

**AN EVALUATION OF THE IMPACT OF SMALLHOLDER COMMERCIALIZATION PROJECT ON THE AGRICULTURAL SECTOR IN SIERRA LEONE (2002 - 2020)*****Mohamed Ibrahim Justice Ganawah**

Department of Economics and Commerce, Fourah Bay College, University of Sierra Leone

Received 11th January 2022; **Accepted** 16th February 2022; **Published online** 30th March 2022

Abstract

This study aims to determine the impact of small holder commercialization program to the productivity of agricultural sector in Sierra Leone. This study utilizes both primary and secondary data that were obtained from the Ministry of Agriculture and Food Security and local farmers in the Northern region. The period under review is 2002-2020. Both qualitative and quantitative data analysis techniques were utilized in the study. It is evident from the results that the agricultural smallholder commercialization program should give priority to the production of our domestic staple food such as rice, cassava etc. to reduce poverty. Farmers in Sierra Leone are amongst the poorest and if poverty is to be reduced there should be new strategies to improve the domestic production of this commodity while at the same time reducing the importation of our staple food. Land availability is not a problem and such cultivated areas should be increased with new techniques, improved tools and new technologies to be introduced to completely close this deficiency.

Keywords: Commercialization, Agriculture, Poverty, Production, Sierra Leone.

INTRODUCTION

Sierra Leone is a small country but well-endowed with a lot of potential of agricultural resources including rice, cocoa, coffee, Cassava, and minerals resources etc. The country is also blessed with abundant mineral resources. Over the past several decades and especially since 1970 agriculture has played an important role in the development of Sierra Leone with large percentages of its contributions to the GDP. However, approximately 70-75% of the country population is alleged to be engaged in this sector, yet still the actual significant or over all benefit realized in absolute to the economy is still minimal. The reasons for this relative demise in this sector include inadequate budget allocation by the government of Sierra Leone, the ten (10) years civil war, the two (2) years Ebola virus, adversely affect this sector through the displacement and the insecurity of the population. Also as we ushered in the 21st century, the government of Sierra Leone made significant project like the small holder commercialization program under president Koroma led government from 2007-2017. The government has conceptualized that since their quest of food sufficiency, reduction of poverty and the creation of employment opportunities in the country is their major priority, a working model should be developed that should be appeal to all including the international community's -hence, the name "The Small Holder Commercialization project". The program in the country is part of an agricultural transformation process in which the individual farms are expected to shift from highly subsistence -traditional production method, towards more specialized production targeting market both for their input procurement and output supplies. Agricultural small holder commercialization also attempts available access to credit services for farmers through community's banks, and establishes Agricultural Business Centers (ABCs) in all the sixteen (16) districts in the country.

With this back-drop, the government of Sierra Leone is of firm conviction in under taking farming as a business which will significantly improve the income of rural farmers and hence the provision of credit facilities and the establishment of ABCs centers is a step in a right direction to achieve this objectives, thus the Ministry of Agriculture Forestry and Food Security(MAFFS) and its development partners are in strongly collaborating to address the above stated problem through Small Holder Commercialization Project has been consider catalyst for agricultural improvement and hence an increase in agriculture productivity in the country.

Problem Statement

In Sierra Leone the small holder commercialization program if properly managed and implemented for its intended purpose is one project that will transform the agriculture sector and the standard of living of Sierra Leoneans from the current state to a more business and modern status, especially the welfare of rural farmers who over decades have found it very difficult to obtain loans for agriculture purpose. However, the recent past effort of the government has not yielded much result in the agricultural sector, despite the large acreage of arable land, Sierra Leone continues to be net importer of rice. The budget statement 2018 estimated rice import at US\$200million for the first half of 2017. For 2018 the figure was projected to be at least US\$200 million. According to the 2015 Comprehensive Food Security and Vulnerability Analysis study conducted by the World Food Program (WFP) and Food and Agriculture Organization (FAO) 49.8% households were food insecure in 2015 compared to 45% in 2010. That is they consumed limited or insufficient food to maintain a healthy and active life. Global Hunger Index 2017 ranks Sierra Leone as the third hungriest country in the world with percentage of population that is undernourished estimated at 38.5% compared to 28.6% in Guinea and 16.2% in Ghana. These records show that the project has not been implemented as planned or not successful in creating sustainable rural employment, reducing food

***Corresponding Author: Mohamed Ibrahim Justice Ganawah**

Department of Economics and Commerce, Fourah Bay College, University of Sierra Leone

insecurity and poverty reduction among rural farmers and the country as a whole, this project faces different challenges that make the project not successful or dysfunctional. Corruption been one of the key factor in this poor implementation, farmers who are the real beneficiaries of the project are not benefiting because 90% of these rural farmers are still engaged in subsistence farming and are leaving in abject poverty while project managers, directors, coordinators are in urban cities and towns are enjoying the project monies in Hotels, restaurants and bars. Monies meant for transforming the life of rural farmers and by extension improve the standard of living of Sierra Leoneans as whole. The study will aim at determine the factors that affect the proper implementation of small holder commercialization program that has impact the productivity of agriculture sector.

Objectives of the Study

The main objective of this study is to determine the impact of small holder commercialization program to the productivity of agricultural sector in Sierra Leone.

Specific Objectives

- To investigate the socio-economic factors affecting the impact of small holder commercialization program to the productivity of the agriculture sector;
- This study will also help us to investigate how the small holder commercialization have contributed to the improvement of the life of rural farmers;
- To identify factors that can be used for proper implementation of the project and
- To make recommendations on strategies that can help government to assist the successful implementation of the project.

LITERATURE REVIEW

Theoretical Literature

The relevant question for least developed countries (LDCs) (of which Sierra Leone is no exception) is whether Agricultural development or industrial development is now appropriate strategy accelerating the country's economic development. The Rostow various stages of development of which every country is expected to go through (traditional, pre-conditions for take-off, take-off, drive to maturity and high mass consumption) as they move along the path of economic progress. Rostow's scheme is dominated by uniformity that is, the process of development repeat itself from country to country. Yet Geshekow's intensive analysis of growth process in France, Germany and the USSR refutes this uniformity theme and the Marxian generalization that "the industrially more developed country presents to the less developed country a picture of latter's future. But LDCs need not follow the path of the industrialized countries since they are not facing the same conditions in their development and growth processes. Thus Geshekow's suggest that nations need not fulfill Rostow's pre-condition for progress.

Significance of Agriculture in Sierra Leone

Agricultural activities in Sierra Leone have been a significance part of Sierra Leone economy. Over the past several decades'

agriculture has been contributing significance to the GDP of the country. Estimates have shown that this sector is currently contributing about 50% to the GDP of this country. Even though about three million of Sierra Leoneans population which represent 2/3 of the population are alleged to be engaged in Agriculture, but yet the actual significance of this sector to the development of our nation remain to be seen. This is however attributable to factors that are hindering agriculture performance in this country. Seckler *et al.* (1991) argued that the low agriculture productivity of the region is as a result of technological deficiency rather than changes in institutions and policies. They stated that "Agriculture is a fundamentally a biological process of product that ultimately can only be improved by changes in biochemical inputs: changed institutions are effective only in so far as they affect biochemical process" Borrowing from the quotation above and relating it to my country, the farming system in Sierra Leone is characterized by highly inefficient input/output mixes with favor risk immunization over cash income generation strategies (particularly in the matter of our staple crops under shift cultivation) (Silvia L Matus, Szetlana AC S and Sergio Gomez Y Paloma). In other words, the effective use of fertilizers, pesticides, machines by farmers while land and human labor representing the main factor of production in Africa especially Sierra Leone in particular are affecting the transformation of agricultural sector. Also pre and post losses are substantially reaching up to 30% of total output in main rural area. In addition, the lack of access to financial and credit facilities to encourage large scale agricultural product has been another handicap. Discussed alongside these are infrastructural bottlenecks: roads facilities making access to agricultural area very difficult, poor marketing facilities with no proper pricing policies and poor storage facilities are still evidently hindering agricultural activities to a significantly gain its prominence in this country as it did decades back.

Provision of Employment (Labour)

It is believed that the agricultural sector if properly managed can support the creation of job for a large and a growing number of young people which is a priority for the government of Sierra Leone. As said earlier agriculture is the largest sector in Sierra Leonean economy involving 75% of the labour force. The primary objective of the government to agriculture is to attain food self-sufficiency, reduce poverty and create employment opportunities in rural areas. This has long been the primary be objective of government as far as the 1960s, and especially between 1969 and 1970, a total of 1,804,982 farmers are reported to have hired labor. Twenty-nine (29%) percent of these workers were hired for sowing and planting while 28% for bush clearing. Harvesting comes next contributing 22% of hired labour. The marginal productivity of labor in agriculture (MP) in Sierra Leone is extremely low. Employment in agriculture is considered residual, that is those people who can find employment elsewhere can do so, and those who cannot must be content to remain in the primary sector. Treating Agriculture like a hobby could not be described in Sierra Leone farming system. This is because even though about 75% of our people are farmers but yet still only few of these farmers treat Agriculture like a hobby-a significant reason why the productivity level is low and overwhelming portion of our people are absolutely poor. Industrialization agriculture will particularly increase our Gross Domestic Product (GDP) -create jobs, make us food self-sufficient, provide feed for our livestock. And reduce

carbon emission and help our vulnerable people adapt to climate change. Now if a nation like ours whose people (75%) live in absolute poverty, have no industries and only utilizes 2% of their arable land for cultivation, is not common Nationwide that an overwhelming majority of its people will be jobless? Thus agricultural activities in Sierra Leone, even though it is the largest sector (owning majority of the labour force), it has still not given the proper attention it deserves. Hence joblessness/unemployment will be looming in our societies if this sector is not properly industrialized. Industrializing agriculture will definitely reduce the rate of unemployment (especially when it has the highest % of labour in the country) and ensure food sufficiency which matches the aspiration of the millennium development goal.

Empirical Literature

Using a protection coefficients analysis (normal protection coefficient) Krueger (1988) investigate agricultural incentive structures in 18 developing countries for two periods (1975-79) and (1980); and they find out that, of the 18 countries (from Africa, Asia, and Latin America), covered only Chile for the first period and Portugal for both periods could accord positive incentives to their producers of selected export crops (including rice) amidst direct and indirect policy intervention in the Agricultural pricing. The rest of the countries studied accorded their producers a negative incentive, which could have discouraged them from producing more. This disincentive impact of the indirect policy (economics wild policies such as exchange rates) was found to dominate the direct policy intervention (like agriculture price fixing by government via marketing boards). Using the same analytical tool, Jaeger and Humpherys (1998) affirmed such disincentives impact on farmers in selected sub-Sahara African countries including Sierra Leone, studying the effect of policy reforms on agriculture incentives. As a result, leaving the market forces to determine the path of agriculture pricing was recommended. Krueger et al pointed out the lack of comprehensiveness about the implications of macroeconomics policy for agriculture as potent contributing factor for farmers increasing disincentives. A study conducted on adjustment programmes and agriculture incentives for Sudan by Elamin and El Mak (1997) reaches the same conclusion as the latter, using protection coefficient analysis. Further addressing agricultural problems, authors have delved into agricultural supply response analysis-aggregate and single crops wise-estimating supply elasticity's to dig more into the constraints that limit the sector's productivity. The conventional wisdom upheld by many and inline of the traditional belief of the World Bank and the IMF that "once prices are right farmers will increase their output has been strongly criticized in respect of African economics (Ogbu and Gbetibouo, 1990; a critical review of the literature agriculture supply response in sub-Sahara Africa) meeting the necessary price incentives for increased agriculture in developing countries that equally (if not most) need proper attention. Cited by Ogbu and Gbetibouo, Peterson (1988) using cross country analysis argued in favour of increase producers pricing to stimulate agricultural supply base on a greater than one elasticity of supply estimates he obtained. However, Chibber (1988) opposed Peterson on this finding. He outlines factors such as access to land, availability of credits, ecological characteristics, and legal status of production that cannot be removed simply by increasing prices. And up on including these factors in agricultural supply estimation, Chbber came up with price elasticity estimate of less than one

(opposed to Peterson's) using the same model for a set of developing countries with similar structures. Binswanger, et al (1987) analyzing the role of price and non-price factors in the agriculture supply captured in their model the effect of extension services, irrigation, physical infrastructures, research, agro-climate potential, rural population, human capital and life expectancy. They found out the non-price (shifter) factors accounted of most of the variation in supply; the country specific time series own-price elasticity estimate they obtained was less than one in support of Chibber. There seems to be growing convergence amongst researchers that non price factors are the main snags that deter progress in agricultural production in most developing countries' economies

Structural policies pursued under the faith "getting the price right" could not yield the desired fruits in agriculture for many developing countries. For more thoughts highlight non price factors as major determinants of supply response in poor countries, see Fosu (1992); Elamin and El Mak (1997); Adubi and Okunmadewa (1999); Kwanshie *et al.* (1997); Binswanger (1990); Hattink *et al.* (1998).

Factors mentioned by past studies as effecting crops production in Sierra Leone include weeds, pests, diseases, poor roads networks, continue used of traditional farming methods, low yielding varieties, inadequate provision of seed rice, fertilizers shortages, inadequate cash for labour, high expert taxation, non-enforcement of official prices, and insufficiency of stake marketing price operations (WARDA), 1993, Kreul, 1993; Massaquoi, 1988; Millington, 1988; Donhauser 1985). A lot of papers advanced reluctance of farmers to adopted recommended technologies to wards rice cultivation as one of the main factors limiting the output performance of the crops in Sierra Leone.

However, it is argued that farmers were reluctant due to the "up-down" technological approach adopted by research extension -farmer chain, which is said to be appropriate in addressing technological problems facing rice farmers in the country (Richards 1986; Zinnah and Adesina 1993; Millington 1988; Dreis 1991) Negligible success in the up down approach to increase rice production in Sierra Leone was affected by latter recommending the reverse bottom-top to reflect the interest and development of the poor farmers majority interest and priorities. Moreover, according to Knickel (1988), the technologies that were offered were too labour demanding and labour deficient farmers faced difficulties unadapting them. The issue of infrequent contact amongst rice researcher's extension staff and farmers was raised as a problem; researchers depended on extension staff for delivery of technologies to and feedback from farmers, which was not efficacious. Zinnah and Adesina (1993) recommended that researchers should come down to the grassroots (farmers) to received firsthand information than just sitting in the researchers could unravel themselves the limits to farmer's adoption of technologies for necessary action and suggestion to the government. A number of farmers fail to adopt innovations because they lacked the necessary accompanying inputs. Age and literacy level are other reasons found among farmers lack of adoption of technologies. What seems scarce in the literature on rice production in Sierra Leone are strong empirical analyses regarding the crop's production. In an attempt to therefore narrow this gap, this study carries out descriptive statistical analysis of the problem.

METHODOLOGY

In this study, both qualitative and quantitative research strategies are employed. The quantitative strategy was used to analyze the data that was collected using a structured questionnaire for officers from Ministry of Agriculture Forestry and Food Security, also from the general public-farmers, households, marketers of Agricultural produce and consumers. The qualitative research strategy was used to analyze data that was collected using unstructured interviews with key stakeholders-agricultural and rural experts from the Northern Region of the country. This interview with key informants were conducted to supplement some information that were not captured by the questionnaire and to cross check the consistency of the responses from the household farmers, officials of MAFFS etc. The research design that was used in this study was the survey design. Accordingly, data relating to the commercialization of Agriculture were collected and analyzed. Also a research of rich production figures and growth rates 1980-2012 was incorporated into this study. It was evidently cleared that rice production figures fluctuated over the period under study. In the first three years 1980-1982, there was a consistent decline in production and it was also evident that there were more negative growth rates during the period of study. Both primary and secondary data were collected. Structured questionnaire were used to collect primary data on the demographic and socioeconomic characteristics from a representative random sample of household, farmers and the public from both the Northern Region and Western Area. In addition to that, unstructured interviews were conducted with key informants at district level in both the two Regions (Western Area and Northern Region). Furthermore, secondary sources such as documents, journals, articles and related materials were used to support the findings from primary sources.

Sampling frame and sample size

The targeted population in this research comprises members of the public (that is public opinion) in Western Region and the Northern Region; specifically workers of the Ministry of Agriculture, Forestry and Food Security, farmers of the Northern Region and the general public of the two regions. The researcher followed a two stage process to select the respondents for this study. Firstly, the researcher considered the main district headquarter town of the Northern Province (Makeni) purposely to meet farmers that have benefited from the project since its implementation. Secondly, the selected capital city was Freetown for the purpose of retrieving important document from officials of MAFFS and the general public. Some set of questionnaires were distributed to different respondents. Few were distributed to the Ministry of Agriculture Forestry and Food Security, while others were also distributed to the general public in Sierra Leone. The rationale for this study in both regions was because the two Regions were the key Regions that implemented the SCP project. The Western Region urban area hosts the Ministry of Agriculture Forestry and Food Security, and the Northern Region hosts the farmer's association and the farm lands that were cultivated through the implementation of the small holder's commercialization program. Nevertheless, subsequent interviews were also conducted in major towns including Bo and Kenema. However, the response rate was 89% much higher than the minimum requirement that most research books have set in terms of the respondents.

PRESENTATION OF FINDINGS AND ANALYSIS OF RESULT

Agriculture is essential to Sierra Leone's economic and social development. While the Agricultural population (3.5 million) represents roughly 2/3 (two-thirds) of total population, the Agricultural sector in Sierra Leone in recent years has contributed less than 50% to the GDP, but the actual significant of the impact is yet to be realized. This is because, there are several factors hindering the Agricultural performance in the country which are to be addressed, if we are to benefit immensely from this sector. It is recalled from the previous chapters that qualitative as well as quantitative data were collected from structured questionnaire and interviews. And those responses were very important in determining the impact of the Agricultural Smallholder's Commercialization Programme.

According to this research (primary and secondary data, the general observation) on the impact of this project, the smallholder commercialization project is a laudable attempt to boost the Agricultural sector in the country – that is, from a retarded subsistence one to a commercialized and lucrative sector. The Agricultural sector being the most important sector in our economy, have a farming system on one hand characterized by highly inefficient input/output mixes which favour risk minimization over cash – income generation strategies (particularly in the production of staple crops under shift cultivation). That brings us to some important questions viz:

- Why has Agriculture consistently contributed only an appreciable figure to the country's GNP, irrespective of the high employment in that sector.
- What has been the effort of government over the past several decades to rectify this situation?
- What other measures should be taken by the government to relatively income the roles and operational significance of this sector?

From the questions above, several reasons have been advanced to explain this question.

- The lack of financial and credit facilities to encourage large scale Agricultural production.
- Poor infrastructural facilities which are still rendering access to the agricultural areas very difficult. This has therefore resulted in post-harvest losses, poor marketing facilities, and poor storage facilities.
- No proper pricing policy has been affected by the government over the past several decades. This has therefore made it more profitable to trade in imported agriculture commodities rather than in locally produced one.

Pre and post-harvest losses are also substantial, reaching up to 30% of total output in many rural areas. Simultaneously, the country has recently become subject to substantial foreign investment on arable land which poses threats to the communal property right system in place. In the present of small holder commercialization project, who are the majority in the agricultural situation in Sierra Leone, assess the potential impact on rural livelihood of the implementation of the National sustainable Agriculture Development Plan (NSADP)

2010-2030. For this purpose, a survey of 600 farmers containing detailed information on production practices is used.

Commercialization of Smallholder Farming

According to the National Programme Coordinator of the Smallholder Commercialization Program (SCP); the smallholder commercialization programme (SCP) is a government of Sierra Leone initiative aimed at helping the rural poor to increase their food security and incomes on a sustainable basis for long term economic development. He added that, it was in consistent with former President Ernest Bai Koroma Agenda for Change (PRSP II). The SCP will invest an estimated sum of US \$403 million over a period of five years to help more over 70% of the country's population out of poverty and in this process boost the economy. In my own observation the whole process with farmer field schools (FFS) where farmers are trained in viable agricultural and soil management technologies before they are grouped to farmer based organisation (FBOs) and provided them with subsidized packages that give them the means to develop commercial farming practices. The hallmarks of the SCP are the establishment of Agri-business centers (ABC) nationwide.

The Primary Economic Engagement (occupation) of Household Farmers

The Global Agriculture and Food Security Program (GAFSP) is a multilateral mechanism to assist in the implementation of pledges made by the G-20 in Pittsburgh. In September 2009. The objective is to address the underfunding of country and regional agriculture and food security strategic investment plans already being developed by countries in consultation with donors and other stake holders at the country level. This however, will ensure food sufficiency, reduce poverty and create employment opportunities in rural areas. The country had made significant progress to promote youth employment. This will take place by focusing on job creation and skills training, these programs also seek to address key challenges that farmers in Sierra Leone face today. Despite considerable investments and efforts, however, they are not having the desired impact. It is believed that the agricultural sector if properly managed can support the creation of job opportunities for the large and growing number of young people which is a priority for the government of Sierra Leone. The key focus in doing farming as a business will significantly improve the incomes of rural farmers. Also the provision of access to credit through the financial services association (FSA), Community Banks (CB) under the supervision of Technical Assistance Association (TA) is also a step in the right direction as a poverty reduction strategy. Before, majority of the smallholder farmers were taking loan from traders during the hunger season (July-September) or due to stress sale of produce. In such cases, farmers pay exorbitant interest either in cash or in kind base on the agreed terms. Such pattern of trading does not encourage farmer to improve on quality and they are looked into a debt-cycle, which reinforces lower prices. But the introduction of the Rural Finance and Community Improvement Programme, under the International Fund for Agricultural Development (IFAD), has significantly reduced the borrowing in the rural community. Even though according to my survey in the Northern Province; to some farmers that I interviewed agreed to the fact that they are well aware of the rural financing and community development project funded by

IFAD through small holder commercialization project and according to them the money is not forthcoming in-time and actually not sufficient to augment their programmes. They also added that they lack adequate equipment and technology to embrace commercial farming or agriculture. The issue of tractorization also came up which they claim are being confiscated by politicians to farm for themselves. Some people are not even aware about the Smallholder Commercialization Project/Programme, but the few with knowledge about it intimated me that it not reflected in their lives. Development partners have been responsive in supporting the development of MAFFs policies and implementation. A number of projects are ongoing, gearing towards enabling farmers and stakeholders along commodity chains to realize their aspirations and potentials. The largest financiers in the sector are the European Union (EU), World Bank (WB), African Development Bank (ADB), and World Food Programme (WFP). The International Fund for Agricultural Development (IFAD), Islamic Development Bank (IDB). They are joined by other partners including the Japanese International Cooperation Agency (JICA), Irish Aid and the Italian Cooperation, Government of China, Germany and Nigeria as well as a range of NGOs including Action Contra Farm ACD/VOCA, Africa BRAC, CARE, Concern, COOPI, Catholic Relief Services, Christian Aid, Heifer International OFID, OXFAM, World Vision as well as UN Agencies, including FAO, ILO, UNOP, UNICEF, UNEP, WHO and WFR. The input of all the above donor partners have suggested that the agricultural sector in our country should have grown far beyond this level and the impact of Smallholders whose key interest is to reduce poverty and increase the income of rural farmers with a reduction in unemployment.

Land Ownership Size and Quality

Developing agriculture in Sierra Leone as well as Africa has continued to gain increased vigour and recognition. The reason for this is that, the country has vast stretch of land, large and running rivers that can be used for large scale irrigation and other related purpose. But let's ask ourselves this question – what is the typology of the land tenure system in Sierra Leone and how was it partially influence by our former colonial masters? Could there have been any serious implication for moving away from unmonitored and subsistent agriculture to large scale commercialization? To answer this question, let us reflect decades back to the British Colonial administration of Sierra Leone – this led to the division of the country into colony and protectorate which further enhances the typology of the free hold land tenure system in the Western Area of the country. This land tenure shall encapsulated in the protectorate land ordinance Act of 1927 (cap 122) allows individuals, groups and organization to buy and own land. The law of Sierra Leone also makes provision for communal ownership and in particular belongs to families. It is strongly perceives as divine heritage and is believed that the spirit; and that the paramount chiefs or traditional rulers of the various chiefdoms are not really land owners per se, but merely custodians of such family property, and in fact administered it in line with existing customary usage and practices. It has been argued in different quarters that, for agriculture to truly flourish in Sierra Leone, it has to disengage from the strictly traditional family land ownership and follow the free hold land ownership (such as the one practiced in the Western Area of Sierra Leone). Evidently, to confirm the above literature, on doing my primary data survey I sounded the opinion of some of the

farmers in relation to the land tenure system of Sierra Leone in order to carryout large scale farming. Majority of them expressed disappointment over the system and stated that; it's a kind of old fashioned for the 21st century development. They added that, with this type of land tenure system, the gains of Agriculture will never be realized regardless of whatever input it being accorded to the sector. And that if Sierra Leone wants to really realize the good fortunes of agriculture, these should be an institution of land reform policy which dictate a defiant occupancy right of these traditional rulers and give preference to people of owning a land. Because, the incentive of making land becoming a basified property of individuals and others had served over the years as some driving force to make huge level of investments in developing agricultural lands in the country. Thus, there should be a drastic change by giving the farmers opportunity to own pieces of land; so that these tracks of land can then be used as collateral in the procurement of loans from banks.

Determination of Market and Pricing System

In the 1950s and 70s, the Sierra Leone Produce Marketing Board (SLPMB) was the principal business entity dealing with produce and linking farmers to the export market. During this period, the SLPMB was able to establish cooperative structures specializing in various agricultural value chains throughout the country. It was during this period that the country had products with very high standards that competed effectively in the international market. In this 21st century, there is the Smallholder Commercialization Program which seeks to establish Agricultural Business Centers (ABCs) and community Banks throughout the country. This is because, the provision of credit services, inputs for production alone cannot ensure poverty reduction without access to sustainable market. Farmers will default on loans when they have crop failures or cannot sell enough produce to meet their social and other financial obligations. Most of the farmers upon interviewing them actually welcome the ABCs idea, but emphatically stressed on the mechanisms that will necessitate the production of large scale agricultural produce that will be taken to the market. They added that, before they start benefiting from a well-structured agricultural market, they must first have the pre-requisite which they describe as the agricultural input (capital and labour) in order to see tremendous growth in agriculture. In view of this, farmers need a financially strong and credible business entity that can serve them both in peace time and when business is good and also salvage their problems when there is a natural disaster. Hence pricing and structured market systems for the purpose of agricultural benefit and prospect will be channeled through the newly principal business entity called SLMC, who will be dealing with produce and linking farmers to the export market.

The Smallholder Commercialization Programme Welfare Outcome

The Smallholder Commercialization Program in Sierra Leone is part of an agricultural transformation process in which individual farmers are expected to shift from a highly subsistence – oriented production towards more specialized production targeting markets both for their input procurement and output supply. One key debatable issue is whether Smallholders Commercialization Program should aim at increasing the productivity and market surplus of staple food crops such as rice, cassava, etc or alternately, to focus on the

traditional export crops such as cocoa, coffee etc. The choice of targeting either domestic or export markets in the process of smallholders commercialization is basically linked to the nature of the targeted commodities. For a country like ours that is net importer of staple food, domestic markets could also be a major market target due to higher domestic demand for staples. Rice for example is the staple food of Sierra Leoneans and annual per capita consumption of rice (104kg) is amongst the highest in sub-Sahara Africa. Domestic rice is grown mainly by small scale farmers on both the uplands and diverse low land ecologies. Sierra Leone has not been able to produce enough rice to meet local consumption demand since the late 1970s. From 1960 to 1975 production of rice increased through expansion of land area to some extent an increase in yield. In 1995, Sierra Leone is said to have experienced self-sufficiency in rice. Records of over 600,000 tons of paddy production are reported at the end of the services. In the late eighties, 500,000 tons, further declining to about 460,000 tons in the mid-1990s when civil war engulf the entire nation. The lowest production (198,000 tons of paddy) was recorded at the peak of the civil war to have increased from 310,000 tons of paddy in 2000 to 646,000 tons in 2010, a 106% national food self-sufficiency. However, despite the above figures, the nation imports well over 200,000 metric tons every year, and the price of rice has risen from \$310 per metric ton (cost and freight) in 2003 to slightly over \$800 in March 2008. It is currently between \$800 and \$1000, depending on the grain quality. At current world market prices, this means that Sierra Leone could be spending up to US\$200,000,000 on rice import only, that means there is great domestic demand for the production of rice if intensive effort is being made to industrialize our Agricultural sector.

Table 1. Growth in Rice Production in Sierra Leone (1980-2021)

Year	Percentage Growth
1980	-2.55%
1981	-2.62%
1982	-3.28%
1983	1.85%
1984	-13.63%
1985	8.07%
1986	2.27%
1987	3.49%
1988	-491%
1989	0.00%
1990	5.16%
1991	-26.28%
1992	-19.58%
1993	1.74%
1994	-16.78%
1995	-30.04%
1996	38.24%
1997	6.38%
1998	-22.00%
1999	-23.08%
2000	-20.00%
2001	55.00%
2002	36.02%
2003	5.53%
2004	21.72%
2005	2.46%
2006	32.43%
2007	3.63%
2008	-6.35%
2009	15.19%
2010	31.44%
2011	15.12%
2012	-7.10%
2013	4.43%
2014	4.66%
2015	2.37%
2016	5.67%
2017	4.00%
2018	5.32%
2019	3.11%
2020	3.35%
2021	-5.21%

Source: Own calculations

The calculation of the growth rate is given as follows:

$$\% \text{ Growth Rate} = \frac{P_t - P_{t-1}}{P_{t-1}} * 100$$

The highest growth rate of 55% was recorded in 2001, immediately close to restoration of peace, resettlement and rehabilitation of farming communities in Sierra Leone. The other year of relatively high growth rate was 1996 (38.25%), when there was seeming peace and the country was preparing for democratic elections after the civil war. And this was followed by 36.025. For 1989, no figure was recorded and as such growth rate was stated as (0%). Other impressive periods of growth rates were 2006, 2010 and 2004 all above 20% growth rate. In the 80s, there were more negative growth rates and the highest growth rate occurred in 1985, slightly above 8% below the 90s had a fair share of positive growth rates as negative growth. In the millennium, rice production improved greatly with peace and from 2008-2011 there was consistent improvement in rice production, indicating a new drive to improve rice production years. The figures in the 80s explain why Sierra Leone has a war because rice, a strategic commodity, was not produced enough to meet the needs of Sierra Leonean.

Table 2. National Requirements (metric tons) and self sufficiency

Year	National Requirement (Mt Milled)	Self-Sufficiency (%)
2011	491,403	37.93
2012	500,750	40.57
2013	510,254	52.40
2014	519,949	42.54
2015	529,828	39.51
2016	542,557	42.51
2017	555,693	53.49
2018	569,247	41.68
2019	583,225	36.40
2020	597,667	30.2

Source: PEMSD

The table above indicates the level of food self sufficiency attained in Sierra Leone from 2011 to 2020, the findings reveal that food self-sufficiency was at its peak in 2017. However, Sierra Leone still continues to be a net importer of rice with the consistent increases in self sufficiency. This is as a result of the new drive to make agriculture the leading sector in an economy highly dependent on mining for foreign exchange.

Below is a graph illustrating the above analysis, showing the consistent increase over the last decade?

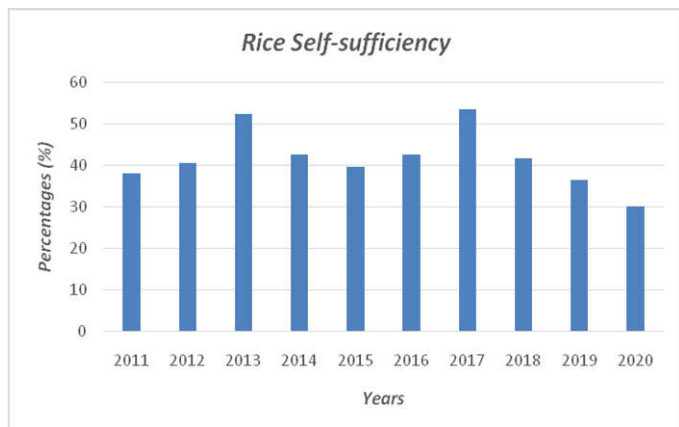


Figure 1. The gap between national requirement and equivalent milled rice

Figure 1: Indicates the gap Sierra Leone had been fighting to close down before imagining stopping rice importation to spend out meager foreign exchange on social spending. It is evident from the graph that it was only in 2017 that the milled rice have the highest national requirements.

There are no indicators yet to for us to imagine that rice importation would be stopped. Thus, it is not out of place to conclude that Sierra Leone is still a long way from attaining sustainable rice production and thus stop rise importation.

Levels of equivalent milled rice and imported rice in Sierra Leone

From the background of smallholder commercialization project, we all aware of its enormous challenges in achieving 100% food sufficiency, reduction in unemployment and poverty. According to the National Coordinator, they have achieved 106% food sufficiency but my research prove to me that, the 106% claimed by coordinator is based on mere assumptions and ridiculous calculation of peoples’ welfare that has no reflection of what is the reality on the ground. Unemployment is still looming, poverty is rife, food sufficiency is yet to be achieved; hence the impact of the Smallholders Commercialization Programme is yet to be achieve if full objective. Until our domestic demand for rice consumption is 0% the impact of the Agricultural Smallholders Commercialization Programme will never be realized. When there is a reduction in the \$200,000,000 that is domestically demanded for rice consumption, implies there is more input of labour and capital into the production process. And this will reduce unemployment and argument the increase in income for rural farmers and eradicate poverty to a vast extent.

SUMMARY, RECOMMENDATION AND CONCLUSION

Summary and Recommendations

This study sets out to analyze the economic implication of the smallholder’s commercialization program, and to assess the gap between industrialized agricultural productions to that of a miserable subsistence farming pattern.

The Agricultural Smallholder commercialization program is still affected by some problems including implementation. This is because, the amount of international donors that are partnering with MAFFS to ensure this international dream come true are so many. As I mentioned earlier, few of these international donors, spend their money on this sector to ensure its vast transformation from being archaic subsistence farming pattern to an illustrations and lucrative conduit of economic transformation. However, this desire had been hard to achieve for the last five decades and this therefore remains a very tough nut to crack for the government and the people of Sierra Leone. The fact that self-sufficiency is assumed to be attained in 2010 does not produce the whole picture, as importation of the strategic commodity still looms high on the government agenda.

This picture is indicative of the method of industrialized agricultural production. The smallholder’s commercialization point out key factors that are to be considered if we are to achieve the dream of making agriculture better. These are as follows (recommendations):

- Smallholder Agricultural Commercialization: Capacity building of 1000 Farmer Base Organisations (FBO's) in value addition, processing and marketing through the construction, equipping and operationalization of Agricultural Business Centers (ABCs).
- Small-scale Irrigation: Rehabilitating 4000 hectares of in Land Valley Swamps (LVS)
- Access to financial services: Establishing 15 profitable and sustainable Financial Services Associations "Village Banks" and 7 community banks.
- Coordination and Management: Ensuring effective strategic and operational planning, coordination of the SCP components, donors and implementation partners. All the above indicators are to be addressed full, if only to achieve the set objectives. But still all of the above are yet to be achieved to even 40%. To support my assertion, we may take for instance the area of the implementation of this programme. It's in the Northern region. And the Northern region is not the only region in this country and doesn't even have all the farmers in the country. Hence the Agricultural Smallholders Commercialization programme lacks a strong national flavor or focus.

Conclusion

Following the above analysis, it is clear that the agricultural smallholder commercialization program should give priority to the production of our domestic staple food such as rice, cassava etc to reduce poverty. Farmers in Sierra Leone are amongst the poorest and if poverty is to be reduced there should be new strategies to improve the domestic production of this commodity while at the same time reducing the importation of our staple food. Land availability is not a problem and in such cultivated areas should be increased with new techniques, improved tools and new technologies to be introduced to completely close this deficiency.

REFERENCES

- Ja-ee, S.M. 1995. Marketing Africa's High Value Foods: Comparative Experiences of an Emergent Private Sector. Chapter IV in *Perishable Prods: Private Sector Dairy Processing and Marketing in Kenya*. S. Ja-ee and J. Morton eds., World Bank. Washington, DC.
- Ja-ee, S., M. 2003. *From Challenge to Opportunity: The Transformation of the Kenyan Fresh Vegetable Trade in the Context of Emerging Food Safety and Other Standards*, World Bank. Washington, DC (May 2003).
- Jayne, T.; Mather, D and Mghenyi, E. 2010. Principal challenges confronting smallholder agriculture in Africa.
- Jayne, T.; Haggblade, S.; Minot, N. and Rashid, S. 2011. *Agricultural Commercialization, rural transformation and poverty reduction: What have we learned about how to achieve this? Synthesis paper prepared for the AAMP symposium*. April 20th to 22nd. Kigali, Rwanda.
- Jayne, T.S. and Muyanga, M. 2011. *Smallholder led agricultural commercialization: Implications for CAADP country investment plans*. Presentation for the AAMP-GISAMA policy symposium. 20th April. Kigali, Rwanda.
- Kirui, O.K, J.J. Okello and Nyikal, R.A. 2010. *Awareness and use of m-banking services in agriculture: The case of smallholder farmers in Kenya*. A selected paper presented at the Africa Association of Agricultural Economists, Cape Town, South Africa, 19-23 September 2010
- Kherallah, M., Delgado, C., Gabre-Madhin, E., Minot, N. and Johnson, M. 2002. *Reforming Agricultural*
- Njoka, K. 2008. *Kenya: Horticulture Takes Lead as Foreign Exchange Earner*, Reuters, 26 March
- Henry Yamba Kamara *Linking Smallholder Farmers to market – the Role of the Sierra Leone produce Market Company*. National Sustainable Agricultural Smallholder Commercialization Programme Developments 2010 investment plan. Ministry of Agriculture Forestry and Food Security (MAFFS).
- Sylvia L. Saravia Matus, Szvetlana (Semi) Subsistence Agricultural System in Sierra Leone: ACS and Sergio Gomez Y. Paloma present and future challenges. 2010 European Commission – Joint Research Centre.
- Richer Bockarie, Sur SEM Contributor Dec. 12 2009. *Agricultural potential and land tenure system in Sierra Leone*.
