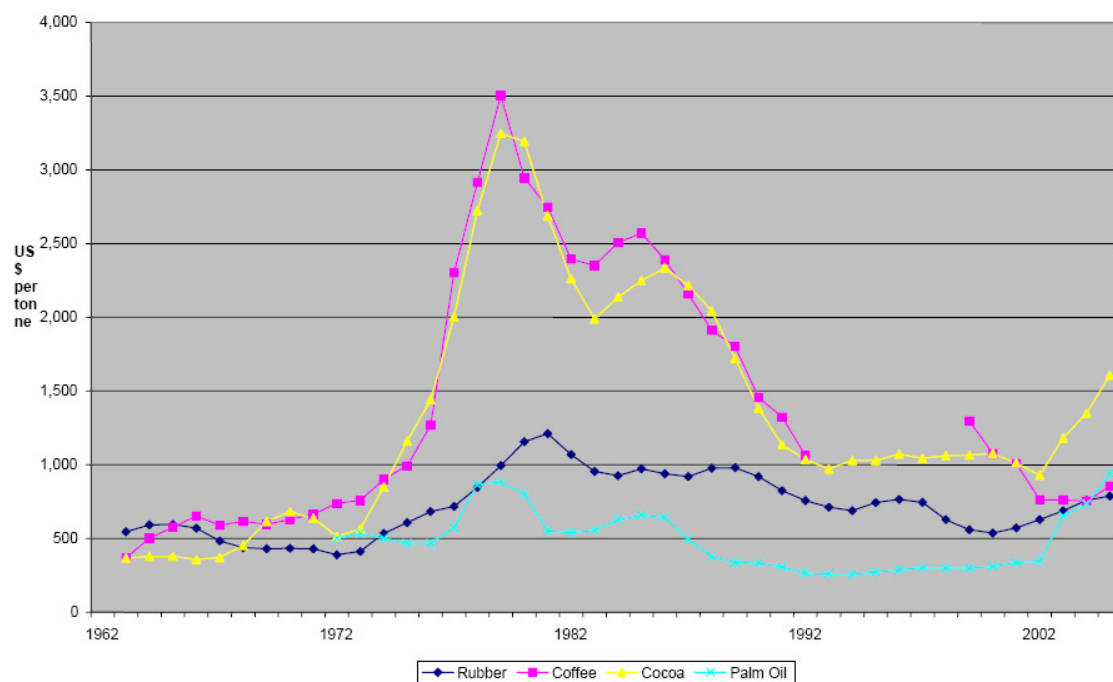
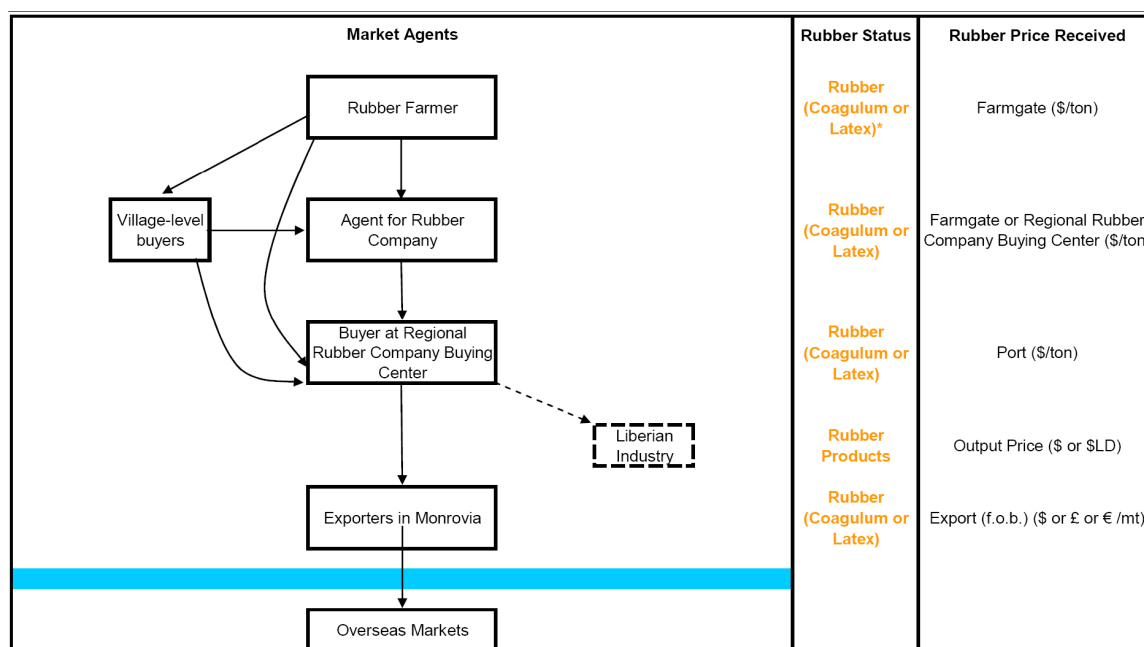


Figure 18: Liberia Nominal Export Prices, 1962–2005

Source: FAOSTAT

Figure 19: General Schematic of Current Liberian Smallholder Rubber Marketing Chain

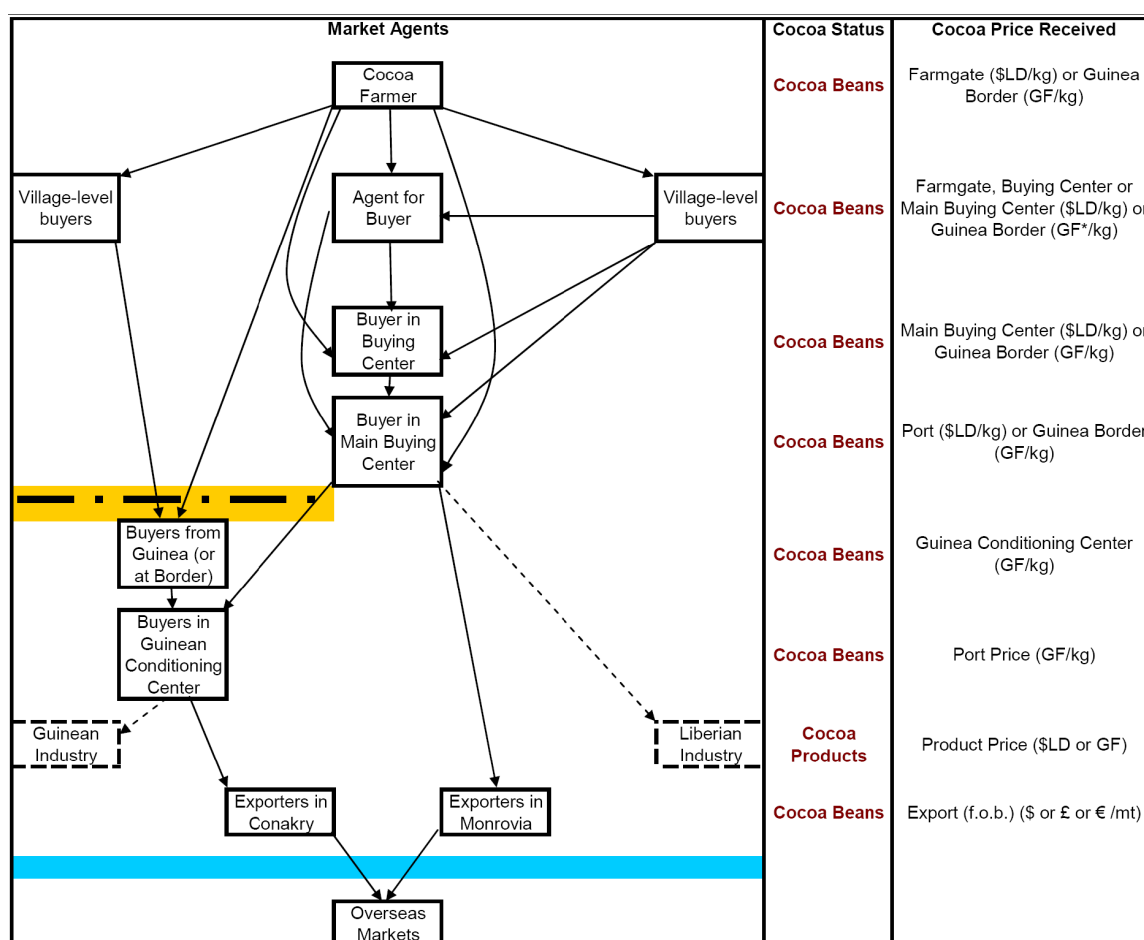
171. New markets for rubber tree products have emerged. Firestone has commissioned a rubber wood sawmill and furniture-making facilities, whilst another international investor may seek to purchase rubber chips from other growers as feedstock for biodiesel exports.

Both developments should speed up the replanting of over-mature and under-productive rubber plantation areas.

172. **For Cocoa**, and for all other tree crops except rubber, LPMC had a marketing and export monopoly before the civil war and used a pan-territorial pricing strategy. However, when LPMC resumed operation in 1997/98 it could not operate through its established channels, i.e. through cooperatives to farmers (Pay-Bayee, 2005). Additionally, in the face of deterioration of its own facilities – storage, burners, graders, etc. – as well as extreme financial difficulties, it was forced to confine its activities to ‘regulatory’ ones. With the near demise of LPMC, five foreign private sector cocoa exporters have stepped in, each with several agents/buyers and subagents (Figure 20).

173. Despite a narrow regional farmgate price differential in Liberia compared with those of other West African countries, the point of sale and level in the marketing chain will affect the actual price received by farmers. There is evidence that farmers may be receiving better prices across the Guinean border than in Liberian buying centres. It is estimated that up to 75% of the cocoa purchased by buyers in Liberia is exported through Guinea, with price differentials of L\$15–L\$25/kg relative to the Monrovia port price.

Figure 20: General Schematic of Current Liberian Smallholder Cocoa Marketing Chain



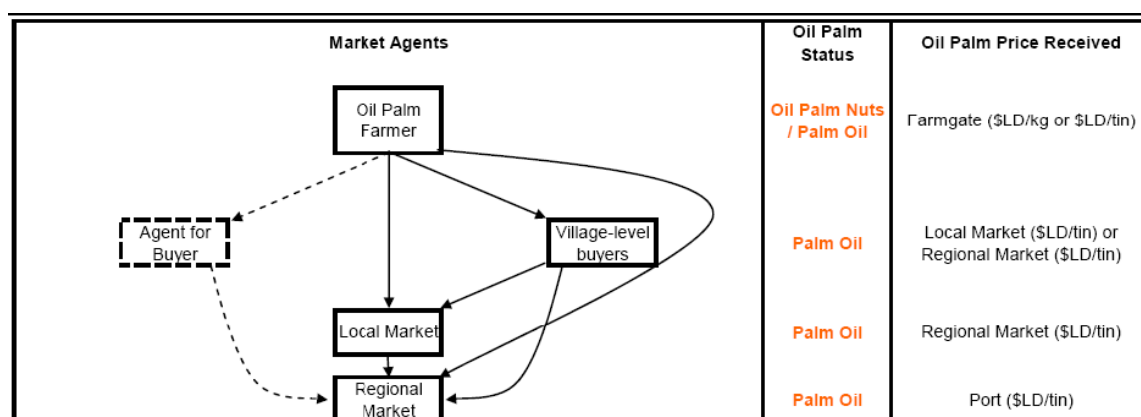
174. Quality is a problem in Liberian cocoa production and there is apparently no incentive to improve the quality. Farmers interviewed indicated that good quality cocoa is of less

importance than quantity when selling either to Liberian buyers or directly in Guinea. Buyers are even reputed to purchase quantities that are wet (and reportedly sometimes even mouldy) with minor quantity discounts.

175. **The coffee** marketing system is identical to the marketing system for cocoa, except that coffee can be stored longer if it has been properly dried, thus extending its on-farm shelf life.

176. **Oil palm** marketing channels are less complicated than for the other tree crops and are largely domestic (Figure 21). The majority of palm oil produced by smallholders is consumed at home. Any surplus oil is often sold and consumed at the village level. Oil palm growers with substantial marketable surplus sell either to itinerant buyers or at regional markets. Currently, it appears that, informal cross-border trade with neighbouring countries notwithstanding, Liberia is not a significant exporter of palm oil.

Figure 21: General Schematic of Current Liberian Smallholder Oil Palm Marketing Chain



S. Rural Financial Intermediation

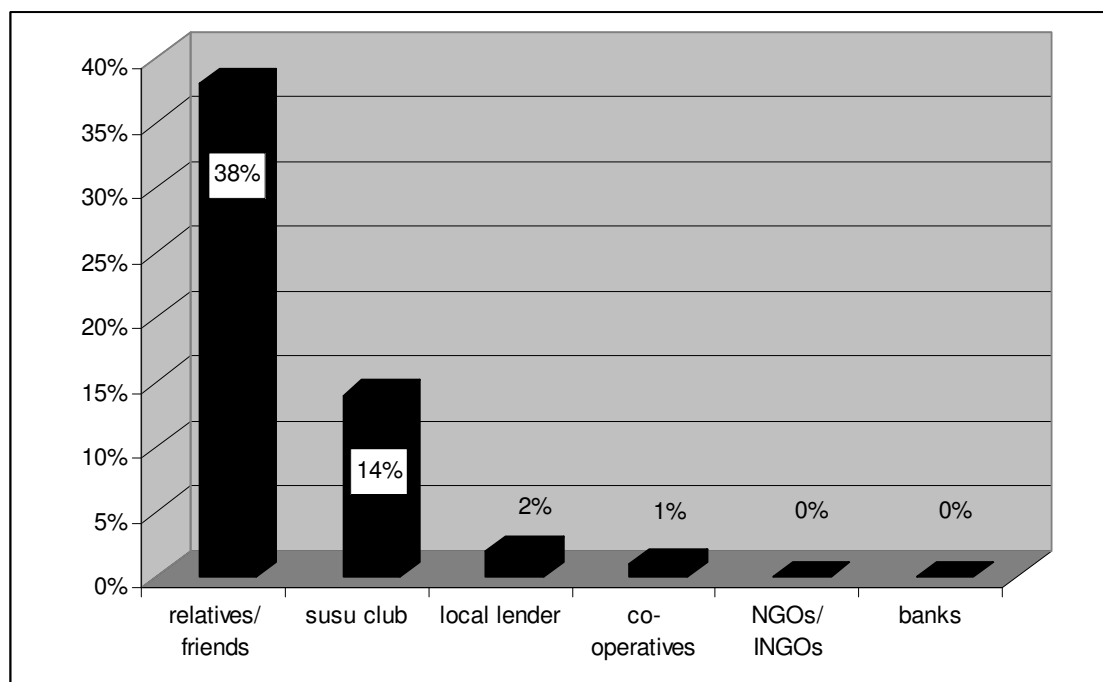
177. **There is very little credit channelled to the rural economy and the agricultural sector;** most are recipients dependent on informal mechanisms. According to the CFSNS (2006), 53% of all rural households reported obtaining credit in the two weeks before they were interviewed, mainly from friends or relatives (38% of all households) or one of three types of *susu* clubs, with formal institutions and NGOs providing virtually no credit (Figure 22).

178. **With the demise of the Agricultural Cooperative Development Bank (ACDB), the remaining formal financial institutions are private sector banks with extremely limited rural reach.** The ACDB was created with the objective of assuring that small farmers could effectively and profitably market their produce through agricultural cooperatives and farmers' associations. However, after only three years of trading³⁴ (in 1981) it had accumulated losses of over US\$1 million – roughly one-third of its equity. Recovery rates of around 70% undermined the capital base. Lending procedures were cumbersome. Rather than providing loans to needy (small) farmers, it targeted 'high level' farmers who failed to repay loans. The Government's own indebtedness to the bank (estimated to be

³⁴ ADCB was established in 1976 and became operational in 1978.

US\$3million) paralysed the normal functions of the bank. Internal governance structures were poor.³⁵ Consequently the bank is no longer functioning, and institutional credit is generally unavailable throughout the country's rural areas, either for individual farmers or for cooperatives, farmers' associations and other rural enterprises that operate individually or collectively.

Figure 22: Sources of Credit to Rural Households



Source: UNDP (2006)

179. There are five commercial banks,³⁶ but only two have any presence outside Monrovia. The Liberian Bank for Development and Investment (LBDI) has a branch in Margibi County at Harbel (home of Firestone) with a second branch in Ganta (Nimba County) nearing completion. LBDI plans to open branches in Buchanan (Grand Bassa) and Voinjama (Lofa) in 2007 and in other counties in succeeding years. Ecobank is opening branches in Nimba and Grand Bassa Counties in 2007 and also has longer term expansion plans. Heavily liquid, these commercial banks could theoretically lend a considerable percentage of their total loan portfolio to the agricultural sector, particularly to well-run farmer cooperatives and associations. Lending to such entities would decrease the risk to lenders in comparison with loans to individual small farmers. Efforts will be required to encourage lending to farmers' organizations (cooperatives and associations) to at least partially fill the vacuum created by the collapse of the ACDB, although this should not undermine the bank's financial health.

180. **Two well-established micro-finance institutions (MFIs) exist and others are springing up, although an overall institutional framework to foster MFIs seems to be absent.** The Liberia Enterprise Assistance Programme (LEAP) and Liberty Finance are the

³⁵ For instance, the Board of Directors included senior officials of the LPMC and cooperative institutions – potential beneficiaries of the bank.

³⁶ These are: the Liberian Bank for Development and Investment (LBDI), Ecobank, Global Bank (Liberia) Limited, International Bank (Liberia) Limited, and First International Bank (Liberia) Limited.

two most significant MFIs currently operating in Liberia, although other fledgling MFIs are springing up around the country, mostly through the initiatives of NGOs. Liberty Finance is an outgrowth of the American Refugee Committee (ARC) credit programmes with IDPs in Liberia and neighbouring countries (according to ARC policy, returning refugees that repaid their loans when in Guinea, Sierra Leone or Côte d'Ivoire are almost automatically granted new loans upon their return home). Outside greater Monrovia, these two MFIs currently have branches in Bomi, Margibi, and Bong Counties only. There are also other fledgling MFIs (including credit unions and others) being organized by the national NGO Grassroots Democracy Inc. in Nimba County. UNDP, as part of its Community Base Recovery Programme, has started to promote credit unions in two counties, also. Although apparently several dozen young rural credit unions now exist, the apex body, the Liberia Credit Union National Association (LCUNA) is unaware of them and continues to work exclusively with a dozen older and larger urban member credit unions, all of which survived the war in various states of health. At present, therefore, LCUNA is of little relevance to rural finance.

181. **There is an acute shortage of credit to support agricultural production.** Essentially, most rural areas are not served by either formal or informal financial institutions, other than the *Susu* revolving savings and credit societies. There are three kinds of *susu* (Box 8). Even the ubiquitous *Sususes*, though, are inappropriate for agricultural finance, which requires working capital on an annual basis. *Sususes* are revolving funds and individual farmers must wait their turn (frequently a number of months) before being able to access funds. *Sususes* operate from retained earnings (i.e. savings) and are an effective method of financing the purchase of farm tools or other equipment for those farmers with spare income.

Box 8: Different *Susu* Arrangements

Rotational *Susu* clubs involve businessmen and women agreeing to pay a certain amount of money monthly to a member of the club. This process continues until all members of the club receive payment. Any member who fails to pay risks forfeiting the amount due. The *Susu* chairperson receives remuneration from each member.

Yearly *Susu*/savings clubs involve groups of business people and other interested investors organizing themselves to contribute and save money monthly. The sum is given out as loans to members and non-members. At every meeting, payments are received and loans are given out. Every member of the savings club is expected to borrow a certain amount and/or support a potential borrower. The interest on the loan runs up to 20% for members and 25% for non-members. At the end of the year, the revenues are divided according to shares owned and interest income generated.

Daily *Susu* clubs are normally 'one man' schemes. Usually, a well-known business person organizes a daily *Susu* and people entrust their savings to him/her. On every business day, the daily *Susu* broker collects the daily savings from customers. The saver decides how much each person is to save daily.

Source: UNDP 2006.

182. **There is a worldwide consensus that formal financial markets are not meeting the needs of small farmers and rural residents while informal financial markets continue to operate successfully in many rural areas.** If rural residents are to be provided with instruments that give them a command over resources, a blend of the modus operandi of both the formal and informal markets should be instituted. Four aspects need to be addressed in order to achieve these goals:

183. *Accessibility:* Providing accessibility for the rural disadvantaged is usually an important criterion by which a credit programme can be judged. Where banking outlets are situated far away from the clientele, it becomes difficult to forge an effective relationship with them (Abebe, 1994; 1995). Several alternatives are available to increase accessibility of Rural Banks (RBs) to rural residents. One is to permit RBs to employ private lenders to act as their agents. Other alternatives for achieving greater accessibility involve mobile banking and flexible hours. The most relevant alternatives should be determined on the basis of local custom and culture.

184. *Self-sufficiency:* Self-sufficiency in resources is important to a credit institution. To achieve this, three main actions, reduction in default rates, mobilizing savings and guarding against inflation, are necessary. Institutions that combine deposit mobilization and lending become more familiar with their clients' cash flow, savings habits and wealth (Padmanbhan, 1988). In this regard, the operations of the *Susu* in Liberia epitomize the methods utilized in mobilizing savings of *Susu* members, especially of market women. The *Sususes* could also be linked with Community Banks (CBs) through the provision of attractive savings options, as is done in South Africa and Ghana (Burman and Lembete, 1995).

185. Rural banking policy should also consider linking credit to input supply and output marketing. Inter-linkage enhances repayment performance because the lender is in a position to deduct repayment at source from transactions in another market (Floro and Yotopoulos, 1991). Private entrepreneurs can be encouraged to set up input/output marketing outfits. However, this calls for a high degree of coordination between financing institutions and the input/output market outlets. Procedures relating to this should be made less cumbersome and clearer to the borrowers.

186. *Self-sustainability:* The RBs of most African countries in the past have been highly subsidy-dependent and, therefore, not viable in the sense of being self-sustainable. To remedy the situation four main aspects need to be addressed. These are lending rates, borrowing rates, loan turnover and transaction costs. Lending rates should be sufficiently high to cover administrative costs and bad debts and to make a reasonable profit. They should also be positive in order to protect the institution's equity capital and maintain its efficiency in allocating scarce resources. In addition, lending rates should be differentiated and progressive to reflect short-term loans, as well as both small and large long-term loans.

187. To increase turnover, 'saturation-lending' may be useful. This involves accommodating a large number of clients in all categories, such as small, medium and large, as well as those involved in non-farm activities. The RBs are unlikely to be viable and sustainable unless they can raise the bulk of their resources through deposit mobilization on competitive terms.

188. *The Need for a Conducive Environment:* The macro-economic environment exerts a major influence on both a country's economic performance and on its financial system.

Financial institutions find it hard to operate in an unfavourable economic environment. In particular, the Government should regard the rural financial market as an instrument for allocating scarce resources by instituting suitable macro-economic policies, and the production of viable technologies through research should be encouraged. An appropriate legal framework is also required to protect the resources of the financial institutions and to recover outstanding loans.

189. *Learning from the Informal Sector:* To achieve the above objectives, a detailed review of rural financial services, including those provided by the informal sector, should be undertaken as part of the country's financial sector reform. It is central to the arguments above that a better understanding of the informal financial system can provide insights into how to develop suitable formal financial services in rural areas. In this regard, Pattern and Rosengard (1992) have suggested that: "Emulation instead of elimination of the informal financial system, and complementing instead of supplementing should be the strategy for policy makers in efforts to develop the formal financial sector".

190. **There will continue to be an important role for public policy to increase access to rural finance in the coming years.** The infancy of rural micro-finance and the absence of bank branches outside Monrovia mean that for the foreseeable future rural financial services are unlikely to be available to the vast majority of creditworthy farmers. This is not unique to Liberia: many countries in a stronger position still face problems with rural financial services. That said there are strong examples from the region that suggest possible approaches (e.g. Ghana). Both LBDI and Ecobank have indicated an interest in collaborating with donors in financing farm and off-farm rural enterprises.³⁷

T. The Ministry of Agriculture

191. **Public support for the agriculture sector has long been recognized to be ineffective**, and previous technical reviews had made recommendations to improve matters. Indeed, the 'Blue Book' (Liberia's Agricultural Development: Policy and Organizational Structure) set out institutional reforms in the early 1980s (MoA, 1981). A volume of the 1984 Agriculture Sector Review explicitly reviewed the institutional framework and made recommendations to the GoL for reforms.

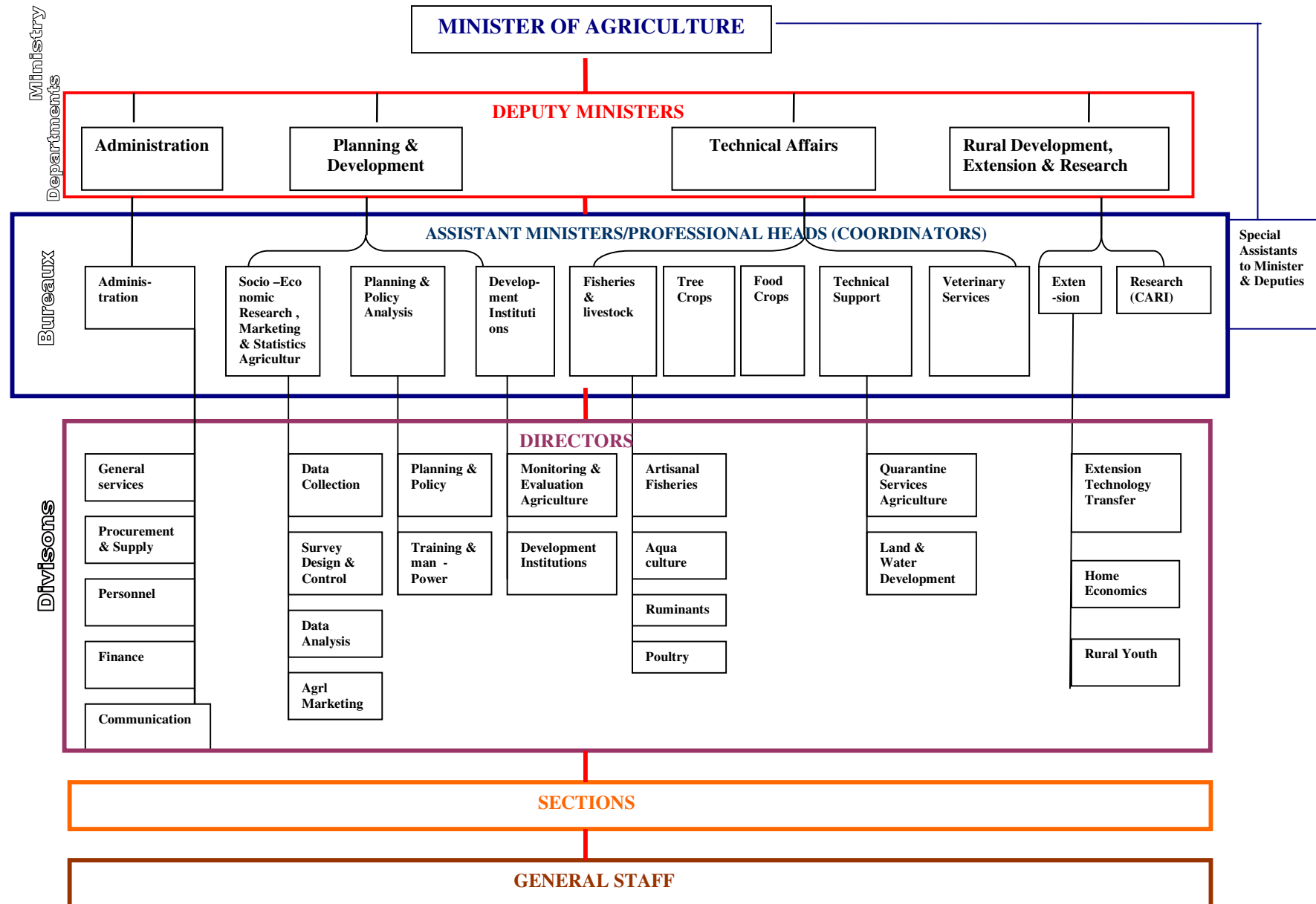
192. However, at the end of the war, MoA emerged with its old structure still largely intact (Figure 23)³⁸. This structure consisted of four departments: Planning, Technical Services, Administration and Extension. A Deputy Minister, supported by an Assistant Minister, heads each department.

- The Planning Department includes three divisions, each headed by a Director: (1) Planning and Policy Analysis; (2) Socio-economics; (3) Development Institutions (which includes monitoring and evaluation). The Planning and Policy Analysis division takes the lead in policy formulation and in liaison and planning with national stakeholders on sector-wide development.

³⁷ In discussions with managers, LBDI and Ecobank articulated somewhat different approaches: LBDI insists on performing its own 'due diligence' study of each prospective borrower, while Ecobank indicated a preference for lending to donor-determined recipients on the condition that donors cover any loss. The former is typically more sustainable and does not undermine fledgling financial markets.

³⁸ UNMIL (2004); Sesay (2006)

Figure 23: Organizational Structure of the Ministry of Agriculture



- *Technical Services* comprises five divisions: Fisheries & Livestock (actually these operate as separate bureaus or divisions), Tree Crops, Food Crops, Technical Support (agricultural engineering), and Veterinary (including quarantine). Technical Services is responsible for a number of activities that are somewhat distinct from field agriculture, such as aquaculture, fuel and tree crops, land and water resources, and animal resources. Each of these divisions is currently headed by a Director.
- *Administration* includes human resource management, financial management, information management services and asset management.
- The *Rural Development, Extension and Research Department* has two divisions: extension and research. The Central Agricultural Research Institute (CARY) currently falls under Research; the other division is the Bureau of Extension.

193. **The Department of Rural Development, Extension and Research has the responsibility for coordinating the activities of agriculture-related research and extension institutions and the dissemination of information developed within such bodies to farmers.** It is the most visibly decentralized department at the field level, although it has only 20 of its 134 staff members deployed outside Monrovia – four in each of its five regions.³⁹ Each region is headed by a Coordinator who assists the Deputy Minister in monitoring and supervising all aspects of extension in the field. Each County is headed by an Agricultural Officer who serves as a member of the Superintendent's Council and sits on the County Development Committee.

194. **The extension system faces a major challenge in shifting from a top-down to a participatory approach.** Liberia's extension system was characterized by the 'transfer of technology' approach in which clan-based extension agents provided field training for farmers in the then-prevailing hierarchical 'expert teaching mode'. That paradigm is reflected in the defined functions of the agencies at various levels (Box 9) and was predominantly technical, with little emphasis on empowering or participatory approaches to planning and development with rural communities.

³⁹ The five regional headquarters are in Buchanan, Grand Bassa County; Tubmanburg, Bomi County; Gbanga, Bong County; Zwedru, Grand Gedeh County; and Harper, Maryland County.

Box 9: Objectives and Functions of the Extension Department

The Department of Regional Development, Extension and Research is responsible for:

- Dissemination and demonstration of research findings and results to farmers and other stakeholders.
- Forming a link or liaison between research scientists and farmers by taking farmers' problems to research and research feedback to farmers.
- Transfer and extension of improved technologies to the farming population.
- Training farmers in improved agronomic practices and guiding them to field schools and tours.
- Guiding farmers to identify constraints and help resolve them.

The **Bureau of Extension** within the Department has the following functions:

- Maintaining constant contact with the farming population.
- Liaising with the research institution and farmers in disseminating research results.
- Carrying out on- site training and persuading farmers to accept the information.
- Helping farmers to change their old farming practices to improved ones.
- Using the basic approach of out-of-school educational services.
- Teaching agriculture using both theoretical and practical approaches.
- Teaching housewives and girls within communities appropriate methods of home-making, food preservation and nutrition.

The stated functions of the **County Agricultural Office** are:

- Planning, executing, administering, managing and supervising the County agricultural programme with extension as its major component.
- Management of personnel resources in accordance with all rules and regulations and sound personnel management practices.
- Sound management of all the Ministry's physical and material resources and financial assets.

195. Throughout the 1970s and 1980s, extension systems essentially focused on the transfer of technology model that conveyed technical messages and packages to farmers, either individually or in groups. It tended to be a highly structured, top-down, prescriptive approach to extension. The paradigm was centred on the belief that outside experts (planners, extension agents, and researchers) knew the priority problems encountered by farmers and communities and were able to prescribe the appropriate solutions. Building on the wealth of indigenous knowledge and experience of farmers and blending this with 'modern' technology received little, if any, serious consideration. Moreover, the old supply-driven system paid little attention to the capacity empowerment of communities – their capacity, and the confidence to decide upon their own development priorities was neglected. As a result, farming communities often did not influence or participate in, much less take ownership of, the technology development and dissemination process. In the mid-1980s, however, a pioneering GHZ-funded rural development project in Nimbi and Bong Counties brought together all ministries and key Non-State Rural Actors in a combined and integrated planning process at district and county levels. The benefits and impacts of these approaches are still remembered by senior MoA personnel, national agricultural consultants and representatives of farming organizations.

196. Senior staff in MoA report a significant amount of inter-departmental conflict arising from unclear or overlapping roles/areas of jurisdiction, and the resultant competition for resources. The most important task is to clarify roles, responsibilities and relationships

through renewed job descriptions across the divisions and to have flexible programme approaches in the five areas of field service provision within the divisions.

197. The Commission for Government Reform (CGR) is currently engaged in a process of revising the mandates of all GoL Ministries, Departments and Agencies (MDAs). The Ministry's core general areas of responsibility should continue to focus on agriculture – both smallholder and commercial, recognizing that the type of support for each will differ – plantation crops, fisheries (in partnership with the BNF) and on-farm woodlands. Indeed, MoA is already formulating a number of proposals in this regard. For example, the Department of Extension and Community Empowerment is a proposed title to replace the Department of Rural Development, Extension and Research, although any changes require legislative approval, which takes time. Other reforms include the proposal that the Technical Services Directorate should be headed by a Technical Coordinator.

198. The Statement of Policy Intent (MoA, 2006) sets out five principles of MoA policy and programmes that provide important underpinnings to future institutional reform:

- That the Ministry's policies and measures, while focusing on smallholders and previously neglected areas, should have a wide geographical coverage, in the interests of equity, justice and national cohesion.
- Priority should be given to policies and measures that would have an 'immediate' impact on food production, household food security, and local business development. The urgent need to achieve 'quick wins' in these areas is increasingly accepted and supported by the donor community.
- Policy and decision-making processes should be participatory and mobilize local knowledge.
- The formulation of policy and strategy should be sensitive to the need to empower women, and to provide incentives and training for youth to pursue careers in agricultural and rural development.
- Governance, including regulatory supervision, should be decentralized.

199. **The MoA remains highly centralized:** out of a total of 327 staff, only 84 are stationed outside the capital, with 243 based in HO in Monrovia. Under decentralization, this ratio probably needs to be reversed to one where three out of four staff are deployed in counties or districts. MoA envisages an eventual total staff complement of about 250 – about a quarter of the estimated total of 1,000 that MoA had before the war. MoA is currently conducting a systematic exercise to re-assess all staff on its books to remove ghost workers and poor performers and to provide renewed opportunities for those with relevant skills and potential.

200. While the MoA has remained centralized, a plethora of non-government organizations (NGOs) has emerged. A major challenge is the integration, harmonization and coordination of the activities of the estimated 600 NSAs/NGOs⁴⁰ involved in food security and/or rural development into the mainstream national agricultural development plans, and how to ensure that resources are not concentrated in the Monrovia Headquarters, consistent with the need to decentralize among both state and non-state actors. To do this effectively, MoA will need to

⁴⁰ UNDP estimates.

conduct a services analysis exercise, with the Department of Extension and Community Empowerment, to obtain the knowledge and insights necessary to fulfil its role in the provision of supervision and guidance in planning of services and training for farmers.

201. The array of challenges confronting MoA and its partners becomes even more formidable in a national context. The tradition and legacy of government in Liberia, even under the conditions prevailing in pre-war decades, have been highly centralized in cultures of predominant hierarchy, autocracy and weak participation in development processes by rural communities and wider civil society. Understanding the evolution and nature of Liberian government administration and structures over recent decades, especially at local government level, is therefore essential when considering and proposing institutional development approaches based on decentralization and emancipated participation of rural civil society in local planning and development.

202. Similarly, the MoA will need to break with the past and lead new partnerships with a range of national stakeholders and non-state actors through continual processes of dialogue on national development priorities and subsequent joint planning and programme development at national and county levels. Such pluralistic partnerships are crucial to ensure harmonization of planning and implementation strategies and optimal deployment and utilization of scarce expertise and limited financial resources in support of renewed development of mostly impoverished rural communities.

203. **MoA is cognizant that returning to the pre-war situation is not feasible and is seeking to rebuild capacity in a way that ensures that it is fit for purpose.** MoA needs to evolve with an appropriate centre/district distribution of responsibilities and an appropriate skills mix for contemporary challenges. It needs to regain its role as the lead public sector actor in agricultural and rural development – albeit with a different business model. Moreover it faces the immediate challenge of transition from a post-conflict relief posture to one supporting longer-term development. It is struggling to balance responsiveness to the acute short-term demands and needs of rural communities that are emerging from poverty with the clear long-term need to develop enduring capacities for policy, planning, coordination and supervision, together with implementation of programmes and projects. The NGOs and INGOs also have to respond to this changing context, with relief and emergency agencies needing to reorientate their activities or be replaced by others that are more orientated towards long-term development processes and programmes.

204. GoL has created a Provisional Joint Board (PJB), chaired by the Minister of Agriculture and consisting of a senior representative of MoPEA and directors of the parastatals, as well as representatives of the private sector, to review the role and function of the existing parastatal institutions. The key issue in determining the future of these state institutions is the extent to which the private sector is likely to provide the same goods and services comparatively better in terms of quality and cost and in line with strategic long-term national goals for economic and social development of rural areas and communities. At the same time, MoA is currently considering legislation to rationalize some of the functions and structures of these entities, including options to create a new Liberian Agri-Export Development Board (to replace the LPMC and LRDA). Also under consideration is a comprehensive assessment of rural and micro-finance needs for agricultural and agri-enterprise development, including a review of the potential roles of existing commercial banks (Ecobank and LBDI in particular) and the merits of a renewed entity for strategic long-term finance of agricultural and rural development to replace the ACDB.

U. Public Expenditure and Agriculture

205. **The public financial management (PFM) system of the MoA suffers from GoL-wide fragmentation and institutional inefficiencies, and is in need of substantial reforms as part of a broader PFM programme.** Currently the Ministry of Finance (MoF) has responsibility for revenues, treasury functions and, since late 2005, implementation of the cash management system.⁴¹ The Bureau of Budget (BoB) is independent of the MoF and has the responsibility for the recurrent budget. The Ministry of Planning and Economic Affairs (MoPEA) has responsibility for the development budget, which includes donor funded projects. This fragmentation makes it impossible to budget and plan effectively and introduces dislocations within budgeting systems: recurrent and capital expenditures are separate, capital expenditures funded by general revenues are separated from capital expenditures financed by donors, and there is no mechanism for monitoring and coordinating donor projects and programmes. Legislative weaknesses allow Parliament to increase appropriations in excess of those proposed by the Executive, and budget implementation is inefficient with frequent mid-year reallocations undermining fiscal planning.

206. Budget guidelines are provided by MoPEA and include standards for budgetary practice, such as (i) consistency between declared policy and budget; (ii) individual budget initiatives should be clearly focused and time-bound; (iii) each proposal must specify content, objectives, strategy, and implementation modalities. Each ministry develops a budget proposal for submission to BoB and subsequently defends its proposals at MoF. MoF and BoB will rule on the level of the total budget and it is then left to the individual ministries to allocate the revised – more often than not reduced – amount. For example, in FY05/06, MoA requested US\$6 million but actually received US\$3.06 million. While this is the highest allocation in 9 years (during the war it was less than US\$0.5 million) it remains far short of the NEPAD commitment to allocate 10% of expenditure to agriculture.⁴²

207. The GoL is embarking on an ambitious programme of PFM support, with the backing of a number of development partners. A detailed diagnostic exercise will provide the analytical foundation for subsequent reforms. Of particular concern to agricultural issues are: (i) the timing of the budget submission and the need for timely agreement on projects and programmes in order that counterpart financing can be secured; (ii) project performance reports are too input-focused and focus only on disbursement profiles; (iii) more guidance needs to be provided on the appropriate scheduling of development initiatives; and (iv) there should be provision for expenditure to run beyond the financial year.

V. The Agricultural Research System

208. **Liberia's agricultural research system, formerly dominated by the public sector, is now in ruins.** The main institution, the Central Agricultural Research Institute (CARI), is a semi-autonomous organ of the MoA, having evolved (in 1980) from the Central Agricultural Experimental Station (CAES). It developed rapidly into a reputable centre of excellence in

⁴¹ The Cash Management Committee (CMC) is a cornerstone of the efforts being made under the GEMAP to bringing discipline into the public financial system. CMC includes representatives of the MoF, BoB and the President's Office. All expenditure vouchers from ministries, departments and agencies (MDAs) must be submitted to CMC for verification and CMC will only authorize expenditures if there are sufficient funds in the Government's accounts in the Central Bank.

⁴² During the Second Ordinary Session of the African Union, held in Maputo in July 2003, the Heads of State and Governments pledged themselves to "...allocating 10 percent of national budgetary resources for the implementation of CAADP, and sound policies for agricultural and rural development within five years".

applied and adaptive research in West Africa. However, the civil war devastated CARI. The physical infrastructure was destroyed through the looting of offices, laboratories, residences and research stations. The entire germplasm collection was lost and most of the research staff moved to other organizations. Presently, most of the buildings and other infrastructure of the institute are occupied by UN military personnel.

209. Public sector research includes other agencies beyond CARI, including the Forest Development Authority (FDA), Liberia Rubber Research Institute (LRRI), and the Department of Fisheries. These agencies have had little interaction in the past. There is a need for greater collaboration, cooperation and coordination between the agencies, CARI, the universities, extension systems, private and civil society sector actors, and the users of research results. This would build on the synergies and complementarities that exist among them.

210. The biggest challenge facing CARI is how to revitalize itself to achieve its mission and mandate, rebuild important previous partnerships with the University of Liberia (UoL), CGIAR centres such as WARDA and IITA, regional agricultural networks such as CORAF, FARA and NEPAD, the international agricultural research centres (IARCs)⁴³ and other centres.⁴⁴ The IARCs can play important roles in restocking germplasm assets, training technicians and research staff, engaging in collaborative research projects, developing and implementing an R&D strategy, results-based planning, monitoring and evaluation.

211. A newly reconstituted CARI placed at the centre of Liberia's research effort will have to face the changing paradigms in agricultural research management and organization. First, CARI is only one among many other actors that can play a crucial role in national agricultural development. Second, research organization and management needs to be efficient and cost effective – this was not the case in the past (Box 10). There are no clear organizational frameworks or institutional mechanisms (e.g. competitive grant systems) to encourage inter-agency partnerships. For instance, beyond events surrounding World Food Day, there is no formal mechanism for bringing together researchers, extension agents, producers, processors, policy makers and the private sector. Locating some extension staff in CARI offices, and joint planning, implementation, monitoring and evaluation of programmes and projects are some of the measures that can be taken in the short term to address this situation. It is also necessary to coordinate research at Cuttington University (CU) with that performed at CARI.

212. **There are no clearly defined and well thought out programmes for agricultural research at some of Liberia's well-known agricultural education institutions.** There are no post-graduate courses. Previously, teaching staff maintained their technical skills by collaborating with international agricultural research centres such as the IRRI, WARDA and IITA, but this has ceased. Cuttington University has recently launched a research project in aquaculture (tilapia breeding) and adaptive trials for New Rice for Africa (NERICA), whilst the Booker Washington Institute (BWI) is currently engaged in adaptive trials of rice varieties. Another major problem facing university research is the lack of qualified and experienced staff, due in part to inadequate remuneration and the lack of favourable incentives.

⁴³ These include IRRI, IITA, ARVDC, CIMMYT, CIAT, IRAT, ICRAF and ILRI.

⁴⁴ The International Foundation for Sciences (IFS) of Sweden and the International Development Research Center (IDRC) of Canada.

Box 10: Organizational Structure of CARI

The Minister of Agriculture was responsible for overall coordination of the national agricultural research programme as Chairman of the Agricultural Research Committee (ARC). The ARC was the independent committee that decided on and approved policies for applied and adaptive research in agriculture.

The Technical Committee, chaired by the Deputy Minister for Technical Affairs, provided broad direction for the research programme at the Institute level. The chairman acted as the link between the ARC and CARI. This committee examined the various proposals for research in agriculture. An Advisory Committee provided advisory services to the Research Committee.

Within CARI, research was organized in seven technical departments under the research coordinator: Crop Sciences and Propagation, Land and Water Resources Management, Animal Science and Production, Plant Protection, Food Technology, Engineering and Appropriate Technology, and Fisheries.

Despite this elaborate organizational structure, the system did not function efficiently. The ARC seldom met. On the few occasions that the Technical Committee met, technical matters were hardly discussed and members showed little interest in research matters. In the absence of a functioning ARC, the technical committee had assumed its role, but only in administrative and peripheral matters at the expense of the technical issues of planning and formulating meaningful research programmes. As a consequence, research policy formulation, which normally should be at three levels, existed only at the institute level. This prohibited response, strategic research agenda or a properly administered allocation of funds for

213. A reinvigorated research system will depend upon deeper collaboration between institutions of higher learning and CARI. Possible mechanisms for collaboration include:

- Collaborative agreements, such as memoranda of understanding (MOU), to undertake research and extension.
- Joint staff appointments.
- Staff secondment (e.g. between research and extension, universities and research).
- Joint research projects.
- Innovative sharing – or joint use – of existing physical facilities.
- Competitive research grant systems that put a premium on inter-organizational collaboration or partnerships.

214. **The NGOs have some potential but do not currently contribute to the research effort.** The New African Research and Development Agency (NARDA) is a consortium of Liberian NGOs formed in 1987. Prior to 1990, there were only four major international NGOs operating in Liberia (Partners for Productivity, Plan International, SOS Children Village and Experiment in International Living). Currently there are more than 34 local NGOs in the country, working (with line ministries) in four sectors: agriculture and food production, business development, and education and sanitation. NARDA coordinates the activities of NGOs, which operate through county networks. Research-related activities of NGOs in the recent past have included socio-economic research such as developing vulnerability assessment maps (VAM), conducting food security assessment studies, and adoption of participatory forestry management methodologies.

215. **Women's issues must be addressed.** A revitalized research and extension system must take into account the technology, information and learning needs of female farmers, especially given their critical role in food security and natural resource management. Liberia has had some interesting experiences with indigenous farming strategies (communal farming) based on traditional forms of organization (*kuus* and *susu*). Women play a critical role in this system, indeed it was women and the indigenous farming system that provided the bedrock of the agricultural research system during the war.

W. Agricultural Education

216. **Liberia has an established history of agriculture-related education, although there are currently few trained personnel in the sector** (Box 11). Although hundreds of graduates were produced by the various courses at UoL, CU and BWI, most fled abroad during the war and the remaining endowment of trained personnel is limited. The long-term capacity of Liberia – both within the public sector agriculture-related agencies and in the private sector – that will drive agricultural growth depends on improved human capital in the sector. In this regard, it is encouraging to note the rapid increase in students that has occurred now that the College of Agriculture and Forestry (CAF) at UoL and the College of Agriculture, Rural Development and Sociology (CARS) at CU have resumed courses. The class size at CARS has increased from 10 students in the 1998/99 academic year to 264 in 2006/2007, while at CAF 71 students were enrolled in 2005/2006.

217. **In addition to undergraduate courses, vocational agricultural training programmes and secondary school classes are available.** The vocational training currently being offered at secondary level can be placed into two categories: (1) four-year secondary programmes, and (2) accelerated vocational agricultural training programmes. These training programmes provide training for a range of agriculturists, vocational agricultural teachers, students who will matriculate and receive college degrees in agriculture, extension workers and service providers, and farmers. Vocational agricultural training is also carried out by a number of NGOs, aimed at providing practical skills training in specific areas. These programmes are classified as 'Accelerated Training Programmes' and are not more than 9 months in duration. Generally they are designed to meet the specific needs of NGOs, who usually conduct their own training. Participants in these programmes include NGO field staff and members or clients of community-based organizations (CBOs).

218. Agricultural education also occurs at high school level, although according to the Ministry of Education (MoE) there is no national curriculum for vocational education. Each school is expected to develop its own curriculum. The MoE is studying the situation to determine the type of institution and the required level of instruction in order to develop a national curriculum with flexibility for location factors and industry/employee demands. MoE has recently introduced both types of programmes – one in conventional high schools for grades 10 through 12 and the second in multilateral high schools, which runs over four years in Tubman High School in Monrovia and Zwedru Multilateral School in Grand Gedeh. The MoE plans to expand the programme to Voinjama Multilateral School in Lofa and Greenville in Sinoe. The programmes offer classroom instruction and practical fieldwork in food and cash crop production, and in livestock (poultry, pig, goat and sheep) production.

Box 11: A Brief History of Agricultural Education

University-level agricultural education and training programmes were first introduced into Liberia in the late 1950s and early 1960s, with the establishment of the School of Forestry at the University of Liberia. Around this time an agriculture programme was also started at the Cuttington College, now Cuttington University (CU), in Suakoko, Bong County. The School of Forestry, which had been had been established earlier with assistance from FAO, produced its first graduates in 1959. In the same year the school was elevated to the status of a College and offered a four-year Bachelor of Science degree programme in General Forestry. Subsequent to the establishment of the School of Forestry, the United Nations Special Fund (UNSF) and FAO assisted in establishing a College of Agriculture as an integral part of the University of Liberia. The College was formally inaugurated in 1962 and a four-year curriculum in general agriculture was developed, producing its first four graduates in 1965. Both colleges were merged in 1967 into the College of Agriculture and Forestry (CAF).

The agriculture programme started at Cuttington College in the late 1950s offered a four-year degree in General Agriculture. This programme was, however, discontinued shortly thereafter. During the late 1970s the Rural Development Institute (RDI) was established at Cuttington University College (now CU) offering Associate of Arts degrees in Agriculture. This programme, which lasted for about a decade, was established in response to the need for trained agriculturists to work in the extension service and throughout the sector, but was discontinued due to lack of funding. While the RDI programme did produce scores of graduates, many of them were subsequently lost or have relocated abroad. Cuttington University restarted its agriculture programme with the establishment of the College of Agriculture, Rural Development and Sociology in 1998, offering BS degrees in General Agriculture and in Rural Development and Rural Science.

A four-year secondary vocational agriculture programme offered by the Booker Washington Institute (BWI) began in 1929 with assistance from Tuskegee University; graduates were awarded Diplomas in General Agriculture. For many years this was the only such vocational agricultural training programme in the country; it produced hundreds of high school graduates over the years, and provided much of the trained labour for the agricultural sector. The current curriculum provides instruction in the areas of food crops, tree crops, livestock (pig, poultry, cattle, goats and sheep), extension, and agricultural mechanization. Instruction is also provided in soil science, and fisheries and farm management, and involves practical field training.

An Agricultural Education programme was introduced into the Teachers College at the UoL in 1980, aimed at preparing vocational agricultural instructors for secondary schools. This programme offers a Bachelor of Science in Agricultural Education, which involves an initial two years of instruction at the CAF. Only a small number of graduates (25) with a BS in Agricultural Education have been produced.

Prior to the 1990 conflict all public secondary schools were mandated by the Ministry of Education (MoE) to have agricultural programmes. These programmes were first introduced in the 1970s, with mixed results, and according to the MoE were intended to provide a broad introduction to agriculture in the hope that students' interest would be kindled, eventually resulting in positive choices of future vocation and careers in agriculture. Two types of programme were offered in secondary schools: one was in conventional high schools and ran over three years in the 10th through 12th grades. While these programmes were not compulsory, indications are that enrollment in them was comparable to other vocational programs. The programs did not achieve their objectives and are no longer offered. The second high school program was in Multilateral High Schools over four years. The aim was to provide rural students job skills as well as life skills.

219. **Agricultural education receives a low priority at present** despite the fact that it underpins any effective sustainable agriculture development strategy, and produces the human capital required for agricultural development. Such programmes provide education and training of agricultural professionals in a wide range of areas at different instructional levels, using various pedagogies, and adopting best practices as appropriate. Unfortunately it has not been seen as essential to sustained agricultural development but instead has been seen

as a complementary activity, and therefore very few resources have been invested in Agriculture Education and Training (AET) programmes. Secondary- and college-level programmes developed prior to the civil conflict offered a limited range of instructional areas, and lacked the necessary coordination with agricultural research (at CAF and CARI), local knowledge and information centres, and educational agencies responsible for developing national curricula and for regulating and administering educational programmes. The current situation is broadly the same.

220. Curricula for vocational agricultural training programmes and short-term agricultural training programmes are developed independently by each school, NGO or agency carrying out the training, with no input from MoE, MoA, CAF or CARI. Clearly there is a need to set up a process of collaboration between the aforementioned institutions, through which minimum content standards are developed and the proper mechanisms put into place to provide supervision of the development of all vocational agricultural training curricula and of the administration of vocational agricultural training programmes.

221. **The consequence of this absence of basic agricultural training is a serious shortfall in the quality and range of specialization of human resources in agriculture.** Currently there are insufficient numbers of agricultural professionals, and their range of specialization is too narrow, especially in research, teaching, and extension. The current agriculture curricula at CAF and CU provide for only a limited number of areas of specialization at the Bachelor of Science level, and no advanced or graduate level training. Curricula at both CAF and CU must be revised to allow an increase in the number of instructional programme areas offering Bachelors degrees in agriculture (and related areas). A real commitment must be made to introduce, in the medium term, graduate degree programmes in agriculture. This will ensure that a stock of trained agricultural professionals and specialists is available that can augment and/or replenish agricultural human capital. In the case of advanced graduate level training, the cost would be far lower than that of equivalent overseas graduate training.

222. The curricula of existing AET programmes need to be reviewed and revised at three levels: (i) college level education offered at the CAF/UL and CU; (ii) vocational agricultural training currently being provided by BWI, Tubman High School and Zwedru Multilateral High School; (iii) short-term training programmes that cover specific topics, or targeted areas of intervention, carried out mainly by NGOs and some government agencies. Agricultural education programmes require the full commitment and financial support of GoL and of the donor community. Financial and technical resources need to be provided for strengthening and expanding both the instructional and research capacities of the agricultural colleges (CAF/UL & CU), and for strengthening the programmes offered by other institutions.

223. Finally, there is a need to encourage coordination among training programmes. Coordination is critical to minimizing unnecessary programme duplication, maintaining programme standards, and providing supervision, which ensures that the range of training needs within the sector is provided for. Currently there is a lack of coordination between the relevant parties, including MoA, MoE, CARS, CAF, vocational agricultural training institutes, INGOs and NGOs, all of whom are involved in developing and delivering primary, secondary and higher-level agricultural education and vocational agricultural training. Along with the critical training needs within the agriculture sector, the MoA itself has a range of training needs with regard to its requirements to build organizational and institutional capacity within the context of its new organizational arrangements. High priority should be

given to strengthening the capacity of the human resource development and training unit of the MoA to enable it to assess, monitor and evaluate its internal personnel requirements and to provide that same coordination of training activities for agricultural programmes sector-wide.

X. NGOs and Community Based Organizations

224. The Ministry of Planning is responsible for the registration and monitoring of the activities of all NGOs and CBOs in Liberia, which is a statutory requirement. However, it appears to have delegated the responsibility to sector ministries, having prepared guidelines that they should use for that purpose.

225. Data in the FAO database, which was constructed to support its emergency operations in Liberia, show that there are 44 International NGOs and about 113 local NGOs operating in the country⁴⁵. However, only 78 were registered with MoA in 2004/2005, and only 17 during 2007. This clearly shows that there is widespread non-compliance with the statutory requirement.

226. Amongst the 17 registered NGOs five have no funded programmes in 2007, while the others have from one to four programmes funded. The NGOs that have programme funding are spread throughout 14 of the 15 counties of Liberia. They claim to serve about 234,000 beneficiaries but this cannot be verified.

227. As is to be expected, most NGO programmes in agriculture have concentrated in the past on emergency and relief activities, mainly the distribution of farm tools and inputs. As the period of emergency has drawn to a close they have tended to direct more of their activities towards more broad-based agricultural development activities such as provision of extension services, credit, marketing, advocacy, policy dialogue, etc.

228. Because the funding of GoL extension activities has been grossly inadequate in the past NGOs have tried to fill the gap. However their activities have tended to focus more on the supply than on the demand side. The situation is worsened by the multiplicity of NGOs, whose extension activities are not properly coordinated and are fragmented and duplicative.

229. All International NGOs have a well defined organizational structure and relatively reliable sources of funding from donors such as USAID, OFDA, the EU, EC, ECHO-Aid, DANIDA, UNDP, FAO, Irish AID and the Swiss Development Corporation. Most local NGOs are implementing partners of INGOs, hence they have secured the bulk of their funding from these sources.

230. There is a limited amount of capacity building of local NGOs by their partner INGOs in such areas as assistance to secure offices, opening of bank accounts, provision of minimal office equipment and supply of project vehicles where necessary.

231. To enhance coordination among NGOs, donor agencies and GoL, MoA has set up the Agricultural Coordination Committee (ACC), which comprises all stakeholders that are involved in agricultural activities in the country. The ACC holds monthly meetings in

⁴⁵ Fieldwork during CAAS-Lib, during which NGOs not listed in the FAO database were encountered, indicated that the listing is incomplete.

Monrovia at headquarters level and also at county level, where all NGOs report their activities, share experiences and discuss issues relating to the sector. The ACC has an Agricultural Policy Committee whose membership consists of heads of NGOs as well as the Minister of Agriculture. However, this experience-sharing activity appears to have little if any effect on policy making and programme development by either the MoA or the NGOs.

232. The ACC also has a Technical Working Group (TWG) that is charged with responsibility for the monitoring and evaluation of all the activities of stakeholders in the agriculture sector. The TWG appears to be as ineffective as the other organs of the ACC.

V. MOVING TO SUSTAINABLE DEVELOPMENT – POLICY CHALLENGES AND OPPORTUNITIES

Y. Contemporary Evidence of Agricultural Growth and the Poor

233. **Evidence consistently shows that agricultural growth is highly effective in promoting economic growth and reducing poverty.** Not only are the growth ‘multipliers’ stronger in the agricultural sector than in any other, the growth-elasticity of poverty – i.e. how much poverty is reduced for a given percentage of economic growth in the sector – is higher for agricultural growth (Box 12). The impact of economic growth on poverty depends on the pattern of growth and the degree to which groups and households are able to participate in remunerative activities that result in higher incomes. This is not just a question of growth in absolute income levels but the manner in which it is distributed among the population and the relative gains in income achieved by the poorest segments of society (Eastwood and Lipton, 2001). In other words, distribution and equity issues are strongly influenced by the pattern of growth, which concerns the extent to which the poorer segments of the population participate in, contribute to and benefit from growth (OECD, 2006).

234. **Given the strong relationship between growth in agricultural productivity and poverty reduction, future efforts need to focus on productivity-enhancing measures with a pro-poor focus that increase incomes.** Growth based on extensification using traditional technologies is generally not profitable and sustainable and has damaging implications for the environment. Experience has shown that increasing productivity both at the farm level and throughout the various stages of the value chains is not necessarily easy. It is through a mix of effective policies, well-structured institutions and appropriate technology that productivity has improved, value chains have become more competitive and incomes have risen. In contrast, a weak incentive environment, lack of access to credit and affordable high quality inputs, and minimal intensification of production are among the factors that have prevented yields from increasing and have constrained income growth. As described earlier, existing value chains are weak: profitable value chains, on the other hand, generate higher incomes and can contribute to capital accumulation and the productive reinvestment needed to foster growth in the Liberian economy. Assuring that value chains can be resurrected in Liberia will strongly depend on improved productivity that allows them to remain competitive.

Box 12: The Empirical Evidence on the Role of Agriculture in Growth and Poverty Reduction

Gallup *et al.* (1997) reported that every 1% increase in per capita agricultural output leads to a 1.61% increase in the incomes of the poorest 20% of the population. Depending on the model and data set used, a 10% increase in crop yields leads to a 7–8% decrease in the percentage of those living on less than US\$1 per day (Thirtle *et al.*, 2001; von Braun *et al.*, 2004).

Many studies have shown the strength of the growth linkages or ‘multipliers’ between agriculture and the wider economy. Estimates show that on average, in Asia, every US\$1 of additional farm income creates a further US\$0.80 in non-farm income (Bell *et al.*, 1982; Hazell and Ramaswamy, 1991). Estimates from Africa show that every additional US\$1 of farm income leads to a further income elsewhere in the economy of between US\$0.96 in Niger and US\$1.88 in Burkina Faso (Delgado *et al.*, 1998). Models of the Kenyan economy show that these ‘multipliers’ from agricultural growth are three times as large as those for non-agricultural growth (Block and Timmer, 1994). In Zambia, estimates suggest that every US\$1 of additional farm income creates a further US\$1.50 of income outside agriculture (Hazell and Hojjati, 1995).

As stated in the World Bank World Development Report for 2008 (in press), focusing on relative poverty, Valdés and Foster (2005), based on estimates by Bravo-Ortega and Lederman (2005), find that an aggregate increase in GDP coming from agricultural labour productivity is on average 2.9 times more effective in raising the incomes of the poorest quintiles in developing countries, and 2.5 times more effective in countries in Latin America, than an equivalent increase in GDP coming from non-agricultural labour productivity. Focusing on absolute poverty, and based on observations from 80 countries during 1980–2001, Christiaensen and Demery (2007) estimated that one percentage point aggregate growth in agriculture reduces the incidence of US\$1 a day poverty on average 2.3 times more than an equivalent amount of growth originating in non-agricultural production.

235. In situations where the poor have few assets other than labour, as in Liberia, some argue that increased employment will result in the bulk of poverty reduction. Greater employment increases the income of the poor by increasing the amount of time they use bringing in income, and, as increased employment tightens the labour market, by raising wages in real terms. While the Liberian conflict has clearly left the majority of households with minimal assets besides their own labour, simply generating employment opportunities (e.g. in extractive industries) may not result in the higher incomes required to improve food security and reduce absolute poverty levels. It needs to be combined with programmes that help the poor increase their asset base in the near future. In fact, many analysts point to the

high levels of absolute poverty and minimal opportunities for the majority of Liberian households to improve their asset base and welfare that occurred before the war as one of the underlying structural factors that contributed to the conflict.

236. Given the low level of assets of most Liberians, future efforts need to address the question of access to assets (i.e. land, knowledge, inputs) in addition to the provision of opportunities and an enabling environment. The latter issue may require systematic efforts to improve the terms on which the poor participate in input and output markets, in addition to considering the risk-reduction behaviour of vulnerable households that may inhibit them from taking advantage of new opportunities. Mechanisms will also need to be established to ensure accountability to the poor.

Z. Operationalizing a pro-poor approach: Transformation – not just Recovery – of the Agricultural Sector

237. Having achieved some notion of stability at the national and macroeconomic levels, Liberia needs to begin to make more concerted efforts to preserve and solidify stability by focusing on food security and poverty alleviation interventions at the community and household levels. Improving access to food and generating sustainable, remunerative activities and employment are crucial to this process. As explicitly recognized in the iPRS, future development actions need to be designed and implemented through a conflict-sensitive lens to ensure that they address the root structural causes of the conflict. An inclusive, pro-poor strategy relates to the establishment of an enabling environment that provides incentives and opportunities for improving the welfare of all segments of the population (communities and households). Ensuring the existence of these conditions and the participation of vulnerable groups requires that this objective becomes a public priority. This objective strongly influences the likelihood of increasing incomes and assets, and subsequently the capitalization of households and the rural economy. The iPRS underlines the importance of moving from an emergency footing to relief, recovery and rehabilitation efforts and thereafter to longer-term development needs. ‘Recovery’ is inadequate for dealing with the root structural causes of the conflict: viewed from a historical, conflict-sensitive lens, Liberia needs to go beyond simple recovery to transform its agricultural economy.

238. There remains a risk that Liberia could fall back into old patterns of growth and development based on natural resource extraction industries and heavily concentrated on the plantation and commercial agricultural sector. GoL policies clearly indicate that this is not the government’s strategy and that smallholders are integral to Liberia’s economic recovery. At the same time, however, the need for foreign exchange and fiscal revenues could lead to a *de facto* preference for more immediate benefits centred on rubber and palm oil plantations, extraction of iron ore, diamonds and timber and revenue generation from ship licensing and import tariffs.

239. GoL and donors will need long-term sustained engagement to realize the transformation of Liberian agriculture for the benefit of smallholders. ‘Transformation’ in this sense means the conversion of a system characterized by an economically concentrated commercial plantation sector coexisting with large numbers of poor, subsistence farm households involved in low input/low output (shifting) cultivation to one in which there is broad-based farmer participation in integrated, productivity-driven cash crop/food crop systems (Tefft, 2005). The achievement of this transformation depends on the creation of

opportunities for former subsistence farmers to participate in and benefit from diversified farm and non-farm activities.

240. Transformation of this nature does not imply the neglect of food crops and the exclusive pursuance of cash-crop agriculture. With abundant natural resources and local knowledge domestic food production and competitiveness can be increased by provision of effective support systems, as evidenced in some West African countries. The potential for diversification into vegetable and fruit production, which will improve incomes and nutrition, is considerable, as revealed in the foregoing analysis. Food security research has also highlighted the strong positive interactions between cash-crop and food-crop activities. Higher value cash crops produced for international, regional or national markets provide access to credit, equipment and inputs that may not be feasible with food crops. They contribute to higher rates of food production, generate higher incomes and lead to greater capitalization at the farm level. Higher rates of capital accumulation and productive reinvestment by farmers have contributed to improved productivity and welfare and have spurred growth linkages in the non-farm sector in producing regions. Transformation, in general, and more diversified farming systems (including both cash and food crops), in particular, result in the development of more sustainable livelihoods. This leads to improved household welfare and assets, and, through upstream and downstream growth linkages with the farm and non-farm sectors, drives broad-based, poverty-reducing, socio-economic development in rural areas.

241. Operationalizing this pro-poor approach will require strategic direction, systematic processes and greater participation from a wide cross-section of Liberian and regional actors in order to move from specific policy and programme pronouncements to a set of concrete group and geographically specific actions and investments. Systematization is important. Too often initiatives are launched to be soon forgotten or supplanted by yet newer initiatives. Breaking this pattern depends largely on accountability. This implies moving from a technocratic agricultural approach to one that incorporates the social, cultural and political elements needed to develop social capital. The challenge, therefore, is to implement agricultural policy in harmony with social policies to meet the country's food security and poverty alleviation goals (Flores *et al.*, 2005). Experiences from other countries emerging from crisis situations have shown that sustainable economic growth must be socially inclusive if it is to break the cycle of violence and conflict (Obidegwu, 2004). Given the political commitment of GoL to these goals, as espoused in the iPRS, the country is well positioned to move forward on this agenda.

242. Taking account of the goals of economic growth and concerns regarding social inclusion, the recommendations in this report, the dearth of empirical analytical information, and the low government capacity and weak incentive system to attract and retain qualified personnel, the MoA should work to build an operational strategy by establishing dialogue and processes with three key sets of actors:

- Agricultural value chain stakeholder boards representing actors at all levels of the sub-sector.
- Producer organizations and other types of community-based organization (farmer associations, cooperatives, etc.) involved in collective action in the agricultural sector.
- Decentralized government bodies and elected officials.