WORKING PAPER

School Meals Case Study: **Benin**

Prepared by the Research Consortium for School Health and Nutrition, an initiative of the School Meals Coalition

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Table of contents

Historical background

The first school canteen initiatives in Benin were launched between 1970 and 1975, almost a decade after signing a basic agreement with the Government of Benin in 1967 (OCS, 2013). Funded and managed by development aid agencies including the World Food Programme (WFP) and other international organizations, the school canteen programme became a key element of the Government of Benin's national policy and development strategy during the 2000s, through the involvement of the Ministry of Maternal and Primary Education (MEMP). Since then, over the years, school feeding has been identified in Benin as one of the priority measures aimed at correcting disparities (geographical, gender) in terms of access, retention and, above all, fight against hunger and poverty. Its aim is to help improve food security and human capital development (WFP, 2019). Various actors, including WFP and the government, have collaborated to achieve human development goals, benefiting nearly one million children by mid-2022, improving food security and helping families reduce their food expenditure (Figure 1).

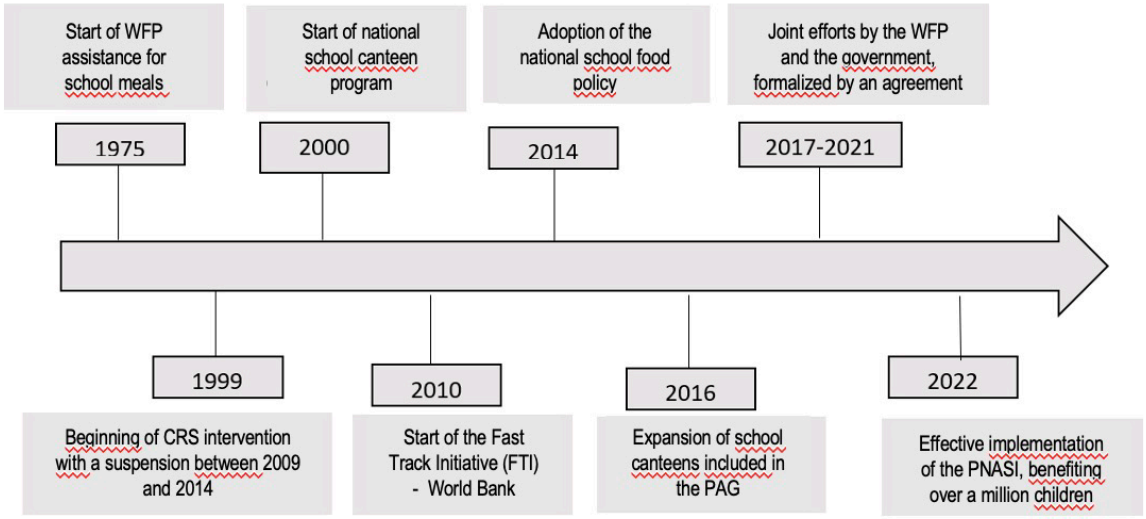

Figure 1. History of school feeding in Benin.

In 2008-2009, there were 1,250 school canteens in Benin, operating under a variety of modalities, depending on whether they were supported by the state, WFP, another international partner (UNICEF, DANIDA), a local NGO, or they were under the aegis of the community. Some operated all year round, others only during the lean season (OCS, 2013). In 2018, there were four school meal programmes in Benin, namely: the WFP Country Programme, the Integrated National School Feeding Programme (PNASI), the Global Partnership for Education (GPE) and the Catholic Relief Services (CRS) Programme (Table 1). Since 2022, all school canteens have been integrated into the PNASI and operate throughout the school year.

Table 1: Coverage of the school meals programme in Benin in 2018.

Canteen types	Number of communes	Number of schools	Number of beneficiaries
National Integrated School Feeding Programme (PNASI)	67	1579	320,000
World Food Programme (WFP)	19	620	114,000
Global Partnership for Education (GPE)	10	297	59,100
Catholic Relief Services (CRS)	04	144	44,200
Total	**77**	**2,640**	**537,300**

Source: WFP Benin, 2018

Country profile

Population and economics

Located on the Gulf of Guinea, the Republic of Benin is a French-speaking country in West Africa, bordering Togo, Burkina Faso, Niger and Nigeria.

Table 2: Demographic and economic indicators in Benin

Total population (INStaD, 2022)	**Total number of people aged 5 to 19**	**Total number of people employed in the agricultural sector** (World Bank, 2022)	**Gross domestic product (GDP) per capita (2021)** - (World Bank, 2021)
12,314,650	3,989,532	2,382,820	754,772

Education

Benin has a comprehensive legislative framework for the right to education. The country has ratified most of the international conventions and treaties on the subject and has clearly identified in its Constitution the right of every national citizen to access to quality education. Law n°2003-17 of November 11, 2003 on the Orientation of National Education in the Republic of Benin, then rectified by law n°2005-33 of October 6, 2005, translated the provisions of the Constitution into operational terms. Article 14 of the law states that education is subdivided into three levels: (i) nursery education (two years) and primary education (six years), culminating in an intermediate test and the Primary School Certificate; (ii) general secondary education and technical and vocational secondary education (seven years), culminating in the First Cycle School Certificate (*Brevet d'Études du Premier Cycle*), the Certificate of Professional Aptitudes and the Baccalaureat; (iii) higher education (Bachelor's-Master's-Doctorate system in a wide variety of fields, and administered by accredited public and private universities). There are also continuing education courses for in-service and active professionals.

In primary education, the gross enrolment rate fell between the school years 2014-2015 (124.8%) and 2019-2020 (107.8%). In the 2020-2021 school year, this rate had risen to 112.1%, with an enrolment of 1,780,750 schoolchildren (aged 5 to 16 and over). Retention rates are low, and academic performance remains limited. Indeed, in 2015, gross access to

the first grade of primary school (Cours d'Initiation, CI) was 141%, but the same indicator for the last grade of primary school (Cours Moyen de deuxième année, CM2) regressed to 74%. Although schoolchildren's daily attendance is irregular, they all receive a hot meal at midday, justifying the equality between the number of children eligible for free school meals and those benefiting from school meals.

Table 3: Data on school meal beneficiaries by gender.

Total number students (2021-2022)	Total number of schools benefiting	Student-to-classroom ratio (2021-2022)	Number of children benefiting from school meals		Percentage of children eligible for free school meals	
			Females	Males	Females	Males
1,780,750	5,351	47.4	541,258	623,015	46.49	53.51
			1,164,273		**100**	

Food security, nutrition and health

- **Food insecurity:** The Comprehensive Food Security, Nutrition and Food System analysis (CFSVA), carried out in 2022, revealed that food insecurity affected 26% of households in Benin (WFP, 2023). Out of a total population estimated at 11.5 million, 2,990,000 are food insecure, including 218,500 (1.9%) in a severe situation. Food insecurity has risen sharply in recent years, from 9.6% in 2017 to 26% in 2022 (WFP, 2023). Despite the fact that most of the studies carried out in this area since the start of the PNASI's implementation have not covered the entire national territory, children, including schoolchildren, are not spared from food insecurity.

In 2021, a study of nutritional status of schoolchildren aged 7 to 14 in the Agricultural Development Poles 2, 4, and 7 revealed that:

- 6.9% of schoolchildren were **underweight**,
- 9.7% suffered from **moderate stunting**,
- 1.5% were **overweight**
- 0.3% were **obese** (Amoussa Hounkpatin et al., 2022a).

This is the largest study carried out in terms of geographical coverage. Other studies have been carried out only in certain communes (Table 4).

- The 2021 study also measured **anemia** among schoolchildren by examining blood samples. The prevalence of anemia was 65.45%, with moderate anemia predominating. Household poverty level, nutritional status of schoolchildren, parents' occupation and area of residence are the factors significantly associated with onset of anemia (Adomahou et al., 2023; unpublished data).
- The **parasitic infestation** rate was 14.6%, with a predominance of *Entamoeba histolytica* cysts.
- Over half (54.6%) of schoolchildren were **vitamin A deficient**.

Table 4: Nutritional status of public elementary school children benefiting from the school meal programme in Benin.

Study	Regions/ Communes	Wasting	Stunting	Underweight	Overweight-Obesity
Allagbé (2022)	SOUTH/ Cotonou, Abomey-Calavi, Sèmè-Kpodji	15% (3%)	13% (3%)	13% (2%)	1.6%
Camille (2013)	SOUTH/ Cotonou	14% (3%)	7% (1%)	-	15% (7%)
Gnanmi (2020)	SOUTH/ Zè	-	36% (9%)	13% (3%)	

Values in brackets are percentages of severe forms.

Design and implementation of school meal programmes

Description

The government of Benin has been involved in school feeding since 2000, but it should be noted that a decisive turning point took place in 2017, which was marked by the signing of the Integrated National School Feeding Programme (PNASI). The PNASI was launched as a priority of the Benin Government Action Programme (*Programme d'Actions du Gouvernement*, PAG), after the interruption of the government canteen programme for two years. It was designed to reach 1,574 schools and 320,000 beneficiaries in 2017-2018, over a period of twelve school quarters. The inclusion of an additional 1,600 schools and 298,400 beneficiaries was planned from the start of the 2018 school year, expanding coverage to all of the country's departments and 77 communes.

Objectives

The PNASI is a nationwide programme that aims to strengthen school nutrition by developing a multi-sectoral approach and giving priority to local purchases to improve school performance, dietary diversity and pupils' nutrition in schools with canteens (WFP, 2021). More specifically, the PNASI aims to ensure the regular supply of school meals to pupils in public elementary school, to use the school as an entry point for converging support for education, agriculture and health (multi-sectoral approach), to invest in the development of the institutional framework and to improve the steering, coordination and monitoring of the national programme. The PNASI is implemented through:

- setting up and running canteens, including training cooks, canteen equipment and organizing health campaigns;
- mobilization and training of local partners and players at decentralized level for the local supply of canteens;
- strengthening local farmers for the supply of foodstuffs, structuring agricultural groups at local level, training in purchasing procedures and strengthening storage capacity;
- setting up and supporting canteen management committees;
- setting up frameworks for monitoring the PNASI;
- the use of monitoring and management tools;
- construction of water points in schools.

PNASI is entirely funded by the Government of Benin through funds from the World Bank. A first addendum introduces the possibility of in-kind donations, which are deducted from the government's financial allocations. WFP has been mandated by the government to implement the PNASI. The delegation of project management is formalized by an agreement between the government and WFP (July 20, 2017) and materialized by a *trust fund*. WFP in turn contracts with NGOs, which are operational partners.

Coverage

During the 2017-2018 school year, the PNASI was deployed across 2,199 schools, reaching a total of 425,231 schoolchildren, thereby achieving an estimated coverage rate of 31%. In 2020, when the PNASI had not yet been extended to the whole country, WFP provided daily nutritious meals to 660,654 schoolchildren in 3,849 elementary schools across the 77 communes of the country (Gonese, 2021). In 2021, 717,206 schoolchildren received a hot meal every day for an average of 175 days per school year (Amoussa Hounkpatin et al., 2022b). By the end of the 2021-2022 academic year, a total of 5,532 schools had been covered by the PNASI, bringing the total number of schoolchildren benefiting to 1,025,203 with a coverage rate of 75%. By 2022, the year marking the complete integration of all school canteens into the PNASI framework, the national programme had encompassed 5,351 schools across the country. As a result, 1,164,273 schoolchildren, including 541,258 girls, received a hot meal every day (WFP ACR, 2022). Beyond 2023, the programme is expected to achieve a 100% coverage rate. Within schools with canteens supported by the PNASI, girls' enrolment increased from 282,751 in 2019 to 326,793 in 2021, representing a 15.5% increment attributable to the programme's expanded reach.

Targeting

The PNASI primarily targets vulnerable groups such as primary and nursery school children. In addition to focusing on rural areas, the project uses vulnerability criteria such as food insecurity rates, poverty rates, malnutrition rates, enrolment rates and primary school dropout rates to prioritize the communes to be targeted, including a higher proportion of schools with canteens. For schools to be selected, they have to be located in a genuinely deprived area where there are difficulties with school enrolment and attendance and be at least 3 km from dwellings. In its formulation, the PNASI draws on previous experience and available data concerning the target group's schooling, food security, health and nutrition situation, as well as the existence of hygiene and sanitation infrastructures (WFP, 2022).

Meal types

The national programme provides every schoolchild with a hot meal at midday, every working day throughout school year. These meals are prepared and served in schools with canteens. Table 5 lists the meals served in some of Benin's communes.

Table 5: Meals served in school canteens in different communes of the country

Communes	*Number of schools*	*Food served*
Zè (Laleye and Amoussa Hounkpatin, 2020)	45	Abobo, Akassa + vegetable sauce, Akassa + tomato sauce, Atassi + fried accompaniment, Yellow pea Atassi + fried accompaniment, cowpea Zankpiti, Yellow pea Zankpiti, Pasta + vegetable sauce, Pasta + tomato sauce, Red dough + tomato sauce, Yellow peas, Fatty rice, Rice + tomato sauce, Creole rice
Parakou (Borothé, 2018)	10	Red Amiwo + tomato juice, Zankpiti with bleached palm oil fortified with vitamin A, Rice with fat, White rice + fried accompaniment, Watché (Atassi) + Bleached palm oil fortified with vitamin A, Red Amiwo, Maize Atassi + Bleached palm oil fortified with vitamin A, Cowpea + Bleached palm oil fortified with vitamin A, Watché (Atassi) + Bleached palm oil fortified with vitamin A + Gari, Akassa + tomato sauce, Akassa + peanut sauce with moringa leaves, White Amiwo, White rice + Tomato sauce
Cotonou, Abomey-Calavi, Sèmè-kpodji (Loko, 2022; Bodjrenou et al, 2023)	12	Akassa + Monyo (tomato juice), Atassi + fried accompaniment, Zankpiti, Cowpea + Oil + Gari, Pasta + Leafy vegetable sauce (Jute mallow, eggplant, etc.), Pasta + tomato sauce, Rice pasta + sauce (tomato and/or Jute mallow), Amiwo + Monyo (tomato juice), Yellow pea + Gari, Rice with fat, Rice + fried accompaniment, Rice + Tomato sauce, Creole rice
Zou (Mignawande and Fanou- Fogny, 2020)	14	Atassi + fried accompaniment with or without small smoked dried fish (Red dough (Amiwo) + fried accompaniment/chili + fretins/soy cheese White dough + Vegetable sauce (Jute mallow, cassava) White dough + tomato sauce + small smoked dried fish with or without Jute mallow White rice + Tomato sauce + Bean or yellow pea fritters White dough + Okra sauce Akassa + Yellow pea or bean fritters (Ata)+ Fried white rice + tomato sauce/fried accompaniment + small smoked dried fish Akassa + Tomato sauce Djongoli or Zankpiti with beans or yellow peas and palm oil Rice with fat + small smoked dried fish /soy cheese White rice + Beans/yellow peas + fried accompaniment
Couffo (Ayede and Fanou-Fogny, 2020)	14	Fatty rice, Rice + tomato sauce, Zankpitti (white cowpea + maize flour), Rice + yellow peas, Atassi + fried accompaniment, Fatty rice, Red dough, Fatty rice White cowpea + oil with chili

Nutritional norms

To fulfill approximately 40% of the recommended daily energy requirements for school-age children, the WFP has established minimum requirements for daily food rations, comprising 150 grams of cereals, 30 grams of pulses, 10 grams of vegetable oil, and 3 grams of iodized salt (WFP, 2022). These meals should provide to learners around 745 kcal of energy per day

and several micronutrients essential to their health and growth (Gonese, 2021). Menu design is based on a participatory approach involving both the community and the schoolchildren themselves. The meals served in school canteens are prepared using ingredients from the WFP food basket and community contributions (fruit, vegetables and animal proteins), and are based on the eating habits of each zone. Fortified foods from the WFP food basket include iodized salt and refined oil enriched with vitamin A.

Food procurement

As part of the PNASI, three food provision rounds are implemented annually to the schools Food can be purchased on local, regional or international markets. However, the aim is to stimulate the local economy by encouraging purchases from small-scale producers. Consequently, the WFP procures agricultural commodities, including maize, white cowpeas, and rice, from local sources, prioritizing sanitary and nutritional integrity. Suppliers, evaluated based on their storage and fiscal capabilities, are selected through open competitive bidding, thereby fostering procurement at competitive rates and stringent quality assurance. It is noteworthy that aspirations for local sourcing have increased substantially in recent years. In April 2022, the WFP convened a symposium, engaging diverse stakeholders, inclusive of producers' organizations, to deliberate upon the supply chain of school canteens sourced from local products. Furthermore, the same year witnessed the initiation of a procedure to formulate a proposed legislative act (draft of school feeding bill) on school feeding, stipulating a minimum quota of 75% for the procurement of local produce (the local level considered is nationwide). The remaining 25% of products come from other countries, such as Senegal for iodized salt. These purchases support the local economy and reduce environmental impact. The supply of food to the schools is also based on contributions from parents. Indeed, communities also contribute unplanned ingredients for school meals and participate in essential activities such as managing gardens and providing resources for canteens. Of attention is that this volume is neither planned nor monitored.

Legal framework and public policy evolution

The Government of Benin committed to make the PNASI a flagship programme. As part of the SDG 2 "Zero Hunger", school feeding is a measure included in the PAG to improve the food situation and fight hunger. Since the PAG 2016-2021, the government has affirmed its engagement to develop the education system by devoting a significant share of resources to it, and by including among priority projects of the MEMP, the project to extend school canteens to all schools in rural Benin (PECaSEZ), which prefigures the PNASI. The objectives of the PNASI are also aligned with those of WFP in Benin. The PNASI has been an integral part of the Country Strategic Plan (CSP) since 2019, of which it is the major component, representing 90% of the strategic objective 1 (WFP, 2022). Reaffirming its commitment, in April 2023 the government adopted a draft school feeding bill in the Republic of Benin, which provides a legal, institutional and regulatory framework to govern the school meal programme in Benin. The adoption of this bill aims to perpetuate the achievements of the programme, and defines, among other provisions, the roles and responsibilities of the parties, the food security pathway, the funding modalities and mechanism, the conditions of accountability and the standards of the infrastructure to be built. School feeding is included in the Education Sector Plan (ESP) 2018-2030, as a strategy ensuring that all children continue to receive a basic education. In addition, the PNASI is aligned with the vision and the three

strategic axes of the Strategic Plan for the Development of the Agricultural Sector (*Plan Stratégique de Développement du Secteur Agricole*, PSDSA) 2025: supplying canteens locally promotes and enhances Benin's agriculture by supporting the structuring of value-added chains (production, processing, normalization, standardization and labeling, consultation framework and marketing).

Costs of implementation

The average cost of the programme is $130.75 per child over a six-year period corresponding to the primary cycle, or $21.79 per year per child. Most of cost corresponds to the value of the food (WFP, 2019). The provision of this ration to children is equivalent to an indirect transfer of value to households, insofar as it relieves parents to finance these meals for children and thus frees up part of the family budget to be allocated to other expenditure items. This indirect transfer of value, which represents additional income for households, helps to increase their purchasing power and will therefore be used in line with the average distribution of household expenditure. The school meal programme is accompanied, on average, by a reduction in health expenditure of $1.32 for households and $1.26 for the country's health system (WFP, 2019).

Table 6: Total costs of programme implementation.

Parameters	**Values**
Number of children	435,216
Average cost of a meal	21.79 US$
Cost of raw materials	5,250,648 US$
Labour costs	4,233,330 US$
Daily subscription for schoolchildren	25 CFA
City budget per child per meal	-
Government budget per child and meal	21.79 US$
Number of teaching days per year in one academic year	165
Number of school meal days in one academic year	165

Source: WFP, Benin 2017.

The return on investment is estimated at 54%, with each dollar invested in Benin's school meal programme able to generate up to $5.20 in the country's economy (WFP, 2019). This value is mainly attributed to the programme's effect on school enrolment, gender equality and health.

Financing

The PNASI is financed by the Government of Benin, whose funds are allocated in tranches by the MEMP and then by the Ministry of Planning and Development, and by other additional funds mobilized from WFP's technical and financial partners (Table 7) (WFP, 2019). The Government's financial contribution to the PNASI at the programme's launch was of 27.2 billion FCFA (for the period 2017-2022) and reached 48.8 billion FCFA in November 2018 (WFP, 2023).

Table 7: Financing flows and amounts from various sources.

Donors	Coverage	Focus areas	Period and budget
Germany	200 schools	Capacity building in nutrition, health and hygiene; Installation of school gardens; Local food purchases from small producers	2019-2023 5 million euros
Swiss Cooperation	PNASI	Budget support	2017-2021 1.09 billion FCFA
CRS (USDA & CRS)	319 schools 80 schools	School meals; construction of infrastructures (stores, kitchens, water points, latrines); Capacity building in nutrition, health and hygiene; Installations of school gardens/fields; Local purchases from small producers	2017-2023: $21 million 2024-2026: $25 million 2024-2026: $1,960,000
EDUCO	PNASI	Construction of wells and water pumps; Support for installation of gardens: 13 schools	2019-2020
FIDA	PNASI	Access to water, equipment and inputs; Technical support for the installation of school gardens / community fields: 10 schools	2021-2022
CHOITHRAMS Foundation	40 schools	Infrastructure construction; Installations of school gardens; Capacity building of women's processing groups	2015-2021 & 2022-2025: US$ 750,000
Government	4,892 schools	School meals; Capacity building in nutrition, health and hygiene; Installations of school gardens; Local food purchases from small producers	PNASI I: 2017-2021: $50.211 million PNASI II: 2022-2026: 133.889 billion FCFA
Netherlands	400 schools	Capacity building in nutrition, health and hygiene; Installation of school gardens; Local food purchases from small producers	2019-2023: 10 million euros
World Vegetable Center	PNASI	Access to water, equipment and inputs; Technical support for installation of school gardens/community fields: 10 schools	2021-2022

Parents are required to contribute 25 FCFA per day per child. These contributions are used to purchase the proteins and ingredients needed to prepare the meals, which are essential to guarantee a balanced diet for schoolchildren. However, there are difficulties in collecting these contributions. Not all parents pay. Furthermore, participation tends to decline over time, meaning that contributions remain below expectations. Evaluations have not recorded any exclusion of pupils whose families do not pay the contribution (Gonese et al., 2023).

Monitoring and evaluation

To ensure evidence-based policies, a quarterly Monitoring and Evaluation System (MES) has been set up for food security and nutrition. This MES includes the creation of a database, the development of monitoring-evaluation tools, the organization of monitoring missions, the drafting of guides for school canteen management, as well as a sustainability strategy and a communication plan. In 2023, WFP carried out a systemic evaluation to improve educational outcomes, with a mid-term review of the Country Strategic Plan for mid-2025. A decentralized evaluation of the school meal programme was carried out in collaboration with the Government. The final evaluation of the PNASI examined the project's impact, effectiveness,

efficiency, coherence and sustainability. This evaluation included the participation of various stakeholders, including students, teachers, parents, and local authorities, to gather diverse perspectives. Commissioned by the MEMP and the WFP Office in Benin, it took place in 2022. Evaluations revealed that school meals are diversified, appreciated by children, and play a crucial role in school motivation.

Lessons learned and best practices

Socio-economic impact of sourcing local products: the move from 20% to 75% supports the local economy and reduces environmental impact. It empowers women financially and creates market opportunities for small farmers, increasing their production and incomes (impact confirmed by monitoring and evaluation studies).

Household and community contributions: household and community contributions to purchase of unplanned condiments for meals demonstrate the acceptance of the PNASI in the communities, ensuring the sustainability of the programme.

Nutritional recommendation: school meals should cover at least 30% of children's energy and micronutrient requirements (Bhatia, 2013). A study of 1,502 schoolchildren from 167 schools in six departments showed that they covered 30% of energy needs in 57% of schools. In contrast, coverage rates for three micronutrients of interest were found to be low in all schools compared with the 30% recommendation: 15.9% for iron, 17.7% for vitamin A and 12.8% for vitamin C (Tossou and Fanou-Fogny, 2022; Tossou et al., 2022).

Staff training: 40% of schools have staff trained in meals preparation (appropriate culinary procedures), hygiene (of meals, personal hygiene), and the health of kitchen staff in the Zou department (Mignanwande and Fanou-Fogny, 2020). The Atassi and Djongoli dishes prepared and served in Zè canteens are of acceptable nutritional and microbiological quality. However, enterobacteria have a higher load than the norm. Hygiene must be improved through systematic staff training.

Canteen infrastructure: in Zou department, 80.7% of schools have kitchens made of permanent or temporary materials (Mignanwande and Fanou-Fogny, 2020). The absence of a kitchen means that canteens are closed, exposing meals and children to bad weather and risks of contamination. A policy of setting up temporary or permanent kitchens with standards (roofing, low walls, economical fireplaces) would contribute to the sustainability of school meal programmes.

Access drinking water: in Zou department, the availability of drinking water nearby is noted in 75% of schools with canteens, encouraging better organization (Mignanwande and Fanou-Fogny, 2020). The absence of this resource in 25% of schools means that pupils cannot wash their hands. This sometimes results in the closure of canteens. Some schools ask pupils (by promotion) to bring 5-liter cans of water. However, the installation of a drinking water close to or within schools would be an advantage for the school, the canteen and the surrounding population.

Effects of the PNASI on education: considerable increase in school enrolment and retention, especially among girls (PAM, 2018; Alladatin, 2022). Canteens would have a positive effect on the performance of public school students (Alladatin, 2022).

Advantages of the centralized canteen management model: standardization of procedures and economies of scale, but limitations due to bureaucracy, administrative slowness and risk of favoring imported products (Inter-réseaux, 2023).

Challenges

- Integrate more local resources whose nutritional potential has been proven and tested by evidence-based research into the menus served in Benin's canteens. This could involve adding a micronutrient-rich beverage as a snack (served in the morning as breakfast), or fruit juices rich in vitamin C (a conclusive approach tested using isotopic techniques that proved a significant improvement in iron bioavailability). Indeed, the effect of adding baobab juice after consumption of *Atassi* and *Djongoli* dishes served in school canteens is quite spectacular, since it more than doubled iron bioavailability in schoolchildren (Amoussa Hounkpatin *et al*., 2024).
- Involving local food companies.
- Encourage the establishment of school gardens for educational purposes that can supply canteens with quality vegetabless.
- Promote polyculture and/or livestock farms within schools. These measures will enable the organized supply of qualitý products with well-known traceability to school canteen programmes.
- Involve producer organizations (POs) through win-win partnerships to stimulate and improve the share of local produce in school canteen meals. Opening up public markets to farmers and POs implies a certain level of professionalism. At the PO level, there are several challenges to accessing these markets, in particular regarding compliance with the specifications stipulated in the contracts, and the technical capacities of POs and family farmers to ensure the necessary production in terms of quality and quantity, as well as the collection, storage, processing and packaging of products. One major constraint is the financial capacity of POs to pre-finance the purchase of produce from farmers (either from their own working capital, or by taking out loans with financial institutions, which also require guarantees).
- Design and implement a policy of biofortification or enrichment of locally sourced food for canteens.
- Improve food storage and preservation through small and medium-scale processing and preservation methods and techniques that are financially accessible and easy to implement, to limit food losses at school level.
- Add nutrition education programmes for schoolchildren and other school stakeholders as strategies for improving school meal programmes.
- Create a reliable monitoring system that can be shared and used by the various stakeholders and delegate the task of monitoring and evaluating the PNASI to an independent programme partner.

Lastly, for the national school meal programme to achieve sustainability across institutional, social, economic, and environmental dimensions, it necessitates anchoring within an institutional framework that fosters enduring operation, reinforcing the State's sovereign responsibility in programme administration, facilitating a phased devolution to decentralized levels, progressively enhancing project-wide accountability through a comprehensive results framework encompassing all components, establishing an environment conducive to the implementation of the local procurement strategy, bolstering the multi-sectoral methodology and its nutritional impact, particularly via collaborative partnerships, refining endpoint quality assurance, and leveraging the PNASI as a catalyst for transformative change in gender equality and the advancement of women within Beninese socio-economic development.

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