

IDRC Research Support Project 110303

A Scoping Study Looking at the Research Gaps in Upstream Subsystems of Home Grown School Feeding Programmes in Africa

EXECUTIVE SUMMARY

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31 May 2024

IDRC Contract: O5000622



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Acknowledgements

IDRC commissioned this scoping study to identify opportunities for research investments in HGSFPs that will accelerate food systems transformation, with an emphasis on the opportunities lying within the activities and environments contributing to bring food from the farm to learner's plates. IDRC contracted Wasafiri Consulting to perform the study between November 2023 and May 2024.

The report was written by Clare Gardner, Navneet Mittal and Hezekiah Agwara, with support from Alex Rees and Ana Nikolic. The Wasafiri team wish to thank IDRC for their support during the study period, and in particular we thank Edidah Lubega, Genevieve Laroche and Greg Hallen. We also wish to thank myriad stakeholders at global, regional and country levels (notably in Zambia, Cote D'Ivoire and Uganda) who kindly shared their time and expertise with us to answer questions and share documents. A list of stakeholders is provided in Annex 2 of the full report – and we thank you each of you.

01 Executive Summary

1.1 Introduction

Home Grown School Feeding Programmes (HGSFPs) reach more than 64.5 million children in over 46 countries across the African continent and are critical tools to address poverty and food security. At a continental level, HGSFPs have been driven by the New Partnership for Africa Development (NEPAD), an African Union entity, and its strategic framework for socio-economic development. This has promoted a focus on linking school feeding and local agricultural production, including through sourcing food locally from smallholder farmers.

Since the start of pilot projects in several African countries over two decades ago, there is growing evidence of the benefits these programmes bring to improving school attendance and the nutrition of school children. However, whilst an important objective of the home-grown school feeding approach is the beneficial impact it can have on local farmers and their communities, this dimension has been little studied. Not knowing how this critical system functions matters. Stakeholders who could help to accelerate greater human and environmental impact via HGSFPs lack entry points to accelerate positive change.

The key gaps in knowledge are on how the upstream subsystems of HGSFPs function, including the production, aggregation, processing, and transport of foods before they reach the schools. Stakeholders do not sufficiently understand who else is involved, the trade-offs they face, and the climate and planetary implications of how these systems operate. Additionally, stakeholders wish to better understand how other stakeholders are involved in related research ecosystems in different countries, the funding landscapes, and the challenges and opportunities for enhancing planet friendly¹ HGSFPs across the continent.

This scoping study sought to better understand the upstream subsystems of HGSFPs across Africa. It aimed to identify common research gaps and stakeholders with whom IDRC may engage to further understand how HGSFPs could contribute more to food systems transformation. It sought to identify opportunities for the further development of upstream subsystems from the farm to the learners' plates. This study has also aimed to assess the extent to which HGSFPs have the potential to catalyse larger shifts in food systems that could accelerate progress on climate resilience, food security and nutrition, gender equality and social inclusion.

1.2 Methodology

Informed by *Systemcraft*, Wasafiri's methodology for understanding and supporting systems change, the scoping study is based on a multi-dimensional systems and complexity perspective that incorporates careful consideration and integration of technical, social, political and market dynamics to influence systems at scale. A phased approach in this study ensured a snowballing effect to refine the research agenda and expose with more clarity the prominent issues emerging in different countries related to the upstream HGSFP ecosystem.

¹ Planet friendly is defined as food which is "Nutritious, diverse, climate resilient, culturally relevant whole foods - A planet-friendly diet means access to healthy foods for all, produced and consumed in ways that do not pollute or overexploit natural resources, such as land and water, and that protect biodiversity." Research Consortium School Health & Nutrition (2023) White Paper. School Meals & Food Systems: Rethinking the Consequences for Climate, Environment, Biodiversity & Food Sovereignty.

Phase 1 focused on harnessing collective intelligence as the study sought to capture the continental landscape, literature, and key stakeholders. This foundational phase helped the multidisciplinary team appreciate how key systems change dimensions could inform the scoping study. This included organising who the team engaged with and ensuring dialogue with key stakeholders to understand how to make the scoping exercise matter to them and secure their buy-in to the process.

During Phase 2 the team focused on deeper country enquiry into three African countries (Côte d'Ivoire, Zambia, and Uganda) reflecting a mix of regions, approaches to HGSFPs and stages maturity and approach among HGSFPs. Relevant literature was reviewed, and key upstream stakeholders interviewed in the chosen countries. Additionally, Brazil's experience of HGSFPs was explored as a comparative case.

During Phase 3 the team convened to jointly interrogate country level findings and explore commonalities and differences across the contexts. This generated analysis, potential research themes and questions as we applied the Systemcraft framework. At the end of Phase 3 the scoping team met with IDRC to share and discuss findings including emerging research themes.

Phase 4 focused on synthesising findings, refining research questions, and validating these with key external stakeholders.

There were limitations to the research. It was conducted remotely, largely relying on existing literature (with limited relevant literature available²), virtual engagement with key stakeholders, and knowledge of English language only (Côte d'Ivoire is largely a French speaking country). The selection of countries was partly driven by Phase 1 scoping and IDRC references, whilst aiming to ensure a mix of contexts this did result in a selection of some countries that lacked national HGSFPs.

1.3 Continental landscape

Despite the continental diversity, Home Grown School Feeding (HGSF) experiences across the continent have common attributes, including scale, coordinating entities, approaches, and levels of development and financing. Analysis of the continental experience reveals:

- **Strategic win-win!** Home grown school feeding provides an important framework for cross-cutting action to transform food systems in a manner which can improve child and adolescent health, whilst contributing to global climate and biodiversity goals. Indeed, this is being recognised at a policy and strategy level; for example, the African Union Climate Change and Resilient Development Strategy and Action Plan (2022-2032) identifies “enhancing the role and influence of public procurement in food purchasing to support diverse and nutritious diets, for example ‘home-grown school feeding’, as a priority intervention and action area”. It is recognised that HGSF has the potential to empower farmer organisations and food producers to take climate action, improve biodiversity, reduce supply chain length, and support local and regional food systems. It is also recognised that there are additional positive multiplier effects for other groups of people along the HGSF value chain, such as local catering businesses, many led by women,

² As noted in the literature review (see annex 1) whilst over 51 documents were reviewed most were only partially relevant to the focus of the scoping study.

traders, and transporters, as well as SMEs, many in rural areas, who can achieve higher incomes and improved livelihoods.

- **Definitional confusion!** There is no uniform understanding of the HGSF approach and terminology with common terms such as ‘home-grown’, ‘local’ and ‘smallholder’ not clearly defined³ and interpreted differently across countries and even within countries.
- **Limited research!** As expected, the research team found very limited systematic research available on the upstream subsystems of HGSFPs.⁴ Even where policies exist with the stated intention of engaging with smallholder farmers to provide local economic benefits, there is often a lack of M&E systems and limited evidence of whether this is being achieved. Furthermore, there is very limited documentation on climate resilience, the inclusiveness of food systems, or types of farming practices used by farmers, and their sustainability and the challenges faced. There is some limited evidence of diversification of production and spillover to the local market of more diverse and nutritious foods stimulated by the HGSF platform⁵ and innovative digital platforms are beginning to capture upstream data.⁶ Research partners are mostly global with Africa footprints and local partners. Local research institutes are limited in their engagement in HGSFPs but there are several working on agriculture, climate resilience and gender, that could potentially pivot to upstream HGSF.
- **Gender blind!** Gender and equity are often integrated into HGSF design, but programmes rarely consider their influence on gender transformation. In all programmes women dominate volunteer roles, in some they are benefiting from economic empowerment⁷. Gender dynamics are complex, not well understood and require significant further investigation. Decisions on the school menu can have profound effects on the gendered outcomes of programmes, with men often dominating in the production of key staple cash crops and women controlling production and marketing of some non-staple, nutrient-rich crops, including neglected and underutilised species⁸ and vegetables⁹.
- **Fragmented stakeholders!** 42% of national school feeding programmes in Africa have agriculture policy objectives, which include ecological elements such as agrobiodiversity and climate-smart foods.¹⁰ However, there remains much work to do to join up siloed programmes and research on HGSFPs and sustainable farming and climate change adaptation across the continent. The research identified several countries where initial efforts are underway, such as in Malawi, Zambia¹¹ and Eswatini, but much wider scaled efforts are required.
- **Climate gap!** The key players working on HGSF are only just beginning to introduce a climate lens, which is primarily focused within schools, so understandably this means there are huge knowledge gaps around the climate dimensions of all aspects from production, through processing, storage, and transport, to cooking of the foods.¹² There is broad agreement that HGSF has the potential to enable local systems to be more environmentally sustainable, to encourage local crops that are nutritious and conserve biodiversity,

³ Whilst literature has sought to define the term ‘home-grown’ it continues to be interpreted in very different ways by governments who implement programmes.

⁴ See for example Gelli et al 2021, GCNF 2019, AU & AUDA NEPAD 2022

⁵ Interviews

⁶ Interview with IFPRI December 2023. Including in Nigeria, Ghana and Malawi.

⁷ Interview IFPRI December 2023

⁸ Mayes et al. 2011; Malapit and Quisumbing 2015

⁹ Joshi et al. 2006

¹⁰ Research Consortium for School Health & Nutrition, 2023

¹¹ Prifti, E. & Grinspun, A. (2021) The Impact Evaluation of the Home-Grown School Feeding and Conservation Agriculture Scale-up programmes in Zambia FAO.

¹² Research Consortium for School Health & Nutrition 2023

including indigenous crops, and to reduce transport. However, at present, the extent to which this is happening is not well known and unlikely to be fully realised.

- **Siloed thinking!** Whilst HGSFPs are often designed with the intention of sourcing more produce from smallholder farmers, the reality across the continent is that HGSFPs are rarely reinforced by accompanying programmes or connected to ongoing programmes which tackle the challenges that smallholder farmers face in increasing and/or diversifying their production. Priority needs include access to credit, inputs, knowledge, and trainings. A better symmetry between school menus and local production realities is also needed.¹³
- **Menus matter!** The menu is critical in transforming HGSFPs. Tools, such as the school menu planner¹⁴ are gradually being enhanced and evolving from just a focus on nutrition, to look also at improving monitoring, accountability, and nutrition-sensitive adaptation to local agroecological contexts. For example, in Ghana there is investigation to illustrate how HGSFPs may support diversified food systems through different pathways, including women's empowerment, market integration, and supply chain management.¹⁵ There is no data on environmental footprints of foods either included, or which have the potential to be included, in school meals.
- **Procurement design matters!** Procurement decisions, such as national or decentralised procurement, have a clear role in driving sustainable food systems transformation and have differential gender impacts and involvement of the private sector.
- **Cost analysis matters!** There is evidence that sustainable dietary change can be largely cost-neutral, such as the fortification of foods in low-resource settings, shifting from refined flours or rice to wholegrain; or positive changes which can reduce costs, such as moving from open fires to more fuel-efficient cooking stoves, and waste reduction procedures to make savings that effectively reduce the per-capita cost of food etc.¹⁶ However, this evidence remains at a pilot and ad-hoc level and lessons need to be scaled and invested in.
- **Collective action in Government matters!** Across the continent, Ministries of Education lead HGSFPs, and other school feeding programmes (SFPs), with insufficient involvement from other government ministries such as agriculture, health, social protection, environment, etc. Effectively operationalising the home-grown element and ensuring climate benefits, inclusive food systems and transformational benefits for smallholders that are supplying HGSFPs requires a greater investment in collaborative leadership and coordination across government ministries and with the private sector at different levels, including farmers and their organisations.

1.4 Country Deep Dives

The scoping study presents three diverse African country case studies.

Zambia has strong potential to grow planet-friendly school feeding. The government recognises that school feeding is a critical component in building more resilient nutritious food systems for all. It is ambitious with its commitment to reach four million children by 2026 through a decentralised HGSF approach that aims to engage smallholders with a focus on women. The national programme is fully government financed with development partners providing technical support (in the form of pilots, innovations, and developing strategies and guidelines). However, the resources available are not sufficient to deliver daily planet-friendly

¹³ Swensson, L. et al (2021) Public Food Procurement For Sustainable Food Systems And Healthy Diets. FAO

¹⁴ Originally developed with the Partnership for Child Development in 2012

¹⁵ Parish and Gelli 2015

¹⁶ Research Consortium for School Health & Nutrition 2023.

nutritious meals to learners. Food system players (farmers, cooperatives, aggregators, processors, and distributors) are interested to engage with the school feeding market and are doing so, but face challenges in scaling their engagement with smallholders in an affordable and environmentally sustainable manner. Women dominate HGSF in terms of numbers. They are engaged as producers, aggregators, and processors, in managing programmes at schools, and play a significant volunteer role. Equitable investment in this space could provide strategic opportunities to improve outcomes for women.

Whilst there are positive policies in place that promote the engagement of local farmers, there is a lack of monitoring and documentation to understand if and how these are implemented. There is a lack of distributed knowledge on the challenges that smallholders and SMEs face in supplying HGSFPs, the trade-offs in decisions to supply the market, the degree to which climate change is affecting production, the extent of adaptation being practiced, and the profile of farmers engaged in production, processing, and transportation of food to schools. Without adequate monitoring, what is actually served on learners' plates is not clear, despite menu guidance. Zambia has clear potential with political commitment, good agricultural potential, and strong strategies in place to scale planet-friendly school feeding, but it lacks evidence on what is working, faces challenges in adequately resourcing the programme, and ensuring farmers can engage effectively in the context of climate change.¹⁷

Côte d'Ivoire has promoted school feeding through different models since the late 1980s, including school canteens that engage with women farmer groups. Despite being a NEPAD HGSF pilot country, there is no national HGSFP. However, the new National School Meals Strategy has raised the ambition for a home-grown approach to contribute at least 10% to the national school meals programme¹⁸. School feeding is currently funded through a mixed model including the State, the WFP (which includes McGovern Dole Programme support), and communities. The principal procurement strategy of HGSF through donations is directed towards local small farms or family farms, with a specific focus on women farmers and their organisations. Whilst research partners exist¹⁹ there remains a fragmented and ineffective knowledge system related to HGSF, which gives rise to key unanswered questions: Are schools interesting markets for farmers? How does this vary for farmers and schools at different scales? Who is involved in supplying school meals (such as age, education level, gender)? Why? How do existing stakeholders engage? What foods do they supply? What knowledge, attitude and practices are occurring in relation to production, processing, storage, and transportation of climate smart foods? Are school meals markets of interest to business stakeholders?

Whilst several Climate Smart Agricultural practices exist²⁰ in Côte d'Ivoire (mostly concentrated on cash crops like cocoa, cashew etc.), most of these are not widely practiced, cover less than 1% of the agricultural area, and are not linked to school meals. Some research suggests that school feeding programmes are potentially much more cost-beneficial when viewed from the perspective of their multi-sectoral returns, and that it would be worthwhile following up with

¹⁷ Zambia's agroecological miracle workers: hope for a food-insecure world (cifor.org)

¹⁸ WFP Consultation, Feb 2024

¹⁹ For example, there is currently some work with Harvard University looking at the costing of school meals

²⁰ Climate-Smart Agriculture Country Profile, 2018

more detailed analyses at a cross sector national level to enhance the precision of these estimates,^{21 22 23 24}

Whilst the **Uganda** Government recognises school feeding as a necessary component of national development, there is no national school feeding programme (SFP). There is a history of experimenting with parent (and community) led school meals (PLSFP) since 2008 and WFP has implemented SFPs in Karamoja District since early 1980s. National education policies articulate that parents and school communities are responsible for feeding their school-going children through home-packed meals, returning home for lunch, or through parent contributions in cash or in kind (food). This model leaves children's nutrition in school, and out, dependent on household economic status in a context of high poverty and low agricultural production, exacerbated by climate change. The model also increases the burden on women, as the primary carers, majority farmers, and providers of food in households. There is a lack of credible data on coverage, models, and cost of the PLSF model. Whilst there are agroecological farming initiatives in Uganda under the current model, these are not connected to school feeding.

As structured, the PLSFPs are not interesting markets for smallholders and other supply-side actors, and with no institutionalised systems of school food production, procurement or distribution, there is no upstream subsystem to study. In this context, Uganda provides an alternative model, highlighting the need for innovative and diverse approaches to shift food systems that accelerate progress on climate resilience, food security and nutrition, gender equality, and social inclusion. It is not seeking HGSFP to achieve this.

Brazil's experiences are relevant to the African continent as countries seek to scale planet-friendly HGSFPs. Relevant insights include:

- Integrating school feeding into local food systems through a focus on engaging family farms in the procurement approach does not guarantee effective implementation.
- There are challenges in coordinating supply from family farms and demand from schools, even in the best designed SFPs. Addressing this requires deliberate efforts to remove bottlenecks, including strong rural extension to ensure productivity and commercialisation.
- It is important to frame school feeding from a rights-based perspective as an integral social protection programme and as an investment.
- Whilst school feeding is still led by the Ministry of Education (as it is in most African countries) the programme is dependent on strong coordination and ownership of agriculture, health, and social protection, which is lacking in many African countries.
- Dedicated, reliable and adequate financing is critical.
- The role of nutritionists and community health practitioners is central in ensuring the inclusion of diverse, healthy, and culturally acceptable foods, and in increasing demand for local foods.
- Sustainable and transformative HGSFPs need to be designed and implemented in close collaboration with development actors, including the private sector with cross fertilisation of knowledge and tools.

²¹ Verguet S, Limasalle P, Chakrabarti A, Husain A, Burbano C, Drake L and Bundy DAP (2020) The Broader Economic Value of School Feeding Programs in Low- and Middle-Income Countries: Estimating the Multi-Sectoral Returns to Public Health, Human Capital, Social Protection, and the Local Economy. *Front. Public Health* 8:587046. doi: 10.3389/fpubh.2020.587046

²² FAO, Partnership to support AU Strategies on Social Protection, School Feeding and Rural Youth Employment, June 2022

²³ AUDA-NEPAD Guidelines for the Design and Implementation of Home-Grown School Feeding Programs in Africa, Feb 2022

²⁴ FAO, WFP, Home Grown School Feeding Resource Framework, 2018

1.6 Conclusions and Research Priorities

This scoping study finds that investing in substantive research in support of an agenda to progress climate friendly and equitable HGSFPs in Africa is a good decision. It would provide IDRC, and other likeminded funders, with an opportunity to play a leadership role as an early mover and innovator in the upstream space of HGSFPs which remain little understood and evidenced. In a context where there is growing global interest in the power of school feeding programmes, understanding what works and for whom in the upstream subsystem of these programmes, in different contexts, could provide critical evidence to influence the pathways these programmes take. Research must be done in close collaboration with operational players, including African governments that are leading the way, to ensure that it is grounded in the operational realities of programmes, including those related to climate and finance. This work has the potential to influence the pathway of school feeding programmes thereby shaping local diets and human development, environmental measures, economic development and the transformation of food systems.

However, there are significant challenges, and it will take time to build robust knowledge and leverage stakeholders across national and local government ministries, farmers, educators, and beyond. Drawing on the continental literature review and stakeholder engagement, deep dives into three countries in the African continent, and the review of literature from Brazil, the team has identified priority research areas with associated questions that, if answered, can accelerate the growth and evolution of HGSFPs in Africa in ways that can contribute to improving local dietary diversity, climate resilience, the empowerment of women, and raise the incomes of smallholder farmers, their communities, and economies. The research questions are relevant across Africa. The recommended areas of research and associated questions can be conveyed into a call for proposals or similar modality. When looking at countries for focus in Africa, IDRC should select those with established HGSFPs and political commitment to furthering the agenda. These findings are evidence driven founded upon a robust scoping study.

Organise for Collaboration and Multistakeholder Ownership of HGSFPs

A successful HGSF needs broad ownership and collaboration across diverse stakeholders at different levels. Achieving this is hard, and thus requires exploring the following:

- How to structure and operationally manage multisectoral and multistakeholder partnerships, including expanding ownership beyond Ministries of Education, to ensure that wider upstream programme objectives can be met?
- What are good coordination models for collective multisectoral and multistakeholder ownership of HGSFPs?

Harness Collective Intelligence to Generate Upstream Evidence

To create and share knowledge in ways that promote the adoption of successful upstream HGSF strategies in Africa, the following research questions should be investigated:

- How can intelligence on upstream HGSF be effectively gathered and organised for practical utilisation by all stakeholders?
- What are the key methods and indicators for evaluating the multidimensional cost effectiveness and impact of HGSF on nutrition, women's empowerment, social inclusion, local economy, and climate resilience? How can a system for monitoring these indicators be effectively integrated into programmes?
- What are the climate and environmental dimensions and effects of production, procurement, processing, storage, transport, and preparation of school foods?
- What are the profiles and motivation of stakeholders, their knowledge, attitude, practices, strengths, and challenges?

- What are the roles for women and other local social groups in HGSF (renumerated or volunteer) and how beneficial are these engagements for individuals and their households? How might stakeholders build a knowledge agenda on equitable development for women in HGSFPs?

Set the Direction Through Ensuring Clarity on Key HGSF Goals, Terms and Approaches

To make HGSF systems a strategic entry point for stronger climate resilience and encourage ownership of the programmes in Africa, the following clarity should be generated:

- Are goals, definitions, minimum standards, and milestones established and widely understood? If lacking what is the means to achieve clarity of direction forward?
- What are the planet-friendly, healthy diets suitable for HGSF that are affordable and reflect local agricultural realities and cultural preferences?
- Which legal, policy, regulatory, and procurement frameworks support planet-friendly HGSF systems?

Change the Incentives to Operationalise Planet-friendly HGSFPs

Changing informal and formal incentives to transform HGSFPs, includes ensuring long term funding for programmes and business models that utilise planet-friendly food production, processing, and storage technologies. This includes prioritising the following areas:

- What production, procurement, transport, storage, and food preparation innovations are the most promising for effective planet-friendly HGSF in Africa?
- What kind of innovative and blended financing models can address the funding challenges in countries pursuing planet-friendly HGSF?
- How can we better leverage and link existing and new funding of climate-smart agriculture to HGSF systems?
- How do we strategically mobilise and engage complementary support, including from the private sector, to scale planet-friendly HGSF?

Make it Matter for Smallholder Farmers, Ministries, and Schools

How to make HGSF an interesting market for farmers, using agroecological practices, including women, and ensuring Ministries and Schools prioritise these approaches necessitates exploring the following questions:

- How can we make HGSF matter more to policy makers, farmers, and communities which can take decisions to accelerate it?
- How can we scale proven approaches, bring down costs, and embrace agroecological farming for reliable supply to HGSF?
- What are the benefits and costs for women and other social groups engaging in different elements of HGSFPs?



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