Sierra Leone’s Green Revolution: Prospects for success

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INTRODUCTION

The Green Revolution refers to a period when global agricultural productivity was drastically on the increase due to the introduction of high-yield variety agricultural inputs such as, chemical fertilizers, synthetic herbicides and pesticides. This led the agriculture sector to produce much larger quantities of food and cash crops, sometimes doubling and even tripling agricultural productivity, making it possible to feed the growing human population.

In 2015, the Government of Sierra Leone (GoSL) approved the National Land Policy which was officially launched on March 23rd 2017. The new policy provides a framework to minimize and eventually eliminate inequalities and discrimination over land tenure and provide more opportunities for economic advancement. Sierra Leone’s land area is 7.3 million hectares (ha), of which 5.6 million ha is potentially arable land. Over 80% of the total land area is upland and the rest is lowland with potential for high rice yields. The lowland area that is potentially cultivable is comprised of 630,000 ha of inland valley swamps; 120,000 ha of bolilands; 110,000 ha of riverine grasslands and 200,000 ha of mangrove swamps. The main food crops are rice, cassava, corn, millet, and peanuts. The leading cash crops, most of which are exported, are coffee, cocoa, palm kernels, and palm oil and poultry, cattle, sheep, pigs, and goats are herded. Although the fishing industry is yet to reach its full potential, it is also important because of its subsistence value to the population.

“The land policy lays out transformative provisions that, among other important achievements: (i) guarantees women equal rights to and control over land; (ii) enables communities negotiating with investors to have access to independent legal and paralegal services; and (iii) secures the tenure rights of individuals, families and communities through a system of mapping and title registration”

In addition to the land policy, the approved National Fertilizer Policy provides new opportunities for farmers to access fertilizer inputs for food and cash crops. The fertilizer policy also gives farmer groups and smallholder farmers the opportunity to negotiate lower costs for fertilizers and to directly partner with research agencies to meet their needs. Agricultural services have been decentralized by the Government since 2014 to be managed by local government councils, and 80% of the agriculture sector budget is now directly allocated to district councils of which 80% of that, if further decentralized, would go directly to farmers.

In 2007, the GoSL founded the Sierra Leone Agricultural Research Institute (SLARI) through an act of parliament with the primary mandate of making agriculture more adaptable and climate smart for farmers. SLARI set up 6 research centers across the country with more than 70 highly qualified and specialized researchers. Like many public projects however, the major challenges they face can be directly attributed to limited technical and financial resources, resulting in poor implementation and the failure to achieve the mandate. SLARI’s inadequate lack of funds has made them heavily dependent on donor funding. As a result, their research agenda is perceived to be top-down, mainly foreign driven, with minimal involvement of local farmers, who are the primary beneficiaries. In addition, many of their research publications still

1 Sonkita Conteh, NAMATI, in open letter to President, March 2017
await dissemination and use by smallholders who operate farmer based schools and organizations across the country. Knowing this, Sierra Leone's potential to realize the Green Revolution will only be attainable if land and agricultural policies are effectively implemented and if persist challenges of governance are addressed.

KEY CHALLENGES

Adequate and Effective Agricultural Financing

Investing in agriculture is critical to the transformation of the agricultural sector in Sierra Leone, particularly in view of the low levels of investment by state and non-state actors in the sector which carries huge potentials for wealth creation, employment generation and poverty alleviation. In addition, a large portion of the agricultural labor force is engaged in subsistence agriculture, but we are also observing higher levels of poverty among households whose primary source of income is agriculture. Overall, Sierra Leone is characterized by erratic changes in its agricultural expenditure which can attributed to the 11-year long conflict, the Ebola outbreak in 2014 but also to its dependence on official development assistance for agricultural investment and mismanagement of resources for agriculture.

Since 2010 and before the Ebola outbreak, Sierra Leone was ranked amongst the fastest growing economies in West Africa. Growth was largely driven by the mining sector, however the proportion of agriculture’s contribution to that growth declined over time. The GDP went from 5.3% in 2010 to 20.7% in 2013 before declining to -21.5% in 2015. Today, agriculture, including forestry and fisheries, still accounts for the largest share of the GDP, but that share is declining – it went down from 52% in 2011 to an estimated 42% in 2013 and following the effects of the Ebola outbreak, it further declined to 38%. Despite this declining trend, the agriculture sector is still the largest employer and accounts for over 75% of the current labor force. What this means that more man power with less output leads to inefficiencies in agricultural productivity.

This same declining trend also applies to the share of agricultural expenditure. 75% of the labor force in agriculture are unable to feed themselves, despite the availability of land and water, a dim contrast to developed countries, where less than 3% of the labor force in agriculture is feeding the world. Despite huge potentials in agriculture, Sierra Leone is a net food importer and spends $350 million dollars a year importing several food items such as rice, the staple food, which makes up more than 50% of imports. Smallholders are the main producers of food in the country but they lack the capacity to produce enough food to meet the domestic demand. For instance, the country produces 315 metric tons per year of rice but fails to meet the consumption requirement of 700 metric tons per annum. A deficit in rice production creates opportunities for rice importation businesses to thrive given that imported rice is less expensive than locally produced rice. Furthermore, only 20% of the 5.6 million ha of arable land is used for agriculture which means there is potential for agricultural productivity and realize the Government's goal of making Sierra Leone self-sufficient in rice production. However, expectations are far from met due to the combination of minimum support and a lack of organization amongst smallholders. It is undeniable that the quality of agricultural expenditure can improve productivity in the sector, but it remains so that significant resources are spent and poorly allocated, which may lead to inefficient and/or undesirable outcomes.

Policy and Program Implementation Challenges
Progressive provisions in the new land and fertilizer policy are prone to implementation challenges due to amongst other things, funding constraints. For instance, implementing the project would require $ 50 million dollars, and while there has been a pledge of US $10 from the World Bank, the Government has yet to make a commitment. In addition, the role that smallholders and domestic agribusinesses hold in the agriculture ecosystem cannot be over emphasized, and despite this, in line with the 2004 Local Government Act, the GoSL decided to decentralize the agricultural sector budget across district councils. This means that operational mechanisms need to be clarified and inclusive for such measures to be transformative.

Many projects have been supported with mixed results. For instance, the outcomes of Government and donor flagship programs such as the smallholder commercialization programs that established the Agricultural Business Centers (ABC’s), are considered by most observers including smallholder organizations as unsuccessful. Also, investment in feeder roads expected to link farmers to markets were, in certain instances, of sub-optimal quality. Without any independent assessment, Government and donors are expected to continue investing in these projects with minimal involvement of smallholder organizations.

At this stage, the prospects of a successful Green Revolution are low given a number of reasons. Across the country, most end users lack access to quality seeds and control over the seeds sub sector. Unbeknownst to most farmers, SLARI has developed about 21 certified variety seeds, but these findings need to reach farmers and support needs to be provided to them to build their own domestic seed capital. In addition, for agricultural research to be of use to practitioners, it should be demand driven in a context of co-creation of knowledge by practitioners there have been important policy regulations and legislations that have been passed with little public knowledge and participation, such as the Local Content agency act in 2016 and the Small and Medium Enterprise Act 2016. For instance, the Local Content Act makes it mandatory for any large scale enterprise to include smallholder organizations. So, if well implemented, these legislations can effectively revolutionize the smallholder business in the country.

Organizational Challenges

In order for smallholder farmers to overcome organizational challenges they need to organize themselves better into more effective and efficient cooperatives. On the other hand, barriers also need to be lifted when farmer groups register at the district council level so they can have access to agricultural inputs (fertilizer, seed, equipment at reduced prices base on economic scales).

The Ministry of Agriculture is developing a program called ‘Women in Farming’ through the Sierra Leone Women Farmers’ Forum (SLWOF). So far, 700 to 1000 women and youth groups have been trained with an average of 25 members per group. These groups are currently benefiting from direct cash transfers and receiving inputs directly from the Ministry of Agriculture. Although the Ministry claims to have an idea of which farmer groups are viable in the country, civil society actors believe that to maintain transparency and accountability, it will be critical to co-define the selection criteria for which farmers can benefit from the scheme. It should also be acknowledged that this project is exclusively supported by the public budget.

**KEY RECOMMENDATIONS**

- **Design more effective policies and better implement programs:** The Government needs to clarify its priorities and how it plans on implementing the National Land Policy and National
Fertilizer Policy, ensuring that financial resources are adequately allocated. In order to fully operationalize the policy, it needs to become a legislation.

- **Passage of seed policy:** The seed policy that is currently under review needs to be passed by parliament and structures need to be put in place for its effective implementation. We believe this could provide solid ground to improve productivity of food crops and enable farmers to use more resilient seed varieties.

- **Simplification and proper dissemination of policies:** All policies that support agricultural productivity across the value chain should be simplified and disseminated particularly for end users who constitute the majority of smallholders. A comprehensive capacity building plan should be developed to strengthen and empower farmers’ organizations. Specific emphasis should be put on women and youth farmer cooperatives, ensuring that they have the support needed to access land titles and set up a proper land leasing system.

- **Localization of agricultural policy:** The GoSL has decentralized the policy and budget of the agriculture sector to the local government councils. Smallholders are requested to register with the district council to benefit from extension services and agricultural inputs. However, farmers’ associations and the National Federation of Farmers Associations (NAFFASL) are excluded from this process. Therefore, it is critical to have a two-way accountability mechanism where NAFFASL could be restructured and empowered to better advocate for smallholder organizations and for policy reforms that benefit smallholders. In addition, the decentralized agriculture budget system needs to be better managed to ensure that funds reach those farmers that need it most. The Ministry of Agriculture should co-develop a performance contract with district agricultural offices based in the district councils and identify clear milestones to be achieved at the end of every year.

- **Facilitate access to markets for smallholder farmers:** The Sierra Leone Produce Marketing Company (SLPMC) should be strengthened to help expand the institutional market already granted by the government both at national and sub-regional levels which will facilitate the increase in the critical agro-business value chain. This will contribute towards increasing revenue through fair pricing and dividends earned over time as well help improve infrastructural developments such as processing, processing, packaging and warehouse facilities.

- **Increase financing for agricultural investment:** One of the major challenges that smallholder farmers face is access to financing. Few financial institutions such as APEX, BRAC to name a few, offer financing with exorbitantly high interest rates, varying on average annually between 24% and 30%. If agricultural investments are to increase in which case the majority of small farmers move from subsistence to productive businesses, the GoSL needs to set up a National Agricultural Bank specifically designed to promote national farming.