THE IMPORTANCE OF FOOD FORTIFICATION IN THE FIGHT AGAINST HUNGER AND MALNUTRITION IN AFRICA
Malnutrition remains a major public health problem and an obstacle to the socio-economic development of the individual, the community, and the society. Its main forms are wasting (acute malnutrition), growth retardation, micronutrient deficiency (vitamins and minerals), overweight or obesity. The situation is particularly alarming in sub-Saharan Africa. Progress to date remains insufficient and no country is on track to meet the global nutrition goals by 2025.

According to the latest estimates from the 2019 African Development Bank (AfDB) report, Africa has 13.8 million wasted children, 9.7 million overweight and 58.7 million children under 5 years of age who are stunted, a major problem on the continent. This situation is likely to deteriorate further due to the devastating health and socio-economic consequences of the COVID-19 pandemic.

To address this situation, African countries have put in place policies and measures to promote the continued availability and access to safe, nutritious, and adequate amounts of food. Particular attention is paid to good dietary practices for the groups most vulnerable to malnutrition, in particular women and children. Among the proposed measures are diet-based strategies such as food diversification and fortification as well as nutrition education, as well as public health and food security measures.

Indeed, food fortification remains one of the most effective and cost-effective interventions to combat micronutrient deficiencies, with a significant impact on the development of human capital and on public health, particularly among pregnant women and young people. Children. Most of these interventions are sustainable, able to promote the well-being and health of populations, and which place more emphasis on improving the nutrition of young children, as indicated by Ms. Marie-Pierre Poirier, Director UNICEF Regional for West and Central Africa in the interview she gave us (page 5).

Widely recognized, supported, and practiced in many parts of the world, as well as in some African countries, food fortification has a long history. It is a process of selecting cultivated plant varieties with the aim of increasing their nutritional value (biofortification) or adding small amounts of micronutrients (vitamins, mineral nutrients, and amino acids) to staple foods in order to provide consumers with a sufficient amount of nutrients believed to improve their nutritional profile.

Good nutrition is not only a result, but it is also a fundamental investment in the development of human and therefore economic capital of a country in the long term. Nutrition is at the heart of the “Feed Africa” and “Improve the Quality of Life of the People of Africa” programs, which are among the five main priorities of the African Development Bank. For the Bank, eradicating hunger and ensuring the nutritional security of populations can only be done with political will and determination, as Mr. Akinwumi Adesina, President of the African Development Bank reminds us (page 11).

To date, 42 African countries have committed to strengthening their nutrition policies. Members of the SUN Movement, these countries have a national nutrition plan that brings together different sectors and stakeholders in an intergovernmental approach to tackle malnutrition. In addition, 39 of these member countries have mandatory food fortification legislation, a formula for saving millions of lives in Africa and around the world.

Enjoy your reading.

2 Fortification alimentaire : une stratégie pour prévenir et réduire les impacts du coronavirus en Haïti - SUN (scalingupnutrition.org)
The Regional Centre against Hunger and Malnutrition (CERFAM) is the result of a strategic partnership agreement between the government of Côte d'Ivoire and the World Food Program (WFP) to support African countries in elimination of hunger and malnutrition.

CERFAM is a platform for exchange, partnership, and cooperation, which allows countries to have access to the best available expertise to support them in their efforts to progress towards the implementation of the SDGs, in particular SDG 2.

CERFAM facilitates and mobilizes skills, promotes and implementation of good practices and sustainable solutions in the fight against hunger and malnutrition.

Its mission is carried out through innovative approaches and the networking of national, regional and international actors in order to produce tangible and lasting results.

Based on its 4 pillars of research, advocacy and communication, partnerships and technical assistance, CERFAM’s interventions take advantage of South-South Cooperation and capacity building to support national and regional priorities in the area of food security and nutrition.

Priority areas of action for CERFAM:

- Support to governments, institutions and partners in the formulation, planning, implementation and monitoring of food and nutrition security policies and interventions.
- Support for national school feeding programs based on local purchases in support of social safety nets and the development of the local economy.
- Strengthen the resilience of individuals, communities and local systems to cope with cyclical and recurring shocks.
- Prioritization of multisectoral and innovative nutrition strategies that are part of a sustainable food system.
- Optimization of the food value chain and support for the development of efficient and sustainable supply systems to benefit the incomes of small producers.
Why food fortification?

Food strengthening, also known as food fortification, is widely recognized as a preventive, effective, proven, and cost-effective public health strategy for ensuring optimal nutrition by reducing health costs in the long term. Currently, many countries in sub-Saharan Africa have adopted programs to fortify one or more foods for their populations.

Remarkable successes have been obtained in the case of the fortification of flour with various vitamins of group B and margarine with vitamin A. Côte d’Ivoire was one of the pioneer countries of fortification in West Africa with the fortification of salt, oil and wheat flour.

CERFAM invests in food fortification in Africa

In this context, the Government of Côte d’Ivoire and the United Nations World Food Programme (WFP) through CERFAM will organize a high-level consultation under the theme: “Food fortification: which dietary approach to reduce deficiencies in micronutrients in Africa?”. This event will be organized in close collaboration with African Union and West African Health Organization (WAHO) and will be held in Abidjan, in September 2021.

The consultation is fully in line with African Union’s Agenda 2063, the Malabo Declaration on Accelerated Growth and Transformation of Agriculture for Shared Prosperity and Better Living Conditions of the Africa Regional Nutrition Strategy 2015-2025 and the United Nations 2030 Agenda, in particular Sustainable Development Goal 2.

The consultation will be an opportunity to encourage discussions and the sharing of experiences and good practices between different countries and stakeholders involved in food fortification at global, regional, and national levels. Likewise, strong operational actions will be proposed to governments, development partners and other key actors to accompany and support the efforts of African countries for elimination of malnutrition in all its forms.

The consultation will bring together representatives of governments, regional and sub-regional organizations, the Network of African Parliamentarians, development partners, oversight and regulatory agencies, private sector, academia, and civil society organizations.

In its role as a catalyst and knowledge centre for good practices, CERFAM works with governments, technical and financial partners as well as other actors to guarantee access for all to adequate healthy, diversified, and nutritious food.
THE IMPORTANCE OF FOOD ENRICHMENT IN THE FIGHT AGAINST MALNUTRITION

1. WHAT CRITICAL MEASURES ARE REQUIRED TO COMBAT MALNUTRITION IN ALL ITS FORMS, PARTICULARLY, MICRONUTRIENT DEFICIENCIES IN AFRICA?

Every child has the right to nutrition. Today, the need for optimal nutrition has never been greater in West and Central Africa. While being home to 11 per cent of the world’s children, the region accounts for 20 per cent of the global burden of stunting. The absolute number of stunted children is on the rise, despite a decrease in the prevalence. It is time for renewed collective action on ending child malnutrition in all its forms. The path to nutritious diets, essential nutrition services and positive nutrition practices demands a shared purpose, with adequate investments from governments, the private sector, and communities. Addressing malnutrition, including micronutrient deficiencies, requires a holistic and multisectoral approach, with a focus on the prevention of malnutrition, and key measures to bridge immediate and long-term solutions, to create conditions that empower communities and improve their diets and resilience.

Nutrition has long been at the core of UNICEF’s work. The primary objective of our nutrition programmes is to prevent maternal and child malnutrition in all its forms across the life cycle. When efforts to prevent malnutrition fall short, our programmes aim to ensure early detection and treatment of children suffering from life-threatening malnutrition. To achieve this, UNICEF proposes a system-wide approach that strengthens the ability of key systems to deliver nutritious diets, and optimal nutrition services and practices. Food systems are at the centre of this approach, and more than ever with the lessons learnt from the COVID-19 pandemic and the opportunity offered by the upcoming Food Systems Summit and Nutrition for Growth Summit.

2. HOW IS UNICEF SUPPORTING THESE EFFORTS IN WEST AND CENTRAL AFRICA AND AT THE CONTINENTAL LEVEL? WHAT HAVE BEEN THE PROGRESS MADE TO DATE?

Today, thanks to our collective action, the proportion of children under 6 months exclusively breastfed has gradually increased in the region, from 23% around 2005 to

37.4% IN 2020

UNICEF Global Nutrition database, 2020

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3 https://www.unicef.org/wca/
6 “The food system comprises the policies, services and actors needed to ensure a population’s access to good diets – defined as diets that are nutritious, safe, affordable and sustainable”, UNICEF Nutrition Strategy 2020–2030.
Today, as a result of our collective action, the proportion of infants under six months exclusively breastfed has gradually increased in the region from 23% around 2005 to 37.4% in 2020. This remarkable achievement proves that positive change for nutrition is possible at scale. But more needs to be done so that the region is on track to achieve the Global Nutrition targets.

Supporting countries to improve the quality of children’s foods, food environments and practices is essential, as food systems bears a critical responsibility for the quality of children’s diets. As part of this effort, UNICEF, in collaboration with our partners, commits to maintain its long-standing support to mandatory and large-scale food fortification (LSFF) for salt, wheat flour, cooking oil and other largely consumed foods and to accelerate programme gains related to LSFF in the region, as one of the cheapest strategies towards improved intakes of essential nutrients. UNICEF is convinced that enhancing and sustaining national LSFF programmes should be part of other nutrition efforts to prevent and control micronutrient deficiencies. It will particularly contribute to good nutrition for the general population, including women, school-aged children, and adolescents. The UN decade of Action on Nutrition and upcoming global Summits are unique opportunities to renew our commitment for LSFF.

The United Nations Decade of Action on Nutrition and upcoming world summits are unique opportunities to renew our commitment to fortification at scale.
In addition to LSFF, tailored approaches are required to address the specific needs of the youngest who are less likely the meet their nutrient need through LSFF. While diets in the first two years of life have a lifelong impact on child survival and development, only one in five children aged six to 23 months are fed a minimum number of food groups, and only one in ten receive a minimum acceptable diet in the region. These alarming figures confirm that the unique needs of young children are not sufficiently considered in efforts to improve diets and the systems that shape them, including food systems. UNICEF calls for, and is committed to, support deliberate policies and integrated programmes to improve young children’s diets, including with a special attention to fortified complementary foods. Engaging with the private sector in a renewed public-private partnership will be essential to make locally-produced fortified complementary foods available and affordable in the region. This critical action may not only contribute to improving young children diets, but also serve as an innovative entry point for community-led integrated approaches, including nutrition-sensitive agricultural production, women empowerment and income generation activities as well as social protection services, with other nutrition-specific and sensitive nutrition interventions, hence shaping community-led and multisectoral systems for brighter futures. Nutrition-sensitive and child-centred food systems are more than ever critical if we want to efficiently improve young children’s diets - A must in the path to 2030.

COVID-19 triggered a socio-economic crisis of unprecedented proportions, threatening to reverse the hard-earned development gains of the past decades. Prior to the pandemic, an estimated 12.9 million cases of acute malnutrition were projected in 2020 in the region, including 4.1 million of severe acute malnutrition. These figures are expected to increase to 13.9 and 4.3 million respectively in 2021, due to the pandemic and deteriorating food security situation in the Sahel. The dramatic scale of the disruption to child-centred social services was illustrated by the sharp drop in bi-annual Vitamin A supplementation, falling to 43 million in 2020 from 66 million in 2019, as well as the 8 per cent drop in new admissions for severe acute malnutrition. In the midst of this, many opportunities have emerged – for governments and communities to adapt their strategies to be ‘COVID-proof’ and ensure continued access to essential nutrition services for children and women; for the public sector to reconfirm long-term investments for the realization of child rights; and for investors to accelerate the recovery efforts for families and economies alike. The COVID-19 pandemic should be a catalyst for progress with a focus on local and sustainable solutions so that no child is left behind.

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8 Base de données mondiale de l’UNICEF, 2020
9 Amélioration de l’alimentation du jeune enfant pendant la période d’alimentation complémentaire Guide de programmation New York: UNICEF, 2020. Un régime alimentaire diversifié comprend des repas composés d’aliments provenant d’une variété de groupes d’aliments chaque jour : (1) lait maternel; (2) grains, racines et tubercules; (3) légumineuses, noix et graines; (4) produits laitiers (lait, yaourt, fromage); (5) aliments carnés (viande, poisson, volaille et foie ou abats); (6) œufs; (7) fruits et légumes riches en vitamine A ; et (8) autres fruits et légumes. Pour atteindre la diversité alimentaire minimale, 5 des 8 groupes alimentaires sont nécessaires.
11 WCARO-Investment-Case-Overview-14Aug2020-Final.pdf & sub-saharan-africa-growing-crisis-world-opportunities
12 Analyse d’impact conjointe de l’insécurité alimentaire et du COVID-19 UNICEF-PAM
As we call for a stronger focus on improving young children’s diets, we worked, together with partners, on the implementation of two promising regional initiatives, namely the Stronger with Breastmilk Only and the 1st Foods Initiatives. Those initiatives, while at early stages of implementation, have a strong potential to contribute to the scaling-up of actions to protect, promote and support breastfeeding as well as improve young children’s diets. I strongly encourage the documentation and use of country and regional best practices and lessons learnt. We need to know what works or not. Knowledge generation, dissemination and use are critical to guide the implementation of cost-effective and context-specific approaches towards the scaling-up of essential nutrition interventions in the region and should be at the centre of our collective action.
The state of malnutrition and its main causes in Africa

Sadly, the burden of malnutrition in all its forms remains a big challenge. Micronutrient deficiencies affect 2 billion people and approximately 2 billion are overweight or obese. Estimates also show that in 2019, 144.0 million children under 5 years of age were stunted, 47.0 million wasted and 38 million were overweight.

In Africa, the prevalence of undernutrition as at the end of 2019 was 19.1 percent of the population – in other words, this is more than 250 million undernourished people representing an increase of nearly 18% since 2014. The COVID pandemic coupled with the desert locust outbreak in eastern Africa have inevitably made a bad situation worse.

The underlying causes for malnutrition in Africa are varied but include food insecurity, inadequate care or feeding practices, poor or unhealthy environment and sanitation services and a lack of access to health services resulting in infections and adverse effects on nutritional status. At the root of all this is poverty - low-income consumers are mostly reliant on cheap or affordable staple foods which are poor sources of micronutrients. Approximately 60% of consumers in Sub Saharan Africa cannot afford a healthy diet of nutrient rich fruits and vegetables and animal source foods.

GAIN’s work towards ending malnutrition in all its forms in Africa

GAIN’s work focuses on transforming food systems to improve consumption of nutritious and safe food for all people, especially the most vulnerable to malnutrition. This is achieved through various ways:

1. Improving the demand for safe and nutritious foods. For example, in Nigeria GAIN has been working to enhance dietary diversity through improvement in the consumption of eggs for children under 5 years using through approaches aimed at encouraging parents to purchase more eggs for consumption by their children.

2. Providing support focused on increasing the availability and affordability of safe, nutritious foods. For instance, 70% of foods consumed in Africa is delivered by SMEs. GAIN works with SMEs in countries such as Kenya, Tanzania and Mozambique by providing them with technical assistance to improve safety, quality and desirability of their foods.

3. Working towards strengthening the enabling environment for consumption of safe, nutritious foods. A good example is the support GAIN provides technical assistance towards development of food fortification standards and regulatory capacity building for food fortification programs across a variety of countries in Africa including Nigeria, Ethiopia, Kenya, Tanzania, Mozambique to name a few as well as regional economic communities such as the Southern African Development Community (SADC).
Food fortification interventions and its transformative impact on nutrition

Food fortification (addition of vitamin and minerals to staple foods and condiments) programmes have come a long way since the 1990s. Today, 88% of the global population has access to iodised salt, with over 140 countries implementing salt iodization programmes, 86 countries have mandatory legislation for fortification of at least one cereal grain (either maize, rice or wheat) and 29 have mandatory legislation for the fortification of edible oils. Salt iodization has been a great public health success with the number of iodine deficient countries decreasing from 113 in 1993 to 20 in 2020. It is also estimated that salt iodization has prevented over 750,000 cases of goitre over the last 30 years. However, progress still is needed to finish the job on salt iodization and improve on the other fortified food vehicles to contribute to prevention of other conditions such as nutritional anaemia where progress is lagging.

1. changing dietary patterns in consumption of foods call for a review of existing fortification standards or some foods currently not fortified such as rice in West Africa.

2. Second compliance to fortification standards and legislation is low in various contexts. Strengthening regulatory capacity and enforcement is critical to level the playing field.

3. strengthening an enabling environment for producers of fortified foods. For example, some countries in Africa charge tariffs of up to 30% on vitamin and mineral premix that is used for fortification. Governments need to be in the forefront in ensuring that fortified food producers are competitive.

4. countries need to invest in evaluations of their fortification programmes to review impact and adjust where necessary.

5. more investments are needed to scale up fortification programmes generally including regional cooperation such as harmonised standards were warranted to remove barriers and promote intra-regional trade.

The UN Food Systems Summit and the Tokyo Nutrition for Growth (N$G) summit towards the end of 2021 are two key events that present an opportunity for governments, civil society, donors, multilateral agencies and private sector to double down and make commitments towards addressing the unfinished agenda of food fortification.

Article from Penjani Mkambula, Global Program Lead for Food Fortification—The Global Alliance for Better Nutrition (GAIN)
That malnutrition limits human abilities, productivity and life expectancy. Malnourished women during pregnancy give birth to low-weight children who are malnourished, too. This can lead to stunting, which impairs brain development and diminishes reaching cognitive ability later on in life. Stunted children today will lead to stunted economies tomorrow. Investments in grey matter infrastructure – the collective brainpower of the African continent – will ensure a competent, healthy, nourished, and protected human capital base that drives inclusive growth.

Despite recent gains, the total number of stunted children in Africa rose from 50 million to 58 million between 2000-2018. The COVID-19 pandemic exacerbated this, with an 7% increase in extreme poverty in just a few months\(^1\). The pandemic created a major health and economic shock impacting people’s health, nutrition and livelihoods.

The Bank’s Multi-Sectoral Nutrition Action Plan aims to contribute to a 40% reduction in the number of stunted children in Africa by 2025 and guides the Bank Feed Africa Strategy’s nutrition dimension implementation.

While the Bank’s nutrition support focuses on the agriculture sector, we also leverage the Bank’s investments in water, sanitation and hygiene, as well as in health and social sectors, to design nutrition-smart projects. Through some 22 nutrition-smart projects, the Bank invested around $300 million in interventions that are contributing to improved nutrition outcomes.
There is a need for more nutrition investment at country and regional levels in Africa. Investment should consider external resources and domestic resources for better sustainability. There is a need for nutrition-smart interventions in other related sectors, such as family planning, water, sanitation, and hygiene; and early childhood care and development etc. Health sector nutrition interventions should ensure that the minimum package of nutrition interventions is fully integrated in the health system. Another aspect is the need to ensure efficiency and value-for-money programs, as part of the governance systems that will enable the support of reforms as well as laws toward improving the nutrition status of the most vulnerable.

Governments must unlock opportunities for the development of Public-Private Partnerships for nutrition at the country level, especially in supporting the delivery of safe and nutritious food.

The Bank is working to break the cycle of malnutrition in Africa by, for example, prioritizing investments that are nutrition-smart, especially in sectors that account for over 30% of government spending in Africa and serve as underlying drivers of nutrition - agriculture, education, health, social protection as well as water and sanitation.
As part of its **Feed Africa strategy**, the Bank has ongoing initiatives including:

- The Bank and African Union launched **African Leaders for Nutrition** initiative to rally high-level political engagement to advance nutrition in Africa - in partnership with the Bill & Melinda Gates Foundation, Big Win Philanthropy and the Global Panel for Agriculture and Food Systems for Nutrition.

- The African Leaders for Nutrition developed and launched a **Continental Nutrition Accountability Scorecard** to help drive political accountability on nutrition in Bank member countries. Scorecard indicators support tracking countries’ progress towards nutrition targets and has proven to support identification of gaps and evidence-based decisions to drive Africa’s nutrition agenda.

- Our **“Banking on Nutrition”** partnership with Aliko Dangote Foundation and Big Win Philanthropy, helps strengthen Bank capacity to realize the nutrition potential of future investments. Banking on Nutrition involves redesigning the Bank’s investments in areas such as agriculture, water, sanitation, hygiene, social protection, health and education to become “nutrition smart”. One example of the Bank’s nutrition-smart investments: the Program to Build Resilience to Food and Nutrition Security in the Sahel, a $36 million multinational program in 7 countries, with nutrition-related activities such as mother-to-mother support groups for the promotion of adequate infant and young child feeding practices.

- In 2018, the African Development Bank launched a **Multi-Sectoral Nutrition Action Plan 2018-2025** - set to catalyze nutrition-smart investments in health, agriculture, and social protection to support a 40% stunting reduction across the continent by 2025.

- Moreover, the Bank has developed a **Nutrition Marker System** to assist project managers and decision-makers to design, categorize and track nutrition-smart projects in view of their potential contribution to accelerating stunting reduction in Africa.

Through its **Technologies for African Agricultural Transformation**, or TAAT initiative, the Bank and its partners have helped to scale up bio-fortification, for example, with “high-iron” beans in Democratic Republic of Congo and the Central Africa Republic. Also, TAAT’s consortium released 120 bio-fortified crop varieties to farmers and today, more than 30 million people benefit from bio-fortified crops, resulting in a reduction in iron deficiency, night blindness and diarrheal diseases.

**+30 MILLION PEOPLE** currently benefit from the 120 varieties of bio-fortified crops set up by the African Development Bank and its partners.
We call world leaders and African leaders in particular to invest in nutrition and sustainable food systems that mitigate the impact of COVID-19 and other emerging viruses on food security and nutrition.

African leaders should ensure that COVID-19 response and recovery programs embed nutrition by ensuring that actions and economic stimulus packages developed to combat the pandemic include plans to secure healthy and nutritious foods available and affordable to all.

As we look towards the UN Nutrition for Growth Summit in Tokyo in December 2021, we must share understanding on the preparations, expectations, and opportunities that the Summit presents to our countries and to the role of African leaders. There is need for leadership in Africa in making nutrition commitments that will ensure Africa accelerates the achievement of its nutrition targets set in the SDGs. The Bank, through African Leaders for Nutrition, is working with partners to support the process in that regard.
Since 2004 food fortification has been on WFP’s agenda. WFP source and provide fortified foods, such as cereals, oils and salt, for its programmes and food distributions. To have a significant impact on micronutrient deficiencies, fortification must: 1) involve a number of actors and partners, from governments to nongovernmental organizations, advocacy groups and the private sector and 2) define most appropriate food vehicles: based on consumption at population level, industry consolidation level (etc.). It often concerns several food vehicles simultaneously to address a range of deficiencies and be able to address the gap. WFP play a facilitating role in countries, connecting and supporting governments and private sector actors to fortify staple foods locally, as well as advocating for fortification in national and international policy to improve nutrition outcomes.

Large scale food fortification can either be mandatory or voluntary. Fortified salt is mandatory in all West and Central Africa countries (except in Sierra Leone and Equatorial Guinea); wheat flour is mandatory in all ECOWAS countries in addition to Cameroon and Republic of Congo; whereas, cooking oil is mandatory only in some ECOWAS countries (Burkina Faso, Cameroon, Cote d’Ivoire, Ghana, Liberia, Mauritania, Nigeria, Senegal, Sierra Leone and Togo).

Rice fortification: A key area of focus for WFP

Until now, one staple has been largely neglected in global fortification efforts: rice. Rice is a staple for half the world’s population and can contribute up to 70 percent of daily energy intake, particularly in developing countries. Places where rice is an important contributor to the diet often happen to overlap with areas where micronutrient deficiencies are most common. Fortifying rice has great potential to help fight hidden hunger on a large scale. WFP currently distributes 300,000 metric tons of rice through its programmes, but only 2 percent of this is fortified. In fact, rice fortification is fast becoming a key area of WFP focus. And for the past years, WFP has been supporting government in West and Central Africa launching their national fortified rice programme.

How is WFP supporting rice fortification at country level?

The government of Cote d’Ivoire has clearly manifested their willingness to adopt mandatory rice fortification approach to tackle micronutrient deficiency in its population (mainly iron deficiency). Keeping this objective in mind, WFP provided technical and financial support to the government to conduct several analyses to determine the feasibility of rice fortification in the country. In 2018, a landscape analysis has been conducted followed by a technical feasibility assessment on rice mills structure in 2019 and a cost-benefit analysis in 2020 in partnership with Nutrition International.
As of today, WFP is working with government institutions as well as the private sector to pilot an acceptability study (both for imported rice and locally produced rice) based on norms and standards developed with the national agency for norms and regulation. WFP is also financing the recruitment of a consultant to develop the national rice fortification strategy.

In the Gambia, the rice fortification strategy is under development and a pilot will be initiated targeting mostly school-aged children through the home-grown school feeding programme. WFP supported a rice miller assessment at Central River Region (CRR) to identify the capacity of rice milling machines in different villages. One rice miller has been identified to cooperate with WFP to produce fortified rice in support of the home-grown food feeding programme.

In Senegal thanks to WFP contribution a landscape analysis was also conducted in 2018 followed by the development of a National Roadmap. As part of the Roll out of this Roadmap, an acceptability test is under finalization and a pilot programs will be initiated in school canteens in Matam and Kolda regions of the country in 2021-2022.

Finally, in Nigeria, in Cameroon, WFP is initiating dialogue with the government on rice fortification, completing landscape analysis and in Cameroon specifically, integrating fortified rice to school feeding programs.

Article written by Ms. Laouratou Dia, Nutrition Specialist, WFP Côte d’Ivoire, in collaboration with Ms. Clemence Maurin, regional manager of food fortification, WFP regional office for West and Central Africa.
The nutrition challenge in Tanzania

Malnutrition due to micronutrient deficiency is a major public health problem in Tanzania. The diet is mainly based on cereals (maize and sorghum), tubers (cassava) and legumes (beans), which have low levels of vitamins and minerals, and contribute significantly to infant and maternal mortality...

To combat the devastating consequences of malnutrition, the country has developed a national nutrition policy, including integrated programs to combat vitamin and mineral deficiencies and food fortification strategies.

However, up to 95 percent of the population, or more than 50 million people, do not benefit from these large-scale food fortification programs as they mainly source flour from small mills, resulting in a high rate of food fortification generalized undernutrition in the country.

Food fortification as a solution to end hunger

Faced with this problem, Sanku, a local company is positioning itself to take up the challenge of flour fortification in Tanzania. Sanku believes that small-scale food fortification is an important part of improving nutritional status and eliminating hunger. Sanku has developed a cell-connected feeder, which adds micronutrients to the foods most consumed by Tanzanians, thereby improving their health. Sanku provides fortification tools, training, and other support to small millers, enabling them to fortify their flour with essential micronutrients.

The company uses behavior change models to increase the use of fortified flour by millers and end consumers. “Thanks to Sanku’s doser for the micronutrient mixture and the ability to fortify, I am now able to offer a flour rich in essential vitamins and nutrients and to enter the market with a product with high added value that will contribute to improving the health of my clients and my income as well,” said Brown Munyogwa, a 32-year-old miller from Kankonko district in Tanzania.

Encouraging and internationally recognized results

Sanku is supported by the WFP food technology team at the Regional Office for Southern Africa, based in Johannesburg. The company has been recognized by Fast Company as one of Africa’s Ten Most Innovative Companies in 2019 and by Time Magazine as one of the 100 Best Inventions of 2019. To date:

• Sanku has already helped more than 380 millers fortify their flour, feeding more than two million people daily.
• With support from Cargill and WFP Innovation Accelerator, Sanku recruited 21 additional millers, located in nine districts in three regions of Tanzania.
• Sanku installed 24 feeders, produced 119,000 kilograms of enriched flour, and reached 18,000 additional people.

Thanks to Sanku’s selflessness, several small rural millers sell fortified flour at the same price as standard flour.
What are the prospects?

Tanzania’s goal is to continue to expand the use of fortified flour nationally, particularly in the Southern Highlands region, where the prevalence of chronic malnutrition remains very high, and beyond in Africa from the East, while increasing the supply capacity of the millers.

For the second phase, Sanku is studying the possibility of making its own bags of flour by purchasing a printer and a plate maker. In this way, Sanku will be able to produce bags at a lower cost, have more control over delivery times and, ultimately, prevent a miller from being left without tools to enrich his flour.

*Article retrieved from WFP Innovation [https://innovation.wfp.org/project/sanku](https://innovation.wfp.org/project/sanku)*

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Thank you very much to WFP and Sanku. Now, I am going to produce fortified flour which will help improve my customers’ health and my income as well.

Kabhateye, a miller in Tanzania
The nutritional situation in Côte d’Ivoire

In Côte d’Ivoire, acute malnutrition, and micronutrient deficiencies (vitamin A, iron, iodine, zinc, etc.) constitute, by their prevalence, a public health problem. According to the study carried out on the assessment of nutritional status in 2019 in the country, the national prevalence of global chronic malnutrition is 22.4 percent and the prevalence of global acute malnutrition at the national level among children of 6 to 59 months by 6.8 percent.

For several decades, Côte d’Ivoire has been working to reduce malnutrition by improving micronutrient deficiencies (iron, vitamin A and iodine deficiencies) in its territory. Côte d’Ivoire is thus one of the pioneer countries of food fortification in West Africa with, since 1994 the iodization of salt and since 2007, the adoption of two ministerial orders mandating the enrichment salt, wheat oil and flour.

The fortification of infant flour as a solution to fight against malnutrition

Since 2004, the company GLP / Aliments d’Afrique or “Les Précuits GLP”, very committed to the fight against hidden hunger, has been working to put in place the necessary strategies to meet the zero-hunger challenge in Côte d’Ivoire and in the region by 2025. “Les Précuits GLP” offers natural African foods, with long shelf life and quick cooking, including dehydrated products, millet flour, corn, rice for adults and children, precooked fonio, corn couscous, millet couscous and culinary seasonings. The company also trains women in the semi-mechanized manufacture of fortified infant flour MISOLA, according to a well-defined process, from cereals (millet, corn, rice, soybeans, peanuts) and according to the agricultural resources of the regions.

MISOLA flour is produced in processing units and sold through many distribution networks, such as markets, kiosks, supermarkets, humanitarian NGOs, pharmacies, etc. MISOLA flour has existed for 20 years and MISOLA units exist in several countries in the sub-region: Mali, Chad, Niger, Burkina Faso, Benin, Guinea, Senegal, where it has proven itself in the fight against malnutrition. In Côte d’Ivoire, there are 3 MISOLA Flour Production Units (in Man, Bouaké, and Korhogo), financed by the Ivorian government, the West African Development Bank (BOAD) and under the supervision of the National Coordinator of French regional project MISOLA Côte d’Ivoire.

Benefits of GLP MISOLA fortified infant flour

In addition to breast milk, the formula millet, soybeans, and peanuts are becoming a possible local solution to a national problem. MISOLA fortified infant flour therefore becomes a complete food of high protein-energy value designed to prevent and treat malnutrition and meet the nutritional needs of infants and young children. Among its main advantages:

- MISOLA infant flour, after enrichment and processing, gives an assimilable, digestible flour that meets the standards recommended by the World Health Organization (WHO).
- MISOLA combines cereals and legumes rich in oil to make a balanced food, provided in protein and fat.
• The addition of vitamins and minerals makes it possible to respond better to dietary deficiencies.

• The incorporation of amylase in MISOLA flour makes it possible to prepare porridge three times more energetic than usual porridge.

• The roasting of the ingredients allows a good preservation of the flour and gives it a pleasant taste.

• MISOLA flour has the advantage of being reproducible, independent of imports and used as a “standard recipe” in educational training.

MISOLA fortified infant flour is one of the best products sold in Africa by GPL, which meets hygienic standards to ensure optimal use in Côte d’Ivoire and the sub-region. In addition to reducing malnutrition in children, lactating women, pregnant women, the elderly and people on anti-retroviral treatment, MISOLA flour is also the well-indicated route for the creation of wealth within women and young people for their economic empowerment in Côte d’Ivoire and in the sub-region.

Article written by Mrs. Alimata Coulibaly, Director of LES PRECUITS GLP / Aliments d’Afrique and National Coordinator of the French regional project MISOLA Côte d’Ivoire.
Food fortification, a strategy to reduce malnutrition in Senegal

Micronutrient deficiencies remain a major public health problem in Senegal, with anemia rates of 71 percent in children 6 to 59 months and 54 percent in women of reproductive age. Thus, the fortification - or fortification of foods with micronutrients was retained as one of the measures to fight against micronutrient deficiencies and supported by official national policy documents, in particular the National Nutrition Development Policy (2015 - 2025) or the Sustainable Development Goals (SDGs) for 2030.

A regulation making fortification mandatory already applies to consumer foods such as soft wheat flour fortified with iron / folic acid, edible oil refined with vitamin A and salt with iodine. Senegal is also considered to be one of the pioneer countries in West Africa to implement strategies for fortifying foods with vitamins and minerals.

The choice of rice as, a vehicle for fortification in micronutrients, and therefore to fight against the deficiencies in essential micronutrients of the entire population and of vulnerable groups, is explained by its widespread daily consumption and in large quantities in Senegal. Rice is indeed the number one staple food in Senegal, with an average consumption of 198g / per capita / day.

WFP’s commitment alongside the Government in the food fortification strategy

WFP’s intervention in Senegal takes place at different levels:

- leading an inventory of rice fortification carried out in 2018, in partnership with Nutrition International (NI), to study the possibilities of introducing fortified rice in Senegal, as part of studies and assessments prior to the implementation of rice fortification in Senegal.

- support, with other partners, for the organization of a 2nd workshop during which a national roadmap has been developed and validated.

- the implementation of a pilot phase consisting in testing the technical feasibility of rice fortification in real conditions to draw lessons relating to the scaling up and sustainability of rice fortification in Senegal.

- support, with assistance from the WFP regional office for West and Central Africa based in Dakar, and WFP headquarters in Rome, at all stages of the process ranging from the provision of experts to the mobilization of resources for the implementation of this project.

- the provision of emergency food aid during the lean season as well as school meals for children in areas of food and nutrition insecurity.

- Support through awareness-raising and advocacy actions for the purchase and consumption of fortified foods by the communities and schools supported.

16 EDS Continue, 2017
17 FAO Food Balance Sheets, 2013
WFP plays a facilitating role and coordinated, at the request of stakeholders, the establishment of a select committee to monitor and validate the activities included in the national roadmap. Among the stakeholders: The National Council for the Development of Nutrition, the Senegalese Committee for the Fortification of Rice in Micronutrients, the various ministries concerned, the private rice sector, university and research institutions, civil society organizations, and development partners.

The 2019-2023 Country Strategic Plan of WFP in Senegal having been developed in line with the objectives of national policies, interventions will continue to be carried out in accordance with these national objectives and in continuous partnership with national actors.

The main challenges faced by the Government of Senegal and WFP’s response proposals

The challenges could be classified into three groups:

1. The availability of financial and technical resources to carry out all the necessary studies and evaluations; To this end, WFP has supported the carrying out of some studies, and continues to advocate for the mobilization of additional resources from other partners to fill the gaps.

2. The very nature of the rice sector in Senegal, characterized by the fragmentation of actors with a predominance of small village hullers under equipped and low capacity. To meet this challenge, WFP is already implementing capacity building activities for small producers; a focus will be on the rice sector, with the objective of strengthening the entire value chain in WFP’s intervention areas and boosting the local market to increase the incomes and capacities of small producers.

3. The lack of data on the additional cost of rice fortification in Senegal and the most effective scenario for its reduction. The pilot project to be carried out by WFP, in collaboration with the various stakeholders, will be essential to provide responses to this challenge.

Article written by Ms. Fatiha Terki, Director and Resident Representative of WFP in Senegal.

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THE EVENTS COMING FROM CERFAM

High-level consultation:

**THEME:**
“Food fortification: what dietary approach to reduce micronutrient deficiencies in Africa?”

**DATE:** September 2 - 3, 2021
**VENUE:** Abidjan, Côte d’Ivoire

Possibility to register and participate online. Links will follow.

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**Theme:** Promoting the transformation of food systems to accelerate African governments’ efforts to eliminate hunger and malnutrition during COVID-19 and beyond

**Date:** Tuesday, 6 July 2021
**Time:** 9:00-10:30 a.m. UTC

**To register:**
https://us02web.zoom.us/webinar/register/WN_jD1_106g3YmYIf-1cr8B0Qxg
“Food fortification - adding vitamins and minerals to commonly eaten foods - has been shown to be an effective strategy for reducing micronutrient deficiencies” (WFP).