

Briefing note: Home-Grown School Meals are a viable option for Liberia

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Introduction

While the evidence for the positive impacts of Home-Grown School Meals (HGSM) has been growing for a decadeⁱ and straddles both 2 and 4 of the sustainable development goals, there have been relatively few examples in Liberia from which to learn. This briefing note is designed to provide evidence from ZOA Liberia's Home-Grown School Meals Programme and encourage the wider adoption of the 'home-grown' approach by other partners. At present, these goals are contingent on international donor support given the Government of Liberia's limited fiscal space. However, investment in home-grown approaches will provide benefits for key agricultural value chains as well as for vulnerable children.

The structure of this briefing note is as follows. Firstly, the note will give an overview of **1) how the ZOA Programme works**. Then it will explain how **2) cassava value chain and school feeding can be mutually beneficial**. Next, the note will provide a **3) cost analysis**, before looking at the **4) current policy environment**, and finally coming to **5) conclusions & recommendations**.

Key findings and recommendations

Findings

- ZOA's Home-Grown School Feeding Programme has ensured an average of 93% attendance rates in piloted schools. The pilot programme has been a success and is ready for scale up.
- ZOA's School Feeding Programme can provide meals to children at approximately 50% of their market value.
- Smallholder farmers can increase their cassava yield by 48% using improved planting techniques, which will radically improve the supply of raw cassava for agro-processors.
- Agro-processors have latent potential to supply increasing amounts of cassava products.
- Between March and August 2020, the price of a cup of rice was on average double the price of a cup of gari. Gari prices were also less volatile and suffered less inflation.

Recommendations

- Funding for school feeding should be increased to meet the needs outlined in the Pro-Poor Agenda for Prosperity and Development, from 0.8% of GDP to 1.58% and cover all Liberian children. Funding must come from the international community in the medium term.
- Renewed school feeding programmes should more strictly mandate home-grown approaches as part of the project methodology.
- Programmes should consider cassava as an alternative/complement to rice for both economic and dietary reasons.
- School feeding partners should report the sources of their procurement and set appropriate targets for domestic procurement.
- The next National School Feeding Policy should emphasise the role thriving agro-processors can play in school feeding, so long as they work with small scale farmers.

1) How the ZOA Liberia Programme works

The Food and Agriculture Organisation defines the concept as follows, "*Home-Grown School Feeding (HGSF) constitutes a school feeding model that is designed to provide children in schools with safe, diverse and nutritious food, sourced locally from smallholders.*"ⁱⁱⁱ For ZOA Liberia the term 'locally' is interpreted as 'Liberian produced' but raw commodities are supplied by smallholders/processors in the same or adjacent counties, within the country.

During the 2019/20 academic year ZOA was feeding children 5,242 students in 21 primary schools in Margibi County. Meals use cassava products, notably gari, as the core ingredient. This use of cassava differentiates ZOA Liberia's approach from other home-grown approaches like that of the World Food Programme. ZOA Liberia's programme is funded by ECOWAS, Vreugdenhil foundation, Hoogwegt foundations, and the Turing Foundation. During the COVID-19 outbreak, ZOA switched school feeding to a take-home ration approach. The programme approach can be summarised by the diagram on the following page.

ZOA’s approach targets all levels of the value chain, from smallholder farmers, to community aggregators, to agro-processors, to school authorities, and finally to students. As such, this method of home-grown approach is comparatively hands on. One of the reasons for this is because ZOA has linked its home-grown approach to the cassava value chain.

While the basic structure of ZOA’s school feeding programme is like other similar initiatives, the link with the cassava value chain in Liberia makes it unique. Cassava is the second staple crop of Liberia (rice being the main staple). Since 2013, ZOA has been working to improve efficiencies in this value chain; improvements that are now showing rapid momentum.



Figure 1: ZOA HGSM programme design

Next, this briefing paper will show how school feeding and the cassava value chain can be mutually reinforcing in Liberia. After assessing the potential of cassava, the note will lead to a comparison between cassava and rice.¹ Lastly, the note will look at the policy environment and how by committing to home-grown approaches, development partners can both feed children and develop important agricultural value chains.

2) The cassava value chain and home-grown school meals are mutually beneficial

The cassava value chain and school feeding programmes can be mutually reinforcing. In order to demonstrate this, it is important to outline how schools can provide stable demand to agro-processors businesses, how businesses have enough products to meet this demand, and how these two factors can reinforce each other developing businesses further.

Schools can be a stable source of demand

In November 2019 ZOA interviewed **three cassava processors and they stated that ZOA’s school feeding accounted for 25%, 60% and 60% of their gari production respectively.**ⁱⁱⁱ Further investigations showed that processors have been able to scale up orders and distributions as required by ZOA. This compounds evidence from WFP which states, “Both In-Kind and Home-Grown feeding represent significant demand for locally produced food: >\$1M local farmer income in 2018-19”^{iv}.

¹ This briefing note will not do is delve into the merits of school feeding or nutritional or other merits of cassava. The note is mostly focused on the value chain being developed enough to provide an increased supply of food to local schools.

With academic calendars creating demand for 10 months a year and school feeding programmes ensuring attendance rates remain high (93% in the ZOA programme), school feeding represents a huge opportunity for domestic agricultural producers. In total, there are currently 300,000 children in school feeding programmes, but this number may need to nearly double to reach full coverage of students in elementary, primary and high schools in Liberia.^v

Expanded cassava production and processing facilities

In 2013 a study found that “Local markets opportunity for gari is estimated at 5,326 MT annually. [however]... The more than 2,900 MT volume satisfied with imports from Sierra Leone presents import-substitution opportunities for local processors.”^{vi} Since this report was published, significant improvements have been made. The supply of raw cassava has increased in recent years due to the adoption of improved planting techniques by many farmers (see cost analysis section for the increased efficiency in the cassava sector).

Stable supply can lead to business development

The Ministry of Agriculture’s cassava working group is aware of 11 SME cassava processors who have what it considers the ability to produce commercially.^{vii} ZOA’s November 2019 analysis confirmed there is latent potential with many of these processors. Several have recently started operating large scale equipment such as ‘flash dryers’ which are **capable of processing 20 tons a day, but these businesses are not yet reaching this output.**^{viii} These agro-processors are expanding every year, but a steady supply of bulk orders could provide a consistent source of working capital, which will in turn stimulate their sourcing of raw cassava, providing incentives for upstream agricultural development. In addition, WFP note that “Every \$1 invested in Home-Grown school feeding yields \$3.5 in return”^{ix}.

However, there are many challenges to agro-processors’ development in Liberia. One consistent theme is access to finance. During key informant interviews, Liberian entrepreneurs “consistently identified the lack of access to finance as a major obstacle to starting or expanding a business.”^x As stated above, one of the benefits of school feeding programmes is the reliability of orders. Anecdotal evidence from speaking with agro-processors shows that having regular orders, often paid in US dollars, acts as a stimulus for businesses even in times of economic downturn, which in turn helps them continue to pay for produce from local farmers.



Figure 2: Farmer in Margibi with his cassava harvest

3) Cost analysis

The cost analysis section of this briefing note takes into account three aspects a) the cost of a cassava school meal compared to its market rate, b) distribution of income within the value chain, and c) how the cost of cassava compares to rice.

School meals vs market prices

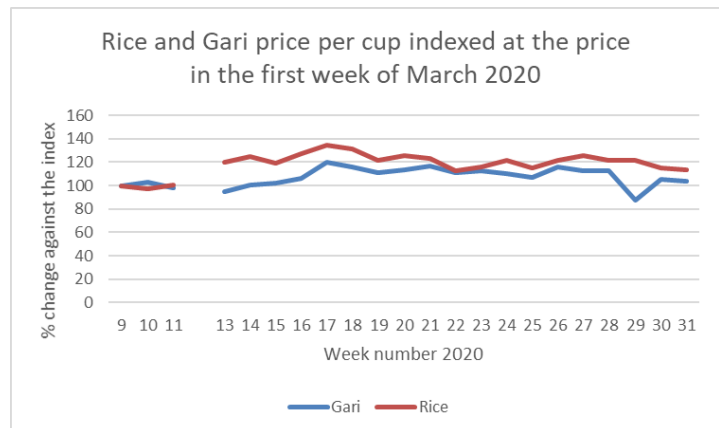
Since ZOA Liberia's programme started in 2018, the organisation releases annual tenders to request domestic agro-processors to supply home-grown products to schools on a monthly basis.² The organisation also tracks market prices of cassava-based products. By comparing the price for the awarded contracts with market prices, it shows that **ZOA Liberia's school feeding programme can provide meals to children at approximately 50% of their market value.**^{xi} This matches WFP's finding "Market prices of meals served are over twice the costs incurred by WFP and the community"^{xii}. Scale economies and longer-term contracts are utilised to ensure that the programme offers value for money in terms of feeding children.

Cost of rice and cost of cassava

ZOA Liberia does not see cassava as the sole staple food for school feeding, as even with the expansion of the market in recent years, it is not ready to 'replace' rice, nor should it. However, policy makers should be aware of emerging value chains and their benefits. ZOA Liberia's market monitoring shows that between **March and August 2020 cassava was cheaper, less volatile, and less prone to inflation than rice.** The price of a cup of rice was on average double the cost of a cup of gari (62LD per cup compared to 31LD per cup).³ Regarding volatility, gari is a less volatile product than rice⁴, although due to their widespread nature, neither are among the most volatile products studied.

The current data indicates that rice is more prone to inflation than gari. The graph (right) shows both products indexed at their pre COVID-19 price and the weekly inflation rate against that index. It shows that rice consistently had a higher inflation rate than gari.

Up to 60% of Liberia's rice is imported, which leaves the supply chain vulnerable to global economic shocks. ZOA Liberia established the market monitoring system after economic analysis conducted in 2019 led to the belief that inflation would more dramatically affect imported products than domestically produced ones. As such, the cassava value chain⁵ was believed to be more resilient to shocks. The early results do seem to be confirming this analysis, but longer-term trends are required.



² For more information on contracting and responses to inflation and price volatility contact ZOA Liberia.

³ For further information see ZOA Liberia's October Market Monitoring lessons learned report

⁴ Measured by averaging weekly changes in price over time. Gari averages 0.001% per week, rice 0.003%.

⁵ Proximity to Monrovia is important for this discussion ZOA's programme area is close to Monrovia which imports rice and is in the cassava belt. For more information on the agricultural map of Liberia contact ZOA Liberia.

Distribution of income within the value chain

Examining the distribution of income within the cassava value chain is a challenging task. While more research into this area is needed, **initial results from the programme indicate that smallholder farmers can increase their yield by 48% using improved planting techniques.**⁶ These improved yields lead to an increase in income. Consequently, at a basic level the cassava value chain is working to improve livelihoods of smallholders and providing vulnerable students nutritious food at cheaper rates compared to the market price.

4) What is the current policy environment?

At present, there is no direct policy impediment to the expansion of home-grown school meals. The national school feeding policy states that **“eventual local purchases of food for school feeding will promote sustainable development by supporting reliable markets for small farmers and producers”**. However, while there is no impediment the emphasis on home grown approaches is assuming, they can only be realised in the future ‘eventual local purchase’. Pilot home-grown projects are mentioned in the policy but as with the sector at large most key documents treat home-grown school feeding as an innovation to be trialled. This briefing note aims to help move this narrative stating that home-grown school feeding has been successfully piloted in the past two years and is ready for scale-up.

The Pro-Poor Agenda for Prosperity and Development, the cornerstone of the Liberian Government Policy, states “scaling up the school feeding program is considered a fundamental intervention... A combination of the school feeding with local food production initiatives, is an interesting innovation which provides a multi-sectoral social protection intervention targeting school enrolment and nutritional”^{xiii}. The school feeding working group run by the Ministry of Education consists of Mary’s Meals, WFP, Save the Children and ZOA Liberia, and has thus two members who implement home-grown approaches.

The National Cassava Sector Strategy does not mention school feeding showing a missed opportunity⁷, but other resources highlight the current opportunities for local producers.^{xiv} The Ministry of Agriculture views that “Rubber, Cassava, Oil Palm are three sectors poised to industrialize”^{xv}. ZOA Liberia currently engages three agro-processors to feed 5,248 students. However, conservative estimates would suggest that they could provide 50% more product per month, meaning there is potential to feed nearly 8,000 students. Further analysis of the



Figure 3: Volunteer cook helping to distribute take-home rations April 2020

⁶ ZOA Liberia works with small-scale farmers as part of the European Union Funded PARTNERS programme

⁷ However, this strategy was written in 2013 and does need updating given the recent developments in the value chain.

rest of the cassava processing sector would be needed, but if similar levels of provision could be achieved, close to 25,000 more students could be fed with cassava.⁸

What is the challenge?

There are two reasons why a greater portion of school feeding in Liberia is not yet executed via home grown methods. Firstly, the cassava sector, especially processing facilities, have developed rapidly during the past decade. Many of the current programmes for school feeding were setup before the sector had developed enough to take on additional production. As such, this briefing note aims to ensure that when the next wave of funding comes around, home-grown approaches are more strictly mandated and consider the use of cassava as well as rice.

The second challenge is less clearly defined. There is often a perception that home-grown school meals programmes are 'free', that communities produce their own food to feed their own children and this is, in effect, outside of the market sphere. In some places this may have worked⁹, but it is a progression, and ZOA Liberia does not believe this is appropriate for Liberia at present. In Liberia, home-grown school meals are a markets-based approach, and sustainability will be driven by improved planting techniques, efficient agro-processors, and demand. In the case of school feeding, demand needs to be created by the provision of funding for school feeding programmes.

What is the solution?

The solution to these challenges is twofold. Firstly, as mentioned, renewed **school feeding programmes should more strictly mandate home-grown approaches are part of the project methodology**. In addition, **programmes should consider cassava as an alternative/complement to rice**. This will increase the portion of school feeding, which is done via home-grown processors, as well as develop value chains which benefit local smallholder farmers.

Secondly, there is still a funding gap for the wide provision of school feeding in Liberia. "The current planned expenditure of the school feeding program is equivalent to around 0.8 percent of GDP... Preliminary cost estimates to assess the feasibility of providing a universal school feeding... expected to peak at 1.58% of GDP."^{xvi} In 2019/20 the government of Liberia's budget was approximately \$535m^{xvii}. As such, there is not space for the government to run large scale social safety net programmes. **Renewed and increased funding must come from the international community in the medium term**. It is important to state that these policies would be a stimulus to a key emerging domestic market, and one which the Ministry of Agriculture has targeted for industrialisation.

WFP points out that 60% of their in-kind food for school feeding originates from Liberia.^{xviii} An assessment by SPARK also found that in Grand Cape Mount and Bomi, Mary's Meals' school feeding programme provided a source of income to farmers who were being trained in cassava production by ZOA Liberia^{xix}. Therefore, another recommendation is **for school feeding partners to report back the sources of their procurement and to set appropriate targets for domestic procurement**. To further boost this the next iteration of a National School Feeding Policy can place greater emphasis on home grown approaches, from local agro-processors as well as emphasising the need for education on agriculture.

The deepening of the cassava value chain in Liberia over the past decade should be heralded as a success. Its use as a source for school feeding has been successfully trialled. Despite this, 31% of

⁸ ZOA Liberia is aware that the World Food Programme also provides a portion of their home-grown meals in cassava, but as will be seen in the recommendations, more clear reporting on ratios between home-grown or imported food are needed.

⁹ The US Government Food Security Strategy 2017-2021 sites an example from Kenya, "Successfully transitioned from donor-supported school feeding to the Government of Kenya's Home-Grown School Meals program".

women and 13% of men have no formal education^{xx}, and poverty/malnutrition rates remain among the highest in the world. As such, there will be a need for widespread school feeding programmes for years to come. However, the conditions are now set for these programmes to leverage huge benefits so long as they continue to be funded, providing the fuel for the wider benefits.

5) Conclusions: What is needed to further expand the HGSM approach?

The purpose of this briefing note is to highlight that home-grown school meals are a viable option in Liberia, and that the cassava value chain has the capacity to take on more of the responsibility. It is often easy to fall into the trap of tropes such as *Liberians eat rice*, and *Liberia imports food*. While there remains truth in these statements, they miss the emerging trends within the country. ZOA Liberia's projects in 21 schools during the last two years and work with the cassava value chain since 2013 provides a story of optimism. It is possible to feed children from locally sourced farms to the benefit of farmers and children.

To reiterate, the major recommendations are:

- Funding for school feeding should be increased to meet the needs outlined in the Pro-Poor Agenda for Prosperity and Development, from 0.8% of GDP to 1.58% and cover all Liberian children. Funding must come from the international community in the medium term.
- Renewed school feeding programmes should more strictly mandate home-grown approaches are part of the project methodology.
- Programmes should consider cassava as an alternative/complement to rice as the sector has the potential to increase feeding.
- School feeding partners should report the sources of their procurement and to set appropriate targets for domestic procurement.
- The next National School Feeding Policy should emphasise the role thriving agro-processors can play in school feeding, so long as they work with small scale farmers.

With the adoption of these recommendations, a positive grown spiral is possible within the agriculture sector within Liberia.

With thanks

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