Food and Agriculture Organization of the United Nations

COMPENDIUM OF CASE STUDIES

Successful practices, tools and mechanisms to design, implement and monitor Home-Grown School Feeding (HGSF) programmes in Africa

Procasur
Harvesting Innovations, Spreading Opportunities

LIVE BROADCAST
LEARNING ROUTE IN KENYA

Compendium of case studies

Successful practices, tools and mechanisms to design, implement and monitor Home-Grown School Feeding (HGSF) programmes in Africa

2nd, 7th-12th, 18th of December 2020, Kenya

Published by

Food and Agriculture Organization of the United Nations (FAO)
and PROCASUR
Nairobi, 2021

FAO and Procasur. 2021. *Compendium of case studies: Successful practices, tools and mechanisms to design, implement and monitor Home-Grown School Feeding (HGSF) programmes in Africa. Nairobi.*

Cover photograph: ©Amin Virani/Procasur
Illustrations: ©Fanny Didou/Procasur
Graphic design: ©Angela Bonaccorso/Procasur

Contents

Abbreviations and acronyms

ACIAR	Australian Centre for International Agricultural Research
ALV	African Leafy Vegetable
AU	African Union
BFN	Biodiversity for Food and Nutrition project
COVID-19	'CO' stands for 'corona,' 'VI' for 'virus,' and 'D' for disease
FAO	Food and Agriculture Organization of the United Nations
FBS	Farm Business School
HGSF	Home-Grown School Feeding
HGSMP	Home-Grown School Meals Programme
KBS	Kenya Bureau of Standards
KALRO	Kenya Agriculture and Livestock Research Organization
KIPI	Kenya Intellectual Property Institute
KDHS	Kenya Demographic and Health Survey
ICRAF	World Agroforestry Centre
IFAD	International Fund for Agricultural Development
MOALF&I	Ministry of Agriculture, Livestock, Fisheries and Irrigation
MVP	Millennium Village Projects
SDGs	Sustainable Development Goals
TCP	Technical Cooperation Project
WFP	World Food Programme

1. Introduction

Fighting hunger has been one of the greatest challenges for the poorest countries in the world over the last decades. More than 690 million people suffer from not having access to enough and nutritious food (WFP, 2021) and strong evidence shows that the lack of food access and nutrition deficiencies result in enormous losses of human capital and economic productivity for a country, creating a long-term poverty trap (Abhijit V. Banerjee, 2012). The increasing awareness about this challenge has led to the inclusion of Zero Hunger (UN, 2021) as the second goal among the 17 Global Goals for Sustainable Development to improve people's lives by 2030. Goal 2 pledges to end hunger, achieve food security, improve nutrition and promote sustainable agriculture.

In addition to Goal 2, Governments have identified Home-Grown School Feeding (HGSF) as a strategy to contribute to the achievement of the SDGs to end poverty (SDG 1), equitable quality education (SDG 4), empowerment of girls (SDG 5), decent work and economic growth (SDG 8) and the reduction of inequality within and among countries (SDG 10). Finally, HGSF helps forge partnerships for sustainable development (SDG 17) and can also constitute an entry point to promote more sustainable consumption and production patterns (SDG12).

In this frame, the pressure on the most vulnerable populations has increased over the last year in relation to the COVID-19 pandemic. Recent surveys indicate that the situation of the poorest has deteriorated due to the health and socio-economic impacts of the COVID-19 pandemic. Nearly 1.5 billion children – more than half of the world's student population – are being kept away from school due to pandemic response measures. Nationwide school closures are in force in more than 180 countries while in many other countries there are localized closures which threaten to become countrywide. The disruption and closure of schools around the world will have a negative impact not only on children's right to education but also on other human rights including their right to adequate food. As an effect of this global crisis, more than 350 million schoolchildren might not have access to regular school feeding and nutrition services during the pandemic (WFP, 2020).

2. From school feeding to Home-Grown School Feeding

Before the spread of the COVID-19 pandemic, an estimated 368 million children in the world were fed daily at school through school feeding programmes aimed at eradicating hunger and malnutrition (FAO & WFP 2018).[1] Those programmes are run by national governments at varying degrees and are considered primarily as education interventions facilitating equal access to education.

The school feeding approach has been increasingly used over the recent years as a policy instrument to trigger multi-dimensional impacts and several national governments have put in place strategies to leverage the benefits of school feeding programmes in order to reach broader development objectives. In this perspective, various countries from low-income to high-income economies have been designing a range of public food procurement initiatives based on the idea that the demand for food on the part of government entities can play the role of a policy instrument to reach special socio-economic or environmental objectives.

This strategy is known as sustainable public (or institutional) food procurement[2] and is based on the recognition that public institutions can use their purchasing power to go beyond the immediate scope of responding to their needs by addressing broader policy objectives (social, economic and/or environmental) (Swensson, 2018). This public food procurement approach, although adopted in various high-income countries, is particularly appreciated in low-income countries as an inclusion instrument to support the local and smallholder farmers.[3] In this sense, it represents a driver for potential transformative development,[4] especially in the

[1] "School feeding" is the traditional term for programmes that provide food to children or their households through schools or that are conditional on school attendance. These programmes can provide food through in-school meals and snacks, which children eat at school and/or household incentives, which are take-home food rations or cash-based transfers for procuring food and are provided to families if their children attend school regularly. Home-Grown School Meals Programme, Implementation Guidelines, World Food Programme, August 2016.

[2] The term 'public procurement' refers to the overall processes by which governments acquire goods, works and services to fulfil a public function. It is, therefore, by means of public procurement that public institutions acquire food—as well as catering services—to respond to their institutional food requirements (Luana F.J. Swensson, 2018).

[3] Smallholders provide more than 80 percent of the food consumed in much of the developing word (FAO, 2018). The use of public procurement as a tool to advance and promote economic development through the purchase of goods or services from specific disfavoured or vulnerable suppliers categories (such as smallholder farmers) is often referred as "Inclusive procurement" (Aboah, Commandeur, Casey, 2016; FAO, 2019).

[4] See for instance IFAD approach towards rural transformation: "Poverty has multiple dimensions that go beyond low levels of income, consumption and material assets. This is why IFAD targets its investments towards rural transformation – a sustainable and comprehensive level of change that is social as well as economic. Some of the main areas where IFAD has been investing heavily to drive inclusive and sustainable rural transformation are: • Promoting diversification and resilience; • Advancing gender equality and empowering women; • Building sustainable food systems by creating opportunities for smallholders; and • Enhancing rural-urban connectivity and linkages." (IFAD, 2016).

poor rural areas (Kelly, S. and Swensson, L.F.J. 2017).

In other words, the combination of traditional school feeding programmes with a sustainable public procurement approach has led various countries, regions, and cities to implement Home-Grown School Feeding (HGSF) programmes. Despite the fact there is no unique definition of HGSF in regard to the variety of existing models, this kind of initiative can been understood as a school feeding model designed to provide children in schools with safe, diverse and nutritious food, sourced locally from smallholders (FAO & WFP, 2018).

If the very innovative element of HGSF programmes is to link the programme to local and smallholders farmers based on stable and predictable markets (FAO and WFP, 2018), it also includes complementary interventions to reach environment, social and economic objectives.

DEFINITION

"School feeding" is the traditional term for programmes that provide food to children or their households through schools or that are conditional on school attendance.

The term "school meals" is preferred by many actors, mainly as the word "feeding" has a passive connotation that does not seem adequately to reflect that school children are active in their school meal programmes as well as other school-based activities (FAO & WFP, 2018).

2.1. The HGSF and its multi-dimensional intertwined benefits

There is a large and growing body of evidence that indicates the multidimensional benefits of HGSF when it is used as Public Food Procurement. Those intertwined benefits are optimized when such a programme is integrated in a multisector intervention.[5]

A. Enhancing food and nutrition securities

According to a report of the World Bank (2015), over the last decades school feeding programmes have been the most used safety net in the world. They represent an essential instrument for social protection in the sense that they support vulnerable families with children in the short term by feeding them at school and thus reducing food insecurity.

In the long term, strong evidence shows that a HGSF integrated into holistic, multicomponent programmes can make a sizeable, impact on

[5] For more details on the social and economic benefits of the HGSF and of the purchase of food from the local and smallholders agriculture production, please see chapter 1 of: Swensson, L.F.J. 2020.

poverty eradication, health, education, food security and nutrition, through various access points and opportunities.

B. Economic

If inclusive food systems for smallholder farmers are usually considered as a very important aspect for getting out of poverty, too many social and economic barriers are still hindering them to link with the market. In this sense, a well-articulated HGSF programme with complementary interventions can create new stable and predictable market opportunities for farmers who can make investments with much less risks. Ultimately, the increase surplus production generated by the HGSF programmes can provide an effective long-term pathway to increased productivity, increased and stable incomes, and ultimately poverty reduction (women, youth, etc.).

C. Social

When designed properly, HGSF can also contribute to reducing gender inequalities in education and break the vicious circle of discrimination. Also, women can benefit from job opportunities (cook, cook's helper, quality control agent, etc.). In that sense, a gender-oriented HGSF can contribute to building women's leadership.

At the community level, a participatory approach in the implementation of the HGSF can promote community cohesion. Moreover any extra scholar activities around the HGSF (food festival, nutrition meetings, etc.) between the parents, farmers and schools can reinforce community linkages within a territory.

POSITIVE EFFECTS OF HGSF:

- Supports local agriculture and smallholder farmers;
- Stable Demand;
- Price stability;
- Promotes farmer cooperatives;
- Increases farmers' capacities;
- Access to other formal markets;
- Facilitates access to financial services.

FAO & WFP. 2018

D. Environmental

When designed accordingly, field experiences demonstrate that HGSF can support the development of an inclusive sustainable local food system promoting sustainable food value chains for nutrition (FAO, 2020). In this way, agro-ecological approaches can be promoted (organic products, increased biodiversity, etc.), as was the case in the Biodiversity for Food and Nutrition (BNF) Project visited during the Learning Route, which showcase environmental benefits of HGSF Programmes.

MULTI-DIMENSIONAL CONTRIBUTIONS OF THE HGSF PROGRAMMES TO THE SUISTAINABLE DEVELOPMENT GOALS WHEN INTEGRATED IN THE MULTISECTOR INTERVENTIONS

The Home-Grown School Feeding's contributions

Source: inspired from FAO &WFP, 2018.

To conclude, the combination of many benefits from the same programme constitutes the real strength of HGSF. Indeed, the capacity of HGSF to trigger a multiplier effect dynamic, when properly combined with a sustainable Public Food Procurement strategy, allows benefits to go beyond the specific group of actors. Those positive multi-actor/multi-dimensional synergies through the same programme are the core explanation of why HGSF can facilitate the achievement of very high cost-effectiveness and benefit-cost ratios. That's why HGSF is identified as a powerful booster instrument to contribute to a large range of Social Development Goals adopted by the international community (see graphic above).

2.2. The Brazilian experience: an inspiring model of HGSF

The Brazilian experience in relation with the HGSF - National School Feeding Programme (PNAE) - is well-known because they were pioneers, and reached interesting and positive results in the field in terms of lifting vulnerable families out of poverty.

The Government of Brazil has been using the School Feeding approach for many years as a policy instrument to promote local food produced by smallholder producers (i.e. family farmers and rural families).

BENEFICIARIES ARE DEFINED BY BRAZILIAN FEDERAL LAW

One key characteristic of the Brazilian model is that the beneficiaries are defined by a federal law (Law No. 11.326/2006) which provides clear and unified criteria as well as a certification instrument. DAP is a document which certifies that a farmer or rural entrepreneur complies with all the criteria established by law to qualify for classification as a family farmer or family rural entrepreneur.

These instruments facilitate identification of the target beneficiaries and implementation of the programme. They also facilitate a broader interaction and coordination between different public policies and programmes (Swensson, L.F.J. 2015).

The approach was introduced by the Food Acquisition Programme (PAA) in 2003 aimed at supporting the production of family farmers and their market access through simplified public procurement procedures as well as to distribute food in the required quantity, quality and regularity to the food-insecure population. These objectives were updated in 2012 to include broader goals such as the promotion of biodiversity and the guaranteed right to adequate food. The PAA became part of the National System for Food and Nutrition Security.

The mechanism put in place[6] requires that at least 30 percent of the federal budget allocated for the purchase of food for school feeding must be dedicated to contracts with family farmers and rural entrepreneurs.

The Government of Brazil also guarantees conditions for family farmers to invest in and enhance their production.

The implemented model of HGSF has adopted a decentralized approach. Such a model is easier to put in place in a decentralized federal country like Brazil. In this sense, the local public procuring entities have the legal obligation to apply the rule of the "30 percent" unless the following conditions are not met:

i. inability of the local farmers to provide a regular production;
ii. inability to provide legal tax invoices;
iii. inability to respect hygiene requirements.

[6]The legal mechanism put in place in Brazil within the national food procurement context is called Reservation. This legal mechanism allows the government to reverse certain procurement opportunities (such as the supply of food to school feeding programme) to specific categories of suppliers who satisfy certain prescribed criteria linked to the designated policy objective (Swensson, L.F.J. 2018).

In 2016, the national statistics indicate that 160 million USD were dedicated to the procurement of food directly produced by family farmers and family rural entrepreneurs. Under the framework of the PNAE, four key safeguards and conditions have been imposed as a trade-off with the traditional public procurement principles:

i. Purchases must be done directly from the eligible beneficiaries or their formal organisations. In other words, purchasing from intermediaries is not allowed;

ii. The food to be purchased through public food procurement must comply with the quality and safety requirements established by the appropriate regulatory framework;

iii. Prices must be compatible with those in local markets. If this requirement is aimed at ensuring economic efficiency, it allows at the same the selection of suppliers based on other awarding criteria;

iv. The use of public procurement as an instrument to broader development objectives cannot entail the simple overlaying of those objectives upon all the other objectives and principles of public procurement.

In conclusion, one aspect should be highlighted from the Brazilian experience as a key recommendation for all the countries interested in implementing HGSF Programme as a policy instrument to achieve broader development goals through Public Food Procurement, and this is that the procurement procedure was tailored to the needs and capacity of smallholder farmers. In that sense, the regulatory framework recognised that the standard open-tender procedure—due to its often high level of complexity, formality and cost—may pose important challenges to smallholder supply (Swensson, L.F.J. 2018).

2.3. Aspects to consider for efficiency, sustainability and scale up

The lessons collected from the various country experiences with HGSF underscore that the issue is not to question whether broader development goals should or should not be pursued through food public procurement, but rather how to adapt the procurement rules to facilitate reaching those goals in the field. In that sense, legal mechanisms (see experience of Brazil) play a key role in incorporating horizontal policy objectives—including the support of smallholder farmers—into public procurement rules.

In this regard, addressing operational barriers to the inclusion of smallholder farmers through public food procurement implies compatible procurement procedures, and for administrative

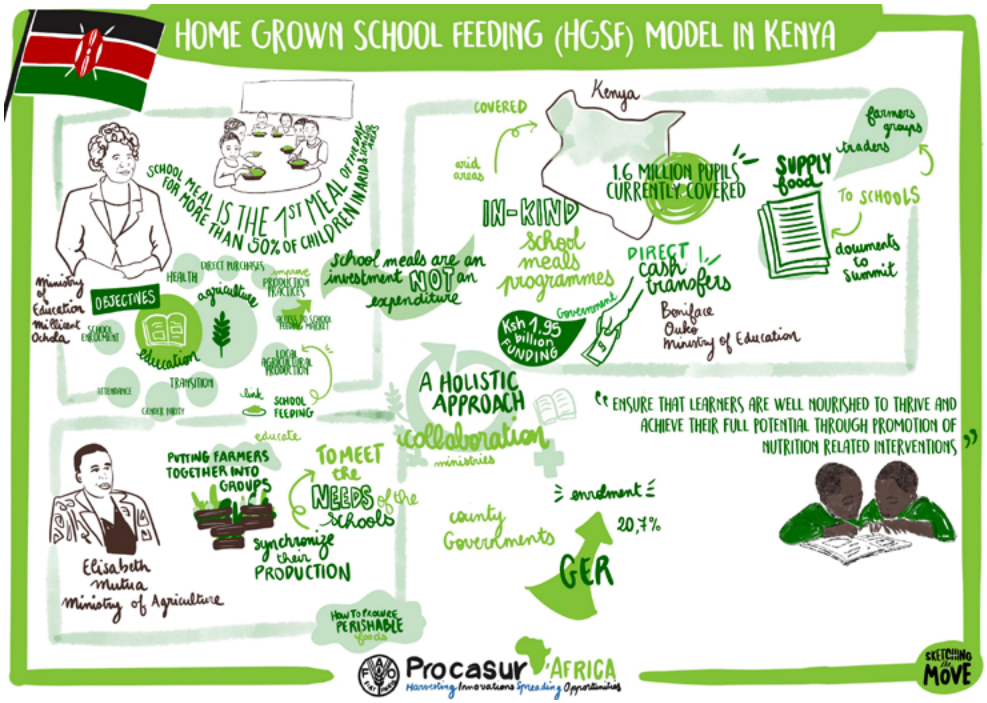
adjustments and institutional capacities to adapt accordingly; this should also include a clear definition of the target beneficiaries.

However, it's important to note that a trade-off should always be found between the key principles of public procurement regulation and the preferential rules put in place to fit with the smallholder farmers' specificities without generating too much tension. In that sense there is no “one-size-fits all” solution (Swensson, L.F.J. 2018).

©FAO/Procasur

CASE STUDY 1

The Home-Grown School Feeding model in Kenya



1. Introduction and context

The Republic of Kenya is an Eastern African country composed by 48.5 million inhabitants. It has a mega environment in terms of biodiversity richness (7500 plant species available). Agriculture is key to Kenya's economy - 27 percent of the GDP – and employs more than 70 percent of Kenya's rural people. The country has recently acquired lower-middle-income status.

Although national progress toward food security has been made, healthy diet consumption remains a challenge for many Kenyans: approximately 1.3 million people are acutely food insecure, 35 percent of children under 5 in rural areas are stunted and 16 percent are underweight (KDHS, 2014). Kenya has close to 40 years of school feeding history. The Government of

Kenya initiated school meals activities in 1980 in collaboration with development partners and, since then, school meals have remained a core development intervention to support the country's achievements in the education sector.

The HGSF model developed in Kenya has been selected as main host of this Learning Route due its solid and well-established experience in implementing the HGSF initiative at country level, the variety of approaches and implementation mechanisms applied at local level, the presence of specific legislations and strategic policy documents explicitly focusing on HGSF. The main learning objectives of this case study are the following:

- Analyze specific **legislations and policies** laid down by the Government of Kenya to enable the participation of small farmers in the HGSM Programme;

- Analyze the **operating procurement model** and **the inclusive schemes and mechanisms** adopted at national level to promote the access of smallholders' farmers into public food procurement markets;

- Analyze the internal functioning and mechanisms of **multisectoral stakeholder groups** which meet routinely (MoE, MoA, MoH) as a model for multi-stakeholder engagement on HGSF.

2. Trajectory of the case

The Introduction of the school meals programme was a component of the social protection scheme for school children and families following a serious drought in 1978/79. This was to facilitate children going to and support families especially in the arid and semi arid areas suffering from the impacts of the drought. The programme initially started with school milk and later, with the support of development partner - mainly WFP - included a hot lunch meal. A school feeding partnership between the Government of Kenya and the United Nations World Food Programme (WFP) officially started in 1980. Its main objectives were to increase student school enrollment, retention and completion rates, and to improve the students' ability to concentrate and learn. The program initially targeted 220,000 primary school children including early child development pupils based at targeted primary schools. The introduction of Free Primary Education in January 2003 boosted school enrollment and by 2007 the school meal programme reached more than 1.2 million school children across 3,847 primary schools. By 2008–2009, the beneficiaries had increased gradually to reach 1.6 million school children.

In 2008, the Ministry of Education developed a sustainable strategy together with partners for the complete handover of the School Meals Programme to the Government, in order to make school meals

more sustainable and less dependent on donor funding. In this regard, the Government launched the Home-Grown School Meals Programme (HGSMP) in 2009, through which the Ministry of Education transfers cash to schools for purchase of ingredients and provides hot meals from local suppliers to over 900,000 school children in Kenya's semi-arid areas.

The (HGSMP) led by the Ministry of Education in Kenya started in 2009 as a sustainability strategy. This innovative approach links school feeding initiatives with local smallholder farmers to provide millions of schoolchildren in target areas with safe, diverse, nutritious, and local food. This approach effectively augments the impact of regular school feeding programmes with increased food production and diversification as well as economic benefits for local communities.

Today, the school meals programme has fully been handed over to the Government of Kenya and WFP remains an integral part of the model engaging in supporting the Government in capacity building and system strengthening.

2.1. The HGSF model developed in Kenya

The HGSMP programme in Kenya is implemented in arid and semi-arid areas with high cases of food insecurity according to two main models of implementation: centralized and decentralized. The centralized modality consists of a procurement scheme directly implemented by the Ministry of Education (MoE) and mainly implemented in arid areas. Through the decentralized (or cash transfer) modality the MoE directly transfers cash to schools' bank accounts and procurement of food is done by school meals committees, considering 10-12 Kenyan Shillings per child per day. The decentralized modality facilitates inclusion of small scale suppliers and farmers.

Other partners supporting school meals and nutrition programmes adopt different modalities applicable to their interventions and funding. The different modalities are captured in Chapter 3 of the National School Meals and Nutrition Strategy 2017–2022 which regulate the functioning of the school meals initiative in Kenya.

The overall modalities of implementation envisaged in Kenya according to the National School Meals and Nutrition Strategy are the following:

The decentralized modality: In this modality, funds are transferred from the national or county governments to local levels such as devolved government units, schools, community committees or other stakeholders. Funds are transferred from central to local level together with the responsibility for purchasing, storing, preparing and serving the meals, and for accountability. The local actors therefore undertake food procurement and storage, meal preparation and management of the National School

Meals and Nutrition Programme through locally established mechanisms, often guided by national guidelines. Nonetheless, the central government maintains accountability for the funds provided for the programme implementation. The modality has been widely used in Kenya through the Home-Grown School Meals Programme, which transfers resources to school committees for implementation of school meals. Such decentralized modalities best facilitate the targeting of local smallholder farmers for food supply.

The centralized modality: Under the centralized modality, procurement is undertaken either at national or county levels and the food is distributed to schools for preparation. In this case, logistical arrangements may be shared between institutions and partners through different models, based on the capabilities and constraints of each entity. For instance, the in-kind provision of food to schools is of special relevance in areas where food supply chains are not sufficiently organized and decentralized procurement would be challenging to implement, such as in remote areas.

Outsourced catering services: In this modality, the supply and provision of meals is outsourced. Catering services may be contracted by schools or governments for food supply and delivery. Another option is for a government to contract a partner to manage the entire programme, including food procurement and delivery to schools, payment of the cooks, monitoring and accountability of the programme to its funders.

The community-based modality: This modality presents the following options: parents may contribute to school meal and nutrition activities with either food or money. In some cases, communities play a fundamental role by complementing the government's funding and overseeing the programme implementation. In other cases, communities lead the autonomous management of meals for their school children. Parents may contribute specific funds to school meal and nutrition activities as part of the school levies (as is the case with some privately owned schools). School farms (also known as school gardens) may supplement the existing food supply to a small extent as well as use the farming initiatives as learning projects for health and nutrition education within the school's pedagogical plan. Parents may pack food for their children based on an acceptable standard food basket and guidelines. Teachers then organize the children to have the meal at a common place and time.

Mixed modalities: Different modalities may overlap to bring about synergy and optimize resources, thereby exhibiting features of both the centralized and decentralized models. A school meals unit at a local level may, for instance, manage both the resources transferred from national or county government for local procurement processes and

the in-kind donations of the community, combining them creatively to provide balanced meals for the school children. The mixed modality enables different stakeholders to organize their school meal and nutrition initiatives according to regional peculiarities while adhering to national policies and guidelines.

2.2. Policy framework

Various policies have been put in place by the different ministries to coordinate and guide the implementation of the HGSMP. These are continually being reviewed to take consideration of the emerging issues and to ensure sustainability of the program.

Below are some of the national policies and strategies developed by the Government of Kenya in collaboration with partners to regulate the functioning of this Programme:

- Kenya constitution 2010, basic rights to health, education, food and decent livelihood [article 43[1] [c & d];
- Ministry of Education, Ministry of Health and Ministry of Agriculture, Livestock and Fisheries, National School Meals and Nutrition Strategy, 2017-2022;
- Republic of Kenya, National Food and Nutrition Security Policy Implementation Framework 2017-2022, June 2017;
- Ministry of Education and Ministry of Health, Kenya School Health Policy, second edition 2018.
- Ministry of Education, Ministry of Health, Ministry of Water and Sanitation 2018. Standards and Guidelines for WASH Infrastructure in Pre-Primary and Primary Schools in Kenya. UNICEF – Kenya;
- Strategic plan of MoE [2013-2017];
- Second medium term plan [2013 -2017].

3. Impacts and benefits

Impact and benefits of Kenya's HGSMP can be observed at multiple levels. According to a recent evaluation the HGSMP creates large income multipliers in rural Kenya [Taylor, J. E. 2019]. Each shilling transferred to a school creates an additional 1.27 KSH of additional real [inflation-adjusted] income in rural Kenya.

Main suggestions from this recent evaluation encouraged schools to buy directly from farmers; giving schools the flexibility to spend part of their funds on an expanded food basket; making farmers more productive through extension and other investments aimed at raising agricultural productivity in sub counties.

BENEFITS OF THE HGSMP TO DIFFERENT ACTORS

Children SDGs 1,2,4,5,8,10	• Access to Education • Better Nutrition & Health	• Healthier eating habits • Enhanced dietary diversity
Households and communities SDGs 1,2,5,8,10	• Value transfer to families • Employment opportunities • Engagement and ownership	• Enhanced dietary diversity • Healthy eating habits
Farmers & Traders SDGs 1,2,5,8,10	• Access to markets • Access to productive inputs & credit • Income opportunities	• Strengthened capacity • Increased dietary diversity • More resilient agriculture • Stronger local food systems
Governments SDGs 1,2,4,5,8,10,17	• Better education outcomes • More inclusive Education & Social protection systems	• Increased and diversified agriculture • Increased economic activity

4. Lessons learned

The implementation of the HGSMP has yielded great results and impacts at different levels; some of the lessons of the model developed in Kenya can be listed as follows:

- Beneficiary Contribution: Once the parents attain household food security they are willing to contribute food to sustain the HGSF. Household food security also means greater economic upgrade;
- Ownership of School Meals programme: Adequate sensitization and involvement of all stakeholders at all levels is important for ownership of the Programme. This has been achieved in most schools and sensitization is still ongoing;
- Institutionalizing coordination structures across relevant ministries is important to ensure proper implementation and multi-stakeholders engagement at national level;

HGSF MODEL IN KENYA

STRENGTHS

- Strong commitment from the government for the success of the programme;
- A long term experience in school meals programmes
- Policy and stretegic documents that provide a frame for HGSF;
- Sound support from partners like World Food Programme;
- Proper coordination by the national school feeding steering committee;
- Strict adherence to the government's procurement procedures;
- Collaboration of school meals stakeholders working together for a common good;
- Enhanced access, increased enrolment, retention and completion rates;
- Monitoring the implementation of the programme by MoE Officers.

WEAKNESSES

- Inadequate funding to appropriately support the program;
- Untimely disbursement of cash and food commodities;
- Lack of commitment on the part of some of the stake-holders;
- Poverty levels among parents making them unable to support the feeding programme;
- Students' migration from non- feeding schools to feeding schools to receive school meals;
- Delay in procurement of food and cash disbursement because of bureaucracy;
- Inadequate monitoring of HGSF implementation caused by lack of funds.

OPPORTUNITIES

- Creation of job opportunities;
- Children no longer suffer from hunger, leading to enhanced learning outcomes;
- Improved school attendance;
- Creation of school gardens to which smallholder farmers can contribute to supplement the school feeding basket;
- Market promotion of smallholders farmers selling their products to school.

THREATS

- Non–feeding schools are being deserted, causing low enrollment;
- Delays in food/ cash disbursement leading to school dropouts especially for the nomadic communities;
- Local small holder farmers have difficult access to tender documents;
- Delocalisation of teachers interfering with the management of school meals programme;
- Lack of physical facilities, like kitchens, stores and sanitation to store fresh food;

7

[7] Results of the SWOT analysis undertaken with Kenyan government officials of the Ministry of Education during the preparatory phase of the Learning Route

- Inadequate knowledge on the procurement process, e.g. tendering requirements, are amongst the major challenges for small farmers to participate in the school meals market. For this purpose the government has given procurement guidelines with special reprieve for small scale traders and also some vulnerable categories of citizens like women, youth and those with disabilities. Moreover specific trainings and capacity building activities targeting small farmers have been crucial to enhancing farmers groups and increasing chance for favorable competition on the school meal market;

- Low food quality: small scale farmers may produce low quality foods which do not meet the standards set by the HGSF guidelines. To remedy this, the Ministry of Agriculture through the extension services continue to capacity build the farmers and also guide them on the best agricultural practices to increase good quality yields;

- Some farmers don't have a legal business registration nor a trade license from the government. The government and implementing partners continually sensitize them on this. Huduma Centres which are government facilities for business registration and other services have also been made accessible to the most remote areas bringing the process closer to people;

- Schools as local institutions are strong entry points into the community. More schools are taking up the management of the HGSF in a diversified way and accountability of the programme is done by the School Management making the community feel part of the program and therefore decision making is participatory and transparent;

- The different models laid out in the National strategy facilitate different actors to contribute to the HGSF therefore reaching more children;

- Commitment by the national government is key to strengthening the National HGSMP; school meals programmes should be considered as an investment and not as an expenditure;

- The HGSMP requires coordination of all stakeholders and strengthening of vertical linkages at all levels. Proper coordination at National and county levels is crucial for the success of the programme. Each level is tasked with specific responsibilities;

- The wide and inclusive policy framework provides a conducive environment for the implementation of the program.

CASE STUDY 2

The Biodiversity for Food and Nutrition (BFN) project in Busia County, Kenya

Boosting the introduction of nutritional African Leafy Vegetables (ALVs) in school meals through a Biodiversity Conservation Policy: a strategic entry point for inclusive value chains development and biodiversity

1. Introduction and context

Despite international donors and public states have dedicated increasing funds to fight food insecurity[8] over the past decades, millions of people still suffer from hunger. Indeed, an estimated 2 billion people in the world did not have regular access to safe, nutritious and sufficient food in 2019 and Africa is the region with the greatest prevalence of hunger in the world (FAO, IFAD, UNICEF, WFP and WHO, 2019). The County of Busia, in Kenya, is not spared by this situation.

Considering agriculture's role in the global situation, characterized by biodiversity loss, ecosystem degradation and the alarming pace of food biodiversity loss, new local strategies are being elaborated to reduce food insecurity and malnutrition in poor rural areas, particularly. to respond to these interrelated multidimensional challenges, a growing consensus is to mainstream the adoption of a territorial approach in the selection of the crops to be cultivated. Such an approach is promising because while spreading sustainable farming practices with adapted crops to local ecosystems, it reduces pressure on natural resources, and lessens some climate change impacts.

In this regard, the territorial strategy promoted by the Biodiversity for Food and Nutrition (BFN) Project in Busia county, in Kenya, is a good example focusing on promoting biodiversity at territorial level, through the introduction of African Leafy Vegetables (ALVs), while improving the income of local small producers.

Busia County is located on the western part of Kenya, bordering Uganda, and covers an area of 1,694.5 Km2. Crops, livestock and fish production constitute the main economic activities of the people of Busia County. This County illustrates well the challenge of ensuring food and nutrition securities since it is one of the poorest and most food insecure counties in Kenya, although it has a variety of agro-ecological zones suitable for growing a diverse range of plants as well as sufficient rainfall.

Large-scale farms have been divided into smaller portions (0.6 hectares in average) making it more difficult for farmers to earn a decent living. Changing land/resource use and management practices have heavily contributed to loss of biodiversity, including the loss of nutritious genetic resources useful for agricultural productivity, sustainability, and resilience to stresses. Furthermore, changes in eating habits and a lack of access to quality seed, has left most Kenyans relying on a handful of food crops for their sustenance (maize, beans, etc.).

[8] Food security exists when all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life (World Food Summit, 1996).

Today Busia County indicates that over two thirds of the population is unable to meet its basic food minimum requirements: 26.6 percent children under five are stunted, 11 percent are underweight and 4 percent are thin due to malnutrition. Critical deficiencies exist for Vitamin A, Iron and Zinc.

To tackle those multiple interrelated challenges (food/nutrition insecurities, biodiversity loss, poverty, etc.) a new model of Home-Grown School Feeding (HGSF) has been conceptualized and coordinated by Bioversity International with the implementation support of FAO, UNEP, the Kenyan Agricultural and Livestock Organization (KALRO), Farmer Groups (SINGI) and public schools, among others the Mundika Secondary School. This initiative was funded by the Global Environment Facility (GEF) and the Australian Centre for International Agricultural Research (ACIAR).

The objective of this initiative was multiple: to improve students' nutrition while promoting biodiversity and the development of local inclusive value chains. The first element of this project was to identify school feeding programmes as a strategic cost-effective entry point to introduce local ALVs in school procurements through a Biodiversity Conservation Policy. This pilot has been an opportunity to show that ALVs contain vitamins and mineral that are lacking in many of the major food crops. Free meal programmes can trigger a great local demand for ALVs and create inclusive jobs while enhancing territorial biodiversity.

To illustrate this innovative territorial approach and the positive transformations introduced by the BFN Project, the trajectory of Busia County is presented in this case study. The case aims to:

- Identify and analyze effective mechanism/tools to promote ALVs in school feeding programmes;

- Present effective mechanisms and tools to create sustainable linkages between small-scale farmers and schools through Public Policy;

- Identify innovative mechanisms and tools to support biodiversity friendly public procurement protocols.

2. Trajectory of the case

The BFN's initiative is a successful territory-based approach that has been tested between 2012 and 2017 in Busia County, in Kenya, as a biodiversity conservation strategy. Under its framework, the BFN Project's has developed an operational integrated home-grown school feeding model aimed at facilitating the introduction of local nutritious ALVs in children's meals through local public institution procurements to better conserve local biodiversity while supporting market access to small-scale farmers.

Although the design and scope of HGSF programmes differ in each context depending on the specific implementation model applied, one main limit is related to the insufficient attention and resources dedicated to mitigating the impacts on the local environment as well as promoting the biodiversity of food crops. Indeed, the way the HGSF functions in many situations doesn't allow, for example, for small-scale farmers to benefit: they report high levels of production uncertainty which is a fundamental obstacle to establishing trust with the local institutions (schools, hospital, etc.). Furthermore, very often the farmers report that they don't have the capacities to comply with institution procurement rules.

Another critical challenge for the consumers is that, very often, the HGSF approach is based on a very limited range of food crops which don't meet children's energy requirements, and make the meals monotonous. On top of that, the crops are not environment friendly and climate change resilient. Last but not least: there is no systematic strategy to take into account biodiversity conservation during the HGSF's implementation despite the fact that biodiversity loss represents a key challenge for food and nutritional securities.

To overcome those challenges, which were also identified in other similar experiences, the BNF project has adopted a strategic approach based on 3 key innovative elements:

1. Generate strong scientific evidence to legitimate the introduction of ALVs through food public procurement;

2. Improve local capacities to produce and consume ALVs;

3. Support the development of public policies to mainstream public purchases through public food procurement.

A. Improving local knowledge and evidence to allow ALVs to come out of the shade

In the 1990s, scientists in Kenya launched an alert about the reduction of ALVs consumption even though ALVs contain vitamins and minerals that are lacking in many of the major staple foods consumed in sub-Saharan Africa. People living in Busia are among the poorest, 2/3 are unable to meet their basic food needs. Tackling the trend of people considering ALVs as inferior and food for the poor is a real challenge.

In that context, Bioversity International set up a pilot in two phases starting in 1996. The first phase was led in collaboration with the KALRO to collect, characterize and analyze the nutritional value of ALVs before identifying the priority species. This step was been crucial according to Dr Victor Wasike[9] because scientific data can legitimate ALVs' promotion.

[9] Director of the Kenyan Agricultural and Livestock Organization (KALRO)

The literature reports significant intraspecific differences in the nutrient content of most plant-source foods and other relevant edible biodiversity, which are often nutritionally significant. However, significant knowledge and evidence gaps need to be addressed to transform the enabling environment for biodiversity and improve nutrition. Among these, there is the need for more food composition data (as data currently exist for only a fraction of the world's edible biodiversity), dietary intake data and better research to understand the complex pathways that link biodiversity to nutrition and health.

Therefore, generating scientific evidence on the nutritional value of ALVs has been one key pillar of the strategy elaborated by the BFN project.

B. Creating an enabling local environment: Improving local supply capacities, multi-actors' partnerships and awareness about ALVs

Creating an enabling local environment based on a holistic approach has been crucial for the success and sustainability of the BFN initiative. The conceptual model underpinning the pilot HGSF programme implemented in Busia aims at simultaneously addressing constraints at the supply and demand side (see graphic at pag. 25). Indeed, the low productive agricultural areas are most of the time facing a range of constraints and barriers preventing a sustainable HGSF (lack of access to good seeds, local technical and business capacities, etc.). In the case of BFN's pilot, the challenge was even more important since the objective was to introduce local indigenous crops perceived as inferior by many people. In that sense, the challenge was to unlock the potential demand and supply by enabling the local environment from the farm to the school step. For this purpose, financial resources and great efforts have been dedicated to the development of a Biodiversity Conservation Policy for Busia County (see Box 3 below).

To guarantee a steady supply of ALVs, the BFN's initiative has ensured the supply of improved seeds and training on sustainable agricultural production, integrated pest management and the use of seasonal calendars to plan and guide production.

Box 1: SINGI farmers group

A community-based organization (CBO) with offices 15km from Busia town, SINGI was created in 2005 by William Buluma and promotes good agricultural practices including the use of nutritious drought tolerant vegetables, organic manure to promote soil health and organic pesticides to manage plant pests and diseases. The CBO, composed by 50 groups, registered with the Ministry of Sports, Gender and Social Services, is involved in the socio-economic empowerment of the rural poor.

The Namalenga Farmers' Group, who is part of SINGI, comprises 30 farmers who got the support of the Ministry of Agriculture and KALRO under the FBS model to cultivate indigenous vegetables on 6 acres of communal land located near a dam.

Before the pilot, the group used to lack a market for local vegetables, feeding surplus to their livestock. In 2016 the group won a tender and formalized a contract with Mundika Secondary school to supply 128Kg of assorted indigenous vegetables at Ksh 35 (about US$ 0.5 per kg).

The SINGI group reached great achievements:

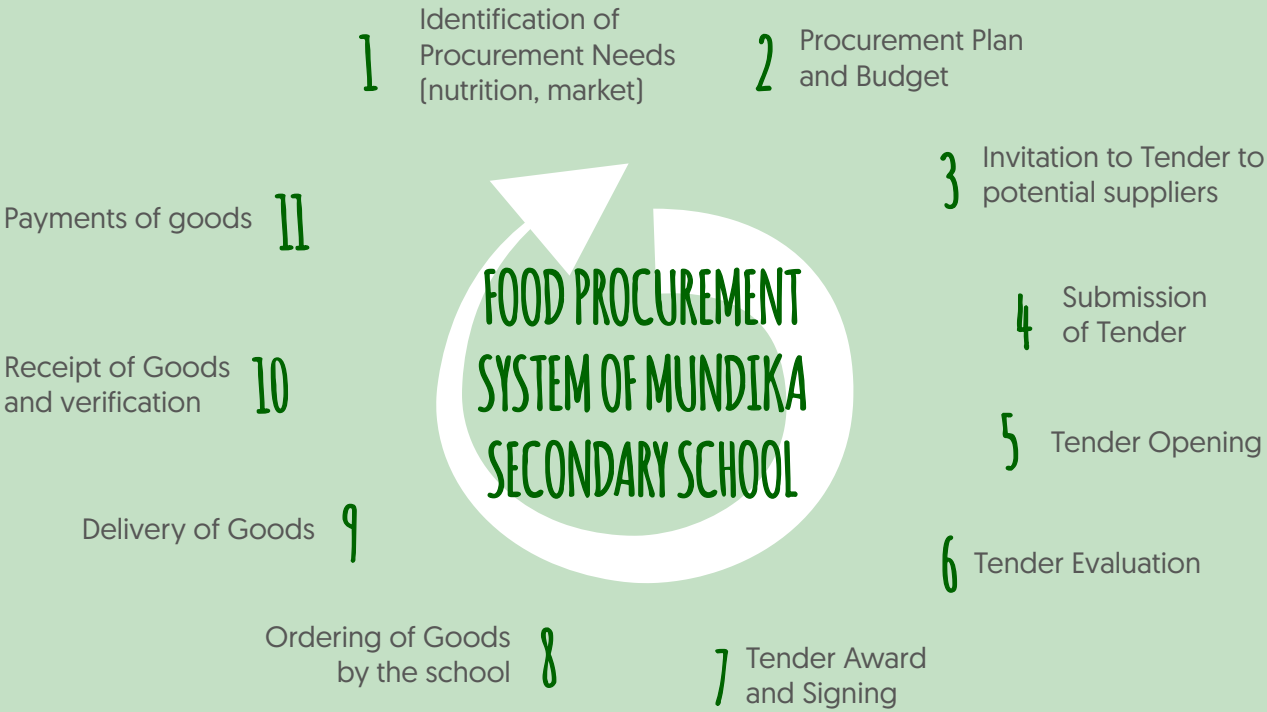
- 1440-ton production ALVs in 8 seasons;
- ALVs'price increased by 40 percent between 2016 and 2019;
- 30 percent of the community members improved their nutritional status by 2018.

In addition, an adapted Farm Business School[10] (FBS) has been developed to help farmers learn how to get organized in groups (example: SINGI Farmer Group – Box 1), make their farming enterprises and overall farm operations profitable and able to respond to market demands. The learning takes place in the field and farmers' capacity in entrepreneurial and management skills is built via a "learning by doing" approach.

On the demand side, the schools participating in the BFN project benefited from various trainings to allow them to have a robust procurement system (see box 2 below). In addition, cooking demonstrations and nutrition education and awareness raising activities on the nutritional value of ALVs were organized to stimulate the demand for these crops, particularly from schools.

[10] The Farm Business School (FBS) has been developed by the Food and Agriculture Organization of the United Nations to help farmers learn how to make their farming enterprises and overall farm operations profitable and able to respond to market demands. The learning takes place at the village level and farmers' capacity in entrepreneurial and management skills is built via a "learning by doing" approach. Extension officers and lead farmers are trained as facilitators and then organise seasonal training courses, where farmers work in small groups at their own pace using materials that have been specially designed for the schools.

Box 2: Food procurement system of Mundika School put in place under the BFN Project



As part of the holistic approach adopted by the BFN initiative, the schools that were part of the project benefited from technical trainings to allow them to put in place an effective and transparent procurement system. It's a key aspect to support the public demand side.

In this regard, the school's staff have been trained to be able to select the best local suppliers within a public and transparent tender (see box 1 on SINGI Farmer Group).

The graphic describes a cycle of 12 steps clearly defined by specific guidelines under the supervision of the school committee. According the school's actors, their procurement system elaborated with the support of the BFN Project has greatly contributed to the success of their HGSF. Indeed, the school's procurement system has ensured transparency to avoid suspicion and build trust inside and outside the school.

Box 3: How to lead the development of a Public Policy in favor of HGSF?

Based on the strategy of policy dialogue tested under the BFN project in Busia, it was possible to identify 5 key steps in the process that led to the development of a Public Policy in Busia County to mainstream ALVs in public food procurement from public institutions (schools, hospitals, etc.):

1. Identify entry points:

It's crucial to identify the key public actors who can support the initial project (elected county members, organizations, civil servants, etc.);

2. Create draft:

Put in place a task force including key multi-actors supporting the initiative and conduct off-sites workshops to elaborate a first draft of public policy;

3. Engage public:

Promote public participation across sub-counties to add inputs and insure community ownership;

4. Present Policy:

Get the Policy adopted by the Executive Committee and the County Assembly;

5. Implement Policy:

Implement the Policy through the Ministry of Agriculture as leading implementer.

C. Improving Policies and Governance: the development of a Biodiversity Conservation Policy to boost the demand for ALVs from public institutions

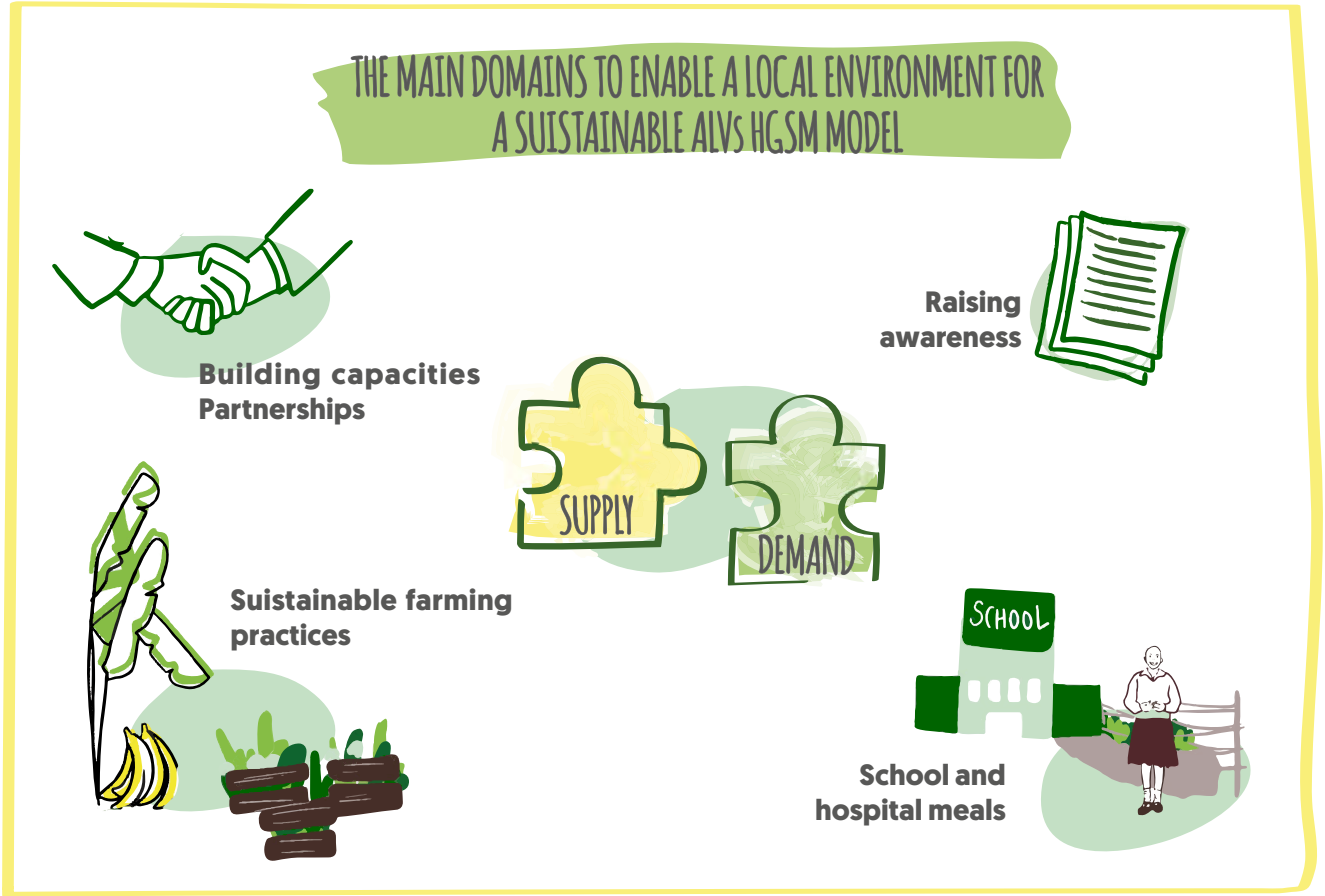
Once strong scientific evidence on ALVs has been demonstrated and key species identified for their nutritional values, a collaboration with the local authorities from Busia County was put in place to develop a public policy. The objective was to legitimate the results of the scientific research and boost the mainstreaming of ALVs in public food procurement. The collaborative process was spearheaded by KALRO, Policy Directorate (MOALF&I) & Kenya Intellectual Property Institute (KIPI).

For this purpose, BFN's partners's soft skills have been crucial: facilitation, negotiations, creating awareness and understanding of the social and economic contexts, dissemination of research results and capacity building.

In this regard, the BFN Initiative and the partners worked closely with policy stakeholders from Busia County in Western Kenya to develop a Biodiversity Conservation Policy that takes into account the importance of conserving nutrient-rich traditional foods such as cowpea leaves, amaranth, slender leaf and spiderplant to increase diet quality and access to key micronutrients, particularly for mothers and children.

The BFN's experience indicates that the buy-in and support from the local administration has been a key asset to make the model successful in Busia. But the knowledge generated during the pilot was a fundamental element that contributed to Busia becoming the first of Kenya's 47 counties to endorse a Biodiversity Conservation Policy. "Closely tied to the policy, the County Integrated Development Plan and budget for 2018-2022 acknowledges the use of school meals as a social protection mechanism and the need to promote the sustainable use of indigenous biodiversity for conservation purposes."

To conclude, the model developed under the BFN initiative can be summarized in the visual below:



3. Impacts and innovations

Overall, the interviews conducted in the fields in Busia, as well as the discussions with the project officers coupled with the reading of numerous reports, make it possible to affirm that the whole initiative created many positive multidimensional impacts.

Economic benefits

- The group of farmers who were trained to supply the schools gained capacities and confidence to access new markets;
- Schools saved money thanks to the development of specific value chains for the AVLs;
- Schools in some cases provided land to the farmers to grow the ALVs saving on transport costs.

Nutrition and Food security benefits

- Several thousand of students within the farm-to-school network in Busia received school meals with ALVs. Interview reports indicate healthier students.

Education

- The pilot raised awareness among the pupils about the importance of good nutrition and sustainable agricultural practices;
- Awareness about the ALVs reached the households through the children and festival markets.

Environment

- The use of ALVs in in agricultural production of Busia reinforced the resilience of the local agro-systems while enhancing crop diversification. The farming practices being promoted in Busia help prevent soil erosion and preserve soil moisture;
- The BFN's pilot led Busia to become the first of Kenya's 47 counties to endorse a Biodiversity Conservation Policy.

Social

- Community cohesion has been reinforced thanks to the project.

4. Lessons learned

A few interesting key lessons were learnt from this pilot and could be potentially replicated:

- Guidelines are crucial to encourage public institutions to adopt public food procurement mechanisms which facilitate and enable the involvement of smallholder farmers as food suppliers;
- Since ALVs are essentially a local crop, they should be promoted at the local level;
- Creating an enabling local environment through an integrated methodology of implementation is a critical aspect to optimizing the multiple benefits of HGSF programmes;

- Using the local biodiversity resources can be a good strategy to conserve them; documentation of existing ALVs and traditional knowledge regarding their use is a vital component of the effort;

- The buy-in and involvement of local authorities is an important aspect to promote engagement of public schools and to create trust amongst different actors around the HGSF initiative;

- A long-term engagement from different public and private actors is necessary to achieve successful results and enable the local environment to be proactively engaged in the Home-Grown school meals initiative;

- Thanks to this approach, students are more aware about the nutritional value of local food, and thus become a good entry point to mainstream healthy nutrition inside the households;

- Identifying HGSF as an entry point for ALVs represents an opportunity to stimulate community cohesion and can contribute to the territory development plan generating a positive vision of public institution involvement through public procurements.

KEY INNOVATIONS AND GOOD PRACTICES

- Introduction of nutritious ALVs in HGSF programme as a cost-effective strategy to improve nutrition and local biodiversity;
- Territorialization of local institution's procurements;
- Optimization of the HGSF's benefits by adopting a holistic implementation approach;
- Methodology based on multisectoral intervention;
- Application of the Farmer Business School model to the HGSF;
- Organizing smallholder farmers in groups and cooperatives to meet the requirements of school meals procurement mechanisms;
- Marketing of the nutrition ALVs through Festival markets, nutrition classes, etc
- Multi-actors intervention involving research centres, farmers, local authorities, public schools, etc.
- Raising nutrition awareness within the households through the children.

CASE STUDY 3

The case of Nyamninia Primary School, Siaya county, Kenya

Parental collaboration and partnerships on the sustainability of the homegrown school meals program and development of rural small scale farmers

1. Introduction and context

The National School Meals and Nutrition strategy 2017-2022 envisages that all children get a meal at school supported by government, implementing partners or the community.

One of the major challenges in the management and implementation of the school meals program is the limited funds. The government of Kenya through the HGSF funds 24 out of the 47 Counties and does not cover all schools. Only 1.6 million children out of the 12.8 million, as per the Basic Education Statistical Booklet 2019, are covered by the government HGSMP. This implies that the other 11.2 million have to be catered for by other implementing partners, parents and their communities. The USD 24 million budget by Kenya Government is still paltry in providing meals for all the children.

Nyamninia Primary school students are among the 11.2 million children who have not been included in the HGSMP. The Nyamninia Primary school is an example of community-led school meals initiative, in which partnerships amongst several actors have enhanced the capacity of the school and community to provide school meals for 16 years and counting.

Nyamninia Primary school is a public primary school located in Nyamninia village in Siaya County, one of the 4 Counties in Luo Nyanza Province. It's situated approximately 50 km from Kisumu, Kenya's third largest city along the Kisumu- Busia highway. It is the birthplace of the legendary Gem clan chief Odera Kang'o who started a rice plantation scheme in the

area about one hundred years ago. The Gem chief was responsible for the construction of the numerous schools in the region before his enforced exile in 1915, to Kampala, Uganda, by the British colonialists.

Nyamninia is occupied mainly by the Luo and the Kisa tribe, a Luhya sub-tribe. Most of the people are Christians and the majority of the inhabitants are peasant farmers cultivating maize, bananas, sweet potatoes, cassava and sugar cane as main cash crops. Nyamninia Primary school is one of the 53 primary schools in the sub-county with an enrolment of 729 students.

2. Trajectory of the case

"Once upon a recent past' as Mr. Stephen Oluoch, a member of the School Board of Management (BOM) and a retired Agriculture Extension officer, proudly said during the Learning Route, "Nyamninia was a poor rural school in a poor rural village that was poverty stricken with family earnings below a dollar". In the community, the average land holding is 0.8 acre, and the family size is of 4 to 6 children per household. Yields per acre were as low as 4 (90kg) bags for maize, the main staple food and as low as half a bag for beans. There was poor road network and no piped water nor electricity.

The school enrollment was low with many sickly children, high absenteeism rates and hunger.

In 1990, The World Agroforestry Centre (ICRAF) came into the village to ascertain the reason for low agricultural production and intervene to eradicate the high levels of poverty. Through research and soil testing, soil fertility was discovered to be the main cause of low yields compounded with poor farming methods. ICRAF embarked on a project to improve the soil and partnered with government to teach better farming techniques in order to improve the farm yields.

At the same time, there was the push for Millennium Sustainable goals by Jeffrey Sachs and partnership by ICRAF and the Colombia University led to the Sauri area where the school is situated being identified as one of the Millennium Village Project (MVP). The MVP worked with an inter-ministerial team from government to come up with an action plan implemented in phases.

In partnership with UNDP and World Bank, ICRAF worked with farmers supplying them with certified seed and other farm inputs and together with Ministry of Agriculture supervision, yields improved from 4 to 18 bags of maize per acre in the first year. This increased the family food supply and yielded income from the sale of surplus.

3. Impacts and innovations

The success of the project in the village and the surplus yields birthed the school meals program in 2004. Villagers encouraged by a bumper harvest came together and started contributing an agreed amount of cereals from their harvest to the schools around for a hot lunch. They started with 4 kg maize and 2 kg beans per parent each school term. This has since increased to 16 kg for maize and 6 kg for beans. It was their way of celebrating the bumper harvest. Parents continue to contribute in kind to the food bank and also practice the best farming methods and techniques learnt from the support with ICRAF. Amongst main results observed by school personnel:

- Students at school enjoying a hot meal every day;
- Low absenteeism of students at school;
- Reduced number of pupils seeking medical attention at the local health facility;
- Reduced time for the lunch break and more time spent with teachers for educational activities;
- Children eating at school give parents more time to attend to daily job activities.

With the success of the school meals program, and thanks to parental collaboration, the 4K clubs were established in Nyamninia in 2007.[11] Members of the club are involved in production of crops and livestock at the school garden. The extensive banana plantation, vertical sacks with kales along the class corridors, dairy cows and poultry in the school managed by the club is a testimony that the school has become a learning centre for the student members of the club. This practical knowledge acquired by students at school also has an impact on their potential future as youth agri-business entrepreneurs, and this is in fact the experience of some ex-students met during the Learning Route (see box 4 below). It's also an assurance that the school meals program is growing in leaps and bounds.

The success of the school meals program earned the school a place at the **International Food Fair in 2008**, and at the same time, the impact of the program led to the school producing the best student in the spelling competition.

Thanks to the success in the spelling competition, the school earned a 53 seater bus, the first for the school and sub-county. The good impact of the

[11] 4K clubs in Kenya, which replicate the 4H (a USA concept), work to develop in young people good citizenship, leadership, responsibility and life skills through experiential learning and positive youth development approach. The 4Hs (Head, Heart, Hands, Health) are complementary to Kenya's 4K (Kuungana Kufanya Kusaidia Kenya) which translates as: to unite, to work with one's hands, to help develop Kenya. 4K's guiding principle is to empower the youth with agricultural and life skills to contribute to better nutrition, health and higher standards of living, working through agriculture clubs in schools. 4K was formed in 1969 in Kenya after local leaders visited the United States and saw the 4H program in action. They adopted 4H concepts and principles, and customized them to 4K for ownership and identity. The 4K club motto is Kujifunza kwa Kufanya which translates to "to learn by doing" (Karanu MN and Oniang'o RK. 2017).

school meals program and the partnerships it has built continue to yield more benefits to this school.

In 2014, the Global Clover Network, a subsidiary of the National 4-H Council, made out a sub-grant to Rural Outreach Africa (ROP) for a collaborative effort with Nyamninia Primary School towards replicating the school's 4H/4K Club model to 50 schools in Siaya and neighbouring Kakamega County. Nyamninia school, thanks to its students, teachers, parents and all its local champions, is a very good example of how it's possible to generate virtuous circles and impacts at local level and beyond, such as: the establishment of sustainable partnerships, empowering processes of community members, improved food and nutrition security, improved family income, environmental protection, enhanced literacy levels in an equitable, sustainable and gender sensitive manner.

The synergy from partnerships has created a favourable environment and enhanced sustainability of the school meals program. The interaction between the school and the community directly through the parents and the backflow as the children practice what they learn in school creates a flow that is of value to build and worthy of replication.

NYAMNINIA PRIMARY ACTORS TO THE SUCCESS STORY

1980 -2001

World Agroforestry Center (ICRAF)

Improve agriculture production

2005-2015

Millenium Village Projects

Sustainable development through progress in public health, education, infrastructure, and agricultural productivity. Work on the 8 goals and lead in implementation of the action plan

Ministry of Education

Education Outcomes support

Ministry of Agriculture

Agriculture extension services, Field days and use school as demo, participation of school in ASK shows, organizing inter-school tours

Ministry of Health

Health screening & care and nutrition advice

Teachers

Supervision, training guidance, curriculum integration

Pupils

Drying & storage of the cereals, collection, 4K club activities and production

School Community/ Parents

Contribution of school meals commodities, firewood, labour, storage of grains, collection and records

2014

Rural Outreach Program (ROP)

Formation of functional 4K clubs

Box 4: The school at home: the success story of George Owala Omondi

The fact that projects carried out in school have been replicated by students, both current and past, is a source of pride for the school. George Owala Omondi is a proud alumni of the school; his father died leaving him the responsibility of taking care of his mother and the family land. He has turned the family land into an agri-business enterprise engaged in Bee keeping, dairy cows, poultry as well as growing multiple crops, thanks to the lessons he learned as a member of the school 4K club.

George says that learners from the school come to his farm to engage practically in the activities he carries out both during the weekend and during school holidays.

4. Lessons learned

Many valuable lessons were learnt from the Nyamninia case that are pertinent to up scaling school meals especially in rural contexts.

- Most of all, partnerships are important for school feeding to work well, and cooperation between parents and school is crucial for sustainability. With commitment of local actors, the community-led model of school meals can succeed either without any support from public institutions.

- The involvement of 4K clubs and parents participation allows for sustainability of the HGSF initiative facilitating mobilization at school, which is helpful to leverage on existing capacities and resources and improve social cohesion at community level.

- Use of traditional materials for the cooking stoves makes the cost of managing the program lower therefore making it cost effective and efficient.

- In the Nyamninia school experience, some constraints were observed: difficulties to maintain the safety of fresh food at school, difficulties to find a balance between class time and participation on gardening activities for students; dependency on rain-fed agriculture and the need to look into other irrigation technologies.

- Other constraints concern the need to expand the food basket with more nutritious food following the existing guidelines on nutritional requirements for each school meal. Moreover, there is the need to quantify contribution by the 4K clubs and maintain proper records in order to facilitate commercialization of their products and boost economic development at community level.

- The participation of the community with the support and input of various partners has contributed to the success and sustainability of the school meals program in Nyamninia throughout the 16 years of implementation.

- This Learning Route revealed that community participation is a key driver in sustainability of Home-Grown School Feeding programmes. With over 11 million school going children in Kenya not on the government sponsored HGSF, community sensitization and support combined with small farmer production enhancement, can yield faster results in attaining school meals programmes in many parts of the country.

©FAO/Prodesin

Selected Bibliography

Abhijit V. Banerjee, Esther Duflo. 2012. Repenser la pauvreté, Paris, éditions du Seuil, coll. « Les livres du nouveau monde » [online]. In: Open Editions Journal [online]. https://journals.openedition.org/travailemploi/6090

Aboah, Commandeur, Casey. 2016. Practicing inclusive food procurement from smallholder farmers. In SNV. [online]. https://snv.org/cms/sites/default/files/explore/download/snv_pg-hgsf_procurement_spreads_digital.pdf

Bioversity International & EIARD. 2003. African leafy vegetables come out of the shade. In: Bioversity International [online]. https://www.bioversityinternational.org/fileadmin/user_upload/research/research_portfolio/Marketing_diversity/African_leafy_vegetables_come_out_of_the_shade.pdf

Bioversity International. 2019. Analysing schools as platforms to improve Diets, Livelihoods, and the Environment in Kenya: A study Report. In: ACIAR [online]. https://aciar.gov.au/publication/technical-publications/analysing-schools-platforms-improve-diets-livelihoods-and-environment-four-countries

Biodiversity International. 2021. African leafy vegetables go back to school in Kenya. In Bioversity International. [online]. Roma https://www.bioversityinternational.org/ar2017/african-leafy-vegetables-go-back-to-school-in-kenya/

Borelli T. & Al. 2021. [forthcoming] Linking Farmers, African Leafy Vegetables and Schools to improve Diets and Nutrition in Busia County, Kenya.

FAO. 2018. Regional overview of national school food and nutrition programmes in Africa. Rome. In FAO [online]. http://www.fao.org/3/I8063EN/i8063en.PDF

FAO. 2019. School Food and Nutrition Framework. Rome. 36 pp. Licence: CC BY-NC-SA 3.0 IGO. In FAO [online]. http://www.fao.org/3/ca4091en/ca4091en.pdf

FAO. 2020. Sustainable Food Value Chains for Nutrition. FAO e-learning Academy. In FAO [online]. https://elearning.fao.org/course/view.php?id=566

FAO & WFP. 2018. Rome. Home-Grown School Feeding. Resource Framework. Technical document. In FAO [online]. http://www.fao.org/3/ca0957en/CA0957EN.pdf

FAO, IFAD, UNICEF, WFP and WHO. 2019. The State of Food Security and Nutrition in the World 2019. Safeguarding against economic slowdowns and downturns. Rome, FAO. In: WFP [online]. https://docs.wfp.org/api/documents/WFP-0000106760/download/?_ga=2.184848425.1012917447.1617184380-1896044627.1603384201

IFAD. 2016. Rural development report. Fostering inclusive rural transformation. Rome. In: IFAD [online]. https://www.ifad.org/en/web/knowledge/publication/asset/39240288

Karanu MN and Oniang'o RK. 2017. Impacting nutrition through schools: Rural Outreach Program (ROP) Africa 4H Program Profile. In: African journal of Food, Agriculture, Nutrition and Development, Volume 17. N. 3, July 2017. In: Bioline International [online]. http://www.bioline.org.br/pdf?nd17052

Kelly, S. and Swensson, L.F.J. 2017. Leveraging institutional food procurement for linking small farmers to markets: Findings from WFP's Purchase for Progress initiative and Brazil's food procurement programmes. FAO Agricultural Development Economics Technical Study 1. Rome. In: FAO [online]. http://www.fao.org/3/i7636e/i7636e.pdf

Ministry of Education, Ministry of Health, Ministry of Agriculture, Livestock and Fisheries. 2017. National School Meals and Nutrition Strategy, 2017-2022.Nairobi. In WFP [online]. https://docs.wfp.org/api/documents/WFP-0000070917/download/?_ga=2.6666418.1012917447.1617184380-1896044627.1603384201

Ministry of Education and Ministry of Health. 2018. Kenya

School Health Policy, second edition 2018. Nairobi. In: National Cancer Institute of Kenya. [online]. https://www.ncikenya.or.ke/documents/KENYA%20SCHOOL%20HEALTH%20POLICY%20BOOK%20_20_11_2018.pdf

Ministry of Education, Ministry of Health, Ministry of Water and Sanitation. 2018. Standards and Guidelines for WASH Infrastructure in Pre-Primary and Primary Schools in Kenya. UNICEF – Kenya. Nairobi.

Miranda A. 2018. Public food procurement from smallholder farmers: literature review and best practices. International Policy Centre for Inclusive Growth (IPC-IG).Working Paper No. 176, 2018. In: International Policy Centre for Inclusive Growth (IPC-IG) [online]. https://ipcig.org/pub/eng/WP176_Public_food_procurement_from_smallholder_farmers.pdf

Republic of Kenya. 2017. National Food and Nutrition Security Policy Implementation Framework 2017-2022. June 2017. Nairobi. In: FAO [online]. http://extwprlegs1.fao.org/docs/pdf/ken170761.pdf

SNV. 2016. Improving Procurement tools for smallholder farmer inclusion in Kenya. Nairobi. In: SNV [online]. https://snv.org/cms/sites/default/files/explore/download/improving_procurement_tools_for_smallholder_farmer_inclusion_in_kenya.pdf

SNV. 2019. Knowing the source of the food: Matching small- holder farmers to the school meals market in Kenya, Learning case n. 6 by Pamela Karg and David Makongo, February 2019. In: FAO [online]. http://www.fao.org/family-farming/detail/en/c/339930/

Swensson, L.F.J. 2015. Compras institucionales de alimentos de los pequeños productores. FAO. Rome. In: ResearchGate [online]. https://www.researchgate.net/profile/Luana-Swensson/publication/325904501_Compras_institucionales_de_alimentos_de_los_pequenos_productores_El_caso_del_Brasil/links/5b2bb7bb4585150d23bc30f5/Compras-institucionales-de-alimentos-de-los-pequenos-productores-El-caso-del-Brasil.pdf

Swensson, L.F.J. 2018. Aligning policy and legal frameworks for supporting smallholders farming through public food procurement. The case of Home-Grown School Feeding programmes, International Policy Centre for Inclusive Growth (IPC-IG) Working Paper No. 177.Working Paper No. 176. In: FAO [online]. http://www.fao.org/3/CA2060EN/ca2060en.pdf

Swensson, L.F.J. 2020. Aligning public procurement rules to support the implementation of Home-Grown School Feeding initiatives (HGSF): the case of Senegal. Rome. In: FAO [online]. http://www.fao.org/3/cb1204en/cb1204en.pdf

Taylor, J. E. 2019. Assessing the Impacts of School Feeding Programs with Special Reference to Kenya. University of California. Davis Agricultural & Resource Economics. Presentation at the Africa Day of School Feeding, United Nations World Food Programme Headquarters, Rome, 1 March 2019.

UN. Sustainable Development Goals. 2021. Zero Hunger. In: UN Sustainable Development Goals [online]. New York. https://www.un.org/sustainabledevelopment/hunger/

Wasike V. & al. 2018. Linking Farmers, Indigenous Vegetables and Schools to improve Diets and Nutrition in Busia County, Kenya, Third international conference, Agriculture and Food in an Urbanizing Society. 17-28 September 2018. Porto Alegre. Brazil

WFP. 2010. Impact Evaluation of WFP School Feeding Programmes in Kenya (1999-2008): A Mixed-Methods Approach. Rome. In: WFP [online]. https://documents.wfp.org/stellent/groups/public/documents/reports/wfp230095.pdf

WFP. 2020. Interim guidance note, Mitigating the effects of the COVID-19 pandemic on food and nutrition of school children. Rome. In: WFP [online]. https://www.wfp.org/publications/mitigating-effects-covid-19-pandemic-food-and-nutrition-schoolchildren

WFP. 2021. Zero Hunger. In: WFP [online]. Rome. https://www.wfp.org/zero-hunger

LIVE BROADCAST LEARNING ROUTE IN KENYA

CB3911EN/1/04.21