructure, limited capital, poor purchasing power, and lack of entrepreneurial capability is a risky and unattractive investment option for many private sector participants. Government has been supplying planting materials at low, or, effectively, no price since the war, as have many NGOs. The challenge is to phase out free distribution and move towards local commercial markets for planting materials to encourage farmers to produce at community level, and increase the interest of the private sector.

#### - **Output markets**

The structure of agricultural output marketing in Sierra Leone has not changed much since the early 1990s when market reforms were initiated. Private sector firms, mainly small operators, continue to dominate the food crop marketing system. However, large private sector operatives have generally limited their activities to a very few areas, largely because of the poor environment, and in particular the poor state of the road network. There is potential for adding value to agricultural output through increased processing, for both domestic and export markets. However, there is need to improve infrastructure and market information across the country.

#### - **The role of the private sector**

The private sector should be playing an increasing role in agriculture in Sierra Leone. However, for this to evolve, there must be a move away from the culture of dependence on government that characterises many local communities. There are key areas in the agriculture sector, which need infusions of both technical resources and investment. Tree crops plantations, one of the major export areas in the past, and the food-processing sector, are two of the main areas where rehabilitation of existing structures, and development of new technologies would make important contributions to growth.

### **Priority Actions**

The PRSP cannot address all issues pertaining to rural poverty, but should set out a programme that is feasible in both human and financial resources to be carried out within a three-year period. Priorities have been identified on the basis of consultations at the district level, and the government's own assessment of priorities and feasible activities, as indicated in the recent agriculture sector review. The district consultations identified the following areas, in order of priority:

- Increased productivity and diversification of agriculture
- Support of farmers', women's and community organisations
- Improvement of rural infrastructure
- Reform of rural financial services
- Decentralisation and enhancement of service provision
- Reform of extension services

Based on these consultations, and the comprehensive Agricultural Sector Review carried out in 2003, four priority areas have been identified to be addressed within the PRSP: policy framework and capacity building, increasing food production, including mechanisation, improvement of rural services and rural infrastructure.

- ***Effective Policy Framework and Capacity Building*** The various stakeholders in the agriculture sector will have to work together effectively to implement the activities identified in the PRSP, which will require a clear policy framework that identifies the various role of these stakeholders, and in particular the role of government. A first step in PRSP implementation should therefore be a review of the draft policy framework, and then the speedy adoption of an agreed policy, which can then be disseminated at national and district level. In order to support the farmer, and implement the key areas outlined below, the wider issue of re-organisation and training of agriculture staff and other relevant service providers, as key catalysts for dissemination of technology and increased productivity and incomes should be addressed. Farmers themselves must be assisted and empowered through local level capacity building to organise themselves, effectively express their demands for the various support services they require and take steps towards a more commercially oriented approach to agriculture. Programmes would also include farmer and office bearer training, professional advice for sub-project preparation and assistance - mostly by matching grant - for small investment schemes.
- ***Increasing Food Production*** It is recommended that the basis for small subsistence farming interventions would be a small farms productivity scheme. First steps will be the rehabilitation of the infrastructure necessary for the production and distribution of good quality planting material. The focus will be on the use of improved rice cultivars and alternative root crops to fill the hunger gap. Government and NGOs should move out of the provision of free planting materials to allow the development of a localised community based system of seed multiplication on a semi-commercial basis, which could also encourage entry of the private sector into this market. A programme of mechanisation is required to cultivate suitable large land areas in low land ecologies to bring about accelerated productivity using improved farming practices to achieve increased rice production, and to encourage youths back into the rural sector. It should be geared towards strengthening private investment in machine hire services and government should provide support to facilitate their access to and management of credit from bank(s), rather than, as in the past, government provision of tractor services. In the livestock sector, there is need to develop a broad strategy for the development of the sector. In the short-term the process of rehabilitating laboratories and veterinary clinics, which has already started, should be completed. Abattoirs should also be rehabilitated. The fisheries sector needs to boost the Monitoring, Control and Surveillance (MCS) activities under the Artisanal Fisheries Development Project for Sierra Leone to protect its marine fisheries resources and bring about increased fish supplies to the domestic and export market and contribute to poverty reduction.

- **Improving rural services** In support of the second priority area, Increasing Food Production, steps must be taken to provide the farmer with effective rural services in the area of extension, research and rural finance. In extension, there will be a move to create a demand-driven semiautonomous extension system to take over from the current dysfunctional government system. This will build on initiatives such as the present Farmer Field Schools, to involve a number of different stakeholders: the private sector, NGOs and research and training institutes. The research system will be restructured by bringing all research programmes under a unified management structure, the Sierra Leone Agricultural Research Institute, to develop and implement a National Collaborative Agricultural Research Programme. Research will be primarily adaptive, and respond to the needs expressed by farmers in the areas of crop production, livestock, fisheries, post-harvest technology, natural resource management and agricultural policy. Rural finance will be restructured so as to ensure access by farmers, both men and women, to provide credit for input use and seasonal credit. Credit will also be required for equipment purchase, and credit lines should be organized for farmer's association and small-scale farmer groups, and to encourage the participation of other private sector investors in various aspects of the livestock industry. These service delivery programmes should be developed in collaboration with farmers, both men and women, the elders and youths, to ensure that they fully address issues of access.
- **Rural Infrastructure** For roads, this programme will be undertaken by central and district roads, transportation and works departments as part of an expected wider, national intervention to bring the country up to a recognisable international standard of provision. Maintenance of all but the major roads will be the responsibility of district councils, and it is key that suitable funds are made available for this purpose. For other agricultural infrastructure such as irrigation and drainage works rehabilitation, and handling and storage facilities, it is recommended that these should be implemented through districts, chiefdoms and farmer groups, to be financed mainly by loans, with a significant beneficiary contribution.

Given the high levels of poverty in rural areas, which also appear to be linked to the extent to which households are dependent on the agricultural sector, there does not appear to be a strong case for targeted interventions. It will be more important to ensure that programmes are designed in such a way as to ensure access for small scale farmers, and in particular women and youths. The most appropriate way to achieve this is to involve these groups fully in the design and implementation of projects and programmes, and to monitor this carefully to ensure that these are socially inclusive in practice.

The programmes outlined above amount to just over Le 400 billion in total, over a three-year period, a 70% increase in the current level of development expenditures in the agriculture sector.

## **1. Introduction**

Post-war Sierra Leone is faced with addressing the massive destruction of human lives, physical and social infrastructure caused by the eleven years of civil war from 1991-2002. During the course of this struggle, agricultural roads were abandoned for long periods of time, and rendered impassable. Farms were devastated and fleeing farmers lost many of their assets, including production inputs such as improved seeds and planting materials, tools, machinery, livestock and work oxen. Crop and livestock production declined dramatically. The sector has major potential in terms of the country's natural resources, and should be one of the cornerstones of its future growth. The challenge is to mobilise resources, from government, but more importantly, from the private sector, to achieve that potential.

There has been an encouraging start, in terms of increased production levels, and resettlement of population in the rural areas. However, to maintain this, the government has to establish an enabling environment for the major stakeholders in the sector, where roles are well understood, and public expenditure is carefully focussed on those areas which will best achieve pro-poor growth and support other stakeholders – small scale farmers, both men and women, larger scale commercial growers, traders, input suppliers, processors, NGOs and civil society organisations- to carry out their functions effectively.

This review sets out the main challenges facing the agriculture sector, and prioritises the actions necessary over the next three years to ensure the sector performs to its maximum. The demands are many, and it is anticipated that over the medium to long term there will be need for further public sector investment to develop a sustainable framework for continued agricultural growth and a sector that can respond to changes in external economic circumstances. The international community has already assisted Sierra Leoneans with funds for reconstruction and the PRSP will provide a framework for further assistance.

This paper builds on a major Agriculture Sector Review that is in the process of being finalised, and other policy and planning documents for the sector. Extensive consultations were carried out with stakeholders in government, civil society and the private sector. Regional consultations were held, details of which can be found in Annex 1.

## **2. Overview of the Agriculture Sector**

Agriculture is the largest provider of employment in Sierra Leone, and is the largest single sector in the economy, producing around 45% of GDP and giving jobs to an estimated 2.5 million people. In order to achieve the government's target for real annual GDP growth, of 7% between 2004-2006, strong and sustained growth in agriculture will be required. At the same time 75% of the population are farmers, both men and women, living in rural areas, therefore any strategy to achieve broad based poverty reduction must focus on agricultural and rural

development. The agriculture sector is crucial in addressing issues on food security, poverty alleviation, economic growth, increased exports and social development. A careful balance has to be achieved in pursuing these different objectives.

### ***Agriculture as the engine of growth***

Because of the importance of the agricultural sector, it will be very difficult to achieve high growth rates in the economy as a whole, and therefore the resources necessary to fund pro-poor programmes unless the agricultural sector performs effectively. Table 1 gives more details of recent growth trends, and the importance of the different subsectors in GDP. Currently the crop sub-sector is by far the most important, followed by fisheries and forestry.

**Table 1: Agriculture GDP, 1998 – 2002 (real terms)**

	1998	1999	2000	2001	2002	2003
			<i>Act.</i>	<i>Est.</i>	<i>Est.</i>	<i>Est.</i>
<b><i>GDP growth (%)</i></b>						
Agriculture GDP growth	2.8	-5.4	2.2	3.8	6.1	6.3
Total GDP growth	-0.8	-8.1	3.8	5.4	6.3	6.5
<b><i>Share of GDP (%)</i></b>						
Agriculture, Forestry and Fishing	45.1	46.4	45.7	44.9	44.9	n/a
Agriculture	34.5	36.3	35.3	34.9	34.8	n/a
Livestock	2.3	2.2	2.2	2.2	2.2	n/a
Forestry	2.8	2.6	2.7	2.6	2.6	n/a
Fishing	5.5	5.2	5.5	5.3	5.3	n/a

Sources: National Accounts of Sierra Leone, Central Statistics Office, IMF estimates.

The agriculture sector is also potentially an important source of export earnings. In the pre-war period, exports were dominated by mineral and agricultural products, with agricultural commodities accounting for about 14% of the total. Exports declined dramatically in the late 1990s, but are now beginning to pick up. Cocoa has had the highest recovery level to date, and comprised 80% of agricultural exports in 2002.

Food crop production levels are returning to pre-war levels. Paddy production levels in 2002 reached 422,000 MT, as compared to a low of 198,000MT in 2000. However, there is still some way to go before the level of 543,000MT in the early 1990s is reached. There has been a similar pattern for other crops, as table 2 shows. There is little reliable information about livestock numbers in Sierra Leone. Pre-war, 70% of households held livestock as a store of wealth. This was probably the sub-sector most hit by the war, but indications are that livestock numbers are increasing slowly. The HIES indicates that >90% of households own chickens, almost 14% own goats and sheep, and less than 3% any other livestock, including cattle. The livestock sub-sector is small and underdeveloped, but has tremendous potential to supply the country's requirements for meat and animal protein.

**Table 2 Trends in major food crop production over the last three years 1999/2000– 2001/2002.**

<b>Crop</b>	<b>1999/2000</b>	<b>2000/2001</b>	<b>2001/2002</b>
Paddy	198.1	310.6	422.1
Maize	8.9	10.0	13.1
Cassava	240.9	314.4	339.7
Sweet Potato	28.1	21.2	25.4
Groundnut	14.7	48.9	98.4

Source ASR, 2003

The fisheries sub-sector is the largest single source of animal protein for majority of Sierra Leoneans. Fisheries have also been affected by the war throughout the 1990s. The number of vessels in the industrial fleet has fallen considerably since the early 1990s, and the catch has fallen to a quarter of what it was. In 2002, artisanal fishing production was about three times the level of industrial production. Table 3 shows production levels.

**Table 3 Fishery production in MT 1998-2002**

<b>Year</b>	<b>Industrial Fishery</b>	<b>Artisanal Fishery</b>	<b>Total</b>
1998	12617	46648	59265
1999	15818	46420	62238
2000	14199	45910	60108
2001	22598	39950	62548
2002	13721	52846	66576

### ***The agriculture sector, poverty and livelihoods***

Sierra Leone's population density is about 70 people per km<sup>2</sup>. Despite the abundance of land and water resources, the majority of farmers have smallholdings of 0.5 to 2 cropped hectares, operating as basic subsistence food production units. For these, farm size is determined mainly by the limitations of labour availability, the fertility of the rotational slash, burn and fallow land use system, and the acreage that can be managed by manual methods based on the hoe and cutlass. These farms should be the primary focus of poverty reduction efforts, because the productive constraints are being made worse by absolute shortage of cash income and indebtedness; the non-monetary nature of the household economy; and the remoteness and paucity of social and welfare services available to them.

There is a group of medium farms, typically of 4 to 15 hectares, usually owned by chiefs or local notables where food production is complemented by tree cash crops, and in some districts, by large scale livestock rearing or fishing activities. Although these farms should not be a primary focus for direct poverty reduction, they have potential to augment food supplies, and generate income and hence employment.

Large estates of plantation tree crops or mechanised field crop production, ranging from 20 to several hundred hectares, are mostly government owned, but are all nearly now defunct or in an advanced state of dereliction.

The results from the HIES indicate that the overall level of poverty in Sierra Leone is 70%, as measured in relation to a basic needs poverty line. Poverty levels are highest in rural areas (79%) and lowest in Freetown (15%), with other urban areas showing levels of 70%. This pattern differs from that shown in an earlier 1989/90 poverty survey that showed rural areas with the highest level of poverty but small towns having the lowest levels of poverty in the country.

Poverty in rural areas is closely linked to agriculture. Most households give farming as their main source of income and farmers are over-represented in the bottom two quintiles of the population. A significant percentage also sees conditions in the agriculture sector as the main cause of their poverty, as Table 4 shows. 37% of the survey blame their poverty on poor access to assets and services, climatic and market conditions in the agriculture sector, as opposed to 32% on business conditions, and 27% as a direct result of the war. Results from PPAs carried out as part of the process of developing the PRSP support these findings. Although agriculture-related factors are not at the top of the most frequently mentioned characteristics and causes of poverty, infertile land, poor harvests and lack of agricultural tools are all regularly mentioned, and having cash crop plantations are mentioned as an important element of well-being.

**Table 4**      **Self assessed reasons for poverty**

<b>Agricultural</b>	<b>%</b>	<b>Business Conditions</b>	<b>%</b>	<b>War related</b>	<b>%</b>
Lack of ag inputs	12.23	Lack of capital for own business	7.07	Loss of property due to war	25.46
Ag inputs not available	3.25	Lack of credit facilities for own business	3.28	Loss of employment due to war	1.52
Ag inputs misappropriated	2.96	Lack of employment ops	4.73	Loss of limbs due to war	0.32
Low Ag production	6.37	Salary is too low	5.03		
Drought	1.02	Prices too high	2.98		
Lack of Adequate Land	0.48	Hard economic times	7.03		
Prices for Ag products too low	2.26	Business not doing well	0.73		
Lack of buyers for Ag prod	0.46	Low profit from business	0.73		
Lack of cattle	0.43	Too much competition	0.08		
Lack of Ag capital	5.38				
Lack of credit facilities	2.07				
<b>Total</b>	<b>36.91</b>		<b>31.66</b>		<b>27.3</b>

Source: Sierra Leone Integrated Household Survey 2004, preliminary results

Although both men and women have important roles in the agriculture sector, there is considerable gender differentiation in the tasks undertaken. Men clear land and plough, women weed and both harvest. This means that men's input is more intensive at given times, often when there are likely to be labour bottlenecks, and women's is more spread out throughout the growing season, though crucial for realising good yields. During and after the war, more women have had to take on the primary responsibility for food production, because men have been killed, disabled or have not returned to their home villages. This has often had a detrimental impact on women's ability to carry out their domestic and child-rearing responsibilities.

Traditionally women also grow vegetables and groundnuts, and undertake the marketing of these crops. A baseline study, undertaken by CARE in Fakunya, Kamajei and Gbonkolenken chiefdoms in the Moyamba and Tonkolili districts respectively, indicated that 82% of marketing societies are for women producers. Women and youths were also particularly active in Rotational Savings Associations.

The participation of women in decision-making at household and national levels is of utmost importance. It is known that women do the bulk of the farm work in Sierra Leone, yet they remain marginalised. This is compounded by women's poorer access to education, health services, and

productive resources such as finance and training. Both from the perspective of addressing poverty directly and to increase agricultural output in the current circumstances more emphasis must be placed on improving the status of women in society. Policies to increase access to credit, land, skills training and other services must be developed in such a way as to ensure that women are fully involved in their design and delivery.

Labour shortage at peak production periods has characterised agriculture in Sierra Leone for many years. In the past villages have formed labour gangs of both men and women to address this. However, labour shortages have intensified since the war because of the difficulty in keeping young men in the villages and motivated to participate in agricultural activities, particularly those who have had combat experience. Village community structures do not, in general, empower young people, and many have looked for alternative employment, not always with much success. Table 5 shows results from the HIES, giving percentages of 15-30 year olds, and those over 30 who are employed in agriculture, in non-agriculture and are economically inactive. Even allowing for the fact that some 15-30 year olds may be engaged in full-time education, the number of youths who are economically inactive is very high. This is much more marked for young males, and indicates a social problem that needs to be addressed as part of the overall poverty reduction strategy. The greatest differences appear in the numbers active in the agricultural sector. The table also shows that the higher the quintile (i.e. the better off the household) the more people are employed outside of agriculture.

**Table 5 Occupation by Age, Gender and Quintile (%)**

		Quintile 1		Quintile 2		Quintile 3		Quintile 4		Quintile 5	
		15-30	>30	15-30	>30	15-30	>30	15-30	>30	15-30	>30
Male	Inactive	27.2	7.7	30.3	8.1	27.1	8.2	30.8	9.2	44.3	14.5
	Agriculture	60.1	80.7	57.9	76.0	56.1	71.2	46.4	62.8	24.6	36.2
	Non-Agriculture	12.2	11.6	11.9	15.9	16.8	20.6	22.9	28.0	31.1	49.2
Female	Inactive	14.3	15.5	13.1	15.5	20.0	16.4	18.8	20.4	41.8	28.2
	Agriculture	78.2	75.9	70.9	71.4	63.7	69.1	59.8	58.5	32.0	37.1
	Non-Agriculture	7.5	8.6	16.0	13.2	16.3	14.5	21.4	21.0	26.2	34.7

Source: Sierra Leone Integrated Household Survey 2004, preliminary results

### **Agriculture and food security**

According to the recent HIES report one major characteristic of poverty in Sierra Leone is the high incidence of food poverty in urban areas compared with overall poverty. Seventy five percent of urban dwellers outside of the capital

are food poor (i.e. they do not spend sufficient on food, or grow sufficient food to reach a basic minimum food intake).

Food security can be defined as “when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.” This can be met either through own production or purchased with household income. Where a substantial proportion of households are farming in large part for subsistence, increasing a farmer’s ability to produce for himself or herself and their family needs will be an important element in increasing their food security. However for others, food

security may be achieved through increasing employment opportunities, or by encouraging cash crop production where this is more profitable. Food security policy should focus on promoting market-driven agricultural growth, and increasing non-agricultural economic opportunities rather than setting specific production targets. Recent analysis (ASR, 2004) indicates that Sierra Leone has a comparative advantage in rice production, but this could change if the external environment changes. Policy –makers should not advise farmers what to grow, but encourage them to grow what provides them with the highest return.

In 1990, approximately 60% of domestic rice requirements were being met by local production. This has fallen to under 50% in 2003, while, at the same time , production of cash crops has also fallen. Table 6 shows that, according to the HIES, on average, only 27% of household food consumption is met from own production, the rest being purchased. At district level the picture is very varied, as Table 7 shows. In some districts, such as Tonkolili, Koinadugu and Pujehun, about 50% of household consumption is met from own production, whereas in Western district, which is largely urban, almost all food consumed is purchased. This variation reflects remoteness (Tonkolili, Koinadugu and Pujehun) and proximity (Western) to markets, and the extent to which districts have recovered after the war.

**Table 6 Value of average annual consumption, per household, by quintile, by source (in Leones)**

Quintiles	Food Purchases	Ow n Produce	Total	% Consumption from own produce
Bottom 20%	577,271	337,021	914,292	36.9
40%	896,615	490,979	1,387,594	35.4
60%	1,099,023	605,978	1,705,001	35.5
80%	1,242,158	742,639	1,984,797	37.4
Top 20%	2,029,799	644,318	2,674,177	24.1
<b>Averagel</b>	<b>1,208,897</b>	<b>576,900</b>	1,785,797	32.3

Source: Sierra Leone Integrated Household Survey 2004

**Table 7 Average annual consumption, per household, by district, (in Leones)**

Source: Sierra Leone Integrated Household Survey 2004

District	Food Purchases	Own production	Total	% Consumption from own production
Bo	995,232	715,118	1,710,350	41.81
Bonthe	910,517	379,453	1,289,970	29.42
Moyamba	1,183,441	693,217	1,876,658	36.94
Pujehun	956,562	988,413	1,944,974	50.82
Kailahun	713,654	554,446	1,268,099	43.72
Kenema	829,861	307,047	1,136,909	27.01
Kono	1,133,343	825,458	1,958,801	42.14
Bombali	744,451	496,880	1,241,331	40.03
Kambia	1,529,847	668,281	2,198,129	30.40
Koinadugu	909,429	962,337	1,871,767	51.41
Porto Loko	1,282,879	566,595	1,849,474	30.64
Tonkolili	799,715	885,010	1,684,725	52.53
Western Urban	2,773,500	2,985	2,776,485	0.11
Western Rural	2,132,890	138,215	2,271,106	6.09
Total	1,208,987	576,900	1,785,887	32.30

There will always be certain categories of household who will not be able to become food secure without assistance from the state. These are the disabled, the elderly and households with high dependency ratios. A food security strategy will comprise a combination of targeted programmes for these groups, support to assist farming households to improve their livelihoods and a strategy to increase employment opportunities.

### 3 The Policy Framework

The Ministry of Agriculture, Forestry and Food Security seeks to improve agricultural production and productivity in order to achieve food security, by providing an enabling environment for farmers and promoting appropriate research, extension, input delivery and market systems, thereby improving rural incomes, reducing poverty and maintaining the natural environment. To this end MAFFS formulates and implements policies and coordinates, designs and monitors programmes for the development of the agricultural sector with the following objectives<sup>1</sup>: (a) to increase diversified domestic production of food, with a view to achieving food security in the medium to long term; (b) to increase agricultural productivity, output, rural incomes and employment, while ensuring adequate protection of the environment; (c) to ensure balanced regional agricultural growth and equitable distribution of income; and (d) to maximize foreign exchange earnings from the agricultural sector.

On assumption of office as President of the Republic of Sierra Leone in May 2002, His Excellency Dr. Ahmad Tejan Kabbah declared food security as the government's main objective and has indicated its intent to eradicate hunger by pledging that he would work to ensure that by the end of his second term of office in 2007, no Sierra Leonean would go to bed hungry. GOSL has requested assistance from donors to develop a coherent strategy for agricultural development and poverty reduction to achieve these objectives.

The country's sectoral policy sits within the overall national economic and social development policy. At the macro-economic level the relevant policies establishing the enabling environment for economic activity, and pro-poor agricultural growth include the following: (i) trade and exchange rate – trade is liberalized to create expected benefits for agricultural producers with free market determination of exchange rate and some stabilization commitments to encourage increased agricultural and non-agricultural output and non-agricultural/tradable goods; (ii) public expenditure – GOSL increases its budgetary allocation to the agricultural sector to stimulate growth by promoting food self sufficiency and tradable surpluses; (iii) taxation – general reduction on taxes levied on agricultural related imports and exports with a 5% import duty on specialty machinery (tractors, power tillers and appliances, etc) compared to up to 30% on luxury cars.

The Interim Statement of Policy Intent indicates how the government intends to proceed over the following areas: land development policy, pricing, institutional reform, crop production, livestock production and support services, including input supply, credit, mechanization, produce marketing, rural infrastructure, farmers' organisations, decentralization, agricultural research and agricultural extension. The main objectives of these proposed policies, and the strategies proposed for implementation are laid out in Table 8.

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<sup>1</sup> These are the objectives laid out in the Interim Statement of Policy Intent for the Agriculture Sector in Sierra Leone, October 2002. This is still in draft form, and has not yet been officially endorsed, but is the document currently used to guide policy.

The GOSL Fisheries policy has four overall objectives:

- To improve national nutrition and food security through responsible fishing and the reduction of spoilage and wastage
- To increase employment opportunities
- To raise the socio-economic status of the people in the fisheries sector including women; and
- To improve the skills of the fishing communities and increase export earnings

The policy calls for planning to be based on sound ecological principles, maintenance and enhancement of marine and fresh water fishing resources, conservation of natural heritage, cooperation with international organisations, the establishment of training and research facilities in fisheries matters and improvement of access to financial resources for stakeholders in the fisheries sector.

### ***Role of the State in Agriculture***

The role envisaged for the state in the Interim Statement of Policy Intent is to:

- provide public goods, such as research, foundation seed, rural infrastructure, in particular roads, crop and livestock extension packages, and an early warning system
- facilitate private sector delivery of services such as seed multiplication and marketing, and rural finance
- regulate and enforce standards, for example in crop and livestock grading and certification, quality control of veterinary drugs and vaccines, and agrochemicals
- make and implement policy in areas such as land tenure and natural resource management
- build capacity and empowerment in local communities, farmer associations and marketing cooperatives
- mobilise external resources, co-ordinate donor activities, and monitor and evaluate the general processes of agricultural development

This reflects past experience in Sierra Leone, where direct government participation in the sector has not been sustainable. Government involvement has created market distortions, which have been costly in terms of the long-term development needs of the sector, and has had

significant budgetary implications (ASR 2003). There is therefore need to undertake reforms that will reduce the extent of government's involvement in agriculture.

### ***MAFFS and its development partners***

Although MAFFS and the MFMR are the two key technical ministries in the agriculture and fisheries sector, there is need for close coordination with development partners both within and outside of government to achieve a productive and forward looking basis for pro-poor economic growth, and the objective of a food secure nation. Rural infrastructure, the responsibility of Works, and Energy and Power, is particularly important, as is the provision of schools and health clinics, the responsibility of Education and Health, and the provision of some kind of social safety net for those who cannot provide for themselves, the responsibility of Social Welfare. Close coordination between the different sectors will be key to achieving government objectives for the sector.

**TABLE 8**

### **SUMMARY OF POLICY INTENT, OBJECTIVES AND STRATEGY**

<b>AREA OF POLICY INTENT</b>	<b>POLICY OBJECTIVES</b>	<b>MAIN STRATEGY</b>
Land Development Policy	<ul style="list-style-type: none"> <li>▪ To put in place a land tenure system which does not discriminate against women, and which ensures that land is accessible to people wishing to undertake productive ventures</li> <li>▪ To allocate land to its most suitable uses</li> </ul>	<ul style="list-style-type: none"> <li>▪ Establishment of a Land Commission to investigate how communal tenure laws can accommodate large-scale commercial agriculture</li> <li>▪ Compensation to landowners for improvements, when land must be acquired in the public interest</li> <li>▪ Land suitability evaluation and land use planning.</li> </ul>
Pricing	<ul style="list-style-type: none"> <li>▪ Farmers should receive fair prices</li> <li>▪ Prices of agricultural commodities should be competitive in world markets</li> </ul>	<ul style="list-style-type: none"> <li>▪ Open and liberalized market and trade, with no price regulation structure</li> <li>▪ MAFFS undertake grading and certification</li> </ul>
Institutional Reform	<ul style="list-style-type: none"> <li>▪ To develop an effective decentralised organisational structure for MAFFS</li> <li>▪ Avoid overlapping responsibilities</li> </ul>	<ul style="list-style-type: none"> <li>▪ Reorganisation of MAFFS to establish Provincial and District directorates to provide for field level planning and budgeting</li> </ul>
Crop Production	<ul style="list-style-type: none"> <li>▪ To achieve self-sufficiency in the production of food crops in which the country has a comparative resource advantage</li> <li>▪ To increase the production of cash crops for export</li> </ul>	<ul style="list-style-type: none"> <li>▪ Increasing yields, expanding the areas under cultivation in sustainable ecologies, diversifying production by promoting the cultivation of under-exploited crops, where the country has a comparative resource advantage.</li> </ul>

Input Supply Marketing	<ul style="list-style-type: none"> <li>▪ To ensure an adequate supply of planting materials</li> <li>▪ To increase the use of fertilizer/agrochemicals</li> </ul>	<ul style="list-style-type: none"> <li>▪ Government funding of foundation seed provision and certification of commercial seed production.</li> <li>▪ Private sector responsibility for seed multiplication and marketing.</li> <li>▪ Extension services to train farmers in use of fertilizer and agrochemicals</li> <li>▪ Transfer responsibility for procurement and distribution of fertiliser to private sector</li> <li>▪ Remove duty on fertiliser importation</li> <li>▪ Government will not subsidise importation and distribution of fertilisers and agro-chemicals</li> </ul>
Livestock Production	<ul style="list-style-type: none"> <li>▪ To promote production and sales of livestock products</li> <li>▪ Foster a more commercial attitude to livestock production</li> </ul>	<ul style="list-style-type: none"> <li>▪ Encouragement of local production of livestock inputs</li> <li>▪ Waive duty on imported livestock inputs</li> <li>▪ Quality control of animal drugs and vaccines</li> <li>▪ Adequate funding for animal breeding research</li> </ul>

Credit Availability	<ul style="list-style-type: none"> <li>▪ Facilitate access to adequate investment funds at rates of interest which will make agricultural investment profitable</li> </ul>	<ul style="list-style-type: none"> <li>▪ Enactment of a government regulation making it mandatory for banks to grant a minimum of 30% of their loan portfolios to agricultural producers</li> <li>▪ Encourage proliferation of different banks/financial institutions in rural and urban areas for mobilisation of savings and provision of credit at affordable interest rates.</li> <li>▪ Encourage the granting of bulk loans to farmers through farmers' associations, relying on customary rights and securities</li> </ul>
Mechanisation	<ul style="list-style-type: none"> <li>▪ To replace some of the labour required in agricultural pursuits</li> <li>▪ To facilitate expansion of cultivated area in ecologies where labour bottlenecks limit production potential</li> </ul>	<ul style="list-style-type: none"> <li>▪ Support programme of assistance to private sector to invest in agricultural mechanisation enterprises, including access to bank loans.</li> <li>▪ Support to research institutions to develop suitable equipment for small scale and intermediate farmers</li> </ul>
Human resource development	<ul style="list-style-type: none"> <li>▪ Increase the number of adequately trained agricultural personnel in the country</li> </ul>	<ul style="list-style-type: none"> <li>▪ Implementation of appropriate manpower development programmes</li> <li>▪ Increase in the number and training of female agricultural workers, and training of all MAFFS staff in analysing gender based constraints in agricultural support programmes</li> </ul>
Output/Produce Marketing	<ul style="list-style-type: none"> <li>▪ The efficient distribution of agricultural products such that seasonal variations are minimised and supplies made available at affordable prices throughout the year.</li> <li>▪ Facilitation of export marketing</li> </ul>	<ul style="list-style-type: none"> <li>▪ Individuals, associations and companies are free to export</li> <li>▪ MAFFS should implement grading and certification to ensure quality standards</li> <li>▪ Encourage the evolution of private sector marketing cooperatives</li> <li>▪ Collect and disseminate marketing information</li> <li>▪ Provide adequate infrastructure for agricultural marketing</li> </ul>
Rural Infrastructure	<ul style="list-style-type: none"> <li>▪ Improve the quality of life of the rural population with a view to stemming rural-urban migration</li> <li>▪ Achieving a more equitable distribution of public sector investment between rural and urban areas</li> <li>▪ Creation of an infrastructure base which will attract investment to the rural areas</li> </ul>	<ul style="list-style-type: none"> <li>▪ Finance of the construction and maintenance of rural feeder roads</li> <li>▪ Eliminate the disparities between rural and urban areas, for all essential socio-economic infrastructure, including marketing and agro-processing facilities</li> <li>▪ Full involvement of the beneficiary communities in the planning and implementation of infrastructural projects</li> </ul>
Agricultural Research	<ul style="list-style-type: none"> <li>▪ Development of improved and high yielding production materials</li> <li>▪ Development of appropriate technologies, in plant and animal production, and integrated pest management</li> </ul>	<ul style="list-style-type: none"> <li>▪ Demand driven research priorities</li> <li>▪ Establishment of a single research institute combining existing research institutes</li> </ul>

Agricultural Extension	<ul style="list-style-type: none"> <li>▪ To enhance the capacity of the rural population to raise their standard of living with minimum assistance from or reliance on government.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Establishment of a community based participatory extension system, making use of farmer associations</li> <li>▪ Development and extension of crop and livestock packages to farmers</li> <li>▪ Establishment of effective communication channels among researchers, extension agents and farmers</li> </ul>
Crop Protection	<ul style="list-style-type: none"> <li>▪ To control eradicate and maintain surveillance of major weeds, pests and plant diseases, to reduce crop damage</li> </ul>	<ul style="list-style-type: none"> <li>▪ Establish an early warning system</li> <li>▪ Assist and educate farmers in basic pest control</li> </ul>
Post harvest practices	<ul style="list-style-type: none"> <li>▪ To promote efficient storage, and even out seasonal fluctuations</li> <li>▪ To reduce crop loss through efficient use of processing</li> <li>▪ To diversify employment opportunities through the establishment of small scale processing industries</li> </ul>	<ul style="list-style-type: none"> <li>▪ The development of appropriate technologies to facilitate on and off farm storage of commodities</li> <li>▪ Encourage research institutions to explore improved practices of postharvest crop handling</li> <li>▪ Promote investment in agro-processing, particularly in rural areas</li> </ul>
Water resource management	<ul style="list-style-type: none"> <li>▪ To undertake comprehensive development of underground and surface water resources, for agricultural and other uses</li> <li>▪ Undertake appropriate watershed management</li> <li>▪ Construct and maintain borehole, irrigation and other works for food production</li> </ul>	<ul style="list-style-type: none"> <li>▪ Pass national water resources legislation</li> <li>▪ Implement flood and erosion control measures</li> <li>▪ Encourage the construction of both small and large scale irrigation schemes in suitable places</li> </ul>
Natural resources management	<ul style="list-style-type: none"> <li>▪ Promote the sustainable and rational use of natural resources, protecting them from further damage</li> <li>▪ Rehabilitate those areas of the country affected by severe degradation and soil erosion</li> </ul>	<ul style="list-style-type: none"> <li>▪ Public information drive on natural resource management</li> <li>▪ Review and enact laws designed to conserve natural resources</li> <li>▪ Coordinate the activities of the various ministries involved in the management of natural resources</li> <li>▪ Promote appropriate measures to rehabilitate land already damaged by mining deforestation and uncontrolled land development practices</li> </ul>

NGOs, Civil Society Organisations and Farmers Associations also have important roles to play within the sector. The National Farmer Association of Sierra Leone (NAFSL) is establishing itself on a country-wide basis, though as yet with limited capacity, and a rather broad-ranging, unfocussed mandate. National NGOs have a wealth of local knowledge that, if properly employed, will facilitate food production and other activities, though they are often constrained by lack of funds. The International NGOs on the other hand are major stakeholders who actively participate in the nation's food production drive and make a significant contribution to increase agricultural production, growth and food security.

Farmer's groups and associations, and cooperative groups have also played a significant role in the accumulation of social capital in rural communities. Membership is extended to all persons engaged in agriculturally related activities. They enable members to act collectively to organise activities such as marketing and training, and provide a channel for the views of the farming community.

The private sector has a very important role to play in providing services for local communities and as the main source of inputs and credit for agricultural activities. Experience from other countries and from Sierra Leone's own history demonstrates that private sector management of input supply, marketing, processing and the provision of contract services such as mechanised cultivation is the principal means of ensuring effective and sustainable support to agriculture.

The activities of all of these organisations need to be properly coordinated so as to harmonise and improve provision of services, to improve capacity in a consistent manner, to encourage good practice and to avoid duplication. The revision, adoption and implementation of the agriculture policy will be an important step in ensuring clear roles for the government and its development partners in the agricultural sector. There is an urgent need for a rigorous re-assessment of what can best be done by central or district government vis a vis the role and potential contribution of the private, NGO, CBO and professional sectors. Farmers, livestock keepers and fisherfolk have to be seen - and to be treated - as important and rightfully independent members of the private sector, and not as subjects of politicisation or imposition of government planning schemes; nor as mere pawns in the process of providing favourably priced food and other materials for the urban population. The government aims to withdraw from physical involvement in the supply of inputs and services to the agricultural community, particularly when free or at subsidised rates, except in the case of initial resettlement.

### ***Decentralisation***

Sierra Leone is committed to a process of decentralisation, and this has implications for the way in which MAFFS carries out its planning and regulatory mandate. The onus for agricultural development and poverty mitigation will be placed on communities, chiefdoms and districts. These agencies would then be held accountable for the disposition and utilisation of resources, the provision of support and the performance achieved. In essence the farmer will become an active player in the design and formulation of agricultural policy. A corollary of this development would be that central government and its ministries and agencies, will have primarily policy making, regulatory and facilitating roles, and should become centres of expertise, excellence and guidance in technical and socio-economic back-up.

A main purpose of central departments and agencies will be to provide assistance to districts when local capability to resolve outstanding problems, or investigate opportunities is insufficient. This will mean that the staff and other resources required by central agencies could be considerably reduced, but their calibre - and presumably rewards - increased. Full decentralisation also implies that funding for programmes, projects and service provision would be disbursed at the level of the chiefdom, community or village group that was responsible for the operation concerned, thus

reducing the opportunities for funds to be diverted from their ultimate objective. The policy and strategy framework for most of these changes already exists; what is needed now is for the provisions to be implemented forthwith.

#### **4. Challenges for the agriculture sector**

The growth of the agricultural sector in Sierra Leone is hampered by a series of specific constraints. These include manual systems of farming with low use of inputs; low participation of farmers in decision-making, especially women; an inefficient network of physical infrastructure, further weakened by a decade of conflict; weak or near total absence of agricultural support services (poor research and extension linkages, marketing structures, rural finance and poor community based and farmers organisations) and poor post harvest systems.

The majority of the farmers in Sierra Leone operate as basic subsistence food production units, who, for the most part, do not use improved techniques and inputs. Consequently their yields/output are low (e.g. a yield for rice of 1 ton per hectare in upland farming systems), and insufficient to supply the food requirements of their farm households.

In most instances agricultural policies have been formulated without the participation of the farmers themselves. Because of this, farmers generally remain unclear about the intentions or usefulness of such agricultural policies. As a result, even if such policies may be good for the farmers, they may not have the desired effect, since there is lack of ownership by the anticipated beneficiaries.

Another serious constraint to improving agricultural production is poor infrastructure. Adequate physical infrastructure in rural areas is a crucial requirement for high rates of growth to be achieved in the rural economy. The absence of good roads to facilitate transportation of both food and cash crops from farms to marketing centres and to enable establishment of hospitals, clinics, schools and other social amenities for the welfare of the farmers and their families needs to be addressed. The impact of poor infrastructure undermines efforts by farmers to move towards a more commercial approach to their activities, thus impeding the development of the agricultural sector and its potential impact on poverty.

As yet the incidence of HIV/AIDS in Sierra Leone is still just below the level usually taken to indicate pandemic proportions, and is more prevalent in urban rather than rural areas. However, there is a strong possibility that in the next few years, this will start to have a serious impact on farm households' labour availability, through increased morbidity and mortality. In addition this is likely to put more pressure on women's time, both as carers, and in terms of their domestic and production responsibilities.

This section cannot be completed without mentioning the issue of insecurity and how this can adversely affect agricultural production. The civil strife of the 1990s had a devastating effect on Sierra Leone's agricultural production, and it is impossible to fight poverty under conditions of conflict or war. The role of government in guaranteeing security of property and life is therefore critical in attaining sustained agricultural growth for poverty reduction

#### *The Way Forward*

Revitalisation of the agriculture sector in Sierra Leone will need co-operation and co-ordination of the efforts of all the development partners involved, farmers, government, NGOs and the private sector. Developing an enabling environment for the private sector is particularly important for encouraging entry into areas such as input provision, equipment rental and marketing, areas where government has limited capacity and skills. This is unlikely to happen on the basis of small

scale, semi-subsistence agriculture, which is the norm at present. Therefore the strategy for agriculture has to achieve a careful balance between provision of services, and in particular access to finance, which will benefit medium to large farmers in the short-term, but will provide a stimulus to the private sector to service these farms, and provision of support directly to smallscale farmers, to encourage them to organise more effectively for productive activities, and diversify production to provide a more secure agricultural base. Medium and largescale farmers must be encouraged, to allow the development of good market systems that will, over time, provide the environment from which the smallscale farmer can benefit, when he or she feels able to move into more commercial activities. A thriving agricultural sector will also provide more employment opportunities in the rural sector, both farm and non-farm. To encourage larger scale farming, access to rural finance must be improved.

Small-scale farmers need support to address the technical problems they face, in terms of improving agricultural productivity and diversifying production patterns, to reduce their vulnerability to climate, pest and market conditions. They should be encouraged to take an active role in developing demand-driven research and extension services. In ten years time, the agriculture sector in Sierra Leone should have increased production and yields, through a combination of greater use of improved seed, better equipment, including mechanisation on middle and larger farms, to address labour shortages and an improved marketing system.

### **Service Provision and Gaps**

#### *Agriculture Production and Technology*

With the right type of technological packages developed by research, agriculture can contribute to reducing poverty and meeting food needs at affordable prices without necessarily causing irreversible degradation of the natural resource base. Public sector expenditure on agriculture research is currently very small and with this kind of budgetary support no significant technological development can be attained. Moreover, there is very poor linkage between research and extension, and this has resulted in inefficient transfer of messages on technological breakthroughs, leading to low agricultural productivity.

Agricultural research and development must put farmers in decision-making roles. Farmers must be fully informed through the extension system about their options for improving productivity and reducing risks. It is also important for agricultural researchers to recognise that farmers themselves conduct experiments and adopt new ideas from their farms, while, at the same time, we lcoming active partnership with researchers.

The agricultural extension delivery system in Sierra Leone has taken many different forms in the past, and until recently has been managed and funded by MAFFS, government research institutions, and parastatals (SLPMB, SLAPCO and NAPCO). The demands of post-war emergency development and reconstruction has encouraged the increasing involvement of NGOs to provide much of the extension advisory service, which they have done in line with their decentralised structures. This arrangement has now largely replaced the hierarchical structure of government extension delivery services that had completely broken down, due both to the decreased level of institutional and financial support from the government and to the recently concluded war that devastated the already dilapidated infrastructure. Most of the extension efforts were initiated and planned on a top down basis with limited or no initial input from the farmers. Inadequate training of frontline extension staff, which restricted their ability to adequately respond to farmers' needs, exacerbated the poor performance of this service delivery system.

The provision of financial services to smallholder producers is critical. Farmers and other poor rural households need access to accessible and safe deposit services, which are protected against

inflation by positive real interest rates. Household savings provide a shield against emergencies. Likewise, a poor household needs access to credit for a variety of activities, including farming, to increase their productivity, or to free them from exploitative financial commitments particularly at harvest time. There is a major absence of formal institutions that provide financial services in the rural areas where 75% of the population lives. There are numerous reasons given for the non-establishment of these institutions in these areas, including remoteness of rural villages, high transaction costs, poor infrastructure, high levels of illiteracy, limited business activities, etc. However, the over-riding problem is the inability of many lower-income people to meet lenders' requirement for formal physical collateral.

The key to agricultural modernisation and poverty alleviation for the small, subsistence farm, is the formulation, in response to farmer demand, of a menu of low-cost measures for agronomic and economic improvements that are within the management and husbandry capability of the farmer and that do not place family finances at risk. Technical innovations are available that fall into this category and if these are backed up by further training and technical advice, they would meet most anticipated needs. For instance, given the present standard of subsistence farming, it is likely that significant improvements in output, leading to enhanced food supply and the possibility of saleable surpluses, would result from simple measures such as ensuring timeliness of sowing, correct plant populations and optimal, complementary intercrop mixes.

For larger farmers, mechanisation is an important issue. In the past, government has provided tractors for hire for rice production in the lowland areas and swamps, but this has not been well managed, and the prices charged have been well below commercial rates. The government still owns tractors, and this is undermining the possibilities of the development of a private sector rental service for tractors and other farm equipment. It is imperative that the government withdraw from this area, to allow an enabling environment for mechanised cultivation of lowland rice farming. This may also provide employment for some of the disaffected youth, who are unwilling to engage in hand hoe agricultural cultivation.

The absence of the support services outlined above make it more difficult for farmers to adopt productivity enhancing measures, and undermine any attempts to increase their levels of output, and build more secure livelihoods for themselves.

### *Input Markets*

The use of purchased inputs is, for the most part, very low in Sierra Leone. Fertiliser usage was less than half that for SSA in the mid 1990s, and has fallen since then. In the past, government tried to encourage fertiliser use with heavy subsidies, mainly in development project areas. GOSL has now moved out of fertiliser supply, but there has been only limited interest by the private sector in taking this over. GOSL has never supplied agrochemicals, but distribution outlets in the major production areas are virtually non-existent, and farmers have to come into Freetown to buy imported agrochemicals.

The seed market in Sierra Leone comprises of a formal and non-formal sector. GOSL has established a Seed Multiplication Project with assistance from GTZ, and a number of donors are supporting NGO intervention in input markets, in particular with seed provision, as part of the rehabilitation effort. The agricultural input supply sector with its numerous resource-poor farmers, poor road infrastructure, limited capital, poor purchasing power, and lack of entrepreneurial capability is a risky and unattractive investment option for many private sector participants.

For the majority of small farmers, the supply of inputs, other than improved seeds and planting materials or chemicals supplied to counteract serious pest or disease outbreaks; or the provision of machinery services, are likely to be of doubtful economic benefit for the foreseeable future. By the

same token, small, subsistence farms have a limited capability to absorb, utilise and manage credit. It would therefore be preferable that any financial assistance to be provided to small farmer groups should be in the form of matching grants rather than loans. Grants would only be approved for the provision of advisory services or for investments that were subject to rigorous feasibility and sustainability testing. The main road to commercialisation for the small farmer is through group action to improve his or her terms of trade in acquiring inputs and marketing surplus outputs, perhaps leading eventually to engagement in more specialised and commercial activities.

For medium and larger farms, supply of improved seeds and planting materials and the upgrading of husbandry and management would again be prime sources of increasing food supply and enhancing cash income. However, in these cases the use of fertilisers, agrochemicals and mechanisation are more likely to be practicable and justifiable. Although some farms may be large enough businesses to stand on their own feet with respect to enterprise development, it is still envisaged that group action, possibly through farmers associations that themselves become more commercially oriented than at present, would be one of the keys to enhance productive practices and improve farmers' bargaining positions with respect to the domestic market. This would allow for more coherent development of the sector. This sub-sector of farms and the enterprises that could be generated as a result of increased farm output, hold out most promise of increasing employment opportunities in the rural sector. Increased opportunities in production, processing and marketing, in particular for youth and women, could make an important contribution to poverty alleviation. It is understood that government has recently had approaches from a number of external interests on the subject of the types of large-scale commercial investment that are envisaged.

### *Output Marketing*

The structure of agricultural output marketing in Sierra Leone has not changed much since the early 1990s when market reforms were initiated. Private sector firms, mainly small operators, continue to dominate the food crop marketing system. However, large private sector operatives have generally been limited to very few areas due to factors such as deplorable road networks. Prior to the civil war, each Chiefdom had a major periodic market, and in addition there were daily markets in the major towns, making market access easy for all communities. During the civil war most of these periodic markets were burnt or vandalised, and many communities were unsafe for normal economic activity. Some of the community markets have since been re-built or rehabilitated with the assistance of donors and NGOs e.g. Magburaka and Daru markets. Some major periodic markets e.g. Joru market and Koindu international market, are still not open.

Rice, the major food crop, has been marketed by the private sector since the early 1990s, when the various state marketing bodies were wound up. Since the war, the system is basically unchanged, but NGOs are taking a role in some areas, because of poor roads and a weakened private sector. Local rice commands a premium in the market, in spite of being relatively low quality, because of the destruction of rice mills. Imported rice fills the gap in the domestic market. Other food crops have a similar marketing system, entirely in the hands of the private sector. Palm oil is generally marketed by itinerant traders who purchase the oil from village processors and resell to retailers in urban areas.

Production and marketing of traditional export crops has collapsed during and since the war. Marketing had been liberalised in the late 1980s, and private agents had entered the subsector in numbers. Gradually some of the coffee and cocoa farms have been rehabilitated and buying sectors have been reactivated by private agents in a number of areas.

Sierra Leone needs to exploit the investment opportunities for activities that can add value to farm product and encourage export promotion and diversification. Most agricultural products are exported as raw materials. Investment opportunities for value-adding ventures through agro-

processing and packaging need to be explored to increase farm incomes and off-farm employment. In addition, the country needs to exploit export markets for Sierra Leonean agricultural products. These have been hitherto restricted to a few countries in Europe. The constraint to Sierra Leone in exploiting this potential is inadequate marketing strategy (including information on prices, services, packaging etc.) and difficulty in conforming to product standards. Nevertheless the country has the appropriate conditions (e.g. flexible exchange rate, liberal pricing, less administrative controls) for investment in diversification, which would be necessary to introduce new crops like ginger, tropical fruits, etc. into the export market.

### *The Role of the Private Sector*

Commercialisation and eventual privatisation is applicable to virtually all of the support mechanisms and services for agriculture and is already underway in many developing countries. The principle is simple: the contractor, consultant or service provider is there because the clients - the farmers, livestock keepers or fisherfolk, groups or communities - decide that the services are required; he or she is based in the locality and has the confidence of the local people; and his or her livelihood depends upon the satisfactory performance of the duties or tasks assigned. Animal health field assistants may become chiefdom paravets and suppliers of drugs and treatments; extension agents may become group or farmer field school leaders, resource persons and communicators, and purveyors not only of advice but of inputs and other services; and forest officers may become communal natural resources utilisation and conservation managers. In other words, private sector provision of services has the potential for a more appropriate incentive structure and a more flexible response to the needs of the client. However, markets require institutional arrangements that permit transactions to be undertaken at low cost. Government must provide an enabling environment that supports markets, including making sure that appropriate institutional, legal and regulatory frameworks are in place.

In addition there are key production areas in the agriculture sector, which need infusions of both technical resources and investment. Tree crops plantations, one of the major export areas in the past, and the food-processing sector, are two of the main areas where rehabilitation of existing structures, and development of new technologies would make important contributions to growth. Macroeconomic stability and consistent government policy and regulations will be major elements in creating an enabling environment that will encourage the investment necessary, whether from inside or outside the country.

## **5. Priority Actions**

### **Agriculture Policy**

As indicated earlier in this paper, success in stimulating the agriculture sector will only be achieved through the efforts of a number of stakeholders, farmers, civil society organisations, NGOs, government and the private sector. For these to work together effectively, there is need for a clear policy framework that identifies the various roles of these stakeholders, and in particular the role of government. For this reason, it is critical that the draft agriculture policy framework is revisited in the light of the overall strategy identified in the PRSP, and a country-wide consultation process initiated. An agreed policy should then be adopted by Cabinet, and disseminated widely, as a crucial first step to the effective implementation of the projects and activities outlined below.

### **Identifying priorities**

In practical terms, the PRSP and the agricultural programmes and projects that it identifies cannot address all issues pertaining to rural poverty. It is therefore prudent that the PRSP should

concentrate on a limited number of themes and related activities, which lend themselves to effective implementation. Priorities have been identified on the basis of consultations at the district level, the participatory poverty assessment and the government's own assessment of priorities and feasible activities, as indicated in the recent agriculture sector review.

### **District Consultation Findings**

The results of the consultations are set out in summary in Annex 1. The key topics for agricultural development and poverty reduction were derived from previous policy and strategy documents, and participants were asked to rank them. There is also a commentary on participant responses. The topics, which can be seen as elements of the poverty reduction strategy and/or components of its supporting programmes and projects, are listed and amplified below in their order of their importance as articulated by stakeholders:

- **Increased productivity and diversification of agriculture** This topic emerged in particularly strong terms in the northern and parts of the southern provinces and was linked to the need for inputs and mechanisation. The extent to which these responses were conditioned by the expectation that these supplies and services would be provided free or heavily subsidised as in the past is not entirely clear, but there were indications from some districts of claims of readiness to pay, provided that viable credit systems are in place. An improved system for distribution of agricultural seeds and planting materials was identified in the PPA.
- **Support of farmers, women's and community organisations** (and human resource development) Respondents saw common interest groups as the key to the better provision of local services; in several districts, this topic was closely linked to the reform of extension and research service, to the progress of decentralisation and the enhancement of service provision.
- **Improvement of rural infrastructure** Infrastructural improvement ranked third overall but first in eastern region, where the condition of main and feeder roads is worst and where the destruction of agricultural buildings in the war was most marked. Many respondents pointed out that without access to markets from passable all-weather roads, there was little chance of enhancing small farm incomes or service provision, even with increased outputs.
- **Reform of rural financial services** The history of micro-credit schemes is one of virtually unmitigated failure, but participants described the frequent need for recourse to informal borrowing to cover the gap in food - specifically rice - availability, and the precedent of the "osusu" system of rotating credit as evidence of the need and the prospect of viability.
- **Decentralisation and enhancement of service provision** There was near unanimity as to the desirability of decentralisation, with the expectation that it would lead to better service provision, especially of extension. It was envisaged that freedom from central government or "Freetown" control, also for NAFSL and NGOs, would minimise bureaucratic delays and obfuscation and enable efficient management of response to local needs.
- **Reform of extension services** The responses to discussion of extension service clearly indicated that the present system is essentially non-functional - partly because they have been starved of resources - and led on to the view that it was unlikely to be made functional even if such resources could be provided. It was recognised that districts would probably have even more difficulty than central government in providing the necessary funding and organisation, and that therefore a different and innovative approach was needed

## **Priority Areas**

Based on these consultations, and the comprehensive Agricultural Sector Review carried out in 2003, four priority areas have been identified to be addressed within the PRSP: effective policy framework and capacity building, increasing food production, including mechanisation, improving rural services and rural infrastructure .

- **Effective Policy Framework and Capacity Building:** The various stakeholders in the agriculture sector will have to work together effectively to implement the activities identified in the PRSP, which will require a clear policy framework that identifies the various role of these stakeholders, and in particular the role of government. A first step in PRSP implementation should therefore be a review of the draft policy framework, and then the speedy adoption of an agreed policy, which should then be disseminated at national and district level. In order to support the farmer, and implement the key areas outlined below, the wider issue of re-organisation and training of agriculture staff and other relevant service providers, as key catalysts for dissemination of technology for increased productivity and incomes should be assessed. Farmers themselves must be assisted and empowered through local level capacity building to organise themselves, effectively express their demands as to the various support services they require and take steps towards a more commercially oriented approach to agriculture. Programmes would also include farmer and office bearer training, professional advice for sub-project preparation and assistance - mostly by matching grant - for small investment schemes.
- **Increasing Food Production** It is recommended that the basis for small subsistence farming interventions would be a small farms productivity scheme as described above. First steps will be the rehabilitation of the infrastructure necessary for the production and distribution of good quality planting material. The focus will be on the use of improved rice cultivars and alternative root crops to fill the hunger gap. Government and NGOs should move out of the provision of free planting materials to allow the development of a localised community-based system of seed multiplication on a semi-commercial basis, which could also encourage entry of the private sector into this market. A programme of mechanisation is required to cultivate suitable large land areas in low land ecologies to bring about accelerated productivity using improved farming practices to achieve increased rice production, and to encourage youth back into the rural sector. It should be geared towards strengthening private investment in machine hire services and government should provide support to facilitate their access to and management of credit from bank(s), rather than, as in the past, direct government provision of tractor services. In the livestock sector, there is need to develop a broad strategy for the development of the sector. In the short-term the process of rehabilitating laboratories and veterinary clinics, which has already started, should be completed. Abattoirs should also be rehabilitated. The fisheries sector needs to boost the Monitoring, Control and Surveillance (MCS) activities under the Artisanal Fisheries Development Project for Sierra Leone to protect its marine/fisheries resources and bring about increased fish supplies to the domestic and export market and contribute to poverty reduction. Fishpond development and inland fishing should be encouraged.
- **Improvement of services to the rural sector** In support of the second priority area, Improving Food Production, steps must be taken to provide the farmer with effective rural services in the area of extension, research and rural finance. In extension, there will be a move to create a demand-driven semiautonomous extension system to take over from the current dysfunctional government system. This will build on initiatives such as the present Farmer Field Schools, to involve a number of different stakeholders: the private sector, NGOs and research and training institutes. The research system will be reformed by creating a National Collaborative Agricultural Research Programme, which will bring all research programmes under a unified management structure. Research will be primarily adaptive, and respond to the needs expressed by farmers in the areas of crop production, livestock, fisheries, post-harvest technology, natural resource

management and agricultural policy. Rural finance will be restructured so as to ensure access by farmers, both men and women, to credit for input use and seasonal credit. Credit will also be required for equipment purchase, and credit lines should be organized for farmer's association and small-scale farmer groups, and to encourage the participation of other private sector investors in various aspects of the livestock industry.

- **Rural Infrastructure** For roads, this programme will be undertaken by central and district roads, transportation and works departments as part of an expected wider, national intervention to bring the country up to a recognisable international standard of provision. For other agricultural infrastructure such as irrigation and drainage works rehabilitation and handling and storage facilities, these should be implemented through districts, chiefdoms and farmer groups, under the Local Government Act. Some of these may be financed out of local government funds, but other elements will be financed mainly by loans, with a significant beneficiary contribution. It is important that appropriate planning processes are set up at district level and below, in line with decentralisation initiatives, to develop local infrastructure plans to meet the needs of specific districts and communities, and that financial resources are set aside to cover the maintenance of any new structures.

A synopsis of the key programmes and projects suggested by the foregoing proposals in terms of objectives, strategy/activities, target output, estimated costs, implementing agencies and timeframe are given in the Policy Implementation Matrix below. The figures quoted relate only to poverty reduction through agricultural development activities as described above; it includes sums already known to be committed by donors; and assessments of those understood likely to be available to most of the key players in the field, including NGOs; but it excludes major private sector, commercial investment in large scale cash crop production and processing. The estimate is also conditioned by the view of the study team as to local and national absorptive capacity and probable timelines of project progress. It should be re-iterated that it is axiomatic that the impact and sustainability of poverty reduction and agricultural development are not determined by the amount of money allocated, but by the purposes for which - and the manner in which - funds are spent.

### **Targeting**

Given the high levels of poverty in rural areas, which also appear to be linked to the extent to which households are dependent on the agricultural sector, there does not appear to be a strong case for targeted interventions. It will be more important to ensure that programmes are designed in such a way as to ensure access for small scale farmers, and in particular women and youths. The most appropriate way to achieve this is to involve these groups fully in the design and implementation of projects and programmes, and to monitor this carefully to ensure that these are socially inclusive in practice. Programmes which are donor or government funded should be required to set targets for both percentage of beneficiaries who are women and youths, and for number of women and youths employed by the programme. If necessary, programmes should build in training elements for these specific groups to ensure that they have the necessary skills for programme implementation.

There is evidence that both women farmers and youths who farm show a preference for growing vegetables and groundnuts as cash crops. Care should be taken that these crops are included in research, extension and marketing programmes. Similar attention should be paid to small stock, such as poultry.

## PRSP IMPLEMENTATION MATRIX

### 1. EFFECTIVE POLICY FRAMEWORK AND CAPACITY BUILDING

Objective	Strategy	Activities	Target Population	Cost	Implementing Agency	Targets	Assumptions/Risks
<p><b>An effective, well-understood policy framework for agriculture</b></p> <p><b>Increased capacity at government and community level, to enable more effective design and implementation of agricultural services.</b></p>	1. Adoption and dissemination of agricultural policy	<ul style="list-style-type: none"> <li>Revision of interim agricultural policy in light of PRSP, with district consultation, and formal adoption</li> <li>Dissemination of policy at district level and below</li> </ul>	All Sierra Leoneans involved in agriculture, and in particular 450,000 farm families	Policy revision, consultation and dissemination – Le 275 million	MAFFS	Policy revised and consultations made – mid 2005.	<ul style="list-style-type: none"> <li>Change of policy in project time frame.</li> <li>Farmers respond positively to new technologies.</li> <li>Sufficient manpower recruited by MAFFS to allow for reorganisation and training while maintaining the basic functions of the ministry</li> </ul>
	2. Improve quality, quantity, and relevance of training capacities of ministry staff and private sector in their respective future focal responsibilities.	<ul style="list-style-type: none"> <li>Reorganisation of the Ministries including decentralization and devolution of authority to district/chiefdom/ community levels.</li> </ul>	1,500 MAFFS Staff	Capacity building ministry staff including research staff – Le 25 billion	MAFFS	Dissemination activities in all districts – mid 2006  Training plan developed, mid-2005  500 staff trained per year over 3 year period	
	3. Build capacity of farming communities and encourage them to act collectively in areas such as marketing, technology transfer, food processing	<ul style="list-style-type: none"> <li>Use farmer associations and farmer field schools to develop capacity at community level, training local trainers, both men and women, to assist their fellows</li> </ul>	450,000 farm families  2,500 Farmers Association	Community based activities – Le16 billion	MAFFS, FFS NAFSL NGOs	Community capacity developed in all districts with particular emphasis on the poorest	

## 2. INCREASING FOOD PRODUCTION

Objective	Strategy	Activities	Target Population	Indicative Cost	Implementing Agency	Targets	Assumptions/Risks
<p><b>Expansion and diversification of crop, livestock and fisheries production to ensure food security</b></p> <p><b>Improved small farmer productivity through development and dissemination of improved technologies</b></p> <p><b>Encourage the adoption of mechanisation by larger farmers, where appropriate, to address peak period labour shortages</b></p>	1. Improvements in production and distribution of good quality planting materials.	<ul style="list-style-type: none"> <li>Rehabilitation of MAFFS clonal and seed gardens (foundation and registered materials)</li> <li>Multiplication of seed and planting materials by individual farmers or groups.</li> <li>Promotion of community/farmer led varietal selection and improvement of crops and livestock.</li> <li>Promotion of private sector participation in seed production.</li> </ul>	450,000 farm families nationwide	<p>Planting materials – Le 20 billion</p> <p>Rehabilitation of seed gardens</p>	MAFFS FFS RRRS Private sector	<p>All farmers have access to appropriate seed by 2007, through own production, purchase or grant</p> <p>Three clonal and seed gardens rehabilitated by end 2005, and the remainder by end 2006.</p> <p>Farmers and farmer groups meeting 75% of planting material needs by 2008</p> <p>Private sector involvement in planting material production and distribution increased by factor of three by 2007</p>	<ul style="list-style-type: none"> <li>Improvement in rural infrastructure, market and agricultural services are achieved.</li> <li>Flexible facilitating conditions that favour full participation of small scale farmers in the different components.</li> <li>Government recurrent budget funds available to sustain approved programmes and beyond.</li> <li>Availability of foundation and registered planting materials</li> </ul>
	2. Provision of Phytosanitary services	<ul style="list-style-type: none"> <li>Develop capacity to design and promote pest management plans.</li> </ul>		Phytosanitary services – Le 300million		<p>Development of plant management plans for all major crops</p> <p>Establishment of trained phytosanitary specialist in each MAFFS district office by end 2007</p>	
	3. Development of livestock programme.	<ul style="list-style-type: none"> <li>Develop overall strategy to revitalise livestock sector, with prominent role for private sector</li> <li>Review legislation</li> </ul>	25,000 households rearing cattle, primarily in the North	<p>Strategy development Le 200 million</p> <p>Legislation review Le 150 million</p>	MAFFS livestock division	<p>Strategy developed by end 2005</p> <p>Legislation reviewed and livestock division restructured as necessary end 2006</p>	

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<p>4. Encourage appropriate mechanized tillage practices in suitable agro-ecologies. IVS, Mangrove, Bolilands and Reverine grassland</p>	<p>to enhance work of livestock division and restructure division in line with this</p> <ul style="list-style-type: none"> <li>• Rehabilitation of laboratories and clinics.</li> <li>• Rehabilitation of Abattoirs.</li> </ul> <ul style="list-style-type: none"> <li>• Assess appropriate collective or private channels for delivering tractor services</li> <li>• Technical assistance and farmer training.</li> <li>• Provide physical infrastructure necessary for the different mechanisation schemes i.e. construction of dams and water control structures</li> </ul>	<p>approximately 300,000 households raising chickens and goats</p> <p>250,00 Farm Families in suitable locations</p>	<p>Laboratory and clinic rehabilitation</p> <p>Abattoir rehabilitation</p> <p>Le 149 billion (how much for infrastructure?)</p>	<p>FAs</p> <p>MAFFS</p> <p>NGOs</p>	<p>Musaia and Teko clinics and laboratories rehabilitated by mid 2005, district clinics by end 2007</p> <p>50% of abattoirs rehabilitated by 2006</p> <p>Schemes for tractor delivery available by end 2005</p> <p>Farmer training and necessary infrastructure in place before end of 2005</p>	<ul style="list-style-type: none"> <li>• Labour constraint is limiting area under cultivation</li> <li>• Domestic and export prices ensure profitability of mechanised rice production</li> </ul>
<p>5. Increase capacity of monitoring, control and surveillance systems in fisheries sector (MCS programme).</p>	<ul style="list-style-type: none"> <li>• Enforce existing management system.</li> <li>• Generate relevant data to improve on systems.</li> <li>• Monitor, control and conduct surveillance of fishing vessels.</li> </ul>		<p>MCS fisheries component – Le 6billion</p>		<p>Enhanced MCS programme functioning by end of 2005</p>	<p>Fish ponds developed in chiefdoms with high potential for fish production by end of 2005</p>
<p>6. Encourage fish pond development in rural areas</p>	<p>Sensitisation and training programme for fish pond development</p>		<p>Fish pond development programme – Le2 billion</p>			

### 3. IMPROVEMENT OF SERVICES TO THE RURAL SECTOR

Objective	Strategy	Activities	Target Population	Cost	Implementing Agency	Targets	Assumptions/Risks
<p><b>To provide improved support to farmers, both men and women, in a demand-driven and socially inclusive manner, so as to improve their livelihoods and increase their food security</b></p>	1. Increase farmers' access to credit to promote monetisation of the rural economy and increase used of purchased inputs, including tractors	<ul style="list-style-type: none"> <li>• Develop programmes in rural finance that will be accessible and affordable to farming communities.</li> <li>• Establish specialist rural financial institutions</li> </ul>	Rural communities in all 13 districts	Establishment of rural financial institutions – Le28 billion	MAFFS MFMR District Councils MLGCD NGOs  Private Sector	Rural financial institutions established by 2005 in major towns nationwide	<ul style="list-style-type: none"> <li>• Decentralisation will be opened to ideas of reforming society.</li> <li>• Effective cooperation and coordination by different sectors in the various programmes.</li> </ul>
	2. Develop an appropriate demand-driven extension service for farmers, to increase their access to technological support	<ul style="list-style-type: none"> <li>• Empowering rural communities through training and provision of extension services to strengthen their capacities,</li> </ul>		Strengthening extension including farmer training – Le20 billion		Extension farmer training programmes (farmer's Field Schools) accelerated to cover entire country by 2005	
	3. Strengthen the national research system to generate appropriate technologies for farmers in different ecological regions and with different resources	<ul style="list-style-type: none"> <li>• Conduct adaptive research in the short term for quick impact on farmers' productivity.</li> <li>• Rehabilitate and upgrade research and office facilities, laboratories, etc.</li> </ul>		Rehabilitating research facilities, involving physical reconstruction work on buildings of IAR and RRS specifically - Le27 billion		Rehabilitate and upgrade national research facilities by 2005.  Introduce additional new technological packages by 2006	

## 4. RURAL INFRASTRUCTURE

Objective	Strategy	Activities	Target Population	Cost	Implementing Agency	Targets	Assumptions/Risks
<p><b>Improving rural/village infrastructure</b></p> <ul style="list-style-type: none"> <li>• <b>Set in place essential support infrastructure for pro-poor agricultural development.</b></li> <li>• <b>Fully rehabilitate and increase the coverage and effectiveness of the agricultural support services and provide a critical mass of basic economic infrastructure at the community level.</b></li> </ul>	<ol style="list-style-type: none"> <li>1. Develop appropriate community-based planning processes, within a framework of national guidelines on prioritisation, economic efficiency, and beneficiaries</li> <li>2. Set national guidelines for level of infrastructure provision</li> <li>3. Develop appropriate mechanisms for technical support from line ministries</li> <li>4. Develop appropriate mechanisms for infrastructure maintenance at community level.</li> </ol>	<ul style="list-style-type: none"> <li>• Community identification of needs and priorities</li> <li>• Incorporation of these within national sectoral ministry budget and planning processes.</li> <li>• Provision of services – eg. feeder roads, farm market centres, daily retail markets, access roads and tracks, irrigation schemes, processing and storage facilities for crops, fish, livestock, crop hulling and milling machines, etc.</li> </ul>	<p>13 districts village communities</p>	<p>Feeder roads – Le39 billion</p> <p>Market centres – Le19 billion</p> <p>Processing Facilities - Le34 billion</p> <p>Irrigation schemes – Le 10 billion</p>	<p>District councils</p> <p>Government sector ministries including:</p> <p>MAFFS MOWTM (SLRA) MMR MLGCD MEP</p> <p>NGOs</p> <p>Private Sector</p> <p>Community Groups</p>	<p>All district councils have developed rural infrastructure plans, based on assessment of community needs, by end 2005</p>	<ul style="list-style-type: none"> <li>• Effective cooperation and coordination among all government ministries and others stakeholders in all project activities.</li> <li>• Government recurrent budget funds available to maintain infrastructure.</li> <li>• Farmer's groups contribute towards construction, operations and maintenance of assets.</li> </ul>

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The total expenditure envisaged in this matrix amounts to Le 392.8 billion, over a three-year period. This compares to Le 55.6 billion, allocated to non-salary, non-interest recurrent budgetary allocations for FY2004-2006, in the 2004 budget, and Le 71.1 allocated to development expenditures. The development expenditures, which are all loan-financed, correspond to six government and donor financed projects:

1. Seed Multiplication Project (GOSL)
2. Agricultural Stabex Project (EU/GOSL)
3. Nerica Rice Project (AfDB)
4. Rehabilitation and Community Based Poverty Reduction Project (IFAD)
5. Agricultural Rehabilitation Project (AfDB)
6. Urban and Peri-Urban Vegetable Production Project (AfDB)

In addition, MFMR will receive Le 31.25 billion for an Artisanal Fisheries Development project (ADF).

Elements of these projects will address some of the priority needs identified in the PRSP Implementation Matrix, but considerable additional resources will be required.

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**Annex 1 Summary of District Consultations**

Topics – Poverty and Agriculture	Northern Province					Eastern Province			Southern Province			
	Districts>>											
	Koinadugu	Bombali	Tonkolili	Port Loko	Kambia	Kono	Kenema	Kailahun	Bo	Pujehun	Bonthe	Moyamba
Increase Productivity and Diversify Agriculture	1	1	1	2	1		3			3	1	3
	(restock/inpts)	(mech/inpts)	(mech/inpts)	(mechn)	(mech/inpts)					(mechn/inpts)	(mechn)	(mechn)
Improve Environmental Protection												
Reform Research Services	3=				5=							5=
Reform Extension Services	3=		3	5	5=	3	2=					5=
Decentralise and Enhance Service Provision		2		3	4		2=		1=	1		2
Support Farmer, Womens, Community Organisations		4	5		5=	2	2=	2	1=		3	1
Improve Rural Infrastructure -- roads, water, buildings	2	5	4	4	2	1	1	1	2		5	
Reform Rural Financial Services	4	3	2	1	3	3	4	3			2	
Social Issues -- employment, gender, youth, HIV/AIDS						4		4				4
<b>Workshop Participants/Respondents*:</b>												
Members of Province and District Staff	1	1	1	1	4	9	12	3	16	8	13	6
Chiefs and Chiefdom Office Bearers	2	4	1	5	2	7	7	1	0	5	6	0
NGOs/CBOs/Associations	13	13	21	16	22	15	11	7	6	11	7	2
- of which, Women	0	3	3	9	5	9		2	2	2	3	
Farmers	60	79	77	62	40	39	2	9	48	33	25	34
- of which, Women	19	27	14	10	21	5		2	21	10	8	7
<b>Totals</b>	<b>76</b>	<b>97</b>	<b>100</b>	<b>84</b>	<b>68</b>	<b>70</b>	<b>32</b>	<b>20</b>	<b>70</b>	<b>57</b>	<b>51</b>	<b>42</b>

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Poverty and Agriculture ((cont)	Western Area		Aggregated Summary					Total
	Urban(Ogoo Farm)	Rural (Tombo)	1	2	3	4	5	
Increase Productivity and Diversify Agriculture	1	1	7	1	3	0	0	48
		inpt/mec h						
Improve Environmental Protection		2	0	1	0	0	0	4
Reform Research Services			0	0	1	0	2	5
Reform Extension Services			0	1	3	0	3	16
Decentralise and Enhance Service Provision			2	3	1	1	0	27
Support Farmer, Womens, Community Organisations (and human resource development)	2	3	2	5	2	2	2	42
Improve Rural Infrastructure -- roads, water, buildings	3		3	3	0	2	2	33
Reform Rural Financial Services	4	4	1	2	4	2	0	29
Social Issues -- employment, gender, youth, HIV/AIDS			0	0	0	3	0	6
<b>Workshop Participants/Respondents*:</b>								
Members of Province and District Staff	3	0						78
Chiefs and Chiefdom Office Bearers	1	1						42
NGOs/CBOs/Associations	0	16						160
- of which, Women		2						40
Farmers	44							552
- of which, Women	30							174
<b>Totals</b>	<b>48</b>	<b>17</b>						<b>832</b>

## **Agriculture Sector PRSP Background Paper**

Comments from Northern Province: Decentralisation is only an intent, not yet accomplished; Credit is the beginning of empowerment of farmers; Control of border trade - information gap - people don't know; Avoid parallel distribution of supplies - NGOs/govt/NFASL; NFASL to become independent as cooperative/commercial; Inadequate extension/farmer coverage; Attitudes, transparency, secrecy, no information; Coordination among agricultural stakeholders; Govt should control and announce prices pre-harvest; Livestock restocking - can be paid for, provided credit available; Re-activate/enforce environmental laws; Training for farmers and youth; Processing/food industries; Strengthen women's participation in agriculture Encourage mechanical cultivation; Provide working oxen services; Timely provision of inputs; Promotion of farmers cooperatives; Local authorities to enforce environmental laws; Regulate cross border trade; Processing and preservation of food; Environmental protection; Training/capacity building for staff, farmers and youth; Cattle resettlement schemes

Comments from Eastern Province: Prevalent negative, unrealistic attitudes; Corrupt, dishonest, lazy, dependent; Preservation, processing, storage; Transport, marketing problems; Farmer based, minimal MAFFSS input; Farmer training, skills, status uplift; Seeds, planting materials supply critical; Decentralisation good idea, but practical?; Environment not major problem, even firewood; Induce responsibility, management skills; Minimise government role, use NGO, PS; Government salaries, conditions untenable; Much old/wrong thinking - past paradigm; Ageing farmers, disinterested youth; Dilemma of cash crop/commercial development; Inputs, mechanisation needed; Restoration/assurance of gender equity.

Comments from Southern Province: Policies and programmes to be stabilized; Adequate, timely input supply (govt or private/purchase); Effective collaboration of stakeholders (govt/NGO/PS); Excessive bureaucracy and late funding by govt; Poor conditions of service of govt staff; Extension ratio too wide 1/800; Illiteracy among farmers/urban migration of youth; Limited incentive to change subsistence to intensive; Farmer financing - no access to credit; Information flow - extension/govt is ineffective; Decentralisation - also of NAFSL/NGOs; Attractive produce prices necessary as incentive; Low incentive for commercial farming; Lack of commitment by farmers; Need for mechanisation in riverain areas; Overhaul of structures/decentralize; Some advocates of mechanisation willing to pay; Farming not serious business - politicization; Forestry laws must be reformed - and enforced; Forest extension weak - communal resp and gain; Subsidies needed for inputs and products; Corruption must be eradicated.

Comments from Western Province: Power tiller, agro-chemical (fertilizer, pesticides); Rehabilitate dam and water control structures; Drying floor, store, milling unit; Micro-credit; Farmer training, organisation for profitable marketing; Fishing gears-netting materials, engine, float, etc; Mechanisation; Improve environmental protection; Discourage use of wrong fishing nets; Rural financing

The district consultations involved meetings and discussions held with all District Directors for Agriculture and staff, representatives of NAFSL, NGOs, local leaders including Paramount Chiefs and ordinary members of farming communities including the civil society. Visits were made to the district headquarter towns and a representative farming community town in each district.

## **Annex 2: List of Persons/Institutions Consulted**

### **Ministry of Agricultural Forestry and Food Security**

Dr. Sama S. Mondeh	Hon. Minister of Agriculture Forestry and Food Security
Mr. Francis K. Ngegbeh	Deputy Minister of Agriculture
Mr. Emmanuel K. Allieu	Director General Ministry of Agriculture Forestry and Food Security
Mr. Amara Sheriff	Ag. Director, PEMSD, MAFFS
Dr. Carew	Director Livestock
Mr. Foray M. Kargbo	Director of Crops
Mr. Berthalomew Kamara	Director of Forestry
Mr. Ben A. Massaquoi	National Extension Coordinator
Mr. Sam Allie	Director of Training
Mr. Songa Lamin	Direction of Land and Water Division
Mr. J. K. Pessima	MAFFS
Dr. Abdulai Jalloh	Director Institute of Agricultural Research
Prof. Hector Morgan	Ag. Director Rokupr Rice Research Station
Mr. Mohaned S. Mansaray	RRRS
Dr. Dennis Taylor	RRRS
Dr. Sydney Johnson	RRRS
Mr. Dixon	RRRS

### **Ministry of Fisheries and Marine Resources**

Mr. Okere Adams	Hon. Minister of Fisheries and marine Resources
Mr. A. B. C. Jones	Director of Fisheries
Alhaji Alarazim	Permanent Secretary Ministry of Fisheries
Dr. Mohamed Sesay	MFMR
Mr. Gbondo	MRMR

### **Development Partners**

The Country Director	World Food Programme
Mr. Charles Rogers	World Food Programme
Ms. Isata Dauda	World Food Programme
Mr. Murray Lamin	National Farmer's Association of Sierra Leone
Dr. Alpha K. Lakoh	Director national Agric Training Centre
Dr. Ola Robert	Catholic Relief Services
Mr. Takesch	Programme Manager GTZ
Mr. Nick Webber	Country Director CARE Sierra Leone
Mr Mohamed Farah	Country Representative FAO
Mr. Samuel T. Musa	Country Director Action Aid
Mr. Leslie Scott	Country Director World Vision
Mr. James Sackey	Country Director World Bank
Prof Herbert Kandeh	Statistician General, Statistics Sierra Leone
Dr. Mohamed Tunisi	International Fund for Agricultural Development
Dr, A. C. Lahai	FAO
Mr. Abu Yarmah	World Vision
Mr. Peter Kaindaneh	Project Manager Public Sector Management Support Unit
Mr. Jeremy Tunnacliffe	Head of European Union Delegation