

## *Chapter 10*

### THE FOOD SECURITY SITUATION IN SIERRA LEONE: POLICIES, STRATEGIES, ACHIEVEMENTS AND CHALLENGES

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#### **10.1 Introduction**

Agriculture is the most significant sector in the economy of Sierra Leone. Contributing as it does about 45% of the gross domestic product (GDP) and employing about 65–70% of the population, agricultural development is important in its own right as well as having positive implications for the development of other sectors of the economy. This chapter will discuss policies adopted by the government of Sierra Leone (GoSL) and its partners to achieve the central goal of food security for the nation.

The focus of agricultural development in Sierra Leone is mapped out in a National Sustainable Agricultural Development Plan (NSADP) which is a comprehensive framework to promote agricultural development in Sierra Leone based on the principles of the Comprehensive Africa Agricultural Development Programme (CAADP). The National Sustainable Agricultural Development Plan's primary goal is to address on a sustainable basis the recurring problem of food insecurity and hunger including disasters and emergencies. It is to ensure food self-sufficiency, food security and stable economic growth (NSADP 2009).

The major thrust of the plan rests on the crop subsector due to its magnitude, diversity, actual and potential contribution. There is evidence that Sierra Leone was self-sufficient in rice, the national staple, during certain periods. However, this was not sustained. Physical, biological, socio-economic, technical, cultural and institutional factors are all challenges combined to make rice self-sufficiency unstable (NSADP 2009).

Against these challenges, there are opportunities such as adequate arable land, abundant water resources, favourable climate, hard-working farmers and encouraging government and donor partner support. The many challenges and opportunities give rise to several policy recommendations and strategies, discussed below. However, the success of the NSADP is contingent upon

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unfettered political commitment and favourable macroeconomic and climatic conditions. The objectives of this chapter are to review the interventions and initiatives of the past, what was learnt from the successes and failures of those interventions, the current initiatives in the so-called ‘development phase’ and the challenges ahead. The chapter will also conduct a comprehensive review of the different agricultural subsectors and key sector issues with a view to ascertaining their status, assessing their development potential and studying the main factors that could hamper the realization of the potential. Finally, the chapter will propose appropriate strategies and policy measures for the development of the agriculture sector, flushing out, in particular, those with particular relevance for food security and poverty reduction.

Sierra Leonean agriculture is characterized by food production involving mostly smallholder farming for subsistence. The greatest challenge throughout history is for the country to feed its ever-increasing population on a permanent basis. To this end, several initiatives and interventions have been pursued over the years. This began with swamp clearance, partial development, and cultivation during the colonial era. The period between independence and the present day saw a large number of programmes by the government of Sierra Leone and its partners. These included

- (i) Freedom from Hunger (FFH) campaign (late 1960s to early 1970s),
- (ii) integrated agricultural development projects (IADPs) of the early 1970s and 1980s,
- (iii) Crash Rice Programme (late 1980s),
- (iv) Agricultural Sector Support Project (ASSP) (late 1980s to late 1990s),
- (v) Agricultural Master Plan (early 1990s),
- (vi) Vision 2025 (developed early 2000),
- (vii) Medium Term Agricultural Strategic Plan (MTASP) and Agricultural Development Strategy (2003–7),
- (viii) Agricultural Sector Review – FAO/MAFFS (2003),
- (ix) Interim Poverty Reduction Strategy Paper (IPRSP) (2001–3),
- (x) Poverty Reduction Strategy Paper (PRSP1) (2005–7),
- (xi) The National Food and Nutrition Policy (2004–8),
- (xii) Agenda for Change (PRSP II) (2008–10).

The theme running through all these policies, strategies, and plans/programmes is to achieve food self-sufficiency and food security, with emphasis on rice, the staple. This is due to Sierra Leone’s comparative advantage for domestic production of rice as against import to meet its needs. In this regard, the crop subsector offers the greatest hope and best opportunity, and its promotion is vital.

Sierra Leone covers a geographic area of 72,000 km<sup>2</sup> of which 5.4 million ha are potentially cultivable. The upland agro-ecology represents approximately 80% or 4.3 million ha, and the rest are lowlands with potential for high crop yields under sound management practices. The lowlands comprise 690,000 ha inland valley swamps, 145,000 ha of naturally grassy drainage depressions (Bolilands), 130,000 ha of riverine grassland and 200,000 ha of mangrove swamps (ASR 2003).

It has four main physiographic regions. The coastline plain, much of it swampy, covers 15% of the country and averages 50 km in width and does not rise above 50 m. The interior plains cover 43% of the country, vary in altitude from 50–200 m and have a topography occasionally broken by large isolated inselbergs. The Guinea Highlands to the north-east cover 20% of the land area with an elevation in excess of 500 m and culminate in the country's highest point at 1948 m. Finally, the Plateau Region is immediately south of the Guinea Highlands (see WAAPP 2010).

Sierra Leone's economy is largely based on two sectors: agriculture and mining. Both sectors have been declining over the last two decades. Presently, in spite of a vast resource endowment, the country is considered as one of the poorest with a GDP per capita income estimated at about US\$365 in 2009.

The crop subsector, with rice dominating, contributes about 75% of agricultural GDP. Annual per capita consumption of rice is amongst the highest in sub-Saharan Africa, estimated at 104 kg. It is estimated that domestic production of rice currently accounts for about 75% of the total annual national requirement for rice of 557,297 metric tonnes, as indicated in Table 10.1 and Figure 10.1. The fisheries subsector contributes 21% of agricultural production and livestock represents 4%. Fisheries are dominated by artisanal marine capture systems, and by small-scale fishing in inland waters. Industrial fishing is mainly done by foreign fleets. Aquaculture is not yet of significance. Total catch is currently estimated at 65,000 metric tonnes with artisanal production accounting for up to 70%.

The contribution of forestry to the agricultural sector's GDP has varied between 9% and 13% since 1984–5 (FAO 2002). Over 90% of the domestic energy needs for heating and cooking are provided by fuel wood. Tree crops plantations, which are found mostly in the eastern part of the country, constitute the bulk of agricultural exports and of the domestic palm oil supply. The main export crops are coffee, cocoa, kola nut and oil palm. Present yields are low for lack of maintenance (NSADP 2009). Fuel (wood and charcoal) production is the most important forestry activity and provides a supplementary source of income for most farmers. The uncontrolled logging practice has a negative impact on the remaining forest reserves.

The livestock population was very severely depleted during the 1991–2001 conflict but with the restocking programme undertaken by government, development partners and the private sector, the stock numbers have been restored to the prewar levels.

TABLE 10.1. Rice self-sufficiency level 2002–8 and projections 2009–15.

Year	National paddy production (MT)	National milled production (MT)	National requirement: milled (MT)	Self-sufficiency (%)
2002	422,033	221,584	543,979	41.7
2003	445,033	233,642	561,600	41.60
2004	542,000	325,200	516,880	62.9
2005	552,000	331,200	526,701	62.9
2006	579,000	374,400	536,708	69.8
2007	638,000	382,800	546,905	70.0
2008	702,000	421,200	557,297	75.6
2009	966,000	579,600	567,885	102.0
2010	1,062,000	637,560	578,675	110.0
2011	1,168,860	701,316	589,670	118.9
2012	1,714,328	1,028,597	600,874	171.0
2013	1,800,044	1,080,026	612,290	176.4
2014	1,890,046	1,134,028	623,924	181.8
2015	1,984,548	1,190,729	635,778	187.3

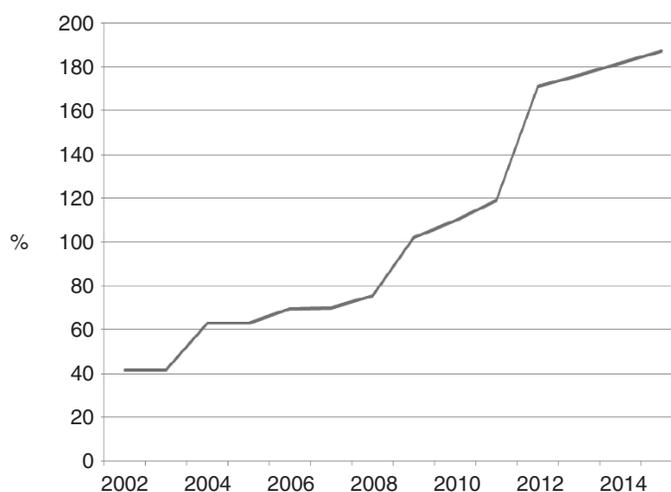


FIGURE 10.1. Rice self-sufficiency.

In Sierra Leone, however, food is synonymous with rice, and its self-sufficiency is the centrepiece of food policy. The importance of rice is reflected in the huge expenditure on its annual import, which currently stands at about US\$47 million for 144,000 MT (2009 import) commercial imports in addition to 20,000 MT humanitarian imports (MAFFS 2010). There are indications that Sierra Leone achieved rice self-sufficiency in the 1960s. This positive development continued well into the 1970s primarily due to the high level of government and donor support, including heavy subsidies on farm inputs

and services. However, production declined seriously in the 1980s and the late 1990s as a result of the oil crisis, changes in fiscal policies, structural adjustment and the rebel war. Rice production slowly picked up again in early 2000 and it currently fulfills over 91% of national requirements (Sierra Leone Agricultural Bulletin 2010).

The rest of the chapter is organized as follows. The next section examines agriculture and the macroeconomy followed by the potential for stable food production and rice self-sufficiency; and the agricultural development policies and strategies that have been pursued for the achievement of food security in Sierra Leone. Immediately following are the current policies and programmes 2007–12, production outlook and the major challenges to improving food security in Sierra Leone.

## 10.2 The Agriculture Sector and the Macroeconomy

Agriculture is the dominant sector in the economy. Therefore, macroeconomic policies pursued must target agricultural development for overall growth of the economy. An adverse macroeconomic situation for agriculture is a recipe for poor economic performance. The interplay between agriculture and the macroeconomic forces are pertinent to the discussion that follows in the next sections.

### 10.2.1 *The Pre-War and Rebel War Years*

The economy, after growing at 4% per annum immediately after independence in the 1960s, deteriorated sharply in the following two decades as a result of (i) poor governance, (ii) overall poor economic policies and (iii) heavily taxed agriculture (ASR 1992). The rate of growth of GDP in real terms fell from 4.0% in 1972–3 to 2.8% in 1973–4; by 1975–6 it recorded a negative growth of 2.0%, reflecting the debilitating effect of the 1974 oil price hike. By the turn of the decade the situation improved, as the economy recovered from the oil price shock and the massive government expenditures on infrastructure for the 1980 Organisation of African Unity (OAU) conference in Freetown. The GDP grew at 3.6% in real terms (see ASR 1992).

In the 1980s, the growth of GDP declined – from an average of about 1.5% from 1973–80 to just under 1.0% in the 1980s. Coupled with constant population increase, this led to a considerable decline in per capita income from over US\$350 in 1981 to only US\$200 in 1989. The kind of fiscal and monetary policy that government pursued during the 1980s could only have been described as wayward. To finance its deficits on current account, government resorted to bank borrowing which led to inflationary increases in base money. By the middle years of the decade, inflation, which was 23.9% in 1980–81, was running at a rate of 70.4%. Similarly money supply growth ballooned from 3.0% in 1980–81 to 75.8% in 1985–6 (Agricultural Master Plan 1996).

### The State of the Agricultural Sector Before the War

'The general deterioration of the macro-economy has caused serious problems for the agricultural sector. Major problems, *inter alia*, include high inflation, shortages of foreign exchange and strongly negative real interest rates which have contributed to adverse conditions in the terms of trade for agricultural products, low investment – both public and private – in the sector, a serious shortage of imported inputs, reduced consumer purchasing power, unattractive producer prices, and low farm incomes. The development of small-scale, agriculture-based industries to provide the backward and forward linkages needed to foster and sustain the growth of agricultural output has been stifled, with undesirable consequences for the growth of the entire rural economy. The result is a vicious circle in which the unfavourable macro-economic environment has depressed agricultural sector growth, which has in turn led to a further worsening of the macro-economic situation.'

MAFF/FAO 1992

Towards the end of the 1980s, it became increasingly evident that government policies were serving the Sierra Leonean economy poorly. All post-independence advances made in either economic growth or income equity had disappeared. Consequently, employment generation was disproportionately slow, unable to match the annual increases in the country's labour force – a recipe for civil strife. In reaction to the gloomy economic situation and on advice from the IMF and World Bank, the government of Sierra Leone in 1989 began to implement a Structural Adjustment Programme (SAP), which sought to establish fiscal and monetary discipline, to liberalize and open the economy and to create an enabling environment in which the private sector could thrive. But the situation did not improve. Donor support was low; the budget deficit and inflation rate remained high, and foreign reserves low.

It is evident that the war of the 1990s cannot be blamed for the fundamental weaknesses that have hindered the development of a vibrant agricultural sector. It is worth recalling the findings of the 1992 agricultural sector review for Sierra Leone whose focus was on the period of the 1980s, before the war (see the box at the top of this page).

#### 10.2.2 *The Post-Rebel War Years*

Overall, during the 1990s, the war-ravaged economy of Sierra Leone was volatile but on average contracted at a rate of 4.6% per annum (Government of Sierra

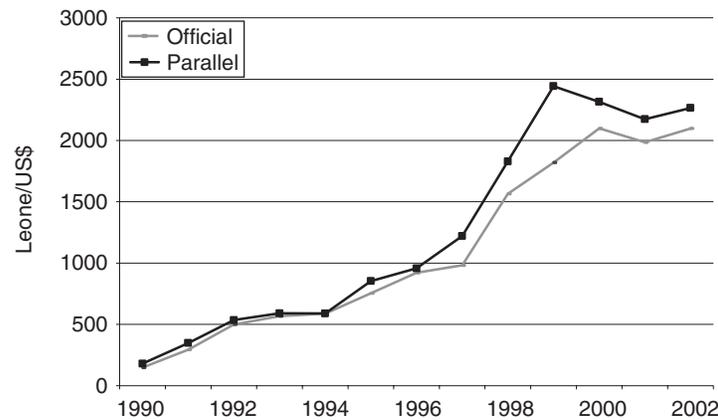


FIGURE 10.2. Official and parallel market exchange rates, 1990–2002. *Source:* Based on data from Bank of Sierra Leone, Ministry of Finance and Central Statistical Office.

Leone 2001). Consistent with this, agricultural and non-agricultural incomes plummeted during the period. Per capita income dropped by 47% during the 1990s, leading to an exacerbation of poverty, especially in the rural areas.

The cessation of hostilities in 2002 has brought about an improvement in Sierra Leone’s security situation, and enabled the re-establishment of government’s control over all areas of the country, paving the way for the resumption of economic growth. This stability has provided a framework within which relief and humanitarian assistance have been provided in an orderly manner, while laying the foundation for economic reconstruction. Output growth rose from 3.8% in 2000, 5.4% in 2001, and 6.3% in 2002, reflecting the continuing recovery in agriculture and expansion of activities in the manufacturing, construction and services sectors (ASR 2003).

Tax policy has focused largely on the streamlining of indirect taxes and gradual reduction in import taxes, which reduced the average tax burden on commodities consumed by the poor. The relative stability of the exchange rate (see Figure 10.2) has helped to sharply reduce inflation, thereby relieving the poor of the harsh ‘inflation tax’ experienced in the 1990s. The pace of fiscal adjustment has been appropriately flexible and tailored to the availability of external budgetary support, subject to the need to limit domestic bank financing of the overall budget deficit to levels that would avoid reigniting inflation (see EPRU 2003).

The main macroeconomic objectives of the current medium-term programme are to promote higher economic growth, further stabilize the economy and to create an economic environment conducive to labour-intensive growth and poverty reduction. Specifically, the aim is to raise real GDP growth to 6–7% during 2007–12. Growth is expected to come mainly from putting into production under-utilized capacity in the agricultural and mining sectors and reconstruction and rehabilitation activities (Agenda for Change 2008–12).

TABLE 10.2. Percentage contribution to real gross domestic product by sector.

Contribution to GDP by sector	2006	2007	2008	2009	2010 provisional
1. Agriculture	47.33	46.33	46.25	45.92	45.55
Crops	32.05	31.46	31.75	31.89	32.05
Livestock	2.90	2.91	2.82	2.73	2.62
Forestry	3.77	3.60	2.55	3.44	3.31
Fishery	8.61	8.37	8.13	7.87	7.59
2. Industry	9.23	9.71	7.87	6.56	6.74
Mining and quarrying	4.70	5.34	3.45	2.43	2.73
Manufacturing and handicrafts	2.25	2.16	2.09	1.97	1.91
Electricity and water supply	0.17	0.15	0.31	0.28	0.28
Construction	2.11	2.06	2.03	1.89	1.82
3. Services	39.26	39.27	41.47	42.14	42.34
Trade and tourism	5.30	5.94	6.46	5.84	6.64
Wholesale and retail	5.27	5.59	5.00	5.00	4.76
Hotels and restaurants	0.45	0.44	0.41	0.4	0.38
Transport, storage and communication	7.55	8.41	8.41	10.8	10.45
Finance, insurance and real estate	6.19	5.38	6.14	5.6	5.17
Administration of public services	3.97	3.37	2.66	2.5	3.11
Other services	4.03	3.87	3.8	3.8	3.71
Education	2.85	3.34	4.95	4.4	4.12
Health	3.14	2.49	3.18	3.3	3.35
NPISH	0.51	0.44	0.46	0.5	0.65
4. FISIM	-1.94	-1.83	-2.45	-2.72	-3.06
5. GDP at basic price (1 + 2 + 3 - 4)	93.87	93.48	93.14	91.90	91.56
6. Indirect taxes	6.13	6.52	6.86	8.10	8.44
7. GDP at market price (5 + 6)	100.00	100.00	100.00	100.00	100.00

Source: National Accounts Section, SSL. ‘NPISH’ stands for non-profit institutions serving households. ‘FISIM’ stands for financial intermediation services indirectly measured.

### 10.2.3 Public Expenditure on the Agricultural Sector

Public spending on agriculture has increased 1,150% in real terms over the last seven years, rising from Le 6 billion in 2000 to Le 75 billion in 2007 and to 76 billion in 2010 (see Table 10.3). This increase is consistent with the importance attached by government to the rapid revitalization of the agriculture sector. Increased spending to agriculture over these years has coincided with strong growth in the sector. It is likely, however, that this growth is attributed as much to the restoration of peace and stability as to government’s rehabilitation efforts and the government commitment to the Maputo declaration in 2003, where heads of states and governments of the African continent agreed to allocate at least 10% of the total national budget to agriculture.

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TABLE 10.3. Actual expenditure, 2000–2010 (constant 2000 Le million).

	Planned											
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
<b>Actual</b>												
Total MAFFS	6,026	9,089	9,750	15,026	34,386	37,649	44,635	75,206	66,188	51,129	76,072	
Recurrent	5,094	8,296	8,504	12,922	17,070	20,543	22,411	24,589	29,091	33,144	31,614	
Salaries	3,868	4,616	4,808	5,320	5,035	5,255	5,522	10,711	12,436	13,657	8,438	
Others	1,226	3,680	3,696	7,602	12,035	15,288	16,889	13,880	16,656	19,487	23,176	
Development	932	793	1,245	2,103	17,316	17,106	22,224	50,617	37,096	17,985	44,458	
Domestic	0	793	1,245	2,103	2,245	2,928	3,433	7,340	2,400	2,800	7,822	
Donor	932	0	0	0	15,071	14,178	18,790	43,278	34,696	15,185	36,636	
MAFF spending as % of total GoSL	N/A	2.6	2.4	3.2	4	N/A	N/A					
% GDP	0.5	0.6	0.7	0.9	2	2.1	2.3					
<i>Other spending</i>												
Marine resource			1,170	1,340	13,300	9,243	5,075					
NaCSA		3,679	3,540	3,319								
GDP deflator (IMF)	1	1.061	1.103	1.176	1.225	1.257	1.282					

Sources: Ministry of Finance and Office of the Accountant General.

Over the same period, the National Commission for Social Action has spent around Le 3.5 billion per year on small-scale agricultural rehabilitation projects under its ERSF and IRDP programmes. In total, NaCSA has funded almost 200 agricultural rehabilitation projects through these two programmes. Spending through the Ministry of Marine Resources, which was part of MAFFS up until May 2002, has remained relatively constant in real terms at Le 1.2 billion in 2002 and Le 1.3 billion in 2003.

As a proportion of total public spending, the Ministry of Agriculture, Forestry and Food Security’s share has increased modestly from 2.5% of total public spending in 2001–2 to just over 3% of spending in 2003, 6.7% in 2007 and almost 10% in 2010, thereby meeting the Maputo agreement.

Future expenditure on agriculture is planned to increase as well. The budget allocation to MAFFS for 2011 is Le 140 billion in real terms (Le 150 billion in nominal terms). This is over twice the level of actual sector spending in 2008. The budget allocation for agriculture is planned to increase further in 2012 and 2013. The proposed increase in spending comes from two sources: a rise in the non-wage recurrent budget, largely for the purchase of planting materials, agricultural machinery and other farm inputs; and a number of large donor-funded projects that are now being implemented.<sup>1</sup> A large increase in spending is also proposed for the Ministry of Marine Resources in 2011–13, as a result of donor support to the Artisanal Fisheries Development Project.

If these levels of spending are achieved, agriculture’s share will increase to 10% or more of total public spending. This is broadly consistent with the Maputo Declaration of 2003 by the African heads of states and governments. It is also important to note that international experience indicates that growth in agriculture requires a framework of effective support services, and that public funding is required for at least some of these. Also, in Sierra Leone it will take some time for effective private sector delivery of agriculture services to emerge, and government faces a situation where public funds will continue to be required for some years for rehabilitation activities, including improvement of basic rural infrastructure. It is important, however, that decisions over future levels of public funding to agriculture are made on the basis of farmers’ needs and the quality of expenditure provided. Continued growth in the sector also depends as much upon improvements in the wider policy and institutional environment as upon the provision of publicly funded services.

On the expenditure side, spending on wages and salaries together with goods and services comprised almost 70% of government expenditure, with the wage bill accounting for about 60% of the total expenditure. Data from the Budget Bureau of the Ministry of Finance show a quantum leap in public expenditure on the agricultural sector.

<sup>1</sup> These include IFAD’s Rehabilitation and Community-Based Poverty Reduction Project; AfDB’s Agricultural Sector Rehabilitation Project; and AfDB’s Nerica Project, World Bank Rural and Private Sector Development Project, IFAD’s Rural Finance and Community Improvement Project.

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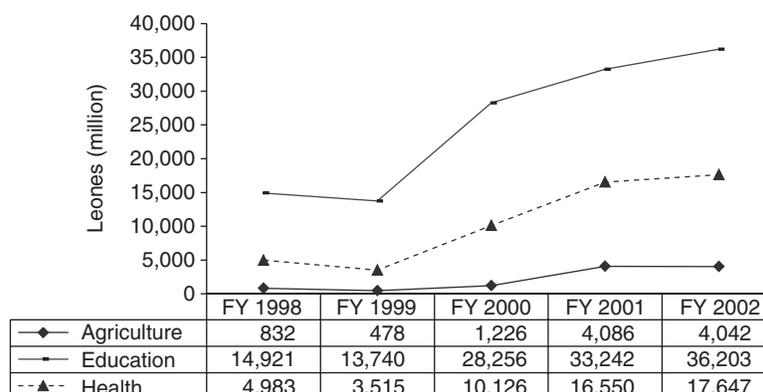


FIGURE 10.3. Trends in public expenditure on major sectors.

Source: ASR Mission based on data from the Budget Bureau, Ministry of Finance.

Analysis of available data (see Figure 10.3) shows that although the public expenditure on educational and health sectors are higher in magnitude, agriculture records much higher percentage change in actual government expenditures, between 2006 and 2007. The greatest percentage increase occurred between 2010 and 2011, representing a very positive correlation between the President’s Agenda for Change vision of making agriculture the engine for socio-economic growth and development through increased agricultural production and the government’s provision of the wherewithal to make the vision a reality. This expenditure analysis did not take into consideration the data from the UNDP supported programmes, the EU support for food security through NGOs, USAID support, NGOs operating in the sector and NaCSA. Suffice to say, though, that levels of agricultural spending under these programmes could only increase total public expenditure on agriculture in Sierra Leone which may have a positive impact on the sector and the economy as a whole.

10.2.4 Foreign Trade

Sierra Leone’s export base is narrow, and is dominated by a few mineral and agricultural products. Minerals (mostly diamonds with small quantities of rutile, bauxite, and gold) provide the bulk of export earnings (86% in 2002). Agricultural commodities (mostly cocoa and coffee with small quantities of fish products and tobacco) account for about 14% of the GDP (Bank of Sierra Leone Bulletin 2002). The war had a devastating effect on Sierra Leone’s export base. Exports declined from a value of US\$140 million in 1990 to a mere US\$4.5 million in 1999, as indicated in Figure 10.4. Since then, increased diamond exports have spurred on a recovery. The value of merchandise exports rose to US\$49 million in 2002. Among agricultural exports, cocoa has exhibited the best recovery to date and comprised 80% of the value of agricultural exports in 2002. Although export taxes have all been removed on agricultural

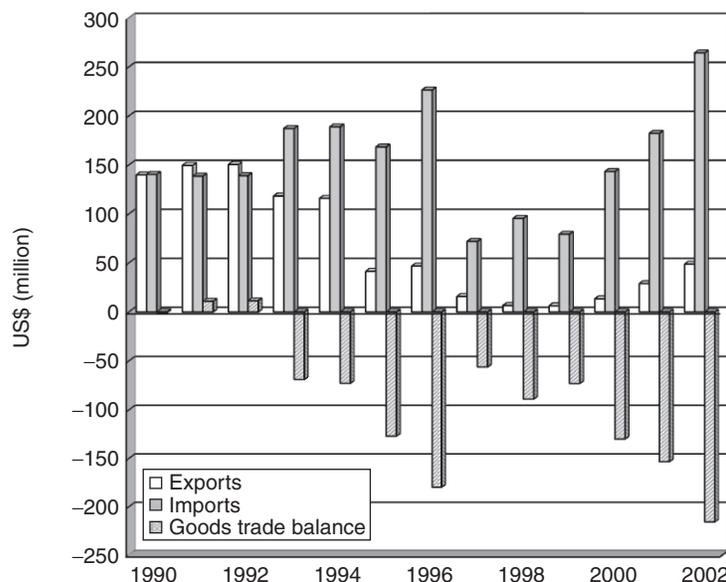


FIGURE 10.4. Exports, imports and goods trade balance, 1990–2002.  
 Source: ASR Mission based on data from Statistics Sierra Leone.

goods, there are still quota restrictions on the exportation of some agricultural products such as palm oil, rice and fish. These led to major smuggling activities along the porous borders with Liberia and Guinea.

Total exports picked up in 2009, ending the year at US\$230.7 million, up 7% on the previous year’s performance. A key area of export performance was cash crops, such as coffee and cocoa, and fish and shrimps. Aided by an improvement in Sierra Leone’s terms of trade and higher prices for these commodities, export values increased, with cocoa exports rising by 37%, and coffee and fish and shrimp rising 780% and 620%, respectively, albeit from a lower base. As a result, in 2009, cash crops made up 21% of total exports, up from 8.5% the year before which has a positive impact on the sector, the farmers and the economy.

Alongside the virtual collapse of exports during the 1990s, imports also fell, the decline being particularly sharp after the 1997 UN Security Council sanctioned trade embargo against Sierra Leone, a reaction against the AFRC coup. Imports fell from a value of US\$181 million in 1990 to a low of US\$79 million in 1999. However, with the return of relative peace and calm in 2000, imports swiftly increased to US\$146 million in 2000, rising in the following year to levels exceeding those before the war, in nominal terms (Bank of Sierra Leone 2002; MOF 2003).

In 2002, food imports represented the largest share of total imports at 27%, followed by mineral fuel and lubricant; and machinery and transport equipment which each accounted for about 20% of imports, while manufactured goods comprised 13% of imports. The dominance of food imports suggests

the need to consider closely the possibility of import substitution, through enhanced domestic production (especially of rice), as a strategy for reducing the import bill. This is even more justified given that analysis carried out in recent studies confirms results of an earlier analysis which showed that the country has relatively high comparative advantage in the production of rice in at least three of the agro-ecologies, using improved varieties (ASR 2003).

The total value of imports in 2009 was estimated at US\$520.3 million, about 2.6% below the 2008 level. This decline was driven by the decline in the prices of oil and food commodities, which together made up close to half of Sierra Leone's import bill in 2009, as well as a depreciation of the leone against major international currencies, which made imports less affordable in Sierra Leone. The fall in the import bill was moderated by a strong rise in the value of imports of manufactured goods, machinery and transport equipment (EPRU Economic Bulletin 2009).

### 10.3 Potential for Stable Food Production and Self-Sufficiency in Rice

Stable food production with particular focus on crops and rice self-sufficiency has occupied the mind of the Sierra Leone government for decades. This is amply reflected in the policies, strategies, and plans implemented over the years. The primary reason is that food is a fundamental human right embodied in United Nations Charter of 1948, and lately (2000), articulated in the Millennium Development Goals (MDGs). Food is life, and no person, community or country should be allowed to go hungry. However, for such a noble goal to be attained, factors that combine to enhance the development and growth of the agriculture sector must be sufficiently addressed, and appropriate mechanisms put in place to promote it (Sheriff *et al.* 2009). Rice will be discussed first, followed by other crops.

Rice is by far the most important crop not just as staple, but in terms of huge expenditure on its import and value in trade. The current estimated total production stands at 888,000 MT or a little over 91% of national requirement (Agricultural Statistical Bulletin 2010). In order to offset the shortfall, and to ensure export on a sustained basis, production has to significantly increase. Providing appropriate and timely input supply, and promoting effective research – extension delivery through farmer training in improved cultural practices including integrated production and pest management (IPPM) will bring about significant yield increases and total production (Sheriff *et al.* 2009). Due to economies of scale, and characteristic labour shortage in the vast low lands, farm mechanization using tractors, power tillers, harvesters, threshers, winnowers, and hullers is imperative. This will also significantly reduce the labour drudgery especially on women who produce over 60% of the food.

It is acknowledged, however, that farm mechanization and large-scale irrigation schemes the world over are capital-intensive undertakings, and must

TABLE 10.4. Production of major food crops 1990–2008 and production target 2009–15.

Year	Rice			Maize		
	Area cultivated (ha)	Yield (MT/ha)	Production (MT)	Area cultivated (ha)	Yield (MT/ha)	Production (MT)
1990	362,467	1.50	543,700	8,200	1.50	12,300
1991	274,067	1.50	411,100	7,333	1.50	11,000
1992	280,000	1.50	420,000	6,667	1.50	10,000
1993	324,000	1.50	486,000	8,000	1.20	9,600
1994	296,867	1.50	445,300	7,167	1.20	8,600
1995	248,370	1.35	335,500	8,469	0.98	8,200
1996	290,248	1.35	391,700	9,082	0.98	8,900
1997	304,667	1.35	411,300	9,592	0.98	9,400
1998	275,407	1.35	371,800	8,776	0.98	8,600
1999	183,852	1.35	248,200	9,355	0.93	8,700
2000	146,667	1.35	198,000	11,125	0.80	8,900
2001	230,089	1.35	310,620	12,540	0.80	10,032
2002	312,640	1.35	422,065	14,870	1.08	16,060
2003	329,678	1.35	445,633	14,870	1.08	16,060
2004	361,333	1.50	542,000	15,865	2.02	32,125
2005	368,000	1.50	552,000	19,332	2.02	39,051
2006	482,500	1.20	579,000	24,165	2.02	48,813
2007	531,666	1.20	638,000	27,200	2.02	54,944
2008	585,000	1.20	702,000	28,550	2.00	57,120
2009	644,000	1.50	966,000	29,978	2.00	59,956
2010	708,400	1.50	1,062,600	31,477	2.50	78,693
2011	779,240	1.50	1,168,860	33,051	2.50	82,628
2012	857,164	2.00	1,714,328	34,704	2.50	86,760
2013	900,022	2.00	1,800,044	36,439	2.50	91,098
2014	945,023	2.00	1,890,046	38,261	2.50	95,653
2015	992,274	2.00	1,984,548	40,174	2.50	100,435

be planned and managed in such a way as to ensure technical and economic feasibility. Both call for major private sector investment.

The strategy for increasing rice production is two pronged: (a) increase in the area cultivated, mainly in the lowlands where there is much underutilized capacity, and (b) increases in productivity per unit area in all ecosystems. Area expansion will mainly be in the Bolilands and riverine grassland areas while inland valley and mangrove swamps offer opportunities for yield increases. The government’s goal is to achieve rice self-sufficiency and this strategy targets a land area of 830,000 ha and an increase in the average rice yield to 2 MT/ha to realize the government’s goal of rice self-sufficiency. Increasing the productivity of rice and expanding the area under the crop will require considerable improvement in the existing infrastructure, agricultural services and appropriate coordination and management.

TABLE 10.4. Continued.

Year	Cassava			Sweet potato		
	Area cultivated (ha)	Yield (MT/ha)	Production (MT)	Area cultivated (ha)	Yield (MT/ha)	Production (MT)
1990	18,240	10.00	182,400	7,462	5.20	38,800
1991	16,340	10.00	163,400	5,923	5.20	30,800
1992	23,227	8.80	204,400	6,692	5.20	34,800
1993	27,330	8.80	240,500	7,696	5.20	39,500
1994	27,898	8.80	245,500	8,442	5.20	43,900
1995	29,739	8.80	261,700	8,692	5.20	45,200
1996	31,977	8.80	281,400	9,320	5.00	46,600
1997	30,048	10.30	309,500	10,060	5.00	50,300
1998	35,275	8.00	282,200	3,460	5.00	17,300
1999	30,000	8.00	240,000	4,000	5.00	20,000
2000	45,506	10.30	268,711	5,620	5.00	28,100
2001	61,768	12.00	741,216	7,640	5.00	38,200
2002	68,909	13.00	895,817	9,090	5.00	45,450
2003	83,936	13.00	1,091,168	16,379	5.40	84,446
2004	134,404	13.08	1,758,004	28,240	5.40	153,196
2005	175,923	13.00	2,287,000	29,652	5.40	160,121
2006	228,700	13.00	2,973,100	31,135	5.40	168,129
2007	297,310	13.00	3,865,030	32,692	5.40	176,537
2008	312,176	13.00	4,058,288	33,346	5.40	180,068
2009	327,785	13.00	4,261,205	34,013	5.40	183,670
2010	344,175	13.00	4,697,992	34,693	5.40	187,344
2011	361,384	13.00	4,474,275	35,387	5.40	191,090
2012	379,453	13.00	4,932,892	36,095	5.40	194,913
2013	398,426	13.00	5,179,538	36,817	5.40	198,812
2014	418,347	13.00	5,438,515	37,553	5.40	202,788
2015	439,264	13.00	5,710,436	38,304	5.40	206,842

## 10.4 Other Crops

Other cereals cultivated include sorghum, millet and maize. Maize is frequently intercropped with rice, while millet – as a short duration crop – is seen as a useful ‘hunger crop’ in the rainy season. The total production of maize and millet is shown in Table 10.4 as well as being indicated in Figures 10.5 and 10.6.

### 10.4.1 Roots and Tubers

Turning to roots and tubers, cassava and sweet potato are the most important staple foods after rice. Their roots, tubers, and leaves are consumed fresh, and their products like chips, flour, and gari are in high demand for both local consumption and export. Their production level is shown in Table 10.4 and Figures 10.5 and 10.6.

TABLE 10.4. Continued.

Year	Groundnut			Millet		
	Area cultivated (ha)	Yield (MT/ha)	Production (MT)	Area cultivated (ha)	Yield (MT/ha)	Production (MT)
1990	20,000	1.50	30,000	5,000	0.80	4,000
1991	22,667	1.50	34,000	5,000	0.80	4,000
1992	20,667	1.50	31,000	5,500	0.80	4,400
1993	25,200	1.50	37,800	5,500	0.80	4,400
1994	26,333	1.50	39,800	4,000	0.80	3,200
1995	24,800	1.50	37,200	4,000	0.80	3,200
1996	23,867	1.50	35,800	4,000	0.80	3,200
1997	25,267	1.50	37,900	3,000	0.80	2,400
1998	23,600	1.20	35,400	3,000	0.80	2,400
1999	24,167	1.00	29,000	3,000	0.80	2,400
2000	14,700	1.20	14,700	5,000	1.00	5,000
2001	40,750	1.20	48,900	5,000	1.00	5,000
2002	48,667	1.20	58,400	5,500	1.00	5,500
2003	58,750	1.40	70,500	5,500	1.00	5,500
2004	63,473	1.50	91,128	6,000	1.00	6,000
2005	69,820	1.50	104,730	6,000	1.00	6,000
2006	76,802	1.50	115,203	6,500	1.00	6,500
2007	84,482	1.50	126,723	6,500	1.00	6,500
2008	88,706	1.50	133,059	6,500	1.00	6,500
2009	93,141	1.50	139,712	7,000	1.00	7,000
2010	97,798	1.50	146,697	7,000	1.00	7,000
2011	102,688	1.50	154,032	7,500	1.00	7,500
2012	107,822	2.00	215,644	8,500	1.00	8,500
2013	113,213	2.00	226,426	9,000	1.00	9,000
2014	118,874	2.00	237,748	9,500	1.00	9,500
2015	124,817	2.00	249,634	10,000	1.00	10,000

Considerable progress has been made by the National Agricultural Research Institute, MAFFS, and development partners including NGOs in the development and dissemination of improved cassava and sweet potato cultivars to farmers. Data from MAFFS of 2010 indicates that the country is now self-sufficient in these two crops. It is noted, however, that this achievement has more to do with expansion of area under cultivation than increases in yields. The gap between farmers yields of 10 MT/ha for cassava and 5MT/ha for sweet potato and that of the Njala Agricultural Research Center recording 17 MT/ha, for cassava and 10 MT/ha for sweet potato, is quite significant, and needs to be closed. In this regard, due consideration must be given to improved husbandry and production practices in the face of increasing demand.

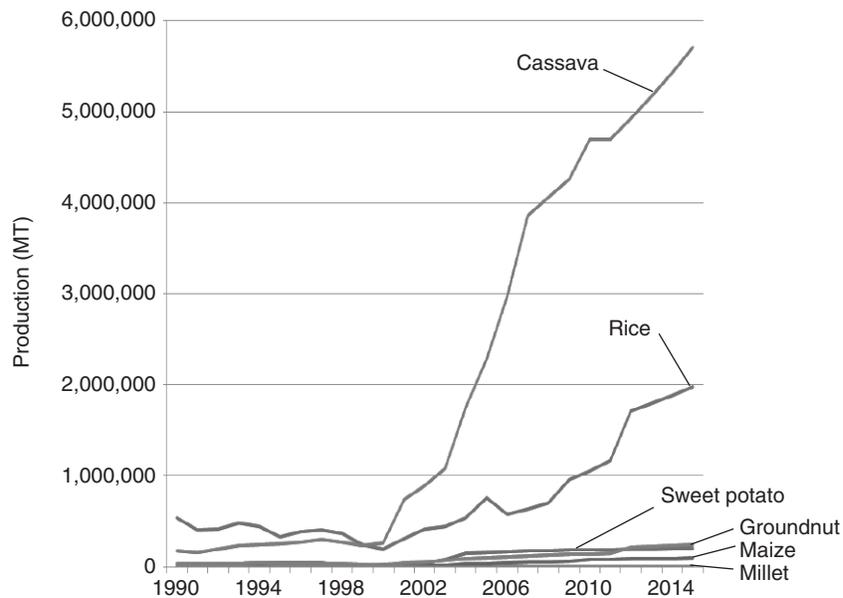


FIGURE 10.5. Crop production trends.

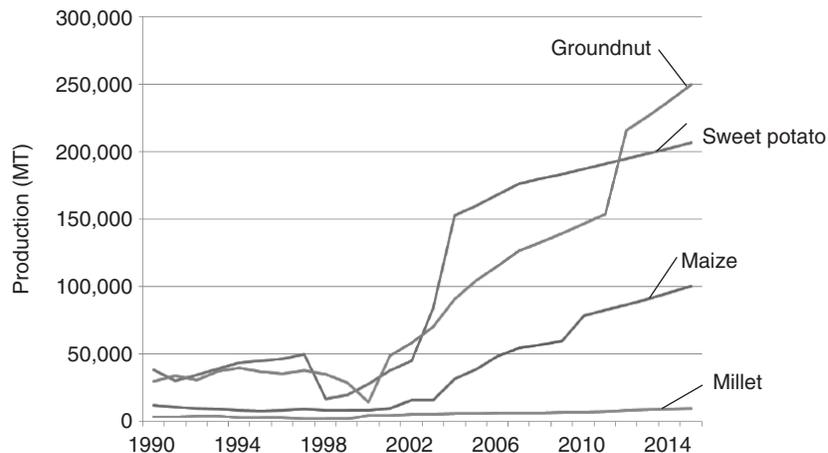


FIGURE 10.6. Crop production trends: minor crops.

### 10.4.2 Pulses

Apart from some energy, pulses in general and grain legumes in particular provide essential protein, vitamins, and minerals the body needs. They play a critical role in sustainable land use and sound environmental management. Conscious and focused incorporation of these crops into the cropping systems and patterns will go a long way to ensure stable food production and food security. Common pulses grown in Sierra Leone are groundnuts, beans, peas,

and melon seeds. These are high value crops and are mostly used in daily diets.

Groundnut is the most popular grain legume grown on the uplands, and in swamps, after rice. Due to its high nutritional and cash value, production is on the increase. It is mostly cultivated by women in small plots due to labour constraints. Most of the crop is grown in the Northern Region. It is used directly as food, and for oil extraction, while the residue is used as animal feed. Despite the small holdings, and low yields, groundnut is a promising crop in terms of food, cash and feed value. It is also important in the cropping system, especially when groundnut follows rice as a second crop, or maize in rotation. Groundnut yield and total production will markedly increase through appropriate mechanization, good husbandry, and effective post-harvest operations. Table 10.4 and Figures 10.5 and 10.6 show the production of groundnut during the period under review and projections from 2009–15.

Beniseed or sesame is among the many crops cultivated alongside upland rice in mixtures. Reliable estimates of yields and total production are difficult to get. Yet, it is a dominant feature of upland rice farming system. Used mainly as a condiment in sauce, soup, and stew, beniseed is an important part of family meals. At industrial level, it has gained increasing importance in the manufacture of baby food, and other food products. The Benimix Factory located in Bo, southern Sierra Leone which produces the Benimix baby food is on a serious drive to promote beniseed production, and there is every reason to support such private sector initiative.

### 10.5 Agricultural Development Strategies and Policies of the Recent Past

The remaining sections will review the agricultural development policies and strategies of the past and lessons learned from the successes and failures of those interventions, the current policies and strategies being pursued, and the challenges ahead.

Even before the end of the 1991–2001 war, the government initiated a number of development policies and strategies with the object of attaining food self-sufficiency and food security. As a direct result, obligations regarding the right to adequate food at the international and national level were undertaken with a strong political commitment for its realization for all. However, the modalities to coordinate the necessary efforts, to ensure accountability, transparency, non-discrimination and empowerment, and to monitor progress were not effective.

The primary objectives of the government's postwar agricultural strategy are to promote sustained growth of agricultural output, food security and the reduction of poverty. The strategy comprises development programmes, respectively, for rice, other food crops, export crops, livestock and fisheries. The objective is to expand and diversify national food production, generate employment and export revenues. In support of these programmes, actions are needed in six thematic areas: (i) maximizing food production to assure food

security for the population and to exploit the country's comparative advantage in producing food for import substitution and for export in the region; (ii) institutional reforms and technology development; (iii) availability of adequate and sustainable infrastructure; (iv) diversification of crop production, expanding exports of traditional products to the extent that they can be competitive in the world market, while improving quality and diversifying the export base; (v) effective natural resource management; and (vi) creating opportunities for rural employment to reduce the income gap between urban and rural areas and to stem the rural exodus.

### *10.5.1 Food Security Issues*

A state of food security is achieved when 'all the people at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life' (World Food Summit 1996). Four basic conditions need to be fulfilled: accessibility to food; availability of sufficient food; reliability and stability of access and availability; and effective utilization of food consumed.

With respect to food demand and nutritional needs, between 1979–81 and 1992–4, daily per capita energy availability declined from about 2,200 calories to 1,800 calories, and per capita protein availability from 47.3 g to less than 41 g (ASR 2003). This shows that Sierra Leoneans were getting only about 75–80% of the average daily dietary requirement. Cereals contributed 61% of the energy supplies (rice 54%). Rice is the base of the diet. It is also the main staple food and is grown by virtually all rural families (ASR 2003).

As regards food supplies, domestic paddy production fell from 504,000 to 405,000 MT between the period 1979–81 and the period 1992–4. However, by 2002 domestic production of paddy has reached the prewar level (Table 10.4). Over the last five years, imported rice dropped from 40% to 20% of total rice consumption. Fish productions declined by 60%. The effects of the war on the livestock population have probably been the most devastating as compared to any other subsector of the agricultural economy. Livestock that was not slaughtered, by the warring factions, was led out of the country into Guinea by Fula herders. It is estimated that 40% of the national cattle herd was transferred to Guinea. Food supply in Sierra Leone became a very critical issue.

On the subject of food insecurity and poverty, the decline in real incomes together with deteriorating health, education and other social services resulted in worsening standards of living during the 1980s. The war only aggravated the economic malaise, by the displacement of almost half the population and the exile of over 200,000 people into the neighbouring countries. In consequence, the production of food and export crops declined, revenues plummeted, unemployment and underemployment increased and food supply became critical. The vulnerable groups most affected by food insecurity are low-income urban families, poor smallholder farmers, livestock and poultry and fish producers and, within these groups, women and children in particular.

For these groups, which comprise 68% of the population, subsistence remains extremely precarious. Infant mortality rate is 147 per 1,000, life expectancy is 42 years, only 42% of the population has access to safe drinking water, and adult illiteracy is 79%, with women registering over 90% illiteracy (MICs 2005).

In 2003, FAO approved the Special Programme for Food Security (SPFS) for Sierra Leone. The programme seeks to improve food security and livelihoods among rural poor through farmer participation and use of improved production technologies that will remove the bottlenecks to increased production. During the implementation of the programme, greater importance was assigned to small-scale/rural families as beneficiaries of the programme.

The implementation strategies included organizing the farmers into small groups at chiefdom, section, or village levels for the establishment of their own mechanism for the reception and provision of resources, training of participating farmers (men, women and youths), and generation of appropriate technologies.

### *10.5.2 Food Security Strategies*

The target groups to be addressed by the food security strategy of the Sierra Leone authorities would be, principally, small farmers, landless rural dwellers, and impoverished urban families. The objective is to raise in the medium term the daily per capita energy intake from the current 1,800 cal to 2,200 cal and to 2,400 cal by 2010. This strategy includes food distribution as payment for work in infrastructural rehabilitation, and promoting the increase of subsistence production. The food to be distributed would be constituted of internally purchased surpluses, imported food and international grants (ASR 2003).

Initially, there would be need for further study to refine the general understanding of the characteristics of each of the vulnerable groups and the numbers involved. If the goal of eradicating hunger by 2015 is to be attained, decisive action on a very large scale is required. The one way of addressing the hunger/poverty trap in the short run is to empower communities (and especially enterprising groups among them) to develop a better understanding of the specific nature and causes of their food insecurity and to jointly define solutions, which lay largely within their capacity to implement. Solutions should be necessarily community-specific, reflecting local needs and opportunities, such as the deliberate setting aside of community food reserves at harvest time, adjusting cropping systems to result in more food becoming available during the hungry season, introducing labour-saving cultivation methods, collective measures to reduce the incidence of malaria, making additional land available to strangers, group saving systems to reduce future borrowing, locally sourced school feeding programmes to increase aggregate food availability within the family. The overall goal should, from a food security perspective, be to have very large numbers of the most food-insecure people achieve modest production/food availability gains (ASR 2003).

In the long run, a growth strategy emphasizing agricultural intensification offers the best opportunity to meet the combined objective of achieving food security and reducing poverty. The focus on intensification is necessary because of land pressure in areas with high agricultural potential and the need for protecting soil fertility and the remaining natural resources to assure that long-term growth can be sustained. Intensive agriculture requires higher investments in factors of production, reliable input supply, relevant extension service, accessible and reliable marketing service, and attractive financial rewards to farmers. It is important to recognize that a focus on the economies of scale through modernization and intensification purposes should not ignore the focus on the smallholders, because of their relative efficiency in using resources.

Programmes to address long-term, chronic food insecurity would also focus on broadening the opportunities for producers to attain sustainable livelihoods. The immediate focus would be on enhancing the livelihoods of small-scale resource-poor farmers, through a combination of agricultural technologies and support services, access to markets and credit, along with rural enterprises and agro-processing. All farmers should be encouraged to diversify their sources of income, for example by producing high value vegetables and tropical fruits for the export market, rearing more short-cycle livestock, taking advantage of non-timber forest products (honey, traditional medicine) and, in some places, developing ecotourism.

### ***10.5.3 Institutional Reforms and Technology Development***

A number of institutions involved in Sierra Leone agriculture include government ministries, non-governmental organizations (NGOs), parastatals, local government and community-based organizations (CBOs). Two technical ministries – the Ministry of Agriculture, Forestry and Food Security (MAFFS) and the Ministry of Fisheries and Marine Resources (MFMR) – are primarily responsible for agricultural development. Their mandate is wide, covering most aspects of crop, livestock and fisheries development, supervision of project planning and project implementation. Agricultural pricing and marketing is centred in the Ministry of Trade and Industry (MTI), while the Ministry of Education, Science and Technology (MEST) is responsible for some basic agricultural research at the university level. The main vetting ministry is the Ministry of Finance and Economic Development (MOFED). In addition, since colonial times, several public enterprises have been created to perform various development and marketing functions of relevance to agriculture.

Coordination between ministries and agencies has been a major issue in policy making. There is no central focus for discussing policies, and the existing administrative systems provide little room for interministerial and interagency cooperation. Better coordination is required to avoid sharp policy differences. A case in point is where the Ministry of Trade and Industry and the police are enforcing a ban on exporting domestic rice and palm oil to neighbouring

countries, in order to keep domestic prices of these commodities low, while MAFFS holds the view that free trade encourages increased production.

The implementation of development policies, programmes and projects in the agricultural sector has fallen short of expectations over the years. The proliferation of development institutions, while retaining parallel administrative structures, has resulted in overlapping institutional functions, competence, and efforts, and hence in waste of resources. The best example of overlapping institutional functions is in the domain of agricultural extension, where individual donor projects, NGOs and other agencies carry out some of the same functions through different delivery mechanisms, with the result that farmers have received different and sometimes conflicting technical advice.

Ongoing and anticipated reforms in agricultural institutions are predicated upon current government policy on decentralization. The government has chosen a route of decentralization to open up the political space and improve inclusiveness. With the decentralization, local government would become a major player in the agricultural sector by way of increased availability of access to services to people, grassroots participation in decision-making and community ownership of programmes and projects.

Several studies have confirmed earlier claims relating to the general weakness in terms of infrastructure and manpower. In relation to agriculture, the following areas are particularly relevant (ASR 2003): (i) research, (ii) extension, (iii) agricultural statistics and (iv) land tenure.

#### **10.5.4 Research**

Before 2007, the research system in Sierra Leone consisted of the National Agriculture Research and Coordinating Council (NARCC) and its constituent institutes, the Institute of Agricultural Research (IAR) and the Rokuprr Rice Research Station (RRRS), Departments of the University of Sierra Leone (the Institute of Marine Biology and Oceanography (IMBO)), Fourah Bay College (FBC) and Njala University College (NUC), with some very minor activities by a few NGOs and one private sector firm. The GOSL established NARCC in April 1985 to formulate agricultural policy and set research priorities in light of farmers' needs, researchers' recommendations and GOSL policy objectives.

Although some progress in research has been achieved, the low yields in Sierra Leone reflect the limited progress. The lack of supporting services for inputs, credit and marketing did not help the situation.

The GOSL has reformed and reorganized NARCC, by creating the Sierra Leone Agricultural Research Institute (SLARI) through an act of parliament in 2007 to bring under a unified management structure the Rice Research Station (RRS), the Institute of Agricultural Research (IAR), and other tertiary research centres. In addition to the two research centres, SLARI is on the verge of adding four additional centres addressing issues in the other subsectors such as the Teko Livestock Research Centre (TLRC), Kenema Tree Crop Research Centre, the Magbosi Water Management and Research Centre and the Freetown Fisheries

Research Centre. Socio-economic research is cross-cutting and it is embedded in each of these centres.

The principal stakeholders (researchers, extension agents and farmers) should be involved in the process of technology generation, diffusion and adoption. Appropriate linkage and communication mechanisms between these actors are of paramount importance in the development of any sustainable agricultural system.

Three types of research should proceed concurrently. Firstly, adaptive research should be undertaken in the context of agro-ecological zones and should focus on solving immediate problems holding back production increase in these areas. Close links with the extension service, by way of participation in the same project, would ensure quick feedback from farmers and an indication of what needs further research.

Secondly, long-term research, centred at the agro-ecological research stations, should bring together the results of the adaptive efforts and provide a backup support for these efforts as national research capacity expands. Restructuring research on the basis of agro-ecological lines is part of the decentralization agenda, which makes research more participatory and client-orientated. As its capacity develops, the research system should be directed to the development of agricultural technology. Priorities include:

- developing an overall structure for agricultural research, including the university and the SLARI;
- strengthening links with international research institutions, and improving the testing and screening capabilities of new technologies available internationally, especially of minor crops;
- establishing a central soil–plant–water-orientated laboratory to improve water management (trials on consumptive water use, salinity, drainage, water logging, etc.);
- upgrading research facilities and laboratories.

Thirdly, socio-economic research which focuses on specific elements of government policy, particularly with regard to the distributional impact of policy reforms on the welfare of different groups, notably the poor and the vulnerable, should be undertaken. The socio-economic research will help to update information on food production, people’s livelihoods and their access to food in the different districts of Sierra Leone so as to guide government and other actors focusing on food insecurity on how best to programme food security support in general.

#### ***10.5.5 Extension***

The extension delivery system in Sierra Leone has had various problems, mainly because there has never been any policy on which to base the decisions. The

various methods, and the variants tried, have been determined by the donors, leading to sometimes conflicting messages. The low level of government funding and the lack of human capacity in the government extension delivery system have also gravely contributed to the poor performance of the sector. A major defect with the systems already tried out is the fact that the extension personnel are not accountable to the people they serve.

There is little justification, therefore, for seeking to rebuild an extension service around the models which have been tried unsuccessfully in the past and found to be both ineffective and unaffordable. The fact that the service is now virtually inoperative and that most of its facilities and equipment have been destroyed during the war provides an opportunity to test and apply radically different approaches. A new paradigm shift in the national thinking on extension should focus on the role of the private sector, which includes the grassroots, community-based organizations.

In order to improve extension services, a strategy is to create a semi-autonomous National Agricultural Advisory Service (NAAS), which will gradually take over the agricultural extension delivery and management from MAFFS. Primary responsibility at grassroots will be vested in the farmer groups that will be the prime clients of the advisory services. Various stakeholders will also be intimately involved in the programme as partners at all levels. Key among the partners shall be private sector organizations, professional bodies, research and training institutions, NGOs, community-based organizations, local and central government development agencies, and development partners and donors.

This strategy is predicated on the strengthening of the farmer-based and community-based organizations, so that they would be in the advantageous position to partake in the service delivery opportunities. The benefit to the farmers and the communities generally is not difficult to discern, given that they will be serving themselves, and would be easily accountable to the other members. This means that any extension programmes developed must have a component that aims at strengthening these grassroots organizations.

Research and extension need to work closely together. Research should be farmer-focused, problem-solving and demand driven. Simultaneously, extension workers should have access to practical know-how and inputs resulting from research.

#### ***10.5.6 Agricultural Statistics***

Policymakers and planners including private sector participants and donor agencies need reliable and timely agricultural statistical information for the formulation, monitoring and evaluation of developmental strategies and programmes, especially those in support of increased food security and agricultural production.

Prior to the outbreak of the rebel war in Sierra Leone, agricultural statistical data collection went on annually, interspersed with periodic agricultural census activities. The main institution involved is the Statistics Unit of the Planning,

Evaluation, Monitoring and Statistics Division (PEMSD) of MAFFS. Currently PEMS D compiles some basic but limited agriculture statistics obtained under a biannual food security and vulnerability assessment survey conducted by the Ministry of Agriculture, Forestry and Food Security in collaboration with the World Food Programme and other agencies.

In order to improve the current situation a development strategy is necessary. This can be conceptualized into short-term and long-term programmes. The short-term strategy focuses on the immediate improvement of the scope and coverage of current data collection activities via the following:

- training of more staff to collect data at field level and ultimately increasing the number of households from whom information is collected;
- improving data collection at the field level with the introduction of better designed questionnaires;
- adequate preparation for undertaking an agricultural census;
- establishing an embryo data processing unit with the necessary equipment;

The longer-term strategy should focus on building the capacity of an agricultural statistics unit by:

- improving the capacity and capability of PEMS D to properly collect, process, analyse and disseminate agricultural statistical data;
- developing a scientific statistical survey design for collecting agricultural data;
- establishing an improved data processing unit capable of processing agriculture survey results using state-of-the art computer software packages;
- implementing an agricultural census.

Such a development programme can be implemented by PEMS D. Significant investments in training, equipment and statistical software would be needed. It is important that agricultural statistical data contains information that adequately reflects gender characteristics and concerns. Consequently gender differentiated data, essential for planning for the improvement of the status of women and vulnerable groups, should be given special attention in all agricultural data collection exercises.

Adopting a computerized general data acquisition and dissemination system as well as satellite imagery should be considered part of any strategy to improve agricultural statistics.

#### ***10.5.7 Land Tenure Issues and Strategies***

The agricultural sector review (ASR 2003) found that there is no crisis of land tenure as far as agricultural development is concerned. The evidence

suggests that, without any legislative intervention, the land tenure system in the Provinces has begun accommodating freehold interests in the urban areas. For farmlands, most Paramount Chiefs agree that the leasehold interest is acceptable to them as it allows them to continue to retain some interest in the land for the benefit of future generations. The Protectorate Land Ordinance, 1927 (cap. 122) provides for ‘non-natives’ to acquire leasehold interests of up to 50 years’ duration with the option to renew for further periods. This should be adequate to accommodate demands for farmland for investment. However, there is need for a transparent and legally enforceable land tenancy arrangements, with rent replacing customary dues. A key reform is, therefore, not the law itself, but rather supervision of local justice. This can be done through sensitization of all stakeholders about land tenure issues (ASR 2003).

Given that the mere registration of deeds does not provide adequate security for investments in land, there is a need to provide state guarantee of titles. This can be done in a land title registration regime and it is recommended that, as a long-term measure, government should give serious consideration to the implementation of land title registration in the country.

Meanwhile, to improve the security of interests in deeds, which are registered, it is recommended that a closer relationship be established between the Deeds Registry and the Charting Room of the Surveys and Lands Division. This should lead to a situation where land transactions could be tracked from the Charting Room to the Deeds Registry. Thus, searches should be done in the Charting Room with the information fed to the registrar. To make this possible the record-keeping machinery in the Surveys and Lands Division should be overhauled to improve the retrieval of information. It is recommended that a study be conducted into this to ensure that the right relationship is created.

All the records of the Deeds Registry are located in the Administrator and Registrar-General’s Department. This is risky because in times of fire or other calamity, those records could be lost. It is recommended that copies of the documents be kept in a safe place some distance away from the registry. In the long term, it is recommended that these documents should be put on microfilm to enhance storage and easy retrieval.

### ***10.5.8 Rural Finance***

The financial service needs of smallholder producers are simple but their satisfaction can be life enhancing. They need access to convenient, liquid and safe deposit services which are protected against inflation by positive real rates of interest. Savings provide a shield against emergencies. Similarly, poor households that depend on a myriad of activities in the informal sectors of the economy need access to credit to free them from exploitative financial relationships. In spite of these needs and the importance of agriculture, only 1% of loans and advances of the commercial banks goes to the agricultural sector. The only reliable sources of small loans for farmers and others involved in agriculture are those that originate from the informal saving and credit systems.

The main constraints with those sources of rural finance are that the loans are normally inadequate and have very high interest rates.

However, over the past five years, with the advent of the Nigerian banks, the implementation of the IFAD-funded Rural Finance and Community Improvement Project, which establishes community banks and financial services associations (FSAs) or village banks, and the proliferation of microfinance institutions, the total number of intermediaries providing service have exceeded 10, with an estimated coverage of over 25% of the country. Commercial banking remains largely underdeveloped and very urban-orientated. Out of a total of 13 commercial banks operating in the country, less than 5 have branches; while another 5 have branches in the provincial urban towns. Thus, some 30% of the licensed commercial banks in the country do not have a branch network of any consequence. Moreover, all of these banks operate only in Freetown and the main provincial towns, giving priority to big clients with acceptable collateral.

Over the years, several rural credit programmes have been implemented, with varying impacts on the communities they served. In terms of spatial distribution, only the National Commission for Social Action's (NaCSA) micro-credit operation can claim to have national coverage, but does not provide financial services to smallholder producers in agricultural production activities. All the other programmes operate in a few localities.

One thing that has plagued all rural finance efforts is the perpetual inability of the farmers and women groups to save on a sustainable basis. Efforts by various donor-funded projects saw the emergence of a saving culture among rural clients, but in every case, at the end of the project the clients have been unable to sustain the saving habit.

The main focus in improving the situation should be on funding a programme with the mandate of identifying the ways of encouraging rural savings. There will be a need to look at successful cases of rural financial institutions in developing countries. We believe that the programme should not just identify instances of best practice from other countries, but should provide seed money, on a cost recovery basis, that would create such institutions. Again, like the case of the extension strategy, this should be anchored on the existence of sound grassroots organizations, so that they can participate in the provision of such services.

#### ***10.5.9 Infrastructure***

In the ASR and other sources, the lack of the required infrastructure is identified as the foremost constraint to agricultural development in Sierra Leone. The absence of basic rural infrastructure, including roads, markets, small-scale irrigation, and post-harvest equipment, contributes to the poor showing of the sector. If Sierra Leone is to meet its objective of making agriculture the engine of socio-economic growth, it has got to design implementable strategies to enable it to increase output of produce from the farms to marketing and processing

outlets. The overall objective should be to set in place essential support infrastructure to accelerate the pace of agricultural sector development, to reduce poverty and improve the welfare of rural communities. A more specific objective should be to 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.

There are three main areas of infrastructural development that would have the greatest influence on the agricultural sector in Sierra Leone, namely: (i) rural roads, (ii) small-scale equipment and (iii) irrigation.

### Roads

The importance of rural roads in moving goods and people from the production areas to areas where effective demand for the goods exists has never been more evident than in the Sierra Leonean case. The opposite of moving inputs to the farms are just as important. The current state of the road network is deplorable.

The government of Sierra Leone (GOSL), we believe, should refocus attention on the improvement of the rural road networks in the country. Already, the GOSL is aware of this important factor of production and national development. This commitment is reflected in the assistance government has sought from donors to address this constraint. On the local front, government has put together a feeder road policy and has increased the road user tax, from Le 700 to Le 1,000 per gallon of diesel and petrol, which now provides a hefty sum to the Roads Development Fund, on an annual basis. There is also some amount of funds that goes toward roads development from vehicle licensing fees and other services provided by the Sierra Leone Road Transport Authority. Some of these funds should be spent on rural roads rehabilitation and development. The government’s strategy should be not to lose sight of the importance of this sector to the overall national economic development.

### Small-Scale Irrigation

The dependence on rain-fed agriculture as the main source of water for agricultural production is a contributing factor to the low state of food crop production. This dependence also inhibits any possible diversification into the year-round production of vegetable and horticultural products. Sierra Leonean farmers are not strangers to irrigation schemes. Farmers in the Koinadugu District and Western Area have experience in using the gravity method, one of the simplest forms of irrigation. Another method is to lift water from shallow wells (1.5 m diameter and 1.5 m deep) using simple water pumping devices including treadle pumps. These irrigation methods are available and have a good potential for raising production of vegetables, undertaken by women in urban and peri-urban areas. In the absence of these schemes, studies show that women spend over 60% of their time fetching water for their crops.

A possible strategy would thus be to undertake the development of low-cost irrigation technologies that farmers could easily afford. Once the technology is developed, training of local manufacturers for the fabrication and installation of such equipment will be the next prong in the strategy. When these manufacturers become proficient, to the extent of building high-quality products, and are able to maintain viable businesses, farmers (including women), would be in a position to access the equipment and services.

These irrigation schemes could be used to grow not only rice but also high-valued vegetables and horticultural products, for the local market as well as for the regional West African and European export markets.

A successful small-scale irrigation scheme depends on seven conditions:

- access to adequate irrigable land;
- existence of sufficient water of suitable quality;
- availability of ample labour supply;
- availability of non-irrigation inputs to production (e.g. seeds, fertilizer, and pesticide);
- existence of profitable markets for the production surplus;
- access to sufficient resources to make expansion feasible;
- availability of improved water lifting technologies.

The focus on these areas, into which a key technology input is inserted, allows for immediate and high economic impacts amongst beneficiaries. Women and the youth would now be able to increase their non-farm income activities, as the technology would reduce farm labour demands.

## 10.6 Natural Resource Management

Several studies have indicated that natural resource management is under severe pressure in Sierra Leone. There is serious deforestation and excessive poaching in the marine waters. In an effort to get a clearer picture, it is imperative to support a comprehensive and dynamic land use study and mapping, which in turn would also constitute the basis for the establishment of a participatory M&E system for the natural resource base.

Development efforts in the subsector over the last two decades have been characterized by a strong emphasis on modernization of the artisanal fleet and fish processing methods, with the expectation that introducing more advanced technologies would increase fish supplies to domestic and export market. The existing state of affairs indicates a failure of these interventions. Apart from this, the fisheries subsector in Sierra Leone has been plagued with its own fair share of problems, among which are

- lack of proper records to determine the state of the major fisheries,
- the lack of knowledge relating to high-priced, but unexploited species,
- the inability to monitor the exclusive economic zone of the Sierra Leonean waters,
- lack of access to appropriate fishing gear,
- ban on Sierra Leonean fish exports to the EU.

A combination of all these factors have led to the low level of catch landed by artisanal fisherfolk – the main source of fish for the local consumers.

Environmental degradation is also a cause for concern in highly populated areas, like the Western Area, and in the mining areas of the Eastern, Northern and Southern Provinces. While migration to less populated areas (even if feasible) can help alleviate problems in the immediate term, measures will have to be taken to prevent further environmental degradation in the longer term. The reduction in the fallow periods and the subsequent decline in soil fertility and soil erosion call for increasing attention to micro-level problems associated with crop and livestock management.

### ***10.6.1 Forestry***

The growth strategy in the forestry area should, we believe, be accompanied by a rational development of Sierra Leone’s rich resources. Policy changes in favour of long-term timber concessions and the association of the private sector in the regeneration and protection of forests are needed to ensure the existence of renewable resources for future growth. While incentives are needed for establishing forest industries to increase export revenues and value added for the country, the government should ensure that the private sector in the wood processing industry also contribute through conservation and reforestation. There is also the need for integration of cropping, livestock and forestry systems. To this end, land tenure security is important for promoting land improvements.

### ***10.6.2 Fisheries***

In the area of fisheries, the government, through a well-defined programme, could firstly carry out a comprehensive assessment of all the fisheries (marine, freshwater, inland, fish ponds, etc.), as well as a detailed stock assessment exercise. The effective protection of the Sierra Leone EEZ should be taken seriously, given that poaching is on the upsurge from countries that have exhausted their stock.

A new strategy could then be based on:

- developing the capacities of the artisanal fisherfolk to harvest stocks through pilot activities centred on the transfer of appropriate fishing technologies from other countries in the sub-region;
- training of fisherfolk, fish processors and fishmongers in improving their abilities to add value to artisanal catches, while stimulating increased private sector participation in fish exports by sensitizing potential business investors;
- local emphasis on linking fisherfolk with local demand for fish (for which a selective assessment of fisheries would be required);
- possible exploitation of artisanal fisherfolk of offshore fishing for potential export.

Government policy should be that private undertakings are encouraged, with priority given to developing the artisanal fisheries (based on coastal communities and stimulated by the establishment of local markets offering competitive prices to fisherfolk) and provision of viable fish landing sites and marketing services.

### **10.6.3 Environment**

Any strategy would depend on results of natural resource inventory, mapping of degraded environment, and participatory rural appraisal findings. It is assumed that this will promote the adoption of proper land husbandry and other resource management techniques. In principle, programmes should support on-farm and off-farm activities that improve soil and water conservation, land husbandry, forestry and water conservation techniques. Other support shall be directed at addressing the management inadequacies, and loss of soil fertility.

A number of strategies have been enumerated that government had pursued or should pursue in order to achieve food security, and key amongst these are better infrastructure, research, extension, better statistics, mechanization, and irrigation. Government however cannot undertake all of these activities at the same time because resources are limited and choices have to be made so that priority is given to activities that will have the biggest impact on food security. Therefore, from our analysis and experience in the sector we believe government should give topmost priority to the following strategies, in order of importance: (i) infrastructure, especially feeder roads; (ii) extension services; and (iii) irrigation.

## **10.7 Current Policies and Programmes: 2007–12**

A state near to food security has been achieved due to the ongoing policies and programmes. The vision for the agriculture sector in general and food security

in particular is ‘to make agriculture the engine for socio-economic growth and development through commercial agriculture and private sector participation’.

The policy development objectives to achieving this vision and the guiding principles are to:

- enhance increased agricultural productivity (intensification);
- promote diversified commercial agriculture through private sector participation;
- improve agricultural research and extension delivery services using technology, development, dissemination, and adoption and feedback systems;
- promote efficient and effective resource management systems;
- mainstream cross-cutting themes, namely, gender and youth promotion in agriculture and address farmer health (including HIV/AIDS, malaria, and IVS related diseases) and sustainable development and the environment.

To achieve these development objectives and to address the food security challenges the following programmes and plans are put in focus.

#### ***10.7.1 The Agenda for Change (PRSP11)***

Agriculture is the number one priority in the Agenda for Change. The Agenda identifies food security as one of its fundamental pillars and that poverty is the main cause for food insecurity, which particularly affects people’s ability to access food with its attendant implications for other consequences of food security as discussed earlier in this paper. Indeed, there are very close linkages between the poverty alleviation objectives of the Agenda for Change and food security objectives.

#### ***10.7.2 The CAADP Process and the National Agricultural Investment Plan***

A national agricultural investment plan based on the CAADP framework has been produced in conformity with the implementation of the 2003 Maputo Declaration by the African heads of states and governments. This declaration states that the agriculture sector should grow by at least 6% and that at least 10% of the national budget be allocated to the sector.

The national investment plan commonly called NSADP provides direction for investment in the agriculture sector. The smallholder commercialization programme is the first step in operationalizing this plan with the aim of promoting smallholder farmers to access inputs, equipment and other services along the value chain for increase production and market access.

The overall goal of the Smallholder Commercialization Programme is to reduce rural poverty and household food insecurity on a sustainable basis,

and to strengthen the national economy. In particular, the programme's aims comprise the following key objectives, to be attained by 2015:

- increasing agriculture sector growth from its current estimate of 4% to 7.7% per annum by 2015 (SAM Analysis 2009);
- increasing incomes of farming households by 10%;
- increasing household food security by 25%.

In this light, the SCP seeks to do the following.

- Promote commercialization of smallholder agriculture through increasing productivity, intensification, value addition especially via processing, developing post-harvest infrastructure and appropriate marketing facilities, and institutional strengthening to build self-reliance of farmer-based organizations (FBOs).
- Develop appropriate small-scale irrigation infrastructure in order to boost rice production.
- Improve access to markets through the rehabilitation and effective maintenance of priority feeder roads.
- Broaden smallholders' access to rural financial services tailored to the specific needs of clients expected to be individuals and groups, in particular FBOs/ABCs.
- Promote national growth and development with equity by reducing households' vulnerability to shocks and disaster and increasing food security and nutrition of vulnerable households through providing a package of social protection safety nets with focus on children, promoting human capital potential and employment, improving livelihoods and contributing to creation of productive assets.
- Ensure effective strategic and well-coordinated operational planning and implementation of SCP, with efficient coordination of resources and implementing partners, and adequate monitoring and evaluation of progress and impacts (SCP-IP 2010).

## **Appendix A: Smallholder Commercialization Programme: Programme Components**

### ***Component 1: Smallholder Commercialization: Production Intensification, Diversification, Value Addition and Marketing (US\$69.472 million)***

The objective of this component is to promote commercialization of smallholder agriculture through increasing productivity, value addition, and marketing with emphasis on commodity chain development and institutional strengthening of farmer-based organizations (FBOs).

The component is implemented through MAFFS, who is the lead actor in strengthening and facilitating the creation of FBOs, formed on the basis of farmer field schools (FFSs). The ministry would contribute to the establishment of agricultural business centres (ABCs), created by 3–5 FBOs who would come together and function as the primary gateway to commercialization of smallholders. The ABCs would provide a range of technical, operational and marketing services to smallholders and be a main entry point for MAFFS extension support. The ABC commodity focus will depend on the predominant cropping system and economic activity of the membership with early emphasis on rice and other food crops but also including livestock, non-timber forest products and fish processing.

Expected results of the component include the formation of 2,750 FBOs trained in FFS including organizational and business management skills, and organized into about 650 ABCs with adequate capacity, infrastructure and equipment to render services to clients. Thirteen district ABC networks will be formed with the view to promoting commodity chains, platforms of exchange and eventual apex bodies at national level. A MAFFS extension service will better support smallholder commercialization through improved technical performance and operational capacity – supported through over 200 capacity building events and rehabilitation of two extension training centres, Makali Training centre at Makali, Tonkolili District and Lambayama Training centre at Kenema, Kenema District and provision of equipment to improve mobility in reaching farmers. The ABC growth and commodity chain development and market access will be facilitated and actively promoted by district and ward councils reflected in enhanced decentralized planning and development activities (SCP-IP 2010).

### ***Component 2: Small-Scale Irrigation Development (US\$48.61 million)***

The aim of this component is to develop appropriate small-scale irrigation infrastructure in order to boost rice production, a major staple in the country. Results expected from small-scale irrigation development would substantially contribute to increased food security, the generation of marketable surplus for lowland smallholders and their insertion in national agricultural trade, as well as creation of wealth and employment for youth.

Emphasis will be put on two main objectives: development of small-scale gravity irrigation systems, particularly inland valley swamps (IVS), which can be developed by communities themselves at a relatively low cost so that large number of smallholders can benefit; and provision of support to farmers to maintain and manage the schemes toward assuming full responsibility with no external support. Technical options and implementation modalities for the development of IVS will draw on the long experience in the country and lessons learned. Social conflicts, inappropriate land tenure and technical issues (design) have been major causes of failure of IVS in the past. Thus particular attention will be given to social survey and land tenure analysis during the

identification and selection phases of IVS; community engagement and acceptance of clear land tenure agreements before embarking on works; appropriate design of IVS to avoid misconception and eliminate IVS which necessitate too complicated or too costly works; building the capacity of FBOs/user groups to ensure proper maintenance of developed IVS (SCP-IP 2010).

***Component 3: Market Access Expansion through Feeder Road Rehabilitation (US\$95 million)***

The objective of this component is to improve the ability of smallholders, market-orientated farmers and agri-businesses (including ABCs) to have physical access to markets and to operate in a profitable way through the rehabilitation and effective maintenance of priority feeder roads.

The implementation strategy encompasses the following general considerations.

- (i) Priority would be given to full rehabilitation and spot improvement of existing feeder roads instead of new construction.
- (ii) Favouring labour-based methods (LBMs) combining use of labour and light machinery – wherever it is technically and economically feasible. Such methods have been extensively tested and proven successful with assistance of ILO in the 1990s and implemented country-wide since then.
- (iii) Rehabilitation and improvement of feeder roads should reach the standard of all-weather road.
- (iv) Attention would be given to capacity building of specialized contractors using LBMs – both through refresher technical training for existing ones and training of new contractors – as well as facilitating their financial access (lease or loans) to the needed machinery to perform works. This would increase their outreach and yearly implementation capacity, enhance quality of works and hopefully foster competition between contractors at district/regional levels in order to reduce rehabilitation costs.
- (v) Rehabilitation works would be subject to agreements reached with district councils and concerned ward/communities with regard to the organization and financing of yearly routine maintenance works (mainly labour-based using small tools).
- (vi) Provision will be made to finance regular mechanized maintenance works (spot improvement) two to three years after rehabilitation works are carried out (SCP-IP 2010).

***Component 4: Smallholder Access to Rural Financial Services  
(US\$26.52 million)***

The objective of this component is the access of smallholders and the rural poor and their organizations to rural financial services geared to their needs.

The first pillar of the strategy is to assist the establishment of a large number of rural MFIs at chiefdom or section level, as proximity to members/clients is key to ensure outreach (maximum 5–10 km, less than one day of walking distance from customers). Proximity of rural MFIs will serve a limited local financial market however, and will still not generate substantial income. Thus the operational model should allow for limited fixed running costs: no or limited permanent staff; payment according to performance; power and computerization only when financially justified; assistance for monitoring and supervision and to ensure reporting to BSL through a shared technical services agency. Such MFIs should rely on active community and members involvement in overall management, strategic decision-making (e.g. adaptation of financial products to local needs, interest rate policy, etc.) and capital raising in the form of shares (initial capital to start operations and compulsory increases linking credit amount to share value). Such a model corresponds to the Financial Services Association (FSA) strategy, one which has been widely tested in several countries in Africa and elsewhere since 1987, and in Sierra Leone from 2008 through the Rural Finance and Community Improvement Project (RFCIP). It can effectively and efficiently respond to most of the needs of the rural poor, including access to a secured savings facility, very short-term and small loans (for social emergencies and petty trade) at easier conditions than those offered by moneylenders, short-term loans of limited amount for economic activities (agriculture, small ruminants, storage, etc.), and to some extent to bigger loans and longer-term loans, depending on the amount of capital and reserves raised and the eventual access to a refinancing facility. It is estimated that a minimum of 130 FSAs can be created and made sustainable country-wide (SCP-IP 2010).

***Component 5: Strengthening Social Protection, Food Security, Productive Social Safety Nets (US\$135.7 million)***

The objective of this component is to promote national growth and development with equity by reducing households' vulnerability to shocks and disaster, increasing food security and nutrition levels of vulnerable households, with a focus on children, promoting human capital potential, and improving livelihoods. Increasing incomes and food security of the vulnerable poor will be achieved through a triangle of interventions focused on: providing safety nets and employment opportunities for food-insecure households, while contributing to productive asset creation; protecting the health and nutrition of pregnant and lactating women and children of food-insecure vulnerable households while promoting early education; and strengthening national capacity in early

warning disaster response and risk management, mainly through ensuring adequate buffer stocks stored at district/ABC levels.

This component will be implemented through close partnerships and collaboration with MAFFS and WFP in particular, as well as district councils and other related ministries, notably Health and Education, and NaCSA. Alignment will be essential with other SCP components, particularly SCP Component 2 (irrigation), 3 (market access) and also 1 (training, tree plantations, construction of ABCs, etc.) to maximize benefits from the productive safety nets intervention, which focuses on employment creation through food for work and food for training while building assets. Targeted food security and nutritional support to vulnerable groups will be implemented in close collaboration with Ministry of Health and in accordance with national data (on poverty, vulnerability, food security, child malnutrition, etc.). Universal school feeding will scale up existing programmes, working closely with Ministry of Education. Strengthening of national early warning systems will be implemented through PEMSD of MAFFS, specifically involving the Statistics Department, while district councils jointly with ABCs will be responsible for establishing storage infrastructure with emergency buffer stocks at decentralized levels (SCP-IP 2010).

***Component 6: Smallholder Commercialization Programme (SCP) Planning, Coordination, Monitoring and Evaluation (US\$3.9 million)***

The objective of this component is to ensure: (i) effective, strategic and operational planning of the SCP programme; (ii) efficient coordination between and amongst the components of the programme on one hand and the various sources of funding and implementation partners within and outside MAFFS on the other hand; and (iii) overall monitoring of SCP implementation, progress and evaluation of final results and impacts on smallholders, etc.

The coordination and management of the SCP will be anchored within the ongoing priorities of the government and work through existing government structures, planning and steering committees at national and district levels. The programme will enhance coordination, alignment and synergy between donor-funded activities/operations. M&E will be based on result-based monitoring and be conducted through participatory processes that ensure lesson learning and information sharing. Gender mainstreaming will be promoted throughout SCP including management and operations and M&E, where indicators will be developed to track gender mainstreaming.

In order to avoid the establishment of parallel structures, the programme will be coordinated by a small secretariat headed by a coordinator and assisted by finance and procurement specialists. The other components will be implemented by the various divisions of the MAFFS, SLRA, WFP, Bank of Sierra Leone, local councils, NGOs and the private sector (SCP-IP 2010).

This approach is in line with ministry’s policy of using a programme approach as opposed to project intervention approach. Therefore, specialists that will be recruited by the programme will be placed within the technical divisions of the

MAFFS. The programme will then build the capacity of the ministry and will thus ensure sustainability. This approach will also smoothen the transitional period of merging the PIUs of current donor projects into the ministry’s setup.

## Bibliography

- African Group. 2009. The Sierra Leone agribusiness sector overview. Freetown.
- Coalition for African Rice Development. 2009. Sierra Leone national rice development strategy. Freetown, Sierra Leone.
- Food and Agriculture Organisation. 1992. Sierra Leone: agricultural sector review. Freetown.
- Food and Agriculture Organisation, Government of Sierra Leone, Ministry of Agriculture, Forestry and Food Security and the World Bank. 2003. Agriculture sector review and agricultural development strategy: volume 1. Freetown.
- Food And Agriculture Organisation, Government of Sierra Leone, Ministry of Agriculture, Forestry and Food Security and World Food Programme. 2002. Food Security and Vulnerability Analysis Mapping.
- Food and Agriculture Organisation, Government of Sierra Leone, Ministry of Agriculture Forestry and Food Security, Ministry of Health and Sanitation and the World Food Programme. 2005. Food security, farm production, health and nutrition survey. Freetown.
- Food and Agriculture Organisation, Government of Sierra Leone, Ministry of Agriculture Forestry and Food Security, Ministry of Health and Sanitation and the World Food Programme. 2006. Sierra Leone: diagnostic trade integration study. Freetown.
- Government of Sierra Leone. 1996. Agricultural master plan study. Freetown.
- Government of Sierra Leone. 2001. Special programme for food security. Freetown.
- Government of Sierra Leone. 2002. *Bank of Sierra Leone Statistical Bulletin 2002*. Freetown: Government of Sierra Leone.
- Government of Sierra Leone. 2005. Millennium development goals report for Sierra Leone.
- Government of Sierra Leone. 2008. *Agenda for Change: Second Poverty Reduction Strategy Paper (PRSPII) 2008–2012*. Freetown: Government of Sierra Leone.
- Government of Sierra Leone, Ministry of Agriculture, Forestry and Food Security. 2009. *National Sustainable Agricultural Development Plan (NSADP)*. Freetown: Government of Sierra Leone.
- Government of Sierra Leone, Ministry of Agriculture, Forestry and Food Security. 2010a. *Agricultural Statistics Bulletin Volume 1*. Freetown: Government of Sierra Leone.
- Government of Sierra Leone, Ministry of Agriculture, Forestry and Food Security. 2010b. *Annual Country Progress Report*. Freetown: Government of Sierra Leone.
- Government of Sierra Leone, Ministry of Agriculture, Forestry and Food Security. 2010c. Smallholder commercialization programme investment plan.
- Government of Sierra Leone, Ministry of Agriculture Forestry and Food Security and the World Food Programme. 2007. Sierra Leone household food security survey in rural areas.

- Government of Sierra Leone, Ministry of Finance and Economic Development. 2007. *Prospects for the Poor in the Face of National Agricultural Reforms: A Poverty and Social Impact Analysis of Changes to Agricultural Policy in Sierra Leone*. Freetown: Sierra Leone Economic Policy Research Unit.
- Government of Sierra Leone, Ministry of Finance and Economic Development. 2003. *Bank of Sierra Leone Statistical Bulletin*. Freetown: Government of Sierra Leone.
- Government of Sierra Leone, Ministry of Finance and Economic Development. 2006. *Bank of Sierra Leone, Statistical Bulletin*. Freetown: Government of Sierra Leone.
- Government of Sierra Leone, Ministry of Finance and Economic Development. 2009. *Economic Bulletin*. Freetown: Government of Sierra Leone.
- Government of Sierra Leone, Ministry of Health and Sanitation, Statistics Sierra Leone and UNICEF. 2005. Multi-indicator cluster survey (MICS). Freetown.
- SA Sopex. 2011. Review of the rice sector in Sierra Leone and pre-feasibility study of a commercial rice farm. Report.
- Sheriff, A. I. 1988. Africa's food crisis: issues and options. *Institute of Social Studies Scholars* 4(2).
- Sheriff, A. I. 1996. Policy analysis of rice supply situation in Sierra Leone: A policy debate. Freetown.
- Sheriff, A. I. 1997. Domestic rice processing and marketing in Sierra Leone. Position Paper, Freetown.
- Sheriff, A. I. 2006. National seed activities in Sierra Leone. In *Proceedings of the Third General Assembly of the West Africa Seed and Planting Materials Network (WASNET), Accra, Ghana, 21–21 February 2006*, ed. N. G. Maroya and L. Diehl, pp. 207–212. Accra: WASNET.
- Sheriff, A. I. 2009. The role of agriculture and food security in Sierra Leone's socio-economic and political development. Paper presented at the Ministry of Defence, on the Africa Study tour by the Nigerian Armed Forces Command and Staff College Senior Course 31, 25 April–2 May, 2009, Freetown, Sierra Leone.
- Sheriff, A. I. 2010. Food security situation in Sierra Leone. Presentation for Growth Week 20–22 September, 2010, International Growth Centre/London School of Economics.
- Sheriff, A. I. 2011. Advanced policy dialogue on post conflict reconstruction and development in Sierra Leone: the quest for a viable agricultural development strategy. Paper presented to the Nigerian Armed Forces Command and Staff College on a study tour to Sierra Leone, June 2011.
- Sheriff, F. *et al.* 2009. Enhancing food supply while reducing hunger. Unpublished Paper.
- West African Rice Development Association. 2005. Policies and Strategies for Promoting Food Security in Sierra Leone.
- World Bank. 2010. Scope of the regional rice programme in the Mano River Union: West Africa Agricultural Productivity Programme (WAAPP 1c).