State of School Feeding Worldwide 2020



World Food Programme

SAVING LIVES CHANGING LIVES



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Foreword

The COVID-19 pandemic has turned our world upside down in recent months, and the social and economic impacts of this global health crisis have been profound. Sadly, as is often the case, children are among those who have been hardest hit as the virus has swept around the globe.

An entire generation has had their education disrupted due to school closures: at the peak of the first wave, around 1.6 billion children and young people were locked out of the classroom. Even today, over 500 million have still not resumed their education.

This is a tragedy in itself. But millions of vulnerable children have also had their long-term health, development and well-being thrown into jeopardy because they have missed out on precious free school meals – the only nutritious food they get each day. Earlier in the year, 370 million children were not able to receive school meals. The virus is threatening to rob these children of their futures.

The World Food Programme is determined to ensure this does not happen. Over the past ten years, a number of studies have shown that school meals combat child hunger, support children's long-term well-being and help them to learn and thrive. This is especially true for girls: where there is a school meals programme running, girls stay in school longer, child marriage rates go down and teen pregnancies fall.

Meals at school are especially important for children living in conflict situations because they contribute to peace and social cohesion. The 2020 Nobel Peace Prize awarded to the United Nations World Food Programme is a recognition that ending hunger is a critical first step towards peace. It is also a critical step towards better education and learning. School feeding can become an essential safeguard by contributing to a sense of normalcy and educational continuation. Getting vulnerable children back to school, particularly for children living in emergency situations, requires programmes which help ease the severe financial pressure many families are facing due to the pandemic.



All the evidence shows that school meals programmes, along with other social protection initiatives, are one of the smartest long-term investments any government can make. So WFP's country teams are working with governments worldwide to reopen schools safely and to make sure the health, food and nutritional needs of the poorest children are being met.

The *State of School Feeding Worldwide 2020* is designed to support these efforts. It highlights how, over the past decade, countries have massively stepped up their financial and policy commitments to school feeding programmes, and how these efforts have translated into more children receiving meals in school than ever before.

But it also identifies the challenges which lie ahead. Even before the pandemic, WFP estimated that 73 million vulnerable children do not have access to the school meals they need to realize their potential. The report provides up-to-date data and a global policy outlook to inform and support governments, to enhance national strategies and programmes, and to promote global learning so vulnerable and hungry children have a chance to go to school.

WFP is fully committed to working with our partners to ensure that no child, regardless of where they live, goes to school hungry – or worse, doesn't go to school at all. After the turmoil of recent months, we must seize the opportunity to start building the better world we all want to see. It is time to work together, in partnership, to achieve it.

In Branley

David Beasley Executive Director World Food Programme

Key Messages

At the beginning of 2020, national school feeding programmes delivered school meals to more children than at any time in human history, making school feeding the most extensive social safety net in the world.

- One in every two schoolchildren, or 388 million children, receive school meals every day in at least 161 countries from all income levels.
- Between 2013 and 2020, the number of children receiving school meals grew by 9 percent globally and 36 percent in low-income countries.
- This growth reflects a widespread institutionalization of these programmes as part of government policies for national development: more than 90 percent of the cost of school feeding programmes now comes from domestic funds.
- There is increasing evidence that effective school feeding programmes improve both access to schools and learning, while cash transfers primarily affect access.
- Despite these unprecedented gains, the programmes remained least effective where they were needed most: 73 million of the most vulnerable children were still to be reached.

The COVID-19 pandemic brought an end to this decade of global growth in school feeding programmes and has sharpened global resolve to restore access to these vital safety nets as a priority.

- At the height of the crisis in April 2020, 199 countries had closed their schools and 370 million children were suddenly deprived of what for many was their main meal of the day.
- This loss highlighted the importance of school feeding as a social safety net which protected the well-being of the most vulnerable children and supported their future.
- The loss also highlighted the need to expand the concept of education to address the health and well-being of children, and to build back equitable, quality schoolbased health and nutrition services in every school for every schoolchild.

In a post-COVID-19 world, school feeding programmes are even more of a priority investment because they help countries to build back better: creating human capital; supporting national growth; and promoting economic development.

- Effective programmes help countries to support their children not only during the first 1,000 days of life, but also the next 7,000 days leading to adulthood. These 7,000 days are key to sustain early gains; provide opportunities for catch-up; and to address critical phases of vulnerability throughout childhood and adolescence.
- The programmes support the learner as well as the learning, helping build a healthy and educated population, while simultaneously laying the foundations for national growth and development and directly creating 1,668 new jobs for every 100,000 children fed.
- Efficient programmes yield returns of up to US\$9 for every US\$1 invested, creating value across multiple sectors, including: education, health and nutrition, social protection and local agriculture.

The World Food Programme has renewed its commitment to work with governments to ensure that all vulnerable children are supported, and has launched a new ten-year School Feeding Strategy to strengthen its global strategic role in school health and nutrition.

- WFP will support governments to reach the 73 million vulnerable children that need school health and nutrition support, including school feeding, in 60 priority countries.
- WFP will support the transition to nationally owned and funded programmes and, wherever needed, will enhance its direct support in fragile or low-income settings.
- WFP will work in partnership with a growing coalition of development agencies, donors, the private sector and civil society organizations to support governments in the scale up of school health and nutrition programmes.
- WFP will promote research on school health and nutrition as a global public good, helping countries to access better evidence for more cost-efficient programmes.

Focus areas for 2021 and 2022

- The most immediate priority is to help countries re-establish effective school feeding programmes. How can we accelerate global efforts to safely reopen the schools closed in response to the COVID-19 pandemic and at least return to the situation as it was at the beginning of 2020?
- Before the pandemic, school feeding programmes were least present where they were needed most. Can innovative approaches to financing bring new hope to the 73 million children who are most in need? Filling this gap will require new financial instruments such as social investment bonds and pooled investments across sectors, including in health, education and agriculture.
- The available data on school feeding focus on public-sector programmes in low and lower middle-income countries. What more might we learn from programmes managed by the BRICS countries, high-income countries and the private sector? Creating a robust global database of school feeding programmes would help provide a more informed understanding of the variety of programmes and would widen the scope of learning opportunities.
- School feeding programmes that are connected to the local purchase of food (commonly known as home-grown school feeding programmes) have proven their worth in middle-income countries. How can low-income countries scale up home-grown school feeding efforts as part of their national programmes? The largest school feeding programmes in the world all rely on locally sourced food, which helps create jobs, make markets more predictable and helps establish lifelong dietary preferences for locally available fresh foods. There is a need to help low-income countries scale-up home-grown school feeding efforts as key elements of their national programmes.
- School feeding programmes provide the world's most extensive safety net, and play a key role in the response to conflicts and emergencies. Can we further sustain and enhance the resilience of food systems through a new generation of school feeding programmes that are more cost-efficient and more environmentally-sensitive? The current programme designs address hunger and peacebuilding as part of the immediate response to conflict and emergency. To maintain resilience in the longer term, and to transition to sustainability, food systems need to evolve in response to local needs and context.

The 2020 Nobel Peace Prize awarded to the UN World Food Programme

The 2020 Nobel Peace Prize was awarded to the United Nations World Food Programme "for its contribution to bettering conditions for peace in conflict-affected areas and for acting as a driving force in efforts to prevent the use of hunger as a weapon of war and conflict" (Norwegian Nobel Committee, 2020).

The UN Security Council has also recognized the crucial role of food in addressing the needs of populations in conflicts and emergencies:

"The link between hunger and armed conflict is a vicious circle: war and conflict can cause food insecurity and hunger, just as hunger and food insecurity can cause latent conflicts to flare up and trigger the use of violence. We will never achieve the goal of zero hunger unless we also put an end to war and armed conflict... Providing assistance to increase food security not only prevents hunger but can also help to improve prospects for stability and peace." (UN Security Council Resolution 2417)

In 2019, 38 percent of the 17 million children supported by WFP school feeding programmes were in countries affected by conflict or crises (World Bank, 2020f):¹ 4.3 million of these children were supported as part of crisis response activities in WFP's Country Strategic Plans. WFP has provided support for school feeding in countries which have been among the most affected by war and instability: up to 971,000 children in Syria; 680,000 children in Yemen; and 460,000 children in South Sudan. WFP has also helped provide school feeding programmes to support the children of refugees from insecurity, including the school feeding programme in Bangladesh, which is assisting 405,000 children in refugee camps, mainly from the Rohingya community. As of 2019, WFP supported 1.7 million child refugees, internally displaced persons (IDPs) and returning migrants around the world, most under its crisis response portfolio.

As a tool for increasing access to education, school feeding in emergencies may contribute to the protection of children against these age-specific threats, such as forced and/or early marriage, and various forms of inappropriate child labour. Schools and other "safe spaces" can contribute positively to meeting child protection needs, and school feeding can provide an effective incentive for parents to send children to school and to support children in staying enrolled. (See Chapter 2, Section 2.5 School Feeding in Humanitarian Settings for more on this topic).

^{1.} Countries classified by the World Bank as high-intensity conflict, medium intensity conflict, and high institutional and social fragility.



Executive Summary

Executive Summary

This publication by the United Nations World Food Programme (WFP) provides an analysis of the State of School Feeding Worldwide in 2020. A report on the State of School Feeding Worldwide was first published by WFP in 2013 (WFP, 2013a). This 2020 version follows a similar format and uses the best available data sources to describe key aspects of coverage, implementation practices and costs of school-based health and nutrition programmes worldwide. In addition, the 2020 version seeks to analyse the direction and scale of change between 2013 and 2020, and to provide an update on advances in evidence and understanding of school feeding programmes.

Long planned for, the report is being published with an even greater sense of urgency as the outbreak of the COVID-19 pandemic in February 2020 dealt a blow that brought an end to a neardecade of global growth in school feeding programmes. At the height of the crisis in April 2020, 199 countries had closed their schools and around 370 million children were suddenly deprived of their daily school meal. This loss highlighted the importance of school feeding as a social safety net, protecting the well-being of children and supporting their future. The sudden social shock of the crisis, and the experience of trying to cope without national education systems, has sharpened global resolve to restore access to education and to build back better systems.

We need to learn from the COVID-19 crisis. The time is ripe to redefine "education", and to recognize that investing in schoolchildren is investing in the future. When schools closed, we realized that education is much more than textbooks and classrooms. The crisis has taught us that the education system is perhaps one of the most important pillars of our communities, and fundamental to how societies are structured: that schools support both learning and the learner. As the world responds to and recovers from the pandemic, it is time to expand the concept of education to address the health and well-being of children, and to build back equitable, quality school-based health and nutrition services in every school for every schoolchild.

Before the COVID-19 pandemic, national school feeding programmes delivered school meals to more children than at any time in human history, making school feeding the most extensive social safety net in the world.

Before, during and beyond the COVID-19 pandemic

At the beginning of 2020, school feeding programmes were delivered to more children in more countries than at any time in human history. Nearly half the world's schoolchildren, about 388 million, received a meal at school every day, and 90 percent of those meals were complemented by a package of interventions to improve health.

Comparison with 2013 data shows that this substantial growth reflected a rising trend in coverage throughout the previous decade, especially in low and lower middle-income countries. School feeding programmes have increasingly become part of the fabric of national institutional structures, with more than 80 percent of programmes being incorporated into national policies, becoming the world's most extensive social safety net. US\$41-43 billion is spent annually on these programmes, of which more than 90 percent comes from domestic funds. These investments not only create human capital to secure future national economic growth, but are also an important investment in local economies, opening markets for local farmers and creating 1,668 new jobs for every 100,000 children fed.

This publication provides an analysis of the state of school feeding programmes before the COVID-19 pandemic; it describes the damage caused by the pandemic; and presents what can be done to restore this remarkable global safety net – not only to get back to where the world was in January 2020, but to build back better.

Main findings

School feeding is the largest and most widespread social safety net in the world, benefitting 388 million children globally.

Data from 163 countries show that 99 percent of these countries deliver school feeding programmes. Globally, one in every two schoolchildren, or 388 million children, now receives a school meal, although there are wide disparities between countries. The expansion and institutionalization of these programmes was greatest in low-income countries, improving the sustainability of efforts.

Low-income countries have considerably strengthened their financial and policy efforts in relation to school feeding, leading to increased coverage.

The 2013 report highlighted that the coverage of school feeding was least where it was needed most. This was still true in 2020, but the gap was closing.

Between 2013 and 2020, low-income countries made great strides in policy and funding for school feeding. The proportion of countries that have a school feeding policy increased from 20 percent to 75 percent. Over the same period, low-income country governments have also increased their budgets: the share of domestic funding in overall spending for school feeding increased from 17 percent to 28 percent, reducing reliance on international donors.

Consequently, the number of children receiving school meals increased by 36 percent in lowincome countries, compared to a 9 percent increase globally. Despite huge population growth, the proportion of schoolchildren receiving meals in low-income countries increased from 13 percent to 20 percent over the same period. In middle and high-income countries, school feeding programmes are almost universally supported through domestic funds, with overall domestic investment exceeding 95 percent of total costs.

The world needs to prioritize safely reopening schools, including restoring access to school meals.

The negative effects of school closures could be lifelong. This is especially true for the most vulnerable children, who rely the most on school meals and for whom home schooling is least available. This not only has tragic consequences for the hopes and achievements of the individual, but also undermines a nation's human capital and helps perpetuate a vicious cycle of poverty and inequality. The protracted closure of schools creates greater risks for children relating to abuse and inappropriate employment. This is especially concerning for girls because long-term school dropout is linked with increased child labour and child marriage.

More than 70 countries have implemented coping and mitigation measures to deal with the effects of the COVID-19 pandemic, with mixed results. Countries and partners have sought to mitigate the most damaging effects: supporting education by e-learning, TV and radio; and by replacing school-based safety nets with community services, such as take-home rations and cash transfers. However, coping mechanisms can exacerbate inequities: less than 10 percent of households in Africa have access to e-learning; and cash or in-kind transfers to households may not equate with support to children, especially girls. WFP alternatives to school meals, such as take-home rations and cash-based transfers, have reached some 6.9 million children, or about 40 percent of the 17 million children who used to receive meals through WFP-supported programmes before COVID-19.

Countries are supporting "back to school" efforts to reverse the harm caused by school closures. School health and nutrition programmes, especially school feeding, are now recognized as playing a key role, acting as a strong incentive for parents to send their children back to school, and for children to stay in school.

Three recent developments may significantly affect school closure policy by the time this report is published: the mass roll-out of licensed vaccines; the emergence of variant virus strains some of which may be more transmissible among children; and the increasing evidence that the long term cost of lost education outweighs the health benefits of school closures.

The COVID-19 pandemic brought an end to a decade of global growth in school feeding programmes and has sharpened global resolve to restore access to these vital safety nets as a priority.

There is growing consensus on the need to support children throughout their development to adulthood. Investment in human capital is essential for individuals to achieve their full potential and contributes to national growth and economic development.

There has been a paradigm shift towards investing in children throughout the first 8,000 days of life (roughly until age 21). The window from conception to 2 years of age, known as the first 1,000 days, is critical to child health and development. A focus on this period is a well-established policy in many countries, but it is also important to support health and nutrition for the next 7,000 days to sustain the early gains; provide opportunities for catch-up; and to address phases of vulnerability, especially puberty, the growth spurt and brain development in adolescence. School health and nutrition programmes provide important means for governments to intervene cost-effectively in the next 7,000-day period.

School feeding during middle childhood and adolescence contributes to human capital, i.e. the sum of a population's health, skills, knowledge and experience. A well-nourished, healthy and educated population is the foundation for growth and economic development: in high-income countries some 70 percent of national wealth is due to the output of their population, but in many low-income countries this proportion is less than 40 percent. This inequity has lifelong consequences for society and the individual: poor societies develop and perform well below their capacity, and individuals fail to achieve their potential in life. Programmes that invest in the learner are key to creating human capital.

As nations increasingly experience budget shortfalls as a result of the damage caused by COVID-19, budgets for social programmes and education are likely to be reduced, affecting the futures of children all over the world. Countries need to recognize that these programmes are crucial investments in the human capital of the next generation, the generation that will bear the greatest burden of paying for the current response to the crisis.

As most national school feeding programmes are supported by domestic funds, better understanding of the underlying cost drivers could help more countries transition to self-reliance.

Globally, more than 90 percent of support to national school feeding programmes comes from domestic funds. As previously highlighted, in low-income countries, the proportion of domestic support has risen from 17 percent to 28 percent between 2013 and 2020, even as coverage has increased from 13 percent to 20 percent over the same period. Low-income countries with the least fiscal space and the greatest need for school feeding depend disproportionately on donor funding. Nevertheless, several low-income countries have transitioned to majority domestic funding. Understanding where external support is crucial and where transition is possible, will be central to future growth in sustainable school feeding.

The annual cost of a school feeding programme per child per year has changed little since 2013. The median cost of school feeding remains unchanged in 2020 at US\$57 per child per year. Data indicate a cost of US\$55 (up from US\$50 in 2013) in low-income countries and US\$41 (down from US\$46) in lower middle-income countries. Trend data between 2013 and 2020 support the interpretation that there is a basic minimum price to be paid to provide a meal for a child.

The relative cost of school feeding is greatest for those countries which invest least in education and which have the lowest Gross Domestic Product (GDP). Poor countries that need school feeding the most will struggle most to meet the costs; as countries increase their GDP, they are increasingly able to become self-reliant and meet the costs from domestic funds. These observations support WFP's new strategic direction, which focuses external resources for programmes on the poorest countries and enhances technical support to countries transitioning to domestic funding.

School feeding is a cost-effective intervention, which yields high returns on investment in education, health, social protection and local economies.

Increasingly rigorous trials show both economic and non-economic benefits of school feeding programmes. Pre-2015 studies show improvements in children's education, as well as their physical and psychosocial health, with most benefits accruing to more disadvantaged children. Recent studies find effects on learning, maths and literacy scores, with larger effects for girls, and for children below the national poverty line. A recent meta-analysis in Sub-Saharan Africa, by the French Development Agency and the World Bank, ranked school feeding third at boosting learning outcomes, only exceeded by pedagogy-focused interventions, and out-performing the construction of new schools and education support interventions such as scholarships and cash transfers. There is increasing evidence that effective school feeding programmes improve both access to schools and learning, while cash transfers primarily affect access.

Benefit-cost analysis studies also show that school feeding programmes yield returns on education, health and nutrition, social protection and local agriculture. The return on investment can be as high as US\$9 for every US\$1 invested in implementing school feeding programmes.

In light of recent data on the costs and benefits of school feeding, more technical assistance is needed to support governments further improve cost-efficiency and maximize the impacts of their school feeding programmes.

Global coalitions of partners have formed over the past two decades to support better coordination and capacity strengthening. These platforms have supported governments to accelerate policy, funding and operational change.

Governments have increasingly engaged with other stakeholders, such as donors, International Financial Institutions (IFIs), international agencies and Non-Governmental Organizations (NGOs) at the regional and international levels to coordinate on technical and policy matters. Most regions now have a school feeding thematic network, bringing together policymakers and practitioners. Agencies such as WFP are fostering international cooperation among governments (e.g. South-South Cooperation) and promoting the adoption of sustainable and high-quality programmes.

The Focusing Resources for Effective School Health (FRESH) Framework emerged in 2000 as an effort by multiple agencies to develop a consensus on how to promote the health and nutrition of the learner as part of overall investment in learning. The school health and nutrition agenda was revitalized in 2019 when UNESCO re-convened an inter-agency group on School Health and Nutrition with the objective of strengthening global collaboration and promoting a more effective multi-agency school health and nutrition approach. This has led to new initiatives, such as the partnership launched in 2020 between WFP and UNICEF to help ensure that children receive a school-based package of essential health and nutrition services.

Historically, civil society networks have played a strong role, especially the Global Child Nutrition Forum (GCNF) and the Partnership for Child Development. New initiatives are also being established by the Russian Federation, working with the other BRICS countries (Brazil, Russia, India, China and South Africa) and by Germany; while knowledge networks are emerging at the regional level, especially in Latin America and South Asia. The African Union (AU) is a key partner in supporting the scale up of nationally owned school feeding programmes throughout the continent of Africa.

WFP is strengthening its strategic role in school health and nutrition globally.

WFP has continued to work with countries and other development partners at a global level on school health. There is evidence, especially since the *State of School Feeding Worldwide 2013* report, that WFP's strategic role has contributed to key changes in policy in low-income countries, which have helped strengthen and accelerate government-led efforts.

Through a new strategy, *A Chance for Every Schoolchild*, launched in early 2020, WFP is taking deliberate steps to strengthen its role as a partner and to act as a catalyst for policy change. A global needs analysis determined that 73 million vulnerable children need school feeding in 60 priority countries, with a focus in Africa.

WFP will enhance its support to governments to help address national goals and challenges, and in countries' transition to self-reliance. WFP will help find solutions by working with others and by convening partners, leveraging its six decades of experience in supporting school feeding. Based on current in-country capacity, WFP technical and policy support to national programmes could potentially influence the quality of life of some 155 million schoolchildren in 74 countries.

The new strategy also calls for more research and knowledge sharing to improve the quality of programmes. WFP aims to stimulate more research on the health and well-being of schoolchildren, including creating evidence-based intervention designs which are more gender-sensitive and responsive to climate change challenges. The *State of School Feeding Worldwide* series is part of this plan to enhance access to knowledge, and to track roll-out of the strategy.

School feeding programmes play a key role in resilience to conflicts and emergencies. In the long term, they may contribute to minimizing the impacts of climate change through environmentally sensitive food systems.

School health and nutrition programmes are recommended by the Global Panel on Agriculture and Food Systems for Nutrition. Home-grown school feeding programmes, whereby food is purchased from local farmers, are also particularly responsive to climate change as they shorten food chains and minimize food waste, the largest single preventable cause of carbon emissions. Gender-sensitive programmes enhance girls' enrolment in education; help keep girls in schools at vulnerable ages; and improve the diets of adolescent girls. There is growing evidence that even in conflict settings, school feeding programmes can enhance enrolment and reduce inappropriate labour, especially for girls.

WFP was awarded the 2020 Nobel Peace Prize in part because of the role of its school feeding programmes in supporting national resilience to conflict and emergencies. WFP envisions a future where environmentally sensitive school feeding programmes, which engage effectively with agriculture and the environment, make a major contribution to creating more resilient, new-generation approaches to public food and education systems.

WFP/Rein Skullerud/DPR Korea

Main conclusions

We identify five future priority actions for school feeding, starting with a key role in helping to safely reopen schools following the COVID-19 pandemic, and then focusing on new ways to improve the quality and cost-effectiveness of national school feeding programmes.

- 1. The most immediate priority is to help countries re-establish effective school feeding **programmes.** How can we accelerate global efforts to safely reopen the schools closed in response to the COVID-19 pandemic?
- 2. Before the pandemic, school feeding programmes were least present where they were needed most. Can innovative approaches to financing bring new hope to the 73 million children who are most in need?
- **3.** The available data on school feeding focus on public-sector programmes in low and lower middle-income countries. What more might we learn from programmes managed by the BRICS and high-income countries, and the private sector?
- **4.** Home-grown school feeding programmes have proven their worth in middle-income countries. How can low-income countries, which have the most to gain from this approach, scale up home-grown school feeding efforts as part of their national programmes?
- 5. School feeding programmes provide the world's most extensive safety net and play a key role in the response to conflicts and emergencies. Can we further sustain and enhance the resilience of food systems through a new generation of school feeding programmes that are more cost-efficient and more environmentally-sensitive?

State of School Feeding Worldwide 2020

This publication is part of a new series of regular reports by WFP, announced in the new 2020 strategy, *A Chance for Every Schoolchild*, to help ensure that an up-to-date knowledge base is available on school feeding. The publication's findings are presented in five chapters:

- 1. The scale, coverage and trends of school feeding programmes in 2020
- 2. Policy outlook and priorities
- 3. Costs and benefits of school feeding
- 4. Partnerships for school feeding
- 5. WFP's global and strategic role in school health and nutrition.

This edition also contains a special report on what we know about the impacts of COVID-19 on school feeding.



Introduction

WFP/Mike Bloem/Colombia

This is the official publication of the United Nations World Food Programme (WFP) on the state of school feeding worldwide in 2020.

The report is published at a unique moment in the history of school feeding. In January 2020, school meals were delivered to more children in more countries than at any time in history. The arrival of the COVID-19 pandemic caused the world's largest educational crisis, affecting 1.6 billion children, as nearly all the world's schools closed by May 2020. As countries reopen schools and welcome hungry children back into the classroom, free school meals have emerged as a key incentive for children to go to school, and for their parents to send them.

The State of School *Feeding Worldwide 2020* describes the global status of programmes at the start of 2020, and how this has been affected by the school closures. The publication also highlights the struggle to provide education and vital services, including food, in the absence of a school system, and the dawning realization of the special contribution that school feeding programmes can make to children's health, well-being and future prospects. Finally, the publication explores how governments and development agencies are using school feeding programmes as a catalyst to help build back a better world.

The United Nations World Food Programme

WFP is the world's leading humanitarian organization, delivering food assistance in emergencies and working with communities to improve nutrition and build resilience. WFP purchases and delivers food to those most in need. It provided more than US\$2 billion in cash transfers to vulnerable people in 2019. WFP raised a record-breaking US\$8 billion in voluntary contributions in 2019 and has more than 17,000 staff worldwide, of whom over 90 percent are based in the countries where the agency provides assistance.

The Nobel Peace Prize 2020 was awarded to WFP "for its contribution to bettering conditions for peace in conflict-affected areas and for acting as a driving force in efforts to prevent the use of hunger as a weapon of war and conflict" (Norwegian Nobel Committee, 2020). School feeding programmes are part of the WFP response: in 2019, 38 percent of the 17 million children supported by WFP school feeding programmes were in countries affected by conflict or crises. This response included providing school meals for children in Syria, Yemen and South Sudan, and to children in refugee camps in Bangladesh, mainly from the Rohingya community.

In addition to its humanitarian role, WFP has the United Nations (UN) mandate to support development efforts through programmes such as school feeding. For over 50 years, WFP has helped more than 100 countries to establish nationally owned and sustainable school-based programmes. In all cases, WFP aims to work in partnership with UN agencies and a large network of NGOs. WFP's annual budget for school feeding is US\$740 million.

Alongside its logistical and operational roles, WFP has committed to strengthen its technical and scientific contributions to the design and monitoring of school feeding programmes. The new WFP strategy for school feeding, launched in January 2020, emphasizes the importance of increasing WFP's contribution to global public goods around school feeding, especially by providing meaningful, up-to-date information on current practice and evidence. WFP recognizes that the majority of school feeding programmes worldwide are led and funded by national governments, and that supporting governments is a key role. WFP believes that making such technical and policy support available to national governments can positively influence the quality of life of schoolchildren, while at the same time assisting countries towards self-reliance.

Reporting on the state of school feeding worldwide

An essential, and currently missing, tool to assist public understanding of school feeding procedures and practices is an up-to-date report on the status of national school feeding programmes. In 2013, WFP broke new ground in this area with publication of the State of School Feeding Worldwide.

This 2020 edition builds on that earlier experience. With the launch of this publication, WFP is committing to a series of regular reports, which aims to provide a continuing overview of school feeding programmes everywhere in the world, focusing on national programmes implemented by governments. Each report will be published following a similar format to the 2013 publication, using the best available data sources to describe the scale and coverage of programmes. This time series of reports will, for the first time, allow the tracking of trends in practice and policy. In addition, the series will aim to provide a succinct summary of the costs, outcomes and partnerships associated with school feeding programmes. Although intended to provide greater transparency, this is not primarily a report on WFP activities, but an overview of the work of all actors worldwide in support of school feeding programmes.

A brief history of schools and food

School feeding has a rich history; even the earliest schools would have had to consider how children might be fed during the school day. Modern thinking on school-based health and nutrition goes beyond that simple concept and recognizes school meals as programmes with specific broader benefits for children and their communities. In the early 1900s, programmes such as those launched by the United Kingdom government, gave a greater focus to social protection, targeting schools in the poorest communities. By the 1940s, this approach was often combined with a vision of school feeding as a stimulus for agricultural production, as occurred in the United States of America (United States). School feeding is increasingly viewed as a human right: India has led the way in declaring meals at school a legal obligation of those providing education; Brazil and Mexico have incorporated school feeding into social safety nets and community development; and Nelson Mandela's first 100 days of planning in South Africa viewed school meals for the poor as key to catch-up on lost opportunities and to invest in the next generation.

In 2009, the World Bank (WB) and WFP, in collaboration with the Partnership for Child Development (PCD), published an analysis called *Rethinking School Feeding* (Bundy et al., 2009). The analysis was sparked by the food, fuel and financial crises of 2008, during which governments recognized that school feeding programmes offered multiple benefits to the most vulnerable: in-kind income support to families; learning and access to education; and maintaining health and well-being. As a result, governments increasingly viewed school feeding as an attractive, long-term social protection investment, as well as a short-term safety net. There were calls for greater rigour in the analysis of policy issues (Alderman and Bundy, 2012) and of the scale and quality of evaluations and trial design (Kristjansson et al., 2007). It became clear that governments invest in school feeding not because it delivers on one goal, but because it delivers on many.

The origins of this publication

Over the last decade, there has been a sustained improvement in the quality and quantity of school feeding programmes delivered by governments and development partners, and a concomitant increase in the quantity and quality of research. The analysis of the *State of School Feeding Worldwide* (WFP, 2013a) was a key part of this renaissance of interest, as was the *School Feeding Sourcebook's* in-depth analysis of national programmes in 14 countries (Drake et al., 2016). PCD, with support from the Bill and Melinda Gates Foundation, among others, has supported new randomized trials of school feeding, which have become seminal to the understanding of programmes in stable situations, in Ghana (Gelli et al., 2020) and Uganda (Adelman et al., 2019), and in emergency situations, in Mali (Aurino et al., 2018a). In 2017, the third edition of the World Bank's *Disease Control Priorities* (Jamison et al., 2005-2018) included a detailed analysis of the benefits and costs of school health and nutrition programmes and further clarified the case for school-based health and nutrition programmes as an investment in human capital.

This evolution has been mirrored in WFP's approach to school feeding. WFP adopted its first Global School Feeding Policy in 2009, recognizing that school feeding is essential to household food security and serves as an effective safety net for vulnerable households. This policy was updated in 2013 to further leverage school feeding as a multisectoral intervention benefitting education, health and nutrition, social protection and local agriculture, with a particular focus on technical assistance to governments and the strengthening of government-led, national school feeding programmes. In 2020, WFP adopted a new School Feeding Strategy, signalling a renewed commitment to lead global efforts in the area of school feeding. This publication is part of a concerted effort to strengthen the knowledge and evidence base on this topic.



The structure of this publication

This publication is comprised of five chapters covering the following topics:

- Chapter 1: School feeding programmes in 2020: scale, coverage and trends provides an update on the numbers of children receiving school feeding around the world, coverage and funding, with new analytics on sources of funding, employment, policies and programmes.
- **Chapter 2: Policy outlook and priorities** provides an overview of key policy evolutions and trends since 2013, highlighting how school feeding is increasingly being provided as part of integrated school health and nutrition packages.
- Chapter 3: The costs and benefits of school feeding is a summary of the latest evidence on school feeding programmes and includes an updated global cost benchmark, a review of academic evidence and a benefit–cost analysis.
- **Chapter 4: Partnerships for school feeding** presents information on the global, regional and national-level partnerships and coalitions working to deliver school feeding programmes around the globe.
- Chapter 5: The global and strategic role of WFP in school health and nutrition takes stock of WFP's renewed commitment in the area of school feeding and its new strategy for the coming decade.

In addition, this publication contains a special report on COVID-19 inserted between chapters 1 and 2. This special report examines the unprecedented global crisis caused by the pandemic, its consequences for the education and health of schoolchildren, and the mitigation measures adopted by governments. It also describes the many current efforts being made to learn from the crisis, to safely reopen schools and to build back an education system that is better adapted to protect the health, nutrition and well-being of children and learners.

With the 2020 Nobel Peace Prize awarded to WFP, a box in the key messages, and a section in chapter 2, reflect on how school feeding contributes to bettering conditions for peace and resilience.

In addition to the data and analyses, this publication also contains 16 new case studies from around the world, as well as 22 boxes on sectoral and thematic issues. The vast majority of these were drafted outside of WFP by technical experts and policymakers with first-hand knowledge of their topics. These contributions are a rich and diverse source of new perspectives beyond the global data presented in this publication, providing access to more immediate insights into the experiences, challenges and lessons learned by countries and partners. The boxes and case studies provide insights into:

- government programmes in high, middle and low-income countries, illustrating the diversity of experience and practice;
- external points of view and partner policies on specific areas of interest that intersect with school feeding and school health and nutrition; and
- lessons learned about specific innovative experiences, especially from the South-South approach of the Centre of Excellence in Brazil and from the experiences of non-state actors.

The case studies are located between chapters, while the boxes are featured in the chapters that are most relevant to the topic throughout the report.

Terminology

Terminology presents special challenges when writing about school-based programmes. All the programmes discussed in this publication are delivered through school systems and include interventions that promote health, nutrition or both outcomes simultaneously. Historically, school-based programmes led by the health sector have been called "School Health and Nutrition Programmes", while programmes that provide food in schools are "School Feeding Programmes", frequently managed by sectors other than health, especially education, social protection and welfare.

Today's school health and nutrition programmes typically include school meal components, and school feeding programmes typically include health interventions: in the sample of countries examined in this publication (see Chapter 1) 93 percent of national school feeding programmes provided complementary health and nutrition interventions.

This publication preferentially uses the term school feeding because it is the most widely accepted terminology in this area. However, school feeding is increasingly being provided in an integrated manner with school health and nutrition interventions. As such, future editions of the *State of School Feeding Worldwide* are likely to echo this broader adoption of school health and nutrition in its terminology.

WFP welcomes feedback on this publication. Correspondences can be addressed to wfp.publications@wfp.org or to the World Food Programme, Via C.G. Viola, 68-70, 00148 Rome, Italy.





CHAPTER 1 School feeding programmes in 2020: scale, coverage and trends

This chapter, together with Annexes III and IV at the end of this publication, provides an overview of the current status of school feeding programmes worldwide. The reporting and analysis methodology are based on previous experiences in this area, especially the ground-breaking analysis presented in the *State of School Feeding Worldwide 2013* (WFP, 2013a), and are intended to provide up-to-date, global estimates of key metrics such as the number of children receiving school meals; the coverage of national programmes; and the scale of government investment.

The numbers presented here are the best available data on the scale, coverage and relevance of school feeding programmes worldwide. These numbers provide a snapshot of the current situation and can also be used to explore historical trends. This chapter compares the 2020 results with data from similar results published in 2013.

The vast majority of school feeding programmes around the world are operated by national governments. This chapter explores how governments have stepped up their policy and financial commitments to school feeding, and how these commitments have translated into larger and more qualitative school feeding programmes for children.

The analyses presented in this chapter were almost complete when, in February 2020, the COVID-19 pandemic was declared, and 196 countries closed their schools and suspended school feeding programmes. This chapter describes the status of school feeding programmes before the COVID-19 global crisis. The special report on COVID-19 included in this edition outlines the immediate impact of this global crisis on the health and nutrition of schoolchildren. Future editions will examine the full consequences of this crisis.

The 2020 analyses indicate that 388 million children now benefit from school feeding worldwide, an increase from 353 million in 2013.² The increase is especially notable for low and lower middle-income countries, where the number of children receiving school meals increased by 36 percent and 86 percent respectively. The analysis of trends in policies suggests that school feeding has been increasingly institutionalized over the past eight years, particularly in low-income countries.

Despite this increase in the number of children receiving school meals, the coverage of school feeding programmes – the proportion of children enrolled in schools that receive school meals – has remained largely stable since 2013 due to the parallel growth in the school-age population over the same period. Globally, one in every two schoolchildren now receives a school meal, although there are wide disparities between and within countries. Overall, coverage of school feeding programmes remains lowest in countries where the need is greatest. However, there are encouraging signs that in low-income countries the growth of school feeding programmes is beginning to outpace the growth of the school population, resulting in a significant increase from 13 percent coverage in 2013 to 20 percent in 2020. In middle-income countries, coverage has decreased marginally even though there has been significant growth in the number of school feeding programmes, reflecting the momentum of population growth.

^{2.} Updated 2013 estimates. Please refer to Annex III for more details.

Annual global investments in school feeding are estimated to be between US\$41 billion and US\$43 billion. Programmes in low-income countries have become much more self-reliant, with the share of domestic funding increasing from 17 percent to 28 percent between 2013 and 2020. Programmes in middle and high-income countries are almost universally supported through domestic funds. This may reflect a growing recognition of the returns of these programmes in terms of human capital, social safety nets and local economies (see also Chapter 3). New data show that school feeding programmes led to the creation of 3.1 million direct jobs in 48 countries, or 1,668 jobs for every 100,000 beneficiary children.

The returns on investment may also explain why governments continue to strengthen their commitment to the quality of programmes: 80 percent have now adopted a school feeding policy, compared to 42 percent in 2013. Increasingly, school feeding is delivered as part of an integrated school health and nutrition package: fewer than 7 percent of governments implement school feeding alone; 61 percent combine school feeding with a package of more than four additional health and nutrition interventions; while 29 percent deliver a package integrating more than seven to ten interventions.

Reliable data are essential to understanding and optimizing programmes and are particularly valuable when monitoring and tracking progress over time. For this reason, WFP plans to work with partners to repeat this analysis in two years' time, and thereafter to conduct surveys and publish the results on a regular basis. From that long-term perspective, this publication represents the baseline for regular global monitoring and evaluation of school feeding programmes.

The data presented here will also provide the baseline for tracking roll-out of WFP's tenyear School Feeding Strategy (see Chapter 5 for further details of the strategy). The strategy specifically calls for a strong evaluation and monitoring component to "demonstrate results and measure success", as well as "a periodic flagship publication to consolidate data and report back on the state of school feeding worldwide" (WFP, 2020a).

One in every two schoolchildren, or 388 million children, receive school meals every day



Between 2013 and 2020, the number of children receiving school meals grew by 9 percent globally



Key findings at the global level

1 IN EVERY 2 primary schoolchildren in the world receives school meals



93%

of governments implement school feeding in conjunction with complementary health and nutrition interventions

💉 🖪 💿 👬 🛞 🧺 ጽ 🖓 Ç 🍎 🧠 🌢 Institutionalization of school feeding programmes 4 in 5 countries now have a school feeding policy



Over 90 percent of the cost of school feeding programmes comes from **domestic funds**



1.1 Number of children receiving school meals

Global estimates suggest that there are at least 388 million pre-primary, primary and secondary schoolchildren receiving school feeding in 161 countries, based on a sample of 163 countries (Map 1.1).

1.1.1 Data sources

Currently, there is no established global mechanism to collect and curate quality data on school feeding programmes. In its 2020 School Feeding Strategy, WFP has committed to develop a global database to track school feeding, which is intended to form the basis of future editions of the *State of School Feeding Worldwide*. For the present analysis, data were obtained from publicly accessible, official sources (see Figure 1.1), including the World Bank, the African Union, WFP and the 2019 Global Child Nutrition Forum (GCNF) Global Survey of School Meal Programs, funded by the United States Department of Agriculture (USDA).

Where there were multiple sources of data for an individual country, the most recent update was used (see Annex III). In eight countries (representing 5 percent of the total sample), no more recent data were available than that reported in 2013.

Figure 1.1 Breakdown of countries by data source (n=163)

Legend: This chapter showcases data from 163 countries. The data source for one third of countries is the USDA-funded GCNF Global Survey. For the remainder, the data sources are reports published by WFP, the World Bank, the African Union and other sources. Countries with reported data account for nearly 80 percent of the data set.

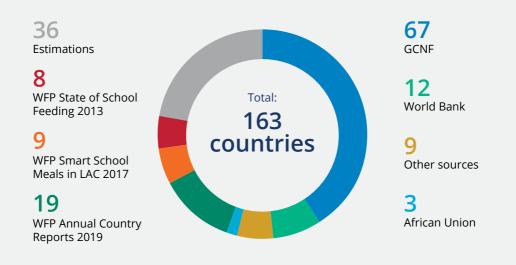
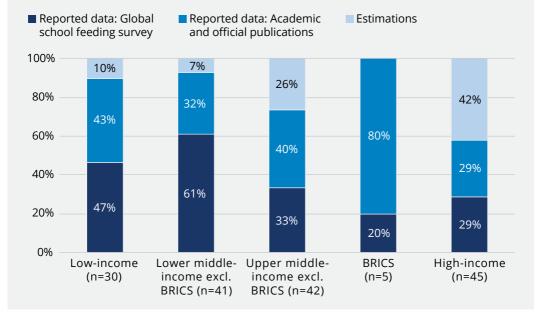


Figure 1.2 Breakdown of sample by source and income level (n=163)

Legend: Reported data account for over 90 percent of low-income and lower middleincome countries in the sample and 100 percent of the BRICS countries. Most of the countries for which estimations were required are found in the high-income category, and in a lower proportion, upper middle-income countries.

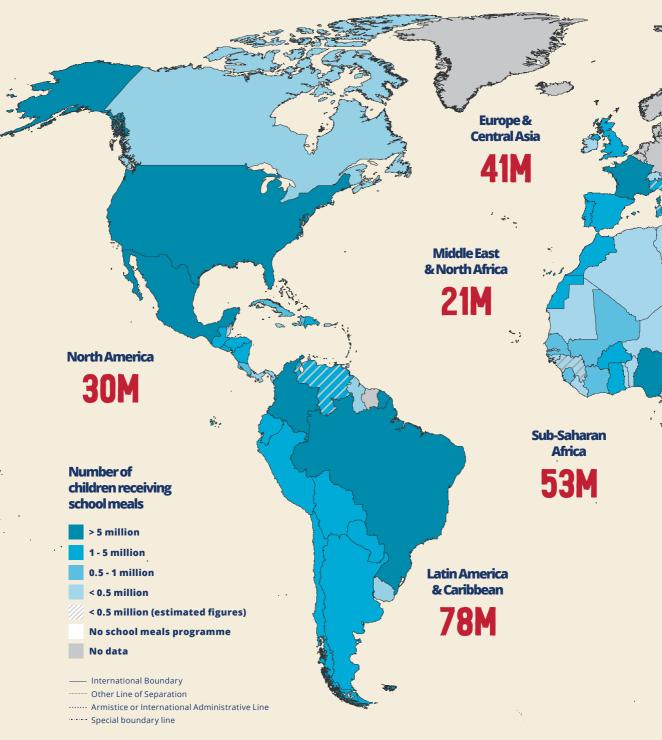


The 2020 analysis is based on a sample of 163 countries, up from 154 countries in 2013. Reported data were available from 127 countries (up from 105 in 2013), representing 364 million children or 94 percent of the total sample. In the 2020 sample, there is less reliance on estimated data: the number of countries for which estimation procedures had to be used fell from 49 countries in 2013 to 36 countries in 2020, representing 24 million children or 6 percent of the total sample. Estimations used the same methods developed for the *State of School Feeding Worldwide 2013* (WFP, 2013a) and are described in Annex III.

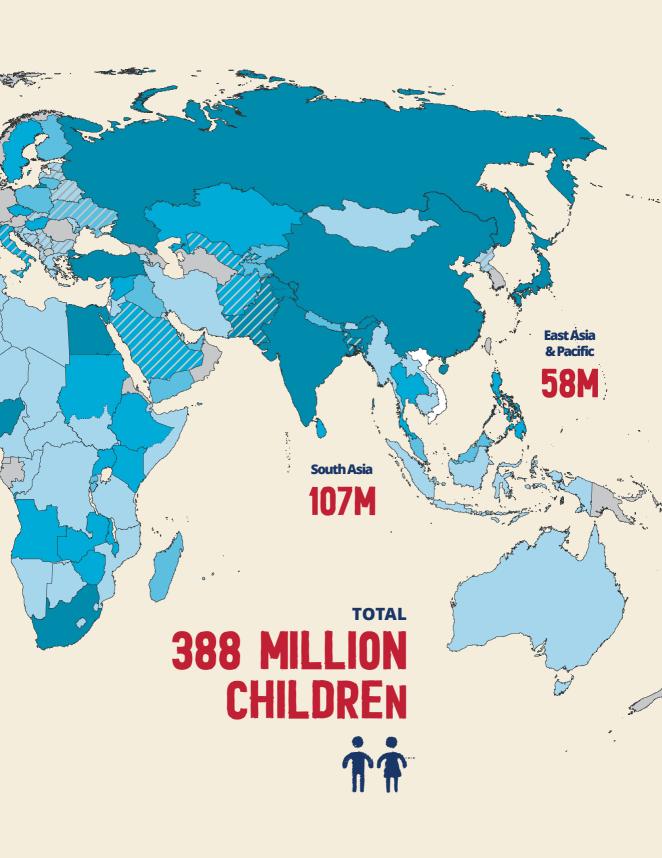
1.1.2 Number of children receiving school meals

It is estimated that 388 million children receive school meals around the world. Of these, the largest school feeding programmes are in India (90 million children), Brazil and China (both 40 million), the United States (30 million) and Egypt (11 million). Nearly half of the children receiving school meals globally live in one of the five BRICS countries (188 million). Fifty-two countries have programmes reaching more than one million children. South Asia has the largest number of school feeding programmes (107 million), followed by Latin America and the Caribbean (78 million), East Asia and the Pacific (58 million) and Sub-Saharan Africa (53 million). These numbers include children receiving school meals provided by WFP (17 million in 2019).

Map 1.1 Children receiving school feeding around the world



In this map, Jammu and Kashmir is included in the category "over 5 million children" because this territory is covered by a programme that provides school meals to more than five million children. This presentation of data does not imply the expression of any opinion whatsoever on the part of WFP concerning the legal or constitutional status of this territory or the delimitation of its frontiers.



This extraordinary scale of operation is also reported by the World Bank's *State of Social Safety Nets 2018*, which reviews seven categories of social protection instruments in 142 countries. It concludes that school feeding is the most widespread social safety net globally in terms of the number of countries implementing programmes. No other social safety net was implemented in more than 90 countries, and school feeding was also the second largest social safety net in terms of the number of children reached, after fee waivers, which benefitted 382 million children at the time.

Further details of the school feeding programmes in Brazil, Russia, India, China and South Africa are provided in the case studies presented at the end of this chapter (case studies 1.1, 1.2, 1.3, 1.4 and 1.5). Together, these five countries account for 48 percent of all children receiving school feeding globally, making these programmes particularly important sources of practice examples and lessons learned.

1.1.3 Change in numbers of children receiving school feeding since 2013

The change in the scale of programmes between 2013 and 2020 is examined for the 150 countries with data available for both years (Figure 1.3). In a limited number of countries, the 2013 estimates were updated in light of new data reported (see Annex III for more details).

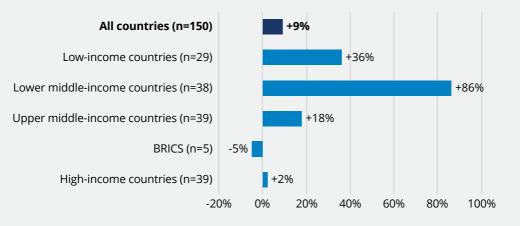
Figure 1.3 shows that the number of children receiving school feeding has increased worldwide since 2013. While there has been a 9 percent increase in school feeding overall, there has been a considerable scaling-up in low-income countries (+36 percent) and lower middle-income countries (+86 percent), especially where the number of children receiving school feeding was low in 2013, and particularly in Africa. There has also been an increase in school feeding programmes in upper middle-income countries (+18 percent), and a modest increase (+2 percent) in high-income countries, which already had high levels of coverage. The apparent decline of school feeding in the BRICS countries reflects changes in demography and reporting in India and Brazil (see section 1.2 below for further details).

School feeding is increasingly viewed as essential for learners; 4 out of 5 countries have adopted national policies

4 OUT OF 5

Figure 1.3 Change in the number of children receiving school feeding between 2013 and 2020³

Legend: Between 2013 and 2020, the number of children receiving school feeding increased worldwide, but especially in low-income and lower middle-income countries.



1.2 Coverage of school feeding programmes

Coverage is defined as the proportion of school-attending children who benefit from a school feeding programme. While the data presented in section 1.1 of this publication cover preprimary, primary and secondary education, the analysis of coverage data is limited here to primary schoolchildren only, due to the current lack of data on the other two age groups.

Coverage in each country was estimated using the number of children reported to receive school feeding in primary schools, divided by the number of children enrolled in primary schools as reported by the UNESCO Institute for Statistics (2019). Coverage was calculated for each country as well as by income group, the latter being weighted by the number of children enrolled in primary schools in each country. More information on the calculations is provided in Annex III.

As shown in Figure 1.4, there are currently 730 million children enrolled in primary schools globally, of which 109 million are in low-income countries; 339 million in lower middle-income countries (incl. BRICS); 206 million in upper middle-income countries (incl. BRICS); and 77 million in high-income countries. About two fifths, or 275 million, of these schoolchildren live in one of the BRICS countries.

^{3.} Due to the large scale of school feeding programmes in the five BRICS countries (Brazil, Russia, India, China and South Africa), most charts in this report will present the BRICS as a stand-alone category, in addition to traditional income groups. Unless stated otherwise, the BRICS will be displayed twice: as part of their respective income category (lower middle-income countries, for India, and upper middle-income countries for the remaining four), and as a separate group of countries. For instance, in Figure 1.3, the increase in children receiving school feeding by 86 percent in lower middle-income countries includes India alongside the remaining lower middle-income countries; and the decline of the same indicators by 5 percent in the BRICS category also includes India alongside the other four BRICS.

Figure 1.4 Children enrolled in primary schools around the world

Legend: There are 730 million children enrolled in primary schools globally, of which 109 million are in low-income countries; 339 million in lower middle-income countries (incl. BRICS); 206 million in upper middle-income countries (incl. BRICS); and 77 million in high-income countries.

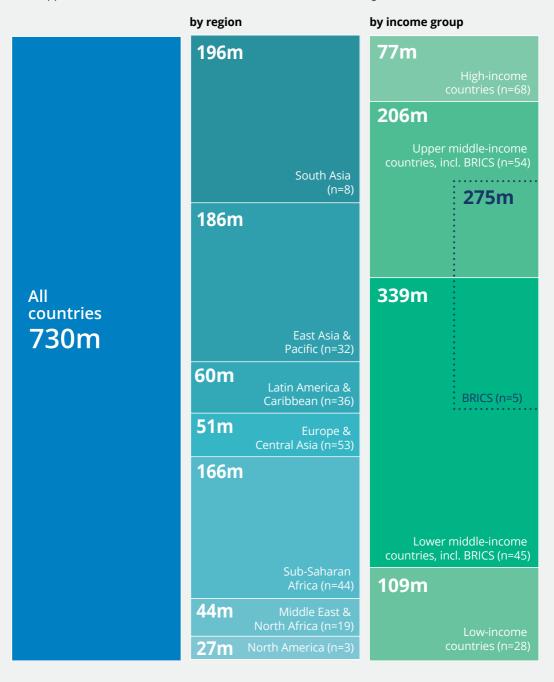
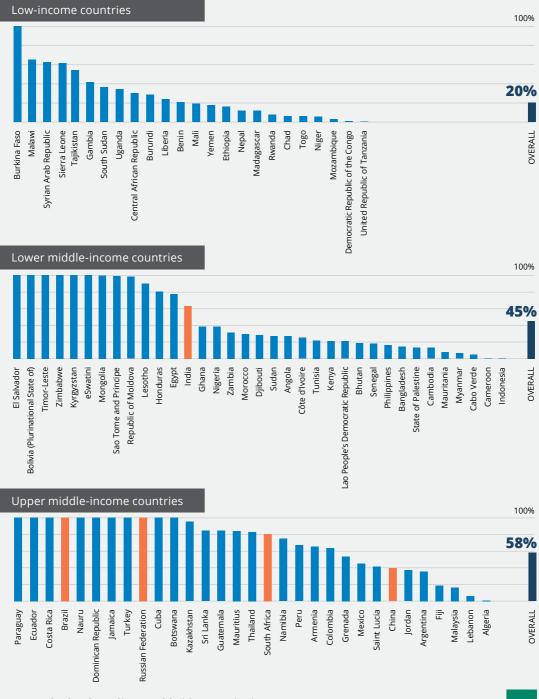


Figure 1.5 Coverage of school feeding programmes by country income level

Legend: On average, 20 percent of schoolchildren in low-income countries receive school feeding, compared to 45 percent in lower middle-income countries and 58 percent in upper middle-income countries. The five BRICS countries have an average coverage of 61 percent.



State of School Feeding Worldwide 2020 | Chapter 1

Figure 1.5 shows the coverage data for individual countries, grouped according to income level. In general, coverage increases with income level; within income groups there is considerable variation in coverage among national programmes.

Data for high-income countries are not shown here due to the difficulty in obtaining data. The apparent paradox that data are more difficult to obtain for high-income countries is because of the largely unreported proportion of children fed by the private sector. Redressing this situation will be a focus of future publications.

The change in coverage between 2013 and 2020 is shown for the 106 countries with data available in both years (see Figure 1.6). The coverage of school feeding remains the lowest in low-income countries and the highest in high-income countries. Overall, there has been a slight decline in coverage, from 51 percent to 48 percent. Only in low-income countries has there been a significant increase, up from 13 percent to 20 percent. These results, together with the observation (see Figure 1.3) that the number of children fed has increased, suggest that programmes have expanded to keep pace with population increase in all income groups, and in low-income countries the growth of school feeding programmes has outpaced that of the school population.

In the BRICS countries, the number of children participating in school feeding programmes has declined in India and Brazil, and increased in Russia, South Africa and China. The India and Brazil programmes are, respectively, the largest and equal-second largest in the world, and both countries aim to achieve universal coverage in which all children in public schools are entitled to free school meals. These exceptionally large target populations are a large proportion of the overall figures, therefore the possible reasons for the apparent declines are explored in more detail in the following paragraphs.

In Brazil, the reported number of children receiving school meals from the *Programa Nacional de Alimentação Escolar (PNAE)* was 47.3 million in 2013, and 40.2 million in 2019, a decline of 7.1 million. In common with other middle-income countries, the population of Brazil is ageing and the 4-14 age group (corresponding to pre-primary, primary and lower-secondary school-age children, targeted by the PNAE) decreased by an estimated 4.2 million individuals between 2010 and 2020. The scale of this demographic change, alongside some minor changes in reporting procedures, account for the decrease in numbers, and result in no significant change in coverage.

More than 90 percent of the funding for school feeding programmes comes from national budgets

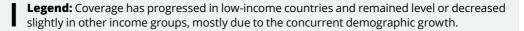


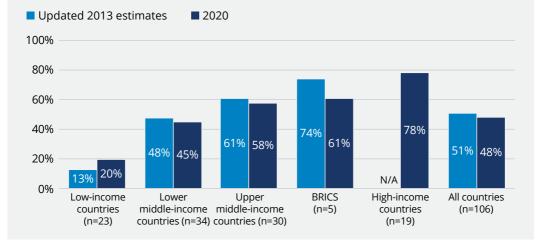
India has the largest school feeding programme in the world. Government reports indicate that 90.4 million children received school meals daily through the Mid-Day Meal Scheme (MDMS) in 2019. In 2013, the reported number was 113.6 million children. Indications are that this figure could be as high as 116 million, depending on the type of schools that are considered.

Whatever the exact number, the scale of the task is extraordinary. With a task of this magnitude, there is inherent uncertainty in estimating numbers, compounded in India by two exogenous factors. As in Brazil, India's population is ageing, and the number of 6-13-year-old children (age group targeted by the MDMS) has decreased by an estimated 6.2 million individuals between 2010 and 2020. Simultaneously, as seen elsewhere, economic growth has led to the rapid growth of affordable and low-cost private-sector schools, which recruit from the public-sector schools where MDMS operates (Central Square Foundation, 2020).

The available data do not indicate to what extent meals are provided in private schools. Given this uncertainty, present analyses have adopted the conservative figure of 90.4 million children as receiving school meals through MDMS. In preparation for the next edition of this publication, there will be a specific focus on the precision of estimating coverage, especially for these huge programmes. Even with this low estimate, India still has the largest school feeding programme in the world, more than double the size of the next largest.

Figure 1.6 Change in coverage between 2013 and 2020 by income category⁴





^{4.} In Figures 1.6 and 1.7, comparisons between 2013 and 2020 are based on the same subset of countries, limited to the countries which reported data in both 2013 and 2020. Some countries reported data only in 2013 but not in 2020, and vice-versa; these countries are not included in the above comparisons, but detailed country-level data are provided in Annex IV.

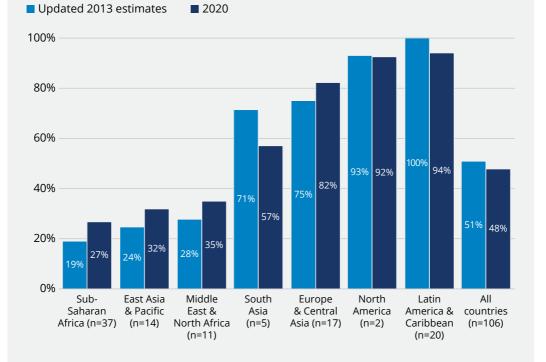
The issue of private schools is not specific to India. Indeed, the mix of private and public provision of school meals is probably the norm in middle and high-income countries. School feeding in private education systems around the world potentially represents tens of millions of children that may be unaccounted for in this publication. Future editions of the State of School Feeding Worldwide will aim to provide more data on programmes in private schools.

Major variations are also associated with geographical regions, as shown in Figure 1.7, with three main trends:

- North America, Latin America and the Caribbean have achieved and maintained coverage at scale.
- The Middle East, northern and Sub-Saharan Africa, Europe, Central and Eastern Asia, and the Pacific, have all increased the coverage of their school feeding programmes by 6-8 percentage points compared to 2013.
- In South Asia, coverage of school feeding programmes has decreased; nonetheless, they remain very large programmes in absolute numbers.

Figure 1.7 Change in coverage by region between 2013 and 2020

Legend: Coverage has increased in Sub-Saharan Africa, East Asia and the Pacific and Middle East and North Africa, while remaining level in most other regions except South Asia (see above).



1.3 Annual financial investment in school feeding

It is estimated that annual global investment in school feeding is between US\$41 billion and US\$43 billion, most of which is from domestic, national government budgets.

This estimate is based on four sources of reported expenditure covering 92 countries:

- Global School Feeding Sourcebook, published in 2016.
- WFP report on Nutrition-Sensitive National Programmes in Latin America and the Caribbean, published in 2017.
- African Union report on Sustainable School Feeding, published in 2018.
- USDA-sponsored, global school feeding survey carried out by GCNF, published in 2019.

In addition, following procedures that were used in the 2013 analyses (see Annex III), it was possible to estimate expenditure for an additional 63 countries. This was calculated based on the average cost per capita of school feeding (by income group, derived from reported expenditure) multiplied by the number of children receiving school feeding in each of these 63 countries. Table 1.1 shows the annual investment for 92 countries based on actual reported expenditure (US\$27-29 billion), and the annual investment for 155 countries, based on a combination of actual and estimated expenditure (US\$41-43 billion).

Table 1.1 Four estimates of the total yearly investment in school feeding⁵

Legend: Reported data show that annual global investment in school feeding is at least US\$27-29 billion. When including estimates for all countries known to provide school feeding, the global investment is estimated to be US\$41-43 billion.

Source	Number of countries	Number of children	Investment value	Estimated global investment (US\$)
Actual reported cost only	92	279 million	Budget allocated	29 billion
	92	279 million	Average cost per income group	27 billion
Actual reported cost and estimations	155	388 million	Budget allocated for 92 countries which have data; average cost per income group for remaining 63 countries	43 billion
	155	388 million	Average cost per income group	41 billion

^{5.} As shown in the global cost benchmark presented in Chapter 3 of this publication, the cost per capita of school feeding varies significantly between countries. As a result, and following the methodology developed in the previous edition of this publication, global aggregate investment figures were estimated by applying two different methods on two different beneficiary samples. The four resulting estimates provide a range of plausible values. The two sets of investment values are the total amount allocated to school feeding, as reported by each country, and the average cost per capita of school feeding by income group.

1.4 Sources of funding

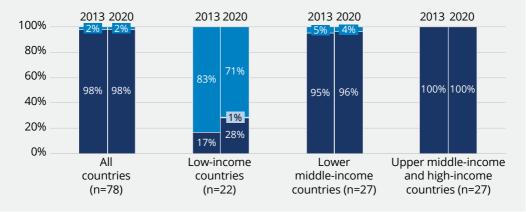
The data on sources of funding for school feeding programmes in 2013 are based on the WFP survey of that year, and the 2020 results are based on the USDA-sponsored, global school feeding survey carried out by GCNF in 2019-2020. These estimates include three types of funding, in declining order of scale: domestic funding from national budgets; national-level donors and the private sector; and external donor funds channelled through United Nations agencies, including WFP, and non-state actors.

Domestic budgets are the main source of funds for school feeding programmes in all countries, except low-income countries. As shown in Figure 1.8, national budgets were the major sources of programme support in both 2013 and 2020, and programmes in high and middle-income countries were almost exclusively financed by domestic resources. In lower middle-income countries domestic funds also dominate, with 5 percent of funds coming from external donors.

In low-income countries, in 2013, 83 percent of funds were from external donors. In 2020, this figure had fallen to 71 percent and low-income countries had significantly increased their share of domestic funding from 17 percent to 28 percent. There was also an emerging trend for new funding from local donors and the private sector. This suggests that nations are increasing their self-reliance and reducing their dependence on external sources of support. This increase has occurred at the same time as a 36 percent increase in the number of children fed, suggesting a growing prioritization of school feeding by low-income governments.

Figure 1.8 Breakdown of aggregate expenditure by source of funding in 2013 and in 2020

Legend: Domestic funding represents the largest share of funding for school feeding globally. Data suggest that governments in low-income countries almost doubled their level of funding relative to international donors between 2013 and 2020.



■ National budget expenditure ■ National donors and private sector ■ International donors

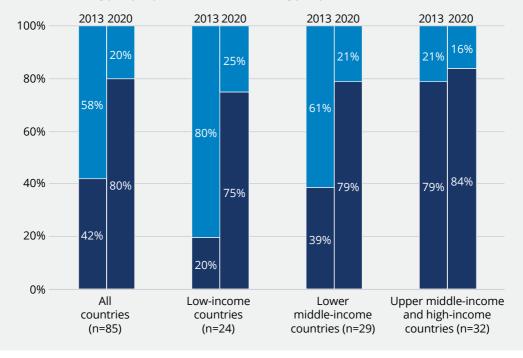
1.5 National institutions: policy frameworks and programme design

Between 2013 and 2020 many countries strengthened and broadened the policy and legal frameworks governing their school feeding programmes. In 2013, less than half of the lower middle-income and low-income countries reported having an established policy or legal framework in place for their school feeding programmes, although a significant number of these countries reported being in the process of developing such frameworks.

As seen in Figure 1.9, the share of low-income countries that have an established policy framework for school feeding has increased from 20 percent in 2013 to 75 percent in 2020; while in middle-income countries the increase is from 39 percent in 2013 to 79 percent in 2020. The proportion of low and lower middle-income countries that have a school feeding policy is now comparable to high-income countries.

Figure 1.9 Status of school feeding policy frameworks in 2013 and in 2020

Legend: Since 2013, most countries have adopted a school feeding policy, indicating that increased financial investments are matched by strengthened legal and policy frameworks. The increase is particularly significant in low-income countries.

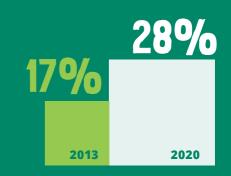


■ School feeding policy in place ■ No school feeding policy

Key findings for low-income countries

Countries increased domestic spending on school feeding

Between 2013 and 2020, in low-income countries, the share of domestic funding has increased relative to international donor funding. Low-income countries have made great strides to prioritize school feeding in their budgets



Governments adopted school feeding policies

Over the same period, the funding trend has been matched by a policy trend, as a large majority of lowincome countries adopted school feeding policies

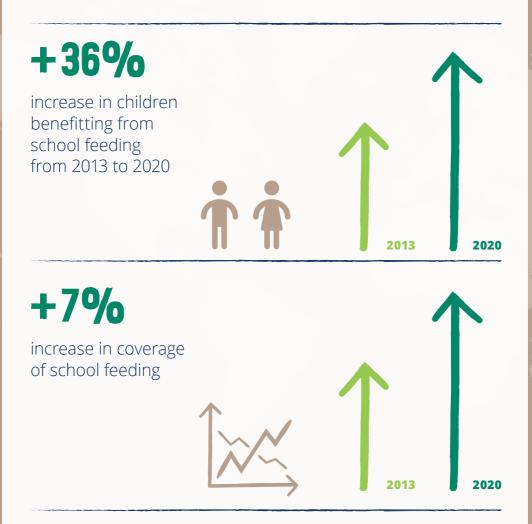
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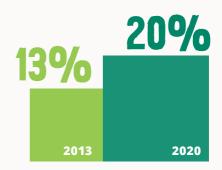
20%

2020

These financial and policy efforts have paid off: low-income countries scaled-up their school feeding programmes, outpacing the growth of their school populations



Between 2013 and 2020 low-income countries increased school feeding coverage by 7 percentage points; almost a doubling of children receiving school meals



1.6 School feeding and employment

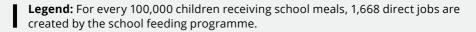
As part of the USDA-sponsored global survey of school feeding programmes, administered by the GCNF, new data were collected on jobs created by school feeding. This sample of 48 countries across all income categories provides new insights into employment dynamics associated with school feeding programmes.

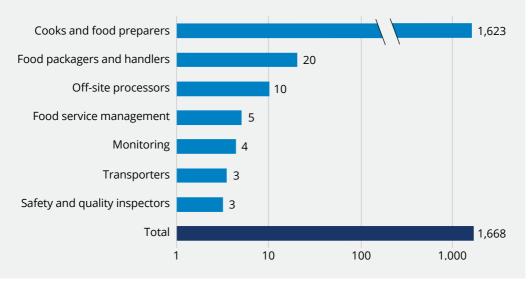
The 48 countries in this sample feed a total of 191 million schoolchildren, or about half of those receiving school meals globally. In these countries, school feeding programmes directly created 3.1 million jobs.

The analysis shows that school feeding programmes led to the creation of 1,668 jobs, on average, for every 100,000 beneficiary children. As illustrated in Figure 1.10, the vast majority of these jobs are cooks and food preparers, but there are also opportunities for more qualified roles.

This data set covers only direct jobs created by the implementation of school feeding programmes. It does not include indirect employment or business opportunities generated by school feeding, for instance when local farmers benefit from programmes implemented under a home-grown school feeding (HGSF) model. Therefore, the results presented in this chapter are a conservative estimate. In Tunisia, for example, the government plans to streamline the HGSF approach partly to create jobs and profits for smallholder farmers (see Case Study 5.4).

Figure 1.10 Jobs created for every 100,000 children receiving school feeding (sample size: 48 countries)





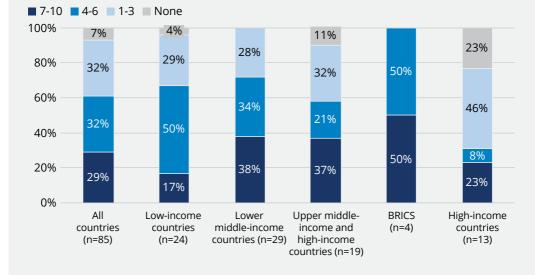
1.7 Integrated school health and nutrition programmes

School health and nutrition programmes typically include an integrated package of health and nutrition interventions that together seek to meet the needs of the learner in the local context. School feeding may be one of these components, and others may include complementary activities such as: handwashing with soap, height measurement, weight measurement, deworming treatment, eye testing and eyeglasses, hearing testing and treatment, dental cleaning and testing, menstrual hygiene, drinking water and water purification.

As part of the GCNF Global Survey of School Meal Programs, funded by USDA, new data were collected on these ten complementary activities (Figure 1.11). These questions were not asked during the 2013 survey, so it is not possible to gauge the medium-term trend. However, the 2020 results suggest that, overall, 93 percent of governments implement school feeding in conjunction with complementary health and nutrition interventions. Sixty-one percent of governments combine school feeding with a package of more than four additional health and nutrition interventions; while 29 percent deliver a school health package of seven to ten interventions. The largest programmes in the world in the BRICS countries all deliver integrated packages.

Figure 1.11 Number of complementary activities implemented in conjunction with school feeding

Legend: 93 percent of governments implement school feeding in conjunction with complementary health and nutrition interventions. About 30 percent of governments deliver a fully integrated package of at least seven interventions.



1.8 The way forward

- Despite the increase in the number of children receiving school feeding and in budgets witnessed since 2013, needs have also increased over the same period, leading to a divergent picture in terms of coverage. In some regions, the school population increased faster than school feeding programmes, leading to a decrease in coverage while needs remained high.
- Access to global data on school feeding remains a challenge. In order to document governments'
 investments and inform policymaking, a global data facility is required and will help generate
 more timely and accurate knowledge on school feeding programmes. WFP will invest in the
 development of a global school feeding database to help make data more broadly available to
 governments and partners.
- Access to school feeding data in high-income countries remains particularly challenging.
 A collaboration with this group of countries would help ensure more data are available for the next edition of this publication.

Box 1.1 The Global Child Nutrition Foundation

Arlene Mitchell Executive Director

Ryan Kennedy Program Officer

Global Child Nutrition Foundation GCNF is a United States based non-profit organization that works with government leaders and a diverse network of partners around the world to deliver sustainable and nutritious school meal programmes that give every child the opportunity to learn and thrive. To do this, the organization seeks to: build governments' capacity to implement national school meal programmes; share best practices and tools to support the creation, expansion and improvement of national school meal programmes; engage civil society and businesses to strengthen supply chains and increase political will for school meal programmes; and coordinate with others in the field – non-profits, schools and researchers – to raise awareness and ensure strong support and resourcing for school meal programmes. In 2019, GCNF launched The Global Survey of School Meal Programs© to develop a comprehensive and accessible database detailing large-scale school feeding, school meal and school nutrition programmes around the world, and also listing those countries with no such activities. The survey (funded in part by the United States Department of Agriculture, and with in-country support from WFP and other partners) is designed to capture information on the following:

- The scope of school feeding activities in each country.
- Government involvement with school feeding.
- Nutrition, education and gender.
- Agricultural and private sector engagement.

The survey is expected to be conducted every two-three years in the future.

The survey database will enable a participating country to:

- Share information about its school meal programmes with stakeholders and researchers around the world.
- Identify strengths, weaknesses and needs within programmes.
- Recognize and remedy gaps in programme data collection.
- Learn from the successes and challenges of other countries.
- Invest in school nutrition with deeper knowledge of the sector globally, including trends, gaps and opportunities.
- Direct training, education, research and funding efforts to the areas of greatest need.

The GCNF Global Survey of School Meal Programs © evolved from GCNF's particular interest in national government involvement in school feeding. The survey will build on the goals of the GCNF; namely, to encourage learning and sharing across countries and between officials responsible for school meal programmes. To ensure national government ownership and involvement, the survey is designed to be answered by a government representative – a survey focal point – who is involved with school feeding in their country. Governments that responded to the survey questionnaire were invited to send representatives to the 2019 GCNF and the organization will continue to build on these relationships as future rounds of the Global Survey and Forum are conducted. ■

Case Study 1.1 China: Nutrition improvement programme for rural students

Du Yuhong

Faculty of Education

Beijing Normal University In 2011, the Chinese government started to implement a nutrition improvement programme for students enrolled in rural compulsory education. The objectives of this programme are to address malnutrition, improve health conditions and accelerate the development of rural education while promoting educational equity and breaking the intergenerational cycle of poverty. This programme provided an integrated package which has since expanded to include school feeding. By 2017, it covered all priority areas targeted for poverty alleviation. By 2019, the programme benefitted over 40 million students in approximately 146,000 schools. Since its inception in 2011, the central government has allocated US\$20.7 billion to the programme.

A study by the Chinese Centre for Disease Control and Prevention, covering all regions where the programme was implemented, found that the average height of children supported by the programme had increased by 1.54 cm (boys) and 1.69 cm (girls) between 2012 and 2019. Over the same period, their weight had increased by 1.06 kg (boys) and 1.18 kg (girls). These improvements exceed the average growth rate in all rural areas in the country. In addition, the stunting rate of students decreased from 8.0 percent to 5.8 percent, while the anaemia rate decreased from 16.4 percent to 8.7 percent, thereby improving students' physical fitness and health status, and providing a sound foundation for their growth and development.

These results are attributable to the fact that:

- The nutrition improvement programme is embedded and prioritized in the national macro-strategic plan, which clearly outlines that the nutritional level of rural students should be improved (China Medium and Long-term Educational Reform and Development Outline 2010-2020).
- 2. The programme benefits from a harmonious combination of nationallevel planning and provincial-level flexibility in implementation of innovative measures. Jiangxi and Guizhou have successfully promoted the integration of schools, businesses and farmer households/ cooperatives at the provincial level. This innovative approach also increased farmer incomes.

 The monitoring of the programme makes full use of information technology management systems. The government has established real-time information management systems and bimonthly reporting systems, which enable the dynamic monitoring of beneficiary students and progress. The programme also includes an electronic dietitian system, which guides rural schools in providing students with nutritional, balanced meals. Relying on the "Nutritious School Meal" management system, the Fujian Province monitors the management of funds throughout the procurement process, ensuring timely and traceable food safety supervision.

Case Study 1.2 Russia: The consolidation of the Russian school meals programme

Vladimir Chernigov President

Victoria Likhareva Specialist,

International Department

Social and Industrial Foodservice Institute For a long time, there was no unified state programme for school meals in Russia. After the collapse of the Union of Soviet and Socialist Republics (USSR), federal legislation assigned these issues to each region and municipality. At the state level, general sanitary standards and rules for catering for schoolchildren were established. However, these standards were in the form of guidelines, and their implementation was limited by the financial constraints of local budgets. Gradually, equipment in school canteens became outdated and required replacement. Dated rules made it impossible to use outsourcing effectively and attract investment for development. The geographical, climatic and administrative differences between the regions of Russia also had to be taken into account.

It was not until 2007 that significant changes to school meal programmes would take place in modern Russia. Priority national development projects identified school meals as important in reform of the education system (2005-2010). Therefore, in 2008-2012, pilot projects to improve the nutrition of students covered more than half of the regions in Russia, more than 2,000 schools and 1 million children. Today, more than 17 million children study in more than 43,000 schools in Russia.

The NGO "Social and Industrial Foodservice Institute" (SIFI) was established in 2005 to provide practical solutions relating to school feeding. The organization was founded by specialists in various branches of the Soviet public catering system. SIFI's knowledge and experience helped develop programmes to modernize school meals and its resources were used in reforms of the entire child nutrition system (2007-2020). For example, in 2009-2011, SIFI conducted a nationwide school feeding monitoring exercise, and helped develop national school feeding standards in 2012, and "the concept of domestic food aid in the Russian Federation" in 2014, which received government approval. SIFI conducts specialized and social work in the regions of Russia and carries out international projects that are particularly in demand in post-Soviet states. At the end of 2017, SIFI's specialists, together with both chambers of the Russian parliament, started working on preparation of a federal law on school meals, which was completed at the end of 2019.

In May 2020, Federal Law No. 47 on school meals came into effect. Primary schoolchildren across Russia will now receive free hot meals, and the federal budget will allocate more than US\$1.5 billion for this purpose over the next three years. School canteen infrastructure will also be updated, and specialized social organizations and parents will be involved in monitoring children's nutrition: parents must protect and represent the interests of their children and monitor the child's nutrition at home and at school.

Case Study 1.3 India: The Mid-Day Meal Scheme (MDMS)

Ministry of Education

Government of India

The Mid-Day Meal Scheme (MDMS) is a centrally sponsored scheme which covers all schoolchildren studying in classes 1 through 8 of government, government-aided schools and special training centres, including madrasas and maktabs. The objectives of the MDMS are to address hunger and education, which are two of the pressing problems facing the majority of children in India, by:

- improving the nutritional status of eligible children;
- encouraging poor children, belonging to disadvantaged sections of society, to attend school more regularly and help them concentrate on classroom activities; and
- providing nutritional support to children of elementary stage education in drought-affected areas during the summer vacation.

MDMS is a rights-based programme under the provisions of the National Food Security Act, 2013. Ninety million children from 1.1 million schools across the country are enrolled under the scheme. The MDMS guidelines prescribe a cooked midday meal for primary classes providing 450 calories of energy and 12 grams of protein per child. For upper primary classes, the meal provides 700 calories of energy and 20 grams of protein per child. MDMS is a centrally sponsored scheme implemented in partnership with the state/union territories. Funds are shared between the central and state governments in various combinations.

Recent innovations in support of the MDMS in India include guidelines for school nutrition gardens and supplementary nutrition. States have been advised to organize cooking competitions at various levels. Guidelines have also been issued for a community participation programme in which the community provides nutritious food to children as an additional food item or full meal on special occasions/festivals. Health check-ups for schoolchildren are carried out, implemented by the Ministry of Health & Family Welfare. Deworming medicine is provided to children during the National Deworming Day that takes place twice yearly. Iron and folic acid are also provided to children.

Midday meals during COVID-19: schools in many state and union territories have been closed as a precautionary measure to protect students from COVID-19. The central government decided to continue providing midday meals to meet the nutritional requirements of eligible children under the MDMS to safeguard their immunity. State governments have been advised to provide hot, cooked midday meals or a food security allowance (consisting of the quantity of food grains as per the entitlement of the child and cooking costs prevailing in the state, to every child) whichever is feasible, for as long as schools are closed, and also during the summer vacation of the 2020-21 school year.

Case Study 1.4 South Africa: The National School Nutrition Programme (NSNP)

Department of Basic Education

Government of South Africa Since 1994, the South African Government has prioritized the provision of school meals to learners nationwide. The Department of Basic Education has a mandate to manage and implement the National School Nutrition Programme (NSNP). The Department also spearheads the Care and Support for Teaching and Learning (CSTL), which is a framework to address the barriers to education, especially for the most vulnerable children. The framework identifies ten priority areas: nutritional support, health promotion, social welfare services, psychosocial support, curriculum support, co-curricular support, infrastructure, water and sanitation, safety and protection, and material support to benchmark schools as inclusive centres of learning, care and support.

The NSNP's goal is to enhance learning capacity and improve access to education. The programme is funded by the government through a conditional grant provided by the National Treasury. The primary beneficiaries of the NSNP are learners in primary, secondary and identified special schools in all nine provinces in the most disadvantaged areas. To date, the programme has reached over 9.6 million learners in approximately 21,000 schools.

The NSNP is funded from the National Fiscus by the National Treasury in the form of a conditional grant, approved by parliament in terms of the Annual Division of Revenue Act (DORA). The latter provides for the equitable division of revenue for each sphere of government, i.e. national, provincial and local.

Schools provide a cooked meal that constitutes a daily protein, starch and vegetable which is served before 10.00.

Nutrition education, a key pillar of the NSNP, promotes the wellbeing and healthy lifestyles of learners. Nutrition campaigns include supporting World School Milk Day, National Nutrition and Obesity Week led by the Department of Health and an NSNP Forum whereby best practices are shared with stakeholders. The NSNP also encourages local economic empowerment, including procurement of fresh produce from smallholder farmers. School food gardens are encouraged to grow crops that can enhance the meal. A Deworming Programme linked to the NSNP is carried out in primary schools once a year. The programme aims to improve quality education through the Integrated School Health Programme to prevent Soil-Transmitted Helminths in learners.

Other benefits of the programme include employment opportunities for the local school community, whereby more than 62,000 food handlers are contracted to prepare and cook the meals. Service providers are contracted with a total of 3,477 small and medium enterprises and local cooperatives that supply food to schools.

With the sudden and unexpected closure of schools from 18 March 2020 as a result of the COVID-19 pandemic, both the Department of Basic Education and the Provincial Education Departments lacked the infrastructure and resources to continue feeding learners under the NSNP. In addition, COVID-19 prevention measures and Disaster Management Regulations did not permit mass catering of cooked food.

Since the pronouncement of the lockdown, the Department of Basic Education has cooperated with the Department of Social Development in extending social relief/food parcels to households including beneficiaries of the NSNP during the lockdown. Social partners and the corporate sector have also played a significant role in distributing food to various communities.

The Department of Basic Education has recently made significant changes in the conditional grant framework to respond to the COVID-19 pandemic; including the use of funds to procure personal protective equipment (PPE) for volunteer food handlers and items to sanitize food preparation and distribution areas. Provision was made that if schools were closed due to a declared state of disaster, funds from the grant may instead be used to provide meals to learners in remote areas through alternative means to ensure nutritious food items, e.g. food parcels, are provided to learners on a monthly basis. ■

Case Study 1.5 Brazil: Programa Nacional de Alimentação Escolar (PNAE)

National Fund for the Development of Education (FNDE)

Ministry of Education, Government of Brazil With an annual budget of more than R\$ 4 billion (US\$764 million), the Brazilian National School Feeding Programme (PNAE) caters to more than 40 million students, in more than 160,000 schools, across 5,570 Brazilian municipalities. The programme is responsible for the daily offer of 50 million meals, planned by more than 8,000 nutritionists and monitored by 80,000 School Feeding Board members. PNAE ensures not only the provision of a healthy and varied diet to all students in public education, but also the promotion of healthy eating habits – which impacts both students and their families. The programme is run by the National Fund for Education Development (FNDE), an independent body within the Ministry of Education.

PNAE's greatest strength lies in its legal and institutional assurances: the programme is guaranteed and regulated by a federal law that provides for universal school feeding for all Brazilian students throughout the 200-day school year. PNAE regulations also ensure food and nutrition education is provided in the school curriculum; that the food delivered contains a minimum 20 percent of children's daily nutritional needs; and sets nutrition guidelines for the purchase of food – including restricted and prohibited food items. Further, the PNAE Law also determines that implementers of the programme – municipalities and states – commit to using a minimum 30 percent of financial resources to purchase food from smallholder farmers.

Significant adjustments in FNDE's monitoring and evaluation mechanisms have been made over the past decade to guarantee that the programme runs in an efficient and effective manner. Given Brazil's size, its large number of municipalities, as well as the challenges faced by the government in performing on-site monitoring in remote areas, monitoring and evaluation is not an easy task.

40M

40 million children receive meals from Brazil's Programa Nacional de Alimentacão Escolar, the world's second largest school feeding programme PNAE's on-site monitoring is carried out on a regular basis, by sampling municipalities and states according to certain selection criteria related to performance in delivery and management. Data collection, analysis and reporting, followed by programme evaluation and the provision of technical advice are carried out by FNDE.

The Brazilian government has created two important monitoring and evaluation digital tools to provide managers with simple and timely information about the operation and effects of PNAE. The first is an app called "PNAE Monitora" which automates the on-site monitoring process carried out by FNDE teams, ensuring speed, data standardization and increasing monitoring capacity. Since 2019, this technology has supported school visits: the information collected on compliance with school feeding legislation and the schools visited is processed immediately in each municipality's database, speeding up data consolidation.

Another important innovation is the creation of "E-PNAE", an app that allows parents, students, teachers, nutritionists, school board members and the entire school community to monitor and evaluate school meals offered across the country. Citizens may contribute to this initiative by downloading the app, signing up and choosing a school to monitor. The app provides information on school budgets, healthy eating tips and includes an interactive quiz.

These two monitoring tools work in a complementary way. "PNAE Monitora" reflects the assessments of technicians, based on field visits. "E-PNAE", on the other hand, follows the Brazilian programme's tradition of building on the views of school communities to make impactful changes and increase accountability and transparency.



SPECIAL REPORT The impact of the COVID-19 pandemic on school feeding around the world

This special report is an unplanned addition to State of School Feeding Worldwide 2020. When planning this report, and at the beginning of data collection in 2019, there was no intimation of what was to come.

The special report is intended to supplement the information in the *State of School Feeding Worldwide 2020* and provide specific insights into how the COVID-19 pandemic has affected, and will continue to influence, school feeding programmes globally. The report describes current understanding of some of the impacts of the COVID-19 pandemic on schoolchildren, and how countries and development partners have sought to mitigate and cope with the associated risks, including modifying, replacing or supplementing school health and nutrition programmes. The special report also explores how these programmes, and especially school feeding, are now being used to support and accelerate the back-to-school movement as schools reopen. By the time of publication, the pandemic and the fast-moving response to it, is likely to have changed the landscape, and the reader will need to refer to contemporary information, including analyses by WFP and partners.

The closure of schools worldwide has precipitated the largest education crisis in history, with more than 1.5 billion children deprived of schooling (UNESCO, 2020b). This has implications for nearly all the world's children, immediately barring access to education and to the other benefits of the education system as a platform for delivering community services, safety nets and other critical transfers, and in the long term diminishing the prospects of a better future life. From the perspective of school feeding programmes, 370 million children in at least 161 countries were suddenly deprived of what was for many their main meal of the day (WFP, 2020c).

Increasing, inequity is a major issue: the impacts of COVID-19 are not distributed equally. For the most vulnerable children, those who rely most heavily on school meals and for whom home schooling is often least available, the negative effects of school closures could be lifelong. This not only has tragic consequences for the individual, but also lowers human capital and perpetuates the vicious cycle of poverty and inequality.

The consequences for the individual child may be direct, such as loss of access to food at school and to education, but there are also less obvious but equally severe social consequences, including greater risks of abuse and of inappropriate employment. These risks threaten girls in particular, because long-term school dropout is linked to increased child labour, child marriage and transactional sex.

At the time of writing in late 2020, it seems likely that children are not at significant health risk from the virus, nor do they play an important role in its transmission. Paradoxically, the negative impacts which children are experiencing in the name of reducing transmission seem not to be offset by health benefits for children themselves. Further research may have clarified this issue by the time this special report is published.

Countries and development partners have sought to cope with the pandemic by mitigating the most damaging effects. Plans and policies support continued learning by home schooling, through e-learning, TV and radio. The school-based platform for delivering community services and school feeding has been replaced by alternative mechanisms, such as takehome rations and cash transfers. Although humanitarian and development partners have developed guidance to help governments mitigate these consequences, coping mechanisms often exacerbate the inequities: less than 10 percent of households in Africa have access to e-learning; transfers to households do not equate with support to children, especially not girls; and even the best managed alternatives only seem able to reach less than 40 percent of the school-based programmes they replace.

As countries gain some control over the epidemic, they have begun to relax the lockdown procedures, including reopening schools and supporting "back-to-school" efforts to reverse the harm caused by school closures. However, even when schools reopen, challenges remain; and new challenges emerge, such as the reluctance of children and parents to resume school attendance. School health and nutrition programmes, especially school feeding, are now recognized as playing a key role, acting as a strong incentive for parents to send their children back to school, and for children to stay in school. Major global partnerships which support the safe reopening of schools, such as Save Our Future, are now incorporating school feeding programmes as a key element of back-to-school planning.

At the time of writing, there is a growing emphasis on the need to accelerate the safe reopening of schools and to build better and more resilient systems (Save Our Future, 2020; UNESCO et al., 2020b). There is a growing fear that the pandemic will set back global education by at least a decade, especially for the most vulnerable. The time is ripe to redefine "education". The crisis has taught us that the education system is perhaps one of the most important pillars of communities, and fundamental to how societies are structured. Schools allow parents to go to work; they create human capital; and are platforms for community services, safety nets and other transfers. As we have witnessed the closure of schools, we realize that education is much more than textbooks and classrooms. It is time to expand the notion of education to include health and nutrition services.

SR.1 The effects of school closures on children

According to UNESCO's monitoring reports (UNESCO, 2020b), school closures began in February 2020 in eleven countries,^a including Italy, the United Kingdom, United States and China. Most of these school closures were countrywide and affected all schools and learning centres, but some countries implemented localized school closures, depending on internal risk factors and domestic governance structures, particularly in areas affected more severely by the virus. By 14 April 2020, 199 countries had school closures due to the COVID-19 pandemic (192 countrywide and 7 localized), leaving 1.6 billion learners out of school (UNESCO, 2020b).

a. Countries with school closures as of 29 February 2020: Bahrain, China, Iran, Iraq, Italy, Mongolia, Pakistan, San Marino, UK, USA and Vietnam.

Building on UNESCO monitoring data and WFP's own global monitoring of school feeding programmes, it was estimated that, by April 2020, 370 million schoolchildren were missing out on their daily meals in school in at least 161 countries (WFP, 2020c). WFP implements school feeding programmes in 52 of the countries which reported partial or countrywide closures of schools, and where over 12 million children were affected (WFP, 2020c). These children are targeted by school feeding programmes because they are often already nutrient-deficient, vulnerable or otherwise at risk. For many children, the food provided at school is the only meal they consume in a day and is the largest single contribution to their daily nutrient requirements (WFP et al., 2020). Map SR.1 shows the number of children affected as of April 2020.

In many countries, alternatives to learning and school feeding were implemented by governments and partners during school closures. Lessons were taught online where possible, and school meals were replaced by take-home rations or cash transfers. Section SR.2 elaborates on some of the different responses worldwide and alternatives implemented to replace school health and nutrition programmes, including school feeding.

School closures as a response to the COVID-19 pandemic have affected many children around the world, and they are among the most affected victims of the pandemic. It is unclear how important schools are to the transmission of the virus among children or from children to teachers; it seems likely that the role of schools is much less prominent with this virus than with seasonal influenza, for example (Viner et al., 2020). Children appear to have few direct health consequences from COVID-19 and appear to play little role in the transmission of the virus (Ludvigsson 2020a, 2020b; Rajmil, 2020). While closing schools may have seemed important in the short term to reduce transmission of COVID-19, it presents an unprecedented risk to children, who are now facing adverse effects on their learning, safety, health and well-being (WFP et al., 2020), thereby affecting a country's overall human capital (Public Health Agency of Sweden, 2020).

This is a universal crisis and, for some children, the impact will be lifelong (United Nations, 2020a). However, these negative impacts will not be distributed equally: "They are expected to be most damaging for children in the poorest countries, and in the poorest neighbourhoods, and for those in already disadvantaged or vulnerable situations" (United Nations, 2020a, p. 2). The risks for children during this pandemic include: families falling into deeper poverty; threats to survival, health and child safety; and exacerbating the learning crisis^b (United Nations, 2020a).

The closure of schools worldwide precipitated the largest education crisis in history, with more than 1.5 billion children suddenly deprived of schooling.

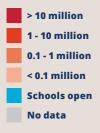
b. The Learning Crisis refers to global concerns that despite increases in the number of children enrolled in school, over 50 percent of children in low- and middle-income countries are unable to read proficiently by age 10. For more information: https://www. unicef.org/rosa/reports/addressing-learning-crisis

Map SR.1 WFP global monitoring of school meals during COVID-19 school closures (data as of 14 April 2020)

Legend: COVID-19 caused 199 countries to close their schools, thereby depriving 370 million children from school meals. In 52 countries where WFP operates school feeding programmes, 12 million children were affected.

- 199 COUNTRIES WITH SCHOOL CLOSURES

Number of affected schoolchildren



370 MILLION CHILDREN MISSING OUT ON SCHOOL MEALS GLOBALLY

International Boundary ······· Armistice or International Administrative Line
 Other Line of Separation ······· Special boundary line

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The World Bank (2020d) describes the learning and health and safety impacts on children due to COVID-19 and school closures as follows:

- For most children, academic learning will come to a halt. Evidence suggests that time out of school can lead to learning losses that continue to accumulate after schools reopen. For instance, in the current crisis, if a quarter of the school year is lost due to school closures, the number of 10-year-old children in learning poverty in Brazil will rise by an estimated 84,000 (or 6 percent) even if the learning losses stop when schools reopen (World Bank, 2020a).
- Early childhood education and foundational learning in early primary school are negatively impacted. This is a very important period for child development: if children fail to acquire foundational skills at this stage, they may find it much more difficult to learn later (Crouch and Gove, 2011).
- Learning inequality will increase. School closures exacerbate the already high levels of learning inequality in many low- and middle-income systems. The more educated and wealthy families are, the more likely they are to sustain their children's learning at home and are more likely to have the necessary equipment, books and other resources. This means that when schooling restarts, disadvantaged children will find themselves even further behind their peers (World Bank, 2020d).
- Attachment to schooling may also fall. School closures can lead some children and youth to
 disengage and reduce their attendance. "Children who were already tenuously connected to school
 could be further discouraged, making them especially vulnerable to dropping out as the economic
 shock hits" (World Bank, 2020d). Additionally, the number of out-of-school children with disabilities
 is likely to increase, as persons with disabilities face higher rates of multidimensional poverty (Mitra
 et al., 2013).
- Student nutrition and physical health are compromised. Children who rely on school feeding programmes as a primary source of nutrition may go hungry, and school closures also shut down access to crucial health programmes such as deworming, affecting as many as 456 million children in many low- and middle-income countries (WHO, 2019b).

The COVID-19 pandemic brought an end to a decade of global growth in school feeding programmes and has sharpened global resolve to restore access to these vital safety nets as a priority. Student dropout levels could rise, with many students leaving schooling forever. "Widespread unemployment and income loss will severely test households' ability to pay to keep students in school...(and) for the poorest households, budget constraints may cause them to keep their children out of school even when schools reopen" (World Bank, 2020d, p. 14). The longer marginalized children are out of school, the less likely they are to return, particularly girls. Additionally, "school dropout is linked with increased child labour, child marriage, and even transactional sex for children and adolescents" (World Bank, 2020d, p. 15). In Africa, adolescent girls out of school are on average twice as likely to start childbearing than those who are in school (United Nations, 2020a).

As shown by the State of Food Security and Nutrition 2020 report (SOFI 2020) (FAO et al., 2020), the COVID-19 pandemic has already led to significant consequences for food security, affecting both supply and demand, with long-lasting consequences for hunger. The crisis is expected to increase levels of malnutrition in all its forms, especially for children: "the massive lockdowns across the world are expected to hamper people's ability to access food and create serious economic downturns...as a consequence, a pandemic-induced global economic crisis is likely to generate new pockets of food insecurity even in countries that did not require interventions previously" (FAO et al., 2020).

As a result, the SOFI 2020 report recommends to "scale-up double-duty actions in the COVID-19 response to reduce negative impacts on food security and nutrition (e.g. exclusive breastfeeding promotion, maternal nutrition and antenatal care programmes, adapted school feeding programmes, food and agriculture policies that support healthy diets, universal healthcare)" (FAO et al., 2020).

The UN Secretary-General has written that "as the world faces unsustainable levels of inequality, we need education – the great equalizer – more than ever" and has issued a Policy Brief calling for action in four key areas (United Nations, 2020b):

- 1. Reopening schools safely. Once local transmission of COVID-19 is under control, getting students back into schools and learning institutions as safely as possible must be a top priority.
- 2. Prioritizing education in financing decisions. Before the crisis hit, low- and middle-income countries already faced an education funding gap of US\$1.5 trillion a year. This gap has now grown.
- 3. Targeting the hardest to reach. Education initiatives must seek to reach those at greatest risk of being left behind people in emergencies and crises; minority groups of all kinds; displaced people and those with disabilities.
- 4. The future of education is here. This is a generational opportunity to reimagine education. It is possible to take a leap towards forward-looking systems that deliver quality education for all as a springboard for the Sustainable Development Goals (SDGs).



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SR.2 Mitigation and coping: reducing the impact of school closures

Mitigation or coping is an intermediate step to minimize the negative effects of school closures on children until schools reopen, which is ultimately the only long-term solution. Countries have made very substantial efforts to cope with the crisis, providing alternative ways to deliver education outside of school (variants of distance learning, such as online, TV and radio) and various forms of food or cash transfers to households. Evaluation of these measures is under way, and initial results suggest that they do provide benefits, but are much less equitable than school-based interventions. For example, given that less than 10 percent of students in Africa can access online learning, the digital divide remains real (World Bank, 2020d), and strong efforts by WFP to replace school meals with take-home rations in the most affected communities, have reached about 6.9 million children (WFP, 2020e) out of the 17 million children assisted in normal circumstances.

SR.2.1 What countries are doing in response to the crisis

To support these mitigation responses, WFP developed a global dashboard and map as a public good to monitor school closures around the world; the number of children missing out on school meals; and up-to-date information on what governments are doing to support out-of-school children (WFP, 2020c).

More than 70 countries have tried various approaches to providing distance education as a means of mitigating the loss of education at school (World Bank, 2020d). In responding to the absence of school-based provision of meals, a number of different modalities were employed to substitute the daily meal that children previously received at school. These alternatives include: take-home rations, cash and alternative hot meals. Table SR.1 presents some of the alternative mechanisms implemented by countries worldwide.

At the height of the crisis, 199 countries had closed their schools and 370 million children were suddenly deprived of what for many was their main meal of the day. As of June 2020, 75 percent of countries where WFP had previously implemented school feeding reported the adoption of alternative mechanisms to on-site school feeding, reaching 6.9 million vulnerable children in low-income countries. Of these, 31 countries reported the use of take-home rations; 6 reported the use of cash-based transfers; and 3 countries implemented a combination of modalities depending on the local situation, including home delivery and the provision of cash or vouchers (WFP, 2020c). In countries where schools remained open, country offices worked with partners to improve access to water and sanitation, ensuring that proper hygiene, food safety and quality standards were being met. Social distancing measures were also employed to reduce the risk of infection. Table SR.2 describes some examples of national school closure mitigation responses supported by WFP.

Table SR.1 Examples of alternative mechanisms to school feeding implemented by governments globally

Take-home rations	South Africa: The Western Cape provincial government allocated 18 million Rand (US\$958,000) to provide take-home food rations to the 483,000 learners that are part of the province's School Nutrition Programme.
	Japan: From April 2020, the Osaka Municipal Government provided free lunches for all students attending public primary and elementary schools to cushion the financial burden on families.
Cash-based transfers	Brazil: The government allocated R\$3 billion (US\$537 million) for the Bolsa Familia by adding one million families to the programme. In order to maintain the National School Feeding Programme (PNAE), the Brazilian government authorized the distribution of purchased foodstuffs to students' families in the form of kits.
	France: On 15 April, the government announced a one-off payment of EUR 100 per child to mitigate the financial burden for the most vulnerable families. The municipalities of Marseille, Paris, Brest, and Haute-Garonne announced cash transfers or food stamps to mitigate the unavailability of school meals. In the county of Meurthe-et-Moselle, local authorities decided to deliver school meals to the homes of the most vulnerable children enrolled in middle schools.
	United Kingdom: By 31 March 2020, the government formally launched a national voucher scheme to ensure that the 1.3 million school-age children eligible will continue to have access to meals during COVID-19-induced school closures. Under the scheme, each school-age child received a £15 (US\$19.4) per week voucher (equivalent to £3 [US\$3.9] per day), with the vouchers being redeemable at all major supermarkets. The value of the vouchers exceeded the costs of free school meals, as the government recognized the increased costs placed on parents given that they would not be purchasing food in bulk and therefore will incur higher costs.

Other modalities	Spain: On 12 March 2020, the government announced that children in pre-primary, primary and secondary school that are part of Autonomous Communities (subnational entities) would receive continued access to food. The government earmarked funding worth EUR 25 million for food support to vulnerable children. The payment modality will either be in cash, in-kind (i.e. food delivery at home or at food distribution points) or voucher-based transfers.
	Trinidad and Tobago: The government provided children enrolled in the national school feeding programme with a temporary food support card, particularly for families that are not already covered by another national food support programme. This measure reached 2,050 households, and the food support cards were valued at 510 Trinidad and Tobago dollars (US\$75 per household).

Table SR.2 Examples of national school closure mitigation responses supported by WFP

Asia and the Pacific	Bangladesh: Delivery of two months-worth (50 packets) of fortified biscuits for each student in households across 104 subdistricts. In parallel, WFP has developed awareness material on nutrition and COVID-19 hygiene practices to accompany distributions.
	Cambodia: WFP worked with the Ministry of Education, Youth and Sport (MoEYS) to use food stock balances in schools and in the WFP warehouse as take-home rations for children enrolled in school meal programmes. Approximately 104,000 students from 908 primary schools in five provinces were reached.
Middle East, North Africa, Eastern Europe and Central Asia	Armenia: In partnership with the Ministry of Education, Science, Culture and Sports (MoESCS), efforts were focused on restarting support to the 100,000 schoolchildren nationwide who had not been able to receive school meals during the initial school closures.
	Kyrgyz Republic : Additional support provided to rural families. More than 53,000 primary schoolchildren and their families received up to 4 kg of wheat flour as take-home rations.
	Syria: WFP and UNICEF provided joint vouchers (food and hygiene items) for 44, 000 children.
	Afghanistan: UNICEF and WFP agreed on a joint COVID-19 approach for continuity of nutrition interventions and education.
West and Central Africa	Chad: A COVID-19 country strategic plan included school feeding, with the distribution of take-home rations to 120,000 vulnerable students affected by food insecurity and population movements.
	Guinea: Take-home rations were distributed to 150,000 schoolchildren to mitigate the effects of school closures on vulnerable children's food and nutrition needs.
	Niger: Support to the government was provided to ensure that 150,000 children receive take-home rations and that 13,000 girls receive cash grants.

Southern Africa	Madagascar: Take-home rations were distributed to ensure that the 200,000 assisted pupils kept receiving school meals.
	Malawi: Three-month take-home rations in the form of in-kind or cash-based transfers were distributed for the 600,000 pupils who were at home after the closure of schools.
East Africa	Somalia: Take-home rations were distributed in Somaliland, Puntland, and Galkayo from the stocks in schools at the time of school closures.
	South Sudan: WFP and UNICEF prepared a joint project targeting 400,000 children with a School Health and Nutrition package and COVID-19 messaging in schools.
	Ethiopia: A take-home ration activity was launched, targeting 272,000 children's families. Each received a basket of cereals, pulses, vegetable oil and salt for the months June, July and August 2020.
Latin America and the Caribbean	Bolivia: Take-home rations were distributed in support of over 5,000 school-age girls and boys in the town of Entre Rios.
	Haiti: Take-home food rations were distributed in 93 percent of the participating schools, using the food stocks already available.
	Nicaragua: WFP and UNICEF submitted a US\$1 million proposal to the Multi-Partner Trust Fund to support the Ministry of Education's strategy for distance learning.

SR.2.2 Available guidance on mitigation and coping mechanisms

The rapid spread of the pandemic and the immediacy of school closures has required similarly rapid responses from countries. This section summarizes some of the guidance that has been developed in response to this demand. Monitoring and evaluation is a component of these interventions, but there has not yet been sufficient time to rank the utility of the different responses.

WFP, along with FAO and UNICEF (WFP et al., 2020), developed a guidance note for governments to mitigate the effects of the COVID-19 pandemic, particularly relating to food and nutrition for schoolchildren. The note includes recommendations for contexts in which schools have closed and where they remain open. Table SR.3 summarizes the recommendations listed in the guidance.

An interim guidance note for COVID-19 prevention and control in schools was developed by UNICEF, WHO and the International Federation of Red Cross and Red Crescent (IFRC) to provide clear and actionable guidance for safe operations through the prevention, early detection and control of COVID-19 in schools and other educational facilities (UNICEF et al., 2020). According to the note, "maintaining safe school operations or reopening schools after a closure requires many considerations but, if done well, can promote public health" (UNICEF et al., 2020). The note provides key messages and checklists for school staff, parents/caregivers and community members, to ensure the safety and protection of clildren and of educational facilities. "Measures taken by schools can prevent the entry and spread of COVID-19 by students and staff who may have been exposed to the virus, while minimizing disruption and protecting students and staff from discrimination" (UNICEF et al., 2020). The broad range of advice and guidance about responding to the COVID-19 pandemic is listed in Annex II.

Table SR.3

Summary of policy recommendations to mitigate the effects of the COVID-19 pandemic on food and nutrition of schoolchildren

Guidance note by FAO, WFP and UNICEF (2020)

When schools are closed	Where schools remain open
 Maintain flexibility and responsiveness to changing conditions for supply and distribution of food and provision of nutrition services, while ensuring compliance with COVID-19 protocols. Use available resources to safeguard schoolchildren's food security and nutrition. Build upon existing safety-net structures to cover vulnerable schoolchildren. Ensure food and nutrition needs of vulnerable schoolchildren are considered when designing any large-scale national response to COVID-19. 	 Comply with COVID-19 prevention protocols. Promote optimal water, sanitation and hygiene services and ensure optimal hygiene and other key behaviours of children, teachers and food service staff/volunteers, school canteens and regulation of food vendors. Ensure and continue the provision of essential school health and nutrition package (school feeding, micronutrient supplementation, deworming, malaria prevention and oral hygiene). Avoid potential deterioration in food safety standards.
• Plan for the future reopening of schools, if possible with specific benchmarks.	 Ensure adequate nutrition content of meals. Create contingency plans for the distribution of meals/food baskets in preparation for potential rapid closure of schools.

In May 2020, the United Nations Secretary-General António Guterres called on governments and donors to prioritize education for all children, including the most marginalized. In response, the Global Education Coalition led by UNESCO was established to support governments in strengthening distance learning and facilitating the safe reopening of schools. Multilateral partners, including UNICEF, WHO, the World Bank, WFP, and the International Telecommunication Union, as well as GPE, ECW and the Asian Development Bank have joined the coalition, emphasizing the need for partnership action and swift and coordinated support to countries to mitigate the adverse impacts of school closures, in particular for the most disadvantaged (UNESCO, 2020a).

The creation of this coalition helped provide a platform for supporting countries' mitigation responses, and also led to the more coordinated development of the next phase of action: the back-to-school movement.

SR.3 Back to school: what countries need to do next

An important lesson from this crisis is the realization of how important the education system is for the normal functioning of our societies. Coping and mitigation have been vitally important while schools are closed, but even the best efforts fall far short of the coverage and equity of the school-based approaches that they sought to replace. The focus now is on moving quickly to reopen schools safely (UNESCO et al., 2020b).

As schools reopen, the priority is to provide a safe school environment (UNESCO et al., 2020b), and then for children to return to school in pre-COVID-19 numbers and to help them regain their health and nutrition after the rigours of lockdown and exclusion. As countries and development partners explore the realities of what is required, three key elements of back-to-school plans have emerged:

- Create a safe environment which minimizes the risks of COVID-19 transmission among children and from children to staff.
- Put in place school health and nutrition services which promote the health and well-being of children and, through provision of school feeding, offer an incentive for children to go to school and for parents to send them to school.
- Build an education system that uses the stimulus of the crisis as an opportunity to build a stronger and more equitable system.

While there is no doubt that the COVID-19 pandemic and these shocks to education and school health and nutrition will have immediate costs to our societies, countries can mitigate the damage if they act quickly through adequate planning and policies to support continued learning, and health and nutrition services for schoolchildren. This crisis could, therefore, become an opportunity to build more inclusive, efficient and resilient education systems (World Bank, 2020d). See Box 5.1 for a summary of what WFP has learned from the experience of the COVID-19 pandemic in the context of school feeding and education.

The COVID-19 pandemic, and the adverse effects it is having on the world's children, is showing us that the education system is fundamental to our communities and for our societies. Schools contribute to the development of human capital, while providing opportunities to address inequality and poverty. They serve as platforms for community services; health and nutrition services for children; safety nets; and allow parents to go to work. It is more important than ever to expand the notion of education, including through the enhancement and scale-up of health and nutrition services for children.

School closures have highlighted the importance of school feeding as a social safety net.

A *Framework for reopening schools* (UNESCO et al., 2020a) was developed by UNESCO, WFP, the World Bank and UNICEF, recognizing that leaders across countries are grappling with difficult and uncertain trade-offs as they consider easing lockdowns. The framework aims to inform the decision-making process on the timing to reopen schools; support national preparations; and guide the implementation process, as part of overall public health and education planning processes.

According to the framework, the following main steps need to be taken to reopen schools safely (UNESCO et al., 2020a):

- Initially, a rapid assessment of the associated benefits and risks of reopening schools should be carried out by decision makers along with subnational stakeholders. This should be informed by cross-sectoral and context-specific evidence, including education, public health and socioeconomic factors.
- When schools have been identified for reopening, six key dimensions should be used to assess their states of readiness and to inform planning: policy, financing, safe operations, learning, reaching the most marginalized and well-being/protection.
- Prior to reopening schools, critical plans and mechanisms are needed to improve schooling, with
 a focus on safe operations, including strengthening remote learning practices. Protocols should
 be developed on hygiene measures, environmental cleaning, social distancing, school feeding
 schedules, etc. Teachers should be trained and supported in online learning, and alternative
 academic calendars could be considered.
- From a public health perspective, as schools start reopening, there are three fundamental areas that should be considered: (i) mechanisms to prevent infections such as hygiene and environmental cleaning to limit exposure; (ii) mechanisms to screen for infections by training teachers and school administrators on COVID-19 preventative measures and basic case management; and (iii) mechanisms to isolate students or staff who show signs of infection by ensuring the availability of a designated room or separate area, while measures are taken to transport the person to a health care facility and trace potentially exposed individuals.

In January 2020, at the Davos World Economic Forum, WFP and UNICEF launched a partnership on school health and nutrition, to provide a framework and programme of cooperation to ensure that millions of vulnerable school-age children receive the health and nutrition support they need to learn and to thrive (UNICEF and WFP, 2020). This was originally a scheme to combine the strengths of WFP in delivering school feeding with the strengths of UNICEF in delivering school health and school-based WASH interventions; however, the COVID-19 pandemic has presented an opportunity to also provide a two-pronged strategy to respond to the medium-term needs of learners during and after the pandemic through interventions during school closures and a joint back-to-school campaign. The World Bank also developed a list of policies to turn this crisis into an opportunity to strengthen the world's education and school health and nutrition provision, which can be grouped into three overlapping phases: coping; managing and continuity; and improving and accelerating (World Bank, 2020d). The World Bank also supports a two-pronged response. As schools close, the first phase is mitigation, and the priority should be to protect student health and safety; prevent lost learning opportunities; and guarantee alternative mechanisms to deliver school health and nutrition services. Second, it is imperative that schools reopen safely and dropouts are minimized; and the crisis is used as an opportunity to build stronger and more equitable education systems (World Bank, 2020d).

In early August 2020, the Save Our Future global campaign was launched by the UN Secretary-General, together with the Policy Brief on Education during COVID-19 and beyond to protect and reimagine education in a post-COVID-19 world. The movement, supported by hundreds of organizations worldwide, is a global coalition of diverse voices uniting to call for world leaders to prioritize education in the response to COVID-19, highlighting concerns that the pandemic has exacerbated already existing inequalities and magnified the global learning crisis (Save Our Future, 2020). As part of the Save Our Future campaign, the coalition is identifying key actions and recommendations for global decision makers on protecting education amid COVID-19. While recognizing that there are many actions which could improve education, governments will need to prioritize the most effective interventions for the most left-behind children to avoid a catastrophe.

Some of the extensive policy and technical guidance relating to the "back to school" campaign can be accessed via Annex II.

While the COVID-19 pandemic severely impacted the lives of the most vulnerable populations, it also gave WFP the opportunity to reflect on its current delivery of programmes (see Box 5.1). Some key lessons learned include:

- looking beyond the immediate crisis, aiming to address the long-term consequences of the pandemic on global food systems, and ensuring that children have incentives to return to school;
- expansion and scale-up of new programme modalities, such as centralized kitchens and voucher systems to build more flexible school feeding programmes; and
- strengthening partnerships with UN agencies, NGOs and the private sector, especially as part of a broader education response.

SR.4 The way forward

- Recognizing that the COVID-19 pandemic and school closures threaten to have lifelong impacts
 on the most vulnerable children, affecting their learning, health and nutrition, thereby hampering
 human capital and development globally, efforts should be taken to reopen schools safely, and
 build better and more resilient school systems, while having systems in place to mitigate the risks
 of school closures more quickly. Guidance and support to countries on mitigation measures,
 policy response and back-to-school incentives, including access to financing, will continue to
 be the priority for WFP and development agencies, particularly in dealing with the crisis and
 ensuring that children continue to receive support should schools continue to be closed. WFP
 and UNICEF will also implement a back-to-school campaign to ensure children return to school.
- School feeding and school health and nutrition interventions will be used to incentivize
 households to send children back to school and keep them healthy and well-nourished. This
 crisis could serve as an opportunity to build more inclusive, efficient and resilient education
 systems, and for school health and nutrition services to be scaled up appropriately, leveraging
 cross-sectoral partnerships. Guidelines, policy briefs and technical support will provide direction
 to countries and partners to plan adequately and implement solutions to ensure schoolchildren
 continue to be supported through health and nutrition services, both during the pandemic and
 as the world's education systems adapt to new approaches, including distance learning.
- Future game-changers: Three recent developments may significantly affect school closure policy by the time this report is published. First, the mass roll-out of licensed vaccines, although none is yet available for children, may attenuate or halt the epidemic. Second, the emergence of variant virus strains, some of which may be more transmissible among children, will swing the policy towards closing schools to reduce community transmission. Third, the increasing socioeconomic evidence that the long-term cost of lost education outweighs the health benefits of school closure, will encourage policy towards the reopening of schools. The relative importance of these three factors is likely to determine the future impact of COVID-19 on school feeding programmes.

The COVID-19 pandemic has highlighted the need to expand the concept of education, and to build back equitable, quality school-based health and nutrition services.



CHAPTER 2 Policy outlook and priorities

The most recent data show that governments across the world are increasingly investing in school-based programmes that support the health and nutrition of children and adolescents. These programmes now reach about half of all young people in school and are largely supported by domestic funds. This chapter explores the changes in policy that have led to this remarkable growth in public investment in countries at all levels of wealth.

In exploring the policies that have driven the expansion of these programmes, the following major drivers of change were identified:

A growing recognition of the need to support children throughout their development to adulthood. There has been a paradigm shift in investment in children, recognizing that there is an approximate 8,000-day process of development that extends from conception through to adulthood. The first 1,000 days of a child's life are crucial, and a focus on this period is a well-established policy in many countries. However, it is now clear that it is important to support health and nutrition for the next 7,000 days, from around the age of 2 years to 21 years, in order to: sustain the early gains; provide opportunities for catch-up where early intervention was inadequate; and to address phases of vulnerability during this phase of development, especially puberty, the growth spurt and brain development in adolescence.

Recognition of the central value of people, of human capital, in the development of nations. A well-nourished, healthy and educated population is the foundation for growth and economic development. Therefore, investing in human capital, the sum of a population's health, skills, knowledge and experience, strengthens a country's competitiveness in a rapidly changing world (Gatti et al., 2018). In rich countries, approximately 70 percent of national wealth is due to the output of their population, but in many low-income countries this proportion is less than 40 percent (World Bank, 2019a). This inequity has tragic consequences for poor societies, which grow and perform well below their capacity, and for the individuals in those societies who fail to achieve their potential in life. Investing in the health and nutrition of the learner is a key contributor to creating human capital.

International emphasis on the need for better-designed public food systems that are gendersensitive, climate-sensitive and sustainable. Effective school feeding is among the policies recommended by the Global Panel on Agriculture and Food Systems for Nutrition (2014). Homegrown school feeding programmes in particular have an important role in the response to climate change, especially in the face of a consistent decline in global agricultural production, by shortening food chains and minimizing food waste, the largest single preventable cause of carbon emissions (FAO, 2013b). Well-designed, gender-sensitive programmes enhance girls' enrolment in education; help keep girls in school at vulnerable ages; and improve the diets of adolescent girls.

Responding to escalating demands to support children in crises and emergencies. School-based health and nutrition programmes are increasingly being used in crisis and conflict-affected countries to address the needs of the most vulnerable children. Recent evidence has shown that school feeding programmes in particular can play a critical role in restoring normalcy and stabilizing local communities, for example during the crisis in Mali (see case study 3.1). The closure of schools during the COVID-19 pandemic, and the high cost and lack of efficient alternatives to reach children, has highlighted the value of school-based programmes (see the special report on COVID-19).

Chapter 3, which focuses on economic and financial issues, explores the massive social protection role of these programmes, as the world's most extensive social safety net, and the increasingly important role of school food in providing a sustainable market for local agriculture production.

2.1 A paradigm shift: the next 7,000 days

The third edition of the World Bank's publication *Disease Control Priorities* (DCP3; Jamison et al., 2015-2018), supported by the Bill and Melinda Gates Foundation, confirms the importance of investing in the first 1,000 days of a child's life, the critical window from conception to 2 years of age. It also highlights the neglect of investment during the next 7,000 days, or up to age 21. The findings of Volume 8 of DCP3, entitled *Child and Adolescent Health and Development* (Bundy et al., 2017a), stressed the need to move towards a new 8,000-day paradigm.

These analyses have highlighted that there are specific needs not only during the first 1,000 days of a child's life, but also during middle childhood and adolescence. A quote from the Lancet review of volume 8 helps illustrate the point: "Just as babies are not merely small people, they need special and different types of care from the rest of us, so growing children and adolescents are not merely short adults; they, too, have critical phases of development that need specific interventions" (Bundy et al., 2017a). Attention is required in three phases: the middle childhood growth and consolidation phase (5-9 years), when infection and malnutrition constrain growth and mortality is higher than previously recognized; the adolescent growth spurt (10-14 years), when substantial physical and emotional changes require a good diet and health; and the adolescent phase of growth and consolidation (ages 15 to early 20s), when new responses are needed to support brain maturation, intense social engagement and emotional control.

The DCP3 publication calls for research and action on child health and development to evolve from a narrow emphasis on the first 1,000 days to a holistic concern for the first 8,000 days; from an age-siloed approach to an approach that embraces children's needs across the life cycle.

A report by the United States Agency for International Development (USAID) entitled "Maximising Human Capital by Aligning Investments in Health and Education" (Schultz et al., 2018) joined the increasing calls for better alignment of investments in health and education, especially investing in school health and school feeding programmes during school age and adolescence. The role of schools in investing in children's nutrition was emphasized by the United Nations System Standing Committee on Nutrition (UNSCN) in 2017, in a statement titled *Schools as a System to Improve Nutrition* (UNSCN, 2017). A publication prepared by the World Bank and the Global Partnership for Education titled *Optimizing Education Outcomes: High-Return Investments in School Health for Increased Participation and Learning* (Bundy et al., 2018a) took this a step further. The report emphasizes the need to correct the almost complete mismatch between investments in the health of children, currently almost all focused on children under 5 years of age, and investment in education, mostly between 5 and 21 years of age. Finland's 70 years of experience in school feeding traces the evolution of nutritional priorities, starting with undernutrition and moving towards malnutrition (see Case Study 2.1).

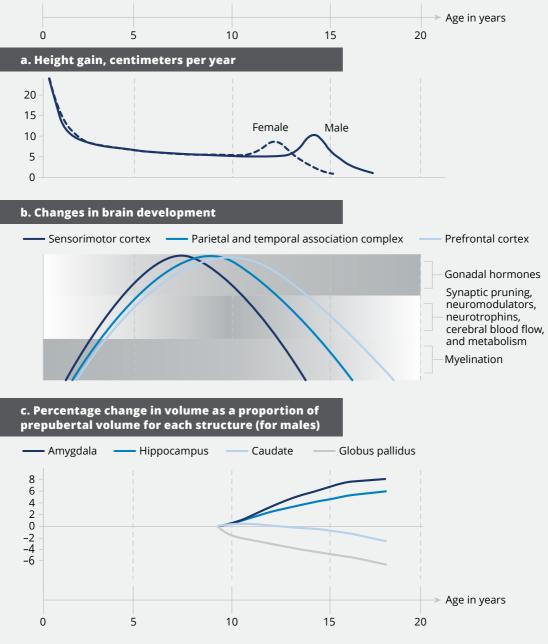
Many of the most prevalent health conditions among school-age children and adolescents in poor communities are preventable or treatable by interventions delivered through schools. Appropriate interventions at school age offer three advantages: they can sustain the gains made during the first 1,000 days; provide an opportunity for catch-up from earlier deficits; and address developmental phases of particular vulnerability during the next 7,000 days, such as puberty, the adolescent growth spurt and the phase of dramatic brain development during late adolescence (see Figure 2.1). Importantly, while improving health, these interventions have significant consequences for education: increasing attendance and reducing absenteeism; avoiding grade repetition and dropout; and supporting student achievement. In Box 2.1, Professor Alan Jackson, a paediatric nutritionist, describes the importance of the next 7,000 days for child development and school feeding's role.

The economic analyses reported in the World Bank's *Disease Control Priorities* third edition show that the school system represents an exceptionally cost-effective platform for the delivery of an essential integrated package of health and nutrition services to schoolchildren (Fernandes and Aurino, 2017; Shackleton et al., 2016). The cost-efficiency of delivery through schools has also been well documented in high-income countries (Shackleton et al., 2016). In low-income countries, the education system is particularly well situated to promote health among children and adolescents as part of community outreach by the health system. There are typically more schools than health facilities in all income settings, and poor rural areas in particular are significantly more likely to have schools than health centres. New economic analyses suggest that school health and nutrition programmes delivered through schools should be an essential part of universal primary health care efforts (Watkins et al., 2020).

Effective programmes support children not only during the first 1,000 days of life, but also the next 7,000 days sustaining early gains, providing opportunities for catch-up, and addressing critical phases of vulnerability.

Figure 2.1 Human development to age 20

Legend: During the first two decades of life, there are at least three critically important development phases: middle childhood (ages 5-9); the early adolescent growth spurt (ages 10-14), and the later adolescent phase of growth and consolidation (ages 15-19) when age-specific interventions are necessary.



Source: Bundy et al., 2017a.

Adapted from Tanner, 1990; Goddings et al., 2014; Grigorenko, 2017.

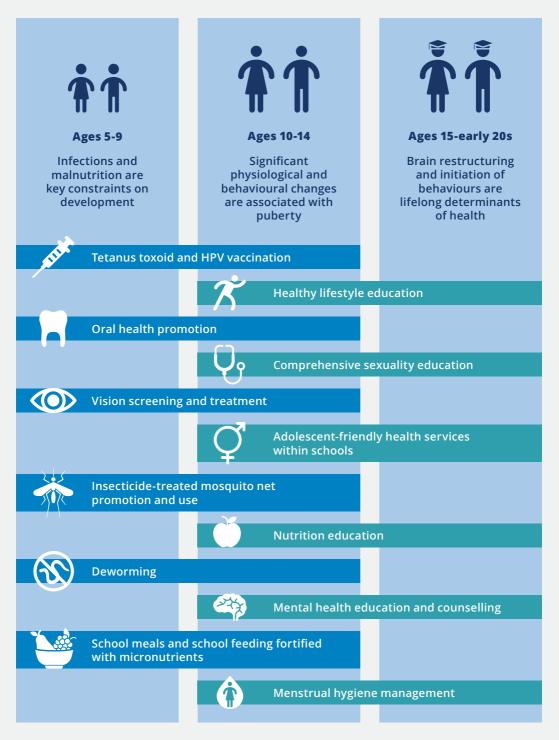


In addition to being cost-effective, an integrated school health and nutrition package of support can also address gender inequalities through specific benefits for girls. Evidence shows that where families undervalue education for girls, increasing other values of schooling, such as providing food or health services, has a disproportionately positive impact on girls' attendance and enrolment (Snilsveit et al., 2016).

Defining the essential school health package is now a focus of analytical work (Bundy et al., 2017a), which has proposed a combination of two cost-efficient health and nutrition intervention packages: one delivered through schools and the other focusing on later adolescence, reliant on other delivery mechanisms, including media and adolescent-specific clinics (Fernandes and Aurino, 2017). Multiple interventions can be delivered which, when combined, provide phase-specific support across the life cycle, securing the gains of investment in the first 1,000 days; enabling substantial catch-up from early growth failure; and leveraging improved learning from concomitant education investments (see Figure 2.2).

In designing such systems, it is important to ensure that they do not compromise or distract from the primary aim of the education system to deliver education. A school health system that has negative impacts on the delivery of learning would be self-defeating and would fail to achieve its twin goals of better health and better education.

Figure 2.2 Essential health and nutrition interventions during school years



Source: Global Partnership for Education, based on Bundy et al., 2018a.

Box 2.1 A paediatric nutritionist's perspective on food, schools and school feeding

Alan A. Jackson

Professor of Human Nutrition, at the University of Southampton and Chair, The International Malnutrition Task Force

International Union of Nutritional Scientists Growth and development require sufficient energy and nutrients on a daily basis. Provision during the first 1,000 days is absolutely dependent on the mother and the quality of her own nutritional well-being. For the next 7,000 days, the child acquires increasing independence and responsibility for its food intake. Earlier gains are secured and for those who missed out in earlier life, there is an opportunity to catch up and make good on earlier disadvantages. During this period, when lifelong habits become established, four primary considerations need to be understood: the nature of a healthy diet; where food comes from and the entire food chain; the importance of a secure and nourishing environment for the potential benefits of good food to be realized; and the role of food safety in ensuring the availability of enjoyable food fit for consumption.

Hunger is often a direct consequence of poverty. Diets of poor quality and variety are associated with a heavy dependence on staples and limited consumption of fresh fruit, vegetables and animal source foods. Poor quality diets lead to a high consumption of sugar, salt and fat and lack adequate nutrients. These diets are inadequate for a healthy metabolism and have consequences in terms of poor resilience and increased vulnerability. Limitations in diet quality are most evident during periods of growth or convalescence because of the need for additional nutrients. All tissue is affected to varying degrees; with impaired immune function leading to increased infection; and impaired brain structure associated with limited function and learning capability. Foods rich in sugar or fat provide greater amounts of energy, which could support the development of better-quality tissue. However, in the absence of other nutrients, this energy cannot be effectively leveraged and, as such, the excess is deposited in the form of fat leading to increased overweight and obesity.

The risk of increased infection is particularly pernicious as infection gives rise to unbalanced losses of nutrients from the body. Therefore, a diet that was previously marginal but just adequate becomes inadequate against the background of these losses. Recovery from poor quality diets is particularly difficult: setting up a negative cycle for nutrition and health, where the simple provision of food is no longer as effective. To break this cycle, every child should understand the relationship between food, nutrition, health and achievement. As they gain independence, this awareness should be intrinsic to their learning, infused throughout the curriculum, not as a separate subject. Teachers' competence to deliver understanding should be age-appropriate and cumulative throughout the years. By early adulthood, every individual who understands the importance of healthy dietary habits is better prepared for parenthood, thereby enhancing the first 1,000 days cycle for the next generation of progressively healthier children. ■

2.2 School feeding as an investment in human capital

Investing in human capital, the sum of a population's health, skills, knowledge and experience, can strengthen a country's competitiveness in a rapidly changing world. Human capital matters for people, economies and societies, and for global stability. Additionally, it matters over generations. When countries fail to invest productively in human capital, the costs are enormous, especially for the poorest and most vulnerable people.

Over the past decade, school feeding has emerged as the main intervention for children in schools, in which other elements, such as deworming or micronutrient supplementation, are delivered. This is because school feeding is the most widely implemented component of the integrated package – almost every country in the world provides food to its schoolchildren at some scale – reaching approximately 388 million children worldwide. Communities more often than not prioritize school feeding over any other intervention in schools.

Child health and learning are crucial contributors to human capital development. A well-nourished, healthy and educated population is the foundation for growth and economic development (Gatti et al., 2018). Low-income countries in Africa account for 25 of the 30 countries with the lowest Human Capital Index rankings. For many of these countries, underinvestment in human capital leads to a loss of economic potential, ranging from 50 to 70 percent in the long term. The Human Capital Index score for Africa puts the region at 40 percent of its potential (World Bank, 2019a). The GDP in Africa could be 2.5 times higher if the benchmarks for health and education were achieved.

School feeding programmes create human capital, support national growth, and promote economic development.

While building human capital depends on high-quality education, good health and nutrition are also required for children and adolescents to grow and to be able to participate and learn in school. When the health and nutrition of schoolchildren are improved, the rest of their lives are transformed. Children who are well-nourished learn better, and as adults they earn more and are more productive. That transformation carries through to the next generation with the improved nutrition and health of their own children, contributing to breaking the intergenerational cycle of malnutrition and creating a long-term cycle of economic growth and progress.

Box 2.2 Building human capital by investing in the future of the most vulnerable children – A WFP–UNICEF partnership

Robert Jenkins

Chief of Education and Associate Director of the Programme Division

UNICEF

The world has made great strides in improving access to education, but learning remains a significant challenge. A growing body of evidence shows that the health and nutrition of schoolchildren are critical to improving their learning outcomes. Yet this issue continues to be neglected in policy and financial commitments at the global and national level. WFP and UNICEF are working together to prioritize the health and nutrition of schoolchildren in global agendas as a key response to the learning crisis through joint action in the field.

Schools represent a unique opportunity to reach children effectively and on a large scale with an integrated package of health and nutrition support, including school feeding, nutrition, health screening, vaccination and WASH interventions. Schools offer a pre-existing delivery system with well-educated staff who are trained to deliver ageappropriate, actionable knowledge and support. By using schools as integrated service-delivery platforms, more cost-effective programming and greater impact for children can be realized, as articulated in UNICEF's Global Education Strategy 2019-2030 and WFP's School Feeding Strategy 2020-2030.

UNICEF and WFP are offering an integrated package of health and nutrition services to schools where one or both agencies are currently active. The overall objective of the partnership is to ensure that 35 million children living in extreme poverty in 30 low-income and fragile countries have access to a package of integrated health and nutrition services by 2030. School feeding, nutrition and deworming programmes delivered by WFP will be complemented by sanitation and hygiene services, oral hygiene, vision and hearing screening, vaccinations and malaria prevention programmes provided by UNICEF, ensuring children receive a comprehensive package of support rather than isolated services.

In the face of the COVID-19 crisis, WFP and UNICEF are working with national governments to find ways to support schoolchildren during the pandemic. WFP and UNICEF are targeting the most fragile countries, aiming to reach 10 million of the most vulnerable children with health and nutrition services. Marginalized children who have been out of school for a long period, such as girls, are less likely to return to school. The provision of school meals and health services will not only incentivize parents to send their children back to school but will also improve children's learning abilities. The expansion of coverage and quality of school health and nutrition programmes can help prevent this from becoming a lost generation with little chance of recovery.

This partnership initiative will be operationalized through a pilot phase in six countries – three from the Sahel (Chad, Niger and Mali) and three in the Horn of Africa (Ethiopia, Somalia and South Sudan). By working together, the agencies have the opportunity to make a game-changing contribution to reposition school health and nutrition in support of education outcomes in global and national agendas.

Box 2.3 Schools as a system to improve nutrition

Stineke Oenema Coordinator

United Nations

System Standing Committee on Nutrition "School feeding is desirable to ensure all pupils have access to a full meal every day, which can also enhance children's attention for learning and increase school enrolment. The Committee recommends that this be combined with nutrition and health education, including setting up school gardens and training teachers to improve children's nutrition and healthy eating habits." (CRC, 2013, p. 12)

In 2017, the United Nations System Standing Committee on Nutrition (UNSCN) published the discussion paper "Schools as a System to Improve Nutrition" (UNSCN, 2017), with support from several partners: FAO, WFP, UNICEF, WHO, IAEA as well as PCD, WB, the Bill and Melinda Gates Foundation (BMGF), Biodiversity International and the International Food Policy Research Institute (IFPRI).

When we look at schools as systems, avenues open to directly improve nutrition and education, and to stimulate many social, health, economic and ethical benefits. These potential benefits are maximized when school nutrition programmes are designed as multisectoral interventions and integrated into broader national social protection systems.

School feeding programmes have the potential to directly address nutrition by improving the quality of students' diets. School meals should be based on national dietary guidelines, which are often based on international standards, to ensure they are diverse; likely to meet nutrient needs; and are aligned with local food availability and preferences.

Furthermore, home-grown school feeding (HGSF) programmes have the potential to promote dietary diversification from local sources and local dietary habits; and to promote local economic development and smallholder farmers' integration into markets (Bundy et al., 2009). HGSF could create more sustainable, inclusive local food systems. For example, shifts in purchasing to support small and medium-sized enterprises, often managed by women, may lead to more social equity. As institutional markets, schools can promote the sourcing of healthy food; development of short supply chains; creation of alternative retail infrastructures; and support sustainable agro-ecological approaches to agriculture (IPES-Food, 2016). In situations where local foods may not be sufficient to meet nutrient requirements, school meals might need to incorporate fortified foods or other nutritional supplements to address these shortfalls.

The school environment itself presents an important opportunity to foster various healthpromoting behaviours, by ensuring that clean drinking water; hand-washing facilities; appropriate sanitation infrastructure, such as sanitary latrines; and areas for physical activity are easily accessible to schoolchildren. School gardens can serve to show and teach children where products can be grown, and which products are nutritious.

It is essential to explore synergies between *food and nutrition education strategies and school meal programmes*. Effective food and nutrition education involves providing children, school staff, teachers, cooks, canteen staff, communities, families and local smallholder farmers with handson learning experiences tailored to facilitate the voluntary adoption of healthy eating and other positive nutrition-related behaviours. In many communities, schools are the only place where children can learn such basic life skills (Psaki, 2014; Lobstein et al., 2015). Currently, UNSCN is working with FAO, WFP, WHO, UNICEF, UNESCO and others to produce an inventory of existing school nutrition resources and guidance to both explore their cohesion, applicability and comprehensiveness and to promote their use to maximize the opportunities offered by school nutrition programmes.

UN agencies and other partners should support school-based interventions, in close coordination with governments and local stakeholders, to ensure that programmes become part of long-term, sustainable social protection and local development strategies led by countries, both in the global north and south. There should be a clear transition period from donor support to sustainable domestic budgetary support.

2.3 Global education systems and gender

In addition to the direct health and nutritional advantages of school-based health and nutrition programmes, a complex set of associated outcomes also arise from the broader context in which these programmes are implemented. Well-designed programmes can enhance collateral benefits, and it is apparent that many countries have already taken advantage of these opportunities.

A multitude of barriers hinder girls' access to schools, particularly adolescent girls. Financial, social, religious, health and safety concerns may all present disproportionate obstacles to girls' attendance in school as compared to boys. Additional factors affecting access to education include early marriage, which accounts for higher dropout rates in many lower-income countries; and early pregnancy, which further reduces years in school, and is exacerbated in armed conflict and displacement settings (WFP, 2019).

School feeding programmes support the learner as well as the learning, helping build a healthy and educated population. A multi-country study (WFP, 2019) found that school costs were the dominant barrier preventing school attendance, compounded by poverty and the opportunity costs associated with taking time away from income-generating activities. In Adjumani, Uganda, school fees were emphasized as a particular obstacle for refugee orphans, directly limiting their participation in the school system. In Cambodia, girls described the pressure they felt to leave school to seek employment (primarily low-skilled work in garment factories) to contribute to their household's finances.

A recent report (UNESCO, 2019b) on SDG 4.5, which aims to eliminate gender disparities and ensure equal access to education, found that school feeding is one of the most effective interventions for promoting equality and inclusion in education. The report reviewed 20 national programmes and concluded that "the strongest evidence of impact related to equality and inclusion was found for interventions at the level of children, households and communities, especially cash transfers and school feeding programmes" (UNESCO, 2019b, p. 8). School feeding can impact school enrolment positively for girls in schools where gender parity hasn't yet been achieved and can help reduce the prevalence of children's work and engagement in household chores. Furthermore, ongoing multi-agency efforts to break the barriers to girls' education through school feeding in Chad and Niger highlight a visible increase in the learning and attentiveness of girls, increased enrolment, improved nutrition and the prevention of early marriage and pregnancy (see Box 2.4).

Box 2.4 Breaking barriers to girls' education in Chad and Niger

Gloria Wiseman Deputy Permanent Representative of Canada to the Food and Agriculture Agencies of the United Nations The last three decades have seen dramatic reductions in global poverty, but not everyone has benefitted equally. Hundreds of millions of people, especially women and girls, are still poor; have unequal access to resources and opportunities; and face major risks of violent conflict, climate and environmental hazards, and/or economic and political insecurity. By eliminating barriers to equality and helping to create better opportunities, women and girls can realize their potential to become powerful agents of change and improve their own lives and those of their families, communities and countries. The School Feeding Project, *Breaking Barriers to Girls' Education*, takes a gender-responsive approach to humanitarian programming. Canada has been a strong supporter of WFP's school feeding programmes since 2003. Research has shown that the impact of these programmes can differ between women, men, boys and girls. The impact can be seen most strongly in girls, linked to increased learning and attentiveness, increased enrolment, improved nutrition and the prevention of early marriage and pregnancy. Through purchases from local food producers, these programmes also result in economic benefits, including employment opportunities for women as cooks and in other supporting roles.

Breaking Barriers to Girls' Education is a prime example of school feeding programming directed at the improvement of the lives of children, including adolescent girls. With Canada's support, WFP, UN Population Fund (UNFPA) and UN Children's Fund (UNICEF) are working together in emergency contexts in Chad and Niger to better meet the different needs of children and adolescent girls, specifically on the barriers to education. A gender-responsive approach is being taken to ensure girls are enrolled and stay in school. All children are provided with nutritious, fortified school meals; and integrated school health packages, including education services on nutrition and health, sexual and reproductive health (SRH) and gender-based violence (GBV). In addition, adolescent girls receive additional targeted support to address their specific needs, priorities and barriers including the provision of micronutrients, conditional cash incentives, services and support related to SRH, and tailored support in school, including mentoring and coaching.

Canada's Feminist International Assistance Policy seeks to eradicate poverty and build a more peaceful, more inclusive and more prosperous world. Canada firmly believes that promoting gender equality and empowering women and girls is the most effective approach to achieving this goal, and *Breaking Barriers to Girls' Education* is just one great example of this approach.

2.4 Global food systems and climate change

Recent decades have been characterized by increasing globalization; increasing inequality; increases in conflict, post-crisis and fragile contexts; exponential growth in energy use and new technology; urbanization and climate change (Climate Change, Agriculture and Food Security [CCAFS], forthcoming). These changes have exacerbated the challenges facing the global food system. Increases in climate variability are already affecting agricultural systems and these will intensify in the future; rising carbon dioxide concentrations are being linked to decreases in micronutrient densities of some staple crops; and the increasing frequency of floods, droughts and extreme heat are having serious repercussions for human well-being and health. Globally, agricultural production has fallen by 1-5 percent each decade for the past 30 years, with tropical regions the hardest hit (Loboguerrero et al., 2018).

Today, three billion people have low-quality diets, which contain insufficient calories, vitamins and minerals or contain too many calories, saturated fats, salt and sugar (Haddad et al., 2016). In many countries, the majority of the population simply cannot afford nutritious foods: in certain regions of Ghana, Madagascar, Mozambique and Pakistan, more than 70 percent of households cannot afford a nutritious diet (Development Initiatives, 2018). In low- and middle-income countries, over half of the young women and adolescent girls are not meeting their micronutrient needs (Haddad et al., 2016). Finally, overweight and obesity rates are increasing in every region and most rapidly in low- and middle-income countries. From 2000 to 2016, the proportion of overweight children globally (5-19 years old) rose from 1 in 10 to almost 1 in 5 (WHO, 2020).

In 2014, the Global Panel on Agriculture and Food Systems for Nutrition released its technical brief: *How Can Agriculture and Food System Policies Improve Nutrition?* (Global Panel on Agriculture and Food Systems for Nutrition, 2014). In this publication, the panel recommends the implementation of policies across the food system to reduce undernutrition as well as growing overweight, obesity and other diet-related non-communicable diseases. Some of the policy recommendations include: making better use of existing public food distribution programmes, such as school feeding programmes, ensuring they are agriculture-supportive and nutrition-sensitive;⁶ integrating nutrition education into all available national services reaching consumers; expanding agriculture-supportive targeted social protection programmes; and improving the diets of adolescent girls and adult women as a priority.

Well-designed home-grown school feeding programmes provide environmentally sensitive food systems by shortening supply chains and reducing waste.

^{6.} In 2015, the Global Panel on Agriculture and Food Systems for Nutrition published a policy brief entitled Healthy Meals in Schools: Policy Innovations Linking Agriculture, Food Systems and Nutrition. The Panel found that "evidence from around the world on locally-sourced school meals reveals a multiple-win opportunity for policymakers with important benefits for school achievement, employment and national economic growth."

A four-paper Lancet series on the double burden of malnutrition – the coexistence of undernutrition (i.e. micronutrient deficiencies, underweight, and childhood stunting and wasting) and overweight, obesity and diet-related non-communicable diseases – explores how this public health challenge is affecting most lower middle-income countries (Popkin et al., 2019). Contrary to actions that are managed by separate communities, policies, programmes, governance structures and funding streams, double-duty actions are proposed to simultaneously tackle both undernutrition and problems of overweight, obesity and diet-related non-communicable diseases. Findings suggest that undernutrition, obesity and diet-related non-communicable diseases are intrinsically linked through early-life nutrition, diet diversity, food environments and socioeconomic factors (Hawkes et al., 2019).

Home-grown school feeding (HGSF) has the potential to play a key role in linking public food systems to how communities respond to climate change. The focus on very short food chains from smallholder farmers in the vicinity of schools helps promote a preference for fresh foods "from farm to fork" (European Commission, 2020) delivered with minimal transportation. Similarly, the adoption of "zero waste" approaches to food preparation helps encourage communities to reduce the one third of food that is currently wasted, and which represents the largest single avoidable contribution to carbon emissions (FAO, 2013b). Finally, HGSF supports climate change adaptation through the adoption of climate smart agricultural practices, which reduce land degradation and promote improved sustainable use of water and other resources (FAO, 2013a).

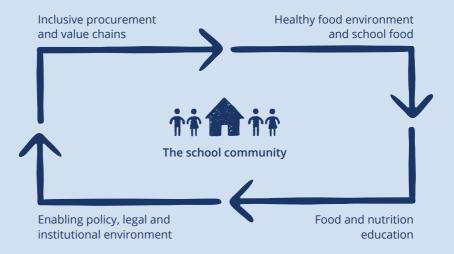


Box 2.5 FAO's school food and nutrition approach

FAO's school food and nutrition taskforce

As a direct response to the international call for improved nutrition and food system transformation, and in the context of the Sustainable Development Agenda, FAO developed a corporate framework to better guide its work in schools. The framework aims to support governments and institutions to develop, transform or strengthen their school-based or school-linked policies, programmes and other initiatives for an enhanced and synergistic impact on diets, child and adolescent nutrition, community socioeconomic development and local food systems.

FAO's school food and nutrition framework is based on a holistic approach that leverages and purposely creates synergies between four action areas that are at the heart of the organization's mandate, experience and capacity, namely: 1) healthy school food environments; 2) food and nutrition education; 3) inclusive procurement and value chains for school food; and 4) an enabling political, legal, financial and institutional environment. Through this approach, FAO centres its assistance on providing technical support and developing guidance in the four areas of school food and nutrition; aiding the creation of enabling regulatory frameworks for holistic approaches; identifying and disseminating successful experiences, programmatic best practices and lessons learned; and strengthening institutional capacities and facilitating mechanisms for improved sectoral coordination, evaluation and accountability.



Key activities of current focus to the organization, carried out in close collaboration with WFP and other partners, include:

- assisting countries in developing/strengthening school food and nutrition policy and legal frameworks to guide the design and implementation of their national programmes;
- developing a simple school food and nutrition monitoring and evaluation framework;
- developing a comprehensive global methodology for countries to design and implement nutrition guidelines and standards for school meals tailored to contextual needs and anchored in a food systems approach;
- disseminating guidance and developing capacities for enhancing the scope, methodological quality and impact of school-based food and nutrition education, as well as advocacy for ensuring its complementarity with school food environment policies;
- promoting linkages between school procurement policies and agriculture development initiatives and providing support to strengthen smallholder farmers' capacity to produce and commercialize their products and meet required nutrition and food safety standards;
- disseminating programmatic guidance and developing capacities for strengthening national homegrown school feeding programmes through e-learning courses and knowledge sharing events with policymakers, mainly in the framework of the African Union;
- conducting food value chain analyses to identify supply-side gaps and opportunities related to producing commodities that meet the nutritional needs of children benefitting from home-grown school feeding;
- assessing public procurement regulatory frameworks, sharing knowledge and developing capacities for designing and implementing inclusive and sustainable food procurement programmes for school meals;
- conducting impact evaluations to assess the benefits of home-grown school feeding programmes for small-scale producers and community food security; and
- in light of the COVID-19 pandemic, collecting and collating experiences of adapting school meal programmes to new modalities during school closures and facilitating knowledge exchanges between countries.

To find out more about FAO's work in school food and nutrition, please visit: http://www.fao.org/school-food/en/ ■

Box 2.6 Healthy-SABER: A renewed diagnostic tool for school health and school feeding

Lesley Drake

Executive Director

Partnership for Child Development, Imperial College London Developed in 2011, by a World Bank (WB) led partnership, which included country teams, WFP, UNICEF, USAID and PCD, the Systems Approach for Better Education Results (SABER) tool is an ambitious initiative to collect and disseminate comparative data and knowledge on education policies across all domains, including school health and school feeding. SABER is designed to help countries systematically evaluate and strengthen their education systems. In 2018, based on six years of successful experiences with country assessments of SABER school health and school feeding frameworks, the WB and WFP teams discussed the importance of creating a new common framework to combine school health and school feeding assessments. The purpose of which is to develop a simpler approach to making funding decisions, while at the same time improving the assessment of governance and key performance indicators. The new framework, "Healthy-SABER", emphasizes that this particular education system tool has a focus on the health, nutrition and well-being of the learner. Pilot testing of Healthy-SABER was delayed in 2020 by the COVID-19 pandemic but is now scheduled in several countries.

School health and school feeding SABER before the Healthy-SABER

Based on the five internationally agreed upon policy goals: policy frameworks; financial capacity; institutional capacity and coordination; design and implementation; and community participation, the SABER School Health (SH) and School Feeding (SF) frameworks serve as diagnostic policy tools used to benchmark evidence-based practices against current country commitments. To date, some 55 reports have been prepared and 14 reports have been published on the WB website.

In 2014, the WB, WFP and PCD partnered to implement the SABER SF tool under the leadership of governments and other engaged stakeholders. This enabled the identification of programme strengths and weaknesses and informed planning for future action.

2.5 School feeding in humanitarian settings

The important role of school feeding in humanitarian and emergency settings is increasingly recognized. This section reports on the growing evidence for this role and on how WFP has strengthened its response to emergencies and to peacebuilding.

The evidence for an increasing role for school feeding in emergencies

A 2017 report by the Fafo Research Foundation, entitled Rethinking emergency school feeding: A child-centred approach (Hatløy and Sommerfelt, 2017) examined recent developments in the use of school feeding in emergency contexts. The report focused on contexts where the nature of the emergency had evolved. Such complex emergencies, including those associated with conflict and protracted crises, are on the increase and have largely reshaped the action of humanitarian and development partners over the last decade.

One of the main findings is the importance of school feeding's contribution to child protection. While children's need for protection against deprivation and protection of their dignity remains essential, the report also emphasizes age-specific protection needs of children, associated with the categories of risks to which children are exposed (see below).

Table 2.1 Risks children face in emergencies

- Dangers and injuries
- Physical violence and other harmful practices
- Sexual violence
- Psychosocial distress and mental disorders
- Children associated with armed forces and armed groups
- Child labour
- Unaccompanied and separated children
- Children in contact with the law and imprisonment of children

Source: Hatløy and Sommerfelt, 2017. See also WHO et al., 2020.

As a tool for increasing access to education, school feeding in emergencies may contribute to the protection of children against these age-specific threats, such as forced and/or early marriage, and various forms of inappropriate child labour. Schools and other "safe spaces" can contribute positively to meeting child protection needs, and school feeding can provide an effective incentive for parents to send children to school and to support children in staying enrolled.

Citing research and evidence from all types of emergencies, the report finds that school feeding can effectively circumvent the negative consequences of emergencies on health, nutrition and education, and can successfully lower barriers to accessing and completing education. The study finds that "the value of school feeding to lower the barriers to education is greater in emergencies, where lack of food prevents children from attending school." While "in certain high-intensity conflict emergencies, threats against children's personal safety and a lack of teachers and school materials may be the most pressing barriers to accessing education", the report recognizes that in various categories of emergencies such as slow-onset natural disasters and conflict emergencies, "hunger and lack of food may also constitute barriers to children's education" through a combination of household economic deprivation and degraded cognitive abilities (Hatløy and Sommerfelt, 2017).

These findings can be put in perspective with the conflict-sensitive approach adopted by Aurino et al. (2019) (see Case Study 3.1), which found that the impact of school feeding on increasing access to education was greater in areas where the conflict intensity was higher.

An assessment of the contribution of WFP's school feeding programmes to improving the prospects for peace

In 2019, 38 percent of the 17 million children supported by WFP school feeding programmes were in countries affected by conflict or crises (World Bank, 2020f):⁷ 4.3 million of these children were supported as part of crisis response activities in WFP's Country Strategic Plans. WFP has provided support for school feeding in countries which have been among the most affected by war and instability: up to 971,000 children in Syria; 680,000 children in Yemen; and 460,000 children in South Sudan. WFP has also helped provide school feeding programmes to support the children of refugees from insecurity, including the school feeding programme in Bangladesh, which is assisting 405,000 children in refugee camps, mainly from the Rohingya community. As of 2019, WFP supported 1.7 million child refugees, internally displaced persons (IDPs) and returning migrants around the world, most under its crisis response portfolio.

WFP's policy on Peacebuilding in Transition Settings (WFP, 2013b) recognizes that school feeding "offers opportunities to restore a sense of normalcy and stability for children and to bring communities together".

Between 2018 and 2020, the Stockholm International Peace Research Institute (SIPRI) undertook a research project on WFP's work in conflict-affected countries to assess the contribution of WFP activities to improving the prospects for peace. The results were shared in a series of five reports published by SIPRI between 2018 and 2020, comprised of four country reports and a synthesis report: *The World Food Programme's Contribution to Improving the Prospects for Peace* (Delgado et al., 2019). In two countries, Kyrgyzstan and Mali, the research included WFP-supported school feeding programmes.

^{7.} Countries classified by the World Bank as high-intensity conflict, medium intensity conflict, and high institutional and social fragility.

In each country, a team of researchers conducted conflict analysis and field research. Notwithstanding the complexity of the conflict dynamic, school feeding featured prominently as one of the activities that could generate positive outcomes towards stability and cohesion. These reports cast a fresh eye on school feeding programmes by applying research methods from the area of peacebuilding to look into direct and indirect outcomes of these programmes. As explained by SIPRI, *"in peacebuilding, there is a much greater emphasis on process, and outputs may simply be the vehicle for enhancing relationships and trust in the process of creating the output. For example, a parents' committee to oversee the provision of school meals (process) could have greater peace potential than the school meals themselves (output)"* (De Ceglie et al., 2019, p. 2).

The research teams in Mali and Kyrgyzstan identified three main impact pathways related to school feeding:

- The opening or closing of schools tend to signal who is in control of an area in Mali, for instance, jihadi groups target schools for attacks and close schools upon securing control of an area to undermine state authority and reject secularism in schools. Similarly, the Government of Mali has made the reopening of schools a symbolic act, to indicate that the situation has returned to normal. School feeding programmes have proven to play an important role in enabling schools to remain open in Mali by conveying a sense of normality and hope for a more peaceful future. "Schools are a key platform for the delivery of relief and development interventions, and school feeding is a critical enabler of schools remaining open. Thus, schools can play a role in restoring normalcy and stabilizing local communities, both directly and as a vehicle for further interventions" (De Ceglie et al., 2019, p. 12).
- School meals managed through community participation foster cooperation and trust among community members, a building block for improving governance practices. According to SIPRI, "the fact that school meals and, more broadly, the management of education-related activities is a non-contentious, positively perceived aspect of the community's life is crucial. Providing a safe space to engage in dialogue could potentially be extended to other, more contentious, issues once relationships have been established" (De Ceglie et al., 2019, p. 9). This potential contribution to peace was noted in both Mali and Kyrgyzstan.
- Finally, the provision of basic social services in government-led institutions, such as schools, combined with increased accountability and responsiveness from the government, can help strengthen the link between citizens and the state. Although the global evidence is mixed, the Kyrgyzstan report noted that "weak service delivery and failures of governance have been widely recognized as underlying causes of conflict. (...) Routine interactions with the State over service delivery, such as school feeding or nutrition services, may be the citizen's only routine interaction with the State" (De Ceglie et al., 2019, p. 17). In the Philippines, WFP started its school feeding programme in 2006 as part of a larger package of activities aimed at supporting peace in the conflict-affected region. In addition to attracting children to school and improving their food security, the programme had several other benefits for peacebuilding at the community level. Children had a growing sense of normalcy from participating in the programme each day; and parents felt that they became closer as a community by working on school committees

and helping to organize the programme. The activities also allowed the communities to interact with the government in constructive ways. Overall, the programme supported peacebuilding by addressing hunger and taking opportunities to promote reconciliation and restore a sense of normalcy (Brinkman and Hendrix, 2011).

In addition to these outcomes, another research project, Aurino et al. (2019), has also found that school feeding continues to have a positive impact on education in conflict-affected Mali – see Case Study 3.1. Most notably, this study found a strong connection between school feeding and girls' education in conflict-affected areas.

More evidence is needed to strengthen the knowledge base on the impacts of school feeding in crisis and conflict-affected communities. Yet, the SIPRI reports and Aurino's research suggest that school feeding could lead to an array of positive outcomes in crisis and conflict-affected contexts. Fostering social cohesion; building good governance from the grass roots upwards; creating or restoring a sense of normalcy; and supporting the enhanced accountability and responsiveness of the state in school feeding, can be considered enablers to resilience and peace.

Next steps to strengthen WFP's school feeding response to emergencies and conflict

In order to better understand school feeding programmes in conflict and fragile contexts, WFP is currently undertaking two multi-country evaluation exercises, both funded with assistance from Canada. One is a four-country evaluation series in the Democratic Republic of Congo, Lebanon, Niger and Syria. This series is intended to provide evidence and learning to inform policy and programmes in emergency settings and contribute to strengthening the evidence base. The second evaluation will focus on the "Breaking Barriers to Girls' Education" project in Chad and Niger (see also Box 2.4). Comprised of two country reports and one synthesis report, this evaluation will assess the results of the project, identify lessons learned and inform global policy and guidance.

WFP's new School Feeding Strategy 2020-2030 reinforces WFP's commitment to supporting school feeding in conflict and crisis-affected contexts and outlines a renewed approach to school feeding in emergencies.

2.6 The way forward

- There is wide recognition that investing in the first 1,000 days is essential, and growing recognition of the need to invest in the next 7,000 days. School health and nutrition is one of the most cost-effective investments in the next 7,000 days: sustaining the gains of the investment in early years and supporting children during the years that are most important for education and learning. Governments and partners should further develop their school health and nutrition programmes to ensure that age-specific interventions are delivered to school-age children.
- There is currently a mismatch between investing in learning and the current investment in the health and nutrition of the learner. School feeding programmes can optimize education outcomes and can maximize and leverage current investments in education. There are clear synergies between education, health and nutrition investments and outcomes. For the future, efforts and resources should focus on both health and nutrition alongside education to achieve further gains in human capital development and progress towards the SDGs.
- Gender-sensitive school health and nutrition programmes, especially when combined with the income transfer of school feeding programmes, have considerable potential to enhance enrolment of girls in school; help girls to stay in school through the high dropout phase of transition to secondary education; and specifically contribute to the nutrition of adolescent girls.
- School feeding programmes based on local production can play an important role in addressing crucial climate change issues. Home-grown school feeding programmes can help shorten food chains and benefit local economies and food systems; while more careful design of meals and more predictable demand can reduce food wastage and therefore carbon emissions.
- School health and nutrition packages with well-designed school feeding programmes have the
 potential to address the double burden of malnutrition through nutrition-sensitive programming,
 linking activities to agriculture, providing nutrition education and increasing healthy diets.
 Schools offer an exceptionally cost-effective platform to improve child nutrition.
- School feeding programmes play a critical role in restoring normalcy and social cohesion in crisisaffected communities and are increasingly being used in emergency settings. School feeding programmes should be considered when developing peacebuilding processes and humanitariandevelopment-peace nexus interventions, as an effective community-level activity.



Case Study 2.1 Finland: Investing in effective learning

Satu Lassila Permanent Representative of Finland to FAO, WFP and IFAD In Finland, free-of-charge school meals have been provided since the 1940s, with the aim of supporting child learning, health and nutrition. At the beginning of the twentieth century, Finland was a poor country, with agriculture being the main source of livelihood. At that time, few children attended school, and 40 percent of all 15 year-olds were illiterate. The law on compulsory education came into effect in 1921 and arranging school meals was considered an essential task for the municipalities. After over 70 years of school meals, Finland has developed from a poor rural country to a modern welfare state.

Today, all pupils and students attending pre-primary, basic and upper secondary education are entitled to a warm, free-of-charge, full meal at school. According to the Finnish national core curriculum, in addition to providing nutrition, the meal also contributes towards education by raising awareness of the importance of healthy diets and nutrition in food-related education. Schools have two alternative foods on offer each day to provide a choice of meals. At least one of these can be a vegetarian alternative, usually including dairy and eggs. Some municipalities have made the decision to always include a vegetarian option as one of the alternatives. All schools are encouraged to serve a vegetarian meal to all pupils one day a week.

In terms of policy and legal frameworks, the school meals programme is regulated by legislation. Fundamental rights, that safeguard an individual's rights in relation to a public authority, are prescribed by the constitution. The constitution also prescribes and determines the contents of municipal duties and tasks. These are particularly educational and social rights. Further legislation is prescribed in acts and decrees concerning basic education, upper secondary education and early childhood education and care.

Municipalities in Finland are key societal influencers, and their range of duties is exceptionally wide in a European context. In Finland, municipalities are self-governing communities, in which a council chosen by its inhabitants has the highest authority. Municipalities provide citizens' basic services, of which the most important relate to social welfare and health; education and cultural administration; the environment; and technical infrastructure. In terms of school meals, the municipalities oversee the procurement, preparation, serving of the meals and monitoring; whereas the ministries and central governmental agencies are responsible for funding and proving the necessary legal and policy frameworks, instructions and guidance. The benefits of school meals are widely acknowledged, and mass meals following the same basic pattern are also common at universities and in workplaces. Serving a full, balanced and warm meal at school gives parents peace of mind knowing that their children are well-nourished during the day. School meals also play a role in addressing child poverty. School attendance is very high, and school feeding reaches virtually all 6-to-15-year-olds, including the children attending early childhood education and a large proportion of young people studying in upper secondary education. There is no undernutrition in the country, but obesity is a growing problem even among schoolchildren. Food-related education through the national core curriculum has a key role in the fight against obesity and malnutrition, and in encouraging pupils to make sustainable choices in their everyday lives. The meals received by all pupils in every school offer a unique opportunity for teaching the basic principles of a healthy diet. ■

Case Study 2.2 France: How school meals can support the transition to more sustainable food systems?

With input from

Sylvain Fournel

Deputy Permanent Representative of France to the Food and Agriculture Agencies of the United Nations Half of France's primary schoolchildren and two thirds of secondary school pupils – about six million children – regularly access school catering services. France has adopted a decentralized system, where municipalities directly manage provision of school meals to kindergartens and primary schools. District authorities are responsible for lower-secondary schools, and regional authorities for upper-secondary schools. Provision of school meals is not an obligatory public service, yet 80 percent of municipalities with schools implement a school feeding programme.

School feeding serves multiple purposes in France to:

- ensure that children have access to a healthy diet;
- expose children to a variety of food they learn how to "eat well", adopt healthy eating practices and make healthier food choices;
- address social and health inequalities that are often linked with poor eating habits and access to a balanced and healthy diet;
- stimulate local production and help to structure local and quality agrifood chains with the potential to produce more organic products; and
- encourage the adoption of more virtuous and sustainable feeding practices and accelerate the transition towards more sustainable food systems.

Local authorities can decide to manage school canteens, directly or through a dedicated public entity, or, for about a third of school meal programmes, outsource its implementation to a third party (e.g. a private company, a non-profit organization or a separate public entity). Meals can be prepared in autonomous kitchens in schools; in central kitchens that deliver meals to several schools and other public entities in the area; or through a mixed model based on central kitchens and satellite canteens in schools that can prepare part of the meal on site.

Two features of the French school feeding programmes are particularly noteworthy:

- It is a public service with a social objective through differentiated pricing.
- Social inequalities are reflected in eating habits and diets: children from disadvantaged social backgrounds are more at risk of being overweight. For these children, the school meal may be the only balanced meal of the day. Providing affordable school meals to all schoolchildren has been identified as a priority.

Local authorities set the price of school meals with the condition that the price of the meal doesn't exceed its cost. Families can pay a single price for a meal or, in many cases, a degressive price based on their income. For example, the Municipality of Paris uses a ten-level pricing scale (the lowest price of EUR 0.13 is offered to the most vulnerable households). Other municipalities such as Le Bourget or Bobigny have made school meals free for all households.

A key driver of the transition towards more sustainable food systems is the Egalim Law (2018).

Health and nutrition, environmental impact, and economic and social aspects are key considerations that have driven the recent evolution of the school meal programme in France. The Egalim Law in 2018 has brought significant progress: as an objective for 2022, the law states that 50 percent of food products served in schools should bear certification labels (including 20 percent organic labels) as a guarantee of quality and sustainable origin. The law also introduces the pilot of one vegetarian meal per week in school catering services. Plastic should be progressively substituted by other alternatives. First measures include reducing single use plastic and making implementation of a food waste management approach mandatory. Finally, the European Union school fruit, vegetables and milk scheme supports the distribution of products, including educational and information measures. ■



CHAPTER 3 The costs and benefits of school feeding

Over the past decade, the growing interest in school feeding programmes has led to an expansion of the knowledge base on school feeding, with a growing body of reports, evaluations and research publications. This chapter examines this growing body of evidence and highlights some of the key findings.

This chapter reports on new data on the costs of school feeding, which are compared with the cost benchmarks presented in the State of School Feeding Worldwide 2013 (WFP, 2013a), and recent studies that analyse the economics of school feeding.

The annual cost of a school feeding programme per child per year has changed little since 2013. Using median cost as a metric, the 2020 data indicate a cost of US\$55 in low-income countries (up from US\$50 in 2013); US\$41 (down from US\$46) in lower middle-income countries; and an unchanged estimate of US\$57 across all countries for both 2020 and 2013. The trend data between 2013 and 2020 support the interpretation that the cost of viable school feeding programmes are inherently similar and largely stable; there is a basic minimum price to be paid to provide a school meal for a child.

The relative cost of school feeding is greatest for those countries which invest least in education and which have the lowest GDP: poor countries, which need school feeding most, will struggle most to meet the costs. Similarly, as countries increase GDP they are increasingly able to become self-reliant and to meet the costs from domestic funds. The results in Chapter 1 confirm that most middle-income countries and above are already supporting their programmes from their national budgets. These observations support the new WFP School Feeding Strategy, which focuses external resources for programmes on the poorest countries and enhances technical support to those countries transitioning to domestic funding as their income increases.

Increasingly rigorous trials show both economic and non-economic benefits of school feeding programmes. Pre-2015 quasi-experimental studies, randomized controlled trials (RCTs) and systematic reviews have shown improvements in children's education, as well as their physical and psychosocial health, with most benefits accruing to the more disadvantaged children. Most recently, a longitudinal cluster RCT across the ten regions of Ghana, found a positive effect on aggregate learning, maths and literacy scores (with effect sizes of about 0.15 standard deviations), with larger effects for girls and children from households below the national poverty line. A recent meta-analysis of education support interventions in Sub-Saharan Africa, by the French Development Agency and the World Bank, ranked school feeding third most effective at boosting learning outcomes, exceeded only by pedagogy-focused interventions, and outperforming the construction of new schools and most education support interventions such as scholarships and cash transfers.

School feeding can also be effective in conflict settings, where rigorous studies are particularly difficult to conduct. A quasi-experimental study in Mali used a pre-crisis baseline and five-year follow-up to compare the effects of school meals versus general food distribution on children's schooling during conflict. School meals were associated with increases in enrolment of ten percentage points and led to approximately an additional half year of schooling over the five-year study period. In contrast, community food distribution was associated with decreased school attendance of approximately 20 percent. School feeding reduced the participation of girls in any labour-related activity by about ten percentage points (equivalent to a reduction in the total time spent on labour of one month per year); while community feeding increased children's labour, particularly among boys.

Economic benefit-cost analysis (BCA) provides a tool to help assess the multisectoral returns on school feeding programmes. The use of BCA to evaluate school feeding programmes can inform evidence-based policy decisions, particularly in terms of the economic returns to many sectors that can potentially benefit, for example human capital (e.g. health and education), social protection and the local agricultural economy. A preliminary analysis that selected a convenient sample of 14 countries across Latin America, South Asia and Sub-Saharan Africa, covering around 200 million schoolchildren benefitting from school feeding programmes, suggested that school feeding programmes can be cost-beneficial when seen through the lens of their intersectoral returns, with up to US\$9 of benefits from every US\$1 invested in those programmes.

3.1 The cost of school feeding programmes

The *State of School Feeding Worldwide 2013* (WFP, 2013a) provided an in-depth analysis of the costs of school feeding programmes globally, disaggregated by income group, and based on survey data collected and analysed by PCD (WFP, 2013a; Gelli and Daryanani, 2013). This established the first global benchmarks for school feeding costs.

In 2020, WFP has repeated this exercise using the same approach in order to explore trends in the values between 2013 and 2020. The 2020 data are based on a larger sample of 89 countries (up from 74 in 2013), distributed across the same income groups: 29 (up from 23) low-income countries; 33 (up from 23) lower middle-income countries; and 27 (down from 28) upper middle-income and high-income countries. The 2020 sample is based on four different data sources: the 2019 USDA-funded GCNF Global Survey (GCNF, 2019); WFP 2019 Annual Country Reports (WFP, 2020d); WFP's 2017 report on *Smart School Meals: Nutrition-Sensitive Programmes in Latin America and the Caribbean* (WFP, 2017d); and the African Union's 2018 report on *Sustainable School Feeding Across the African Union* (see Annex V and Table A5.1). Table 3.1 compares the data for 2013 and 2020.

The data show extraordinary consistency between the latest results and the 2013 benchmarks. Using median costs as a metric, the 2020 data indicate a cost of US\$55 (up from 50 in 2013) in low-income countries; US\$41 (down from 46) in lower middle-income countries; and an unchanged cost of US\$57 for both 2020 and 2013 across all countries. The remarkable consistency of the median costs conceals considerable variation in these values. However, there is also considerable overlap among the ranges of the different income groups, suggesting remarkable consistency in the cost per child of school feeding independent of the income group.

The main finding here is that, despite considerable heterogeneity, the annual cost of a school feeding programme has changed little since 2013, and that the cost of feeding a child continues to be broadly similar across countries and income groups.

The *State of School Feeding Worldwide 2013* (WFP, 2013a) compared the observed annual cost per person of national school feeding programmes with two important metrics for each country: the wealth or productivity of the nation, as indicated by GDP per person, and the scale of investment in education, as indicated by the annual cost per child of primary education. The same comparisons are provided here for the 2020 data, using GDP per capita from the World Bank's World Development Indicators database (World Bank, 2020e), and the cost of basic education based on the per-student share of GDP expenditure, as reported by UNESCO (UNESCO Institute for Statistics, 2020). The results for 2013 and 2020 are shown in Table 3.1 and illustrated in Figures 3.1 and 3.2.

As seen in the 2013 analyses, the annual cost per person of a school feeding programme represents a smaller proportion of GDP as income rises: in 2020, the median cost of school feeding represents approximately 7 percent (up from 6 percent in 2013) of GDP per capita in low-income countries; 2 percent (the same as in 2013) in lower middle-income countries; 1 percent in upper middle-income and high-income countries; and 2 percent (as in 2013) as an average of all countries (see Figure 3.2).

Similarly, and also as seen in 2013, the cost of school feeding as a proportion of the total cost of education is highest in low-income countries. In 2020, the median cost of school feeding programmes in low-income countries was 77 percent (up from 48 percent in 2013) of the cost of basic education; in lower middle-income countries 20 percent (up from 15 percent); and overall 21 percent (up from 15 percent) of all countries. Figure 3.1 shows the similarity of the patterns observed in 2013 and 2020, and the very high variation observed in the relative costs for low and lower middle-income countries when compared with the richer countries.

These trends were first described over a decade ago (Bundy et al., 2009; Gelli et al., 2009). The present trend data support the interpretation that the cost of school feeding programmes are inherently similar and largely stable, i.e. there is a basic minimum price to be paid to provide a meal for a child. Although the cost per meal may be lowest in low-income countries, it will inevitably represent a larger proportion relative to education costs for those countries which invest least in education and which have the lowest GDP. As an inevitable result, poor countries which need school feeding most, will struggle the most to meet the costs. Similarly, as countries increase GDP they are increasingly able to become self-reliant and to meet the costs from domestic funds. This is also the trend observed in section 1.4 which shows that most middle-income countries and above are already supporting their programmes from national budgets.



Table 3.1 2020 Cost benchmarks and comparative analysis with the State of School Feeding Worldwide 2013

	Total Yearly Cost of School Feeding Per Capita (USD)			Proportion of per-capita GDP			Proportion of per-capita Cost of Primary Education			
Income Group		2013	2020	Variation	2013	2020	Variation	2013	2020 ⁸	Variation
Low n=29	Mean	56	60	+7%	7%	9%	+27%	68%	96%	+42%
	Median	50	55	+11%	6%	7%	+13%	48%	77%	+60%
	Min	20	16	-19%	1%	2%	+109%	9%	18%	+99%
	Max	117	129	+10%	25%	23%	-8%	230%	286%	+25%
Lower Middle n=32	Mean	56	66	+17%	2%	3%	+52%	24%	42%	+74%
	Median	46	41	-10%	2%	2%	-4%	15%	20%	+36%
	Min	21	5	-76%	0%	0%	0%	3%	3%	-16%
	Max	136	343	+152%	10%	16%	+58%	89%	329%	+269%
Upper Middle and High n=27	Mean	371	154	-58%	2%	1%	-35%	11%	10%	-6%
	Median	225	81	-64%	1%	1%	+10%	8%	11%	+32%
	Min	24	25	+3%	0%	0%	0%	2%	1%	-56%
	Max	1586	707	-55%	5%	3%	-41%	29%	26%	-9%
BRICS ⁹ n=3	Mean	36	32	-12%	1%	1%	+12%	4%	5%	+22%
	Median	30	35	+18%	1%	1%	+17%	5%	4%	-21%
	Min	15	14	-4%	0%	0%	+27%	2%	2%	-3%
	Max	64	46	-28%	1%	1%	+1%	6%	10%	+65%
All n=89	Mean	173	91	-48%	3%	4%	+47%	33%	49%	+48%
	Median	57	57	0%	2%	2%	+11%	15%	21%	+43%
	Min	15	5	-66%	0%	0%	-10%	2%	1%	-56%
	Max	1586	707	-55%	26%	23%	-12%	230%	329%	+43%pa

Median cost of school feeding per child



US\$41 Lower middleincome US\$81 Upper middleand high-income



 Due to the lack of available data, the analysis covered only 73 countries for the proportion of per capita cost of primary education (low-income countries: n=22; lower middle-income countries: n=27; upper middle- and high-income countries n=23; BRICS: n=3).

9. Data were only available for Brazil, India and South Africa.

The cost of school meals has remained relatively constant over the past decade, with expenditure commensurate with income level

The basic costs are food and delivery, with countries typically investing more as income levels increase

School feeding demands a greater proportion of national budgets in low-income countries

Over the last decade, countries have sustained their financial support and increased the contribution from domestic budgets

The challenge now is the shrinking fiscal space due to COVID-19



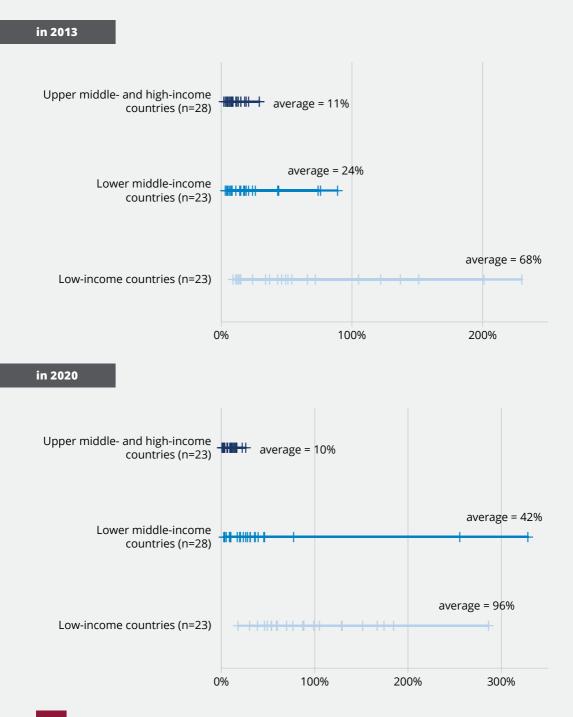






Figure 3.1 Cost of school feeding as a share of expenditure in primary education

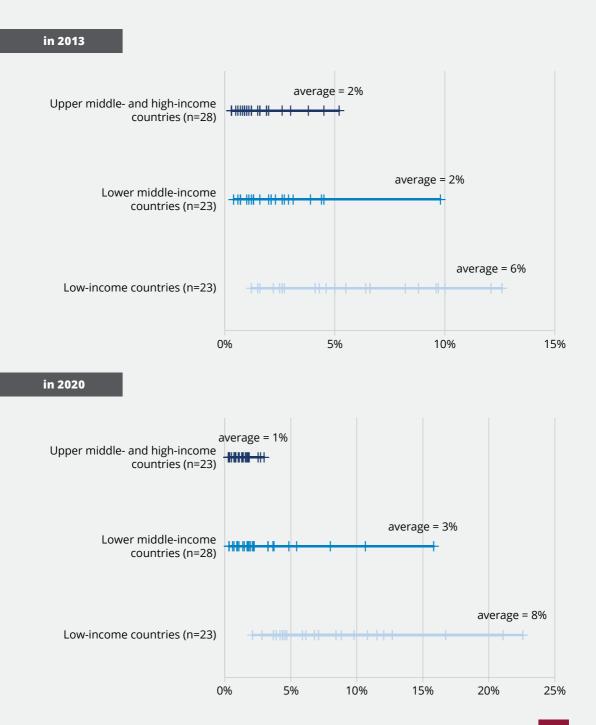
Legend: Consistent with the increase in government expenditure as seen in Chapter 1, the cost of school feeding as a percentage of the cost of education has increased between 2013 and 2020.



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Figure 3.2 Cost of school feeding as a share of GDP per capita

Legend: Similar to the 2013 results, the annual cost per child of school feeding programmes represents a smaller proportion of GDP as income rises.



Box 3.1 School feeding as a core component of social protection systems

Julieta Trias Economist

Yashodhan Ghorpade Economist

Ugo Gentilini

Senior Social Protection Economist

World Bank

Provision of basic education and health care is the foundation of any national social welfare system. School feeding is a non-contributory safety net (or social assistance programme) and a formidable instrument to increase school attendance and enrolment, while improving child nutrition and learning. School feeding is the most widespread form of in-kind benefits globally; in food insecure areas it is often the only safety net available to children and families.

School feeding is the most widespread social protection instrument globally. According to the World Bank's Atlas of Social Protection Indicators (ASPIRE) database, countries spend on average 0.14 percent of their annual GDP on school feeding programmes. In some cases, such as Malawi and Liberia, investments reach 1 percent of GDP, which is more than twice the average spending on safety nets in Africa. School meals are also increasingly targeting children from poor and disadvantaged households. About one third of poor households globally participate in these programmes.

There is a consensus that school feeding positively contributes to immediate education outcomes and longer-term human capital formation. In Mali, an emergency school feeding programme during conflict improved education outcomes – increasing school enrolment by ten percentage points and adding a half year of completed schooling – and reduced child labour for girls (Aurino et al., 2018a). Evidence shows that school feeding consistently increases school enrolment, such as in Burkina Faso, Kenya and Peru (Cueto and Chinen, 2008; Kazianga et al., 2009; Vermeersch and Kremer, 2005), albeit not always leading to improved learning. This is because of other factors that affect the learning equation (Jukes et al., 2007; Adelman et al., 2008; Alderman and Bundy, 2012).

Regarding longer-term outcomes, in India, for example, the Mid-Day Meal Scheme mitigated the impact of severe drought on child nutritional status, improving the nutritional intake of young children just entering school (Singh et al., 2014). In addition, children who were exposed to the programme for five years showed improvement in their test scores in reading and in maths compared with those exposed to the programme for less than a year (Chakraborty and Jayaraman, 2019). As in the case of cash transfers, the impacts are usually higher where gaps are greater; therefore the greatest improvements are observed among the poorest, female students and minorities (Alderman and Bundy, 2012; Ahmed and del Ninno, 2002; Jukes et al., 2007; Kristjansson et al., 2007; Adelman et al., 2008; Bastagli et al., 2016). However, unlike cash transfers, school feeding provides a controlled food basket, thereby promoting specific child nutrition outcomes, which a cash transfer may not guarantee.

In order for school feeding to maximize its contribution to national social protection systems, the provision must be adequate. This entails selection of the modality (in-school meals, fortified biscuits, take-home rations, or some combination of these) including the transfer values, duration of the benefits and the effectiveness of targeting should be appropriate for the context. The delivery of food should be provided in a timely, regular and predictable manner, avoiding pipeline breaks and dilution of rations; and the level of labour, cash and in-kind community contributions should be carefully designed to maximize the value transfer and avoid burdening those already vulnerable. To prepare for and cope with shocks and crises, programmes should also be flexible for scale-up. Finally, school feeding must contribute to education quality.

More research is needed on how to complement school feeding with cash, vouchers and in-kind transfers; on the comparative cost-effectiveness of different delivery modalities; and on the role that school feeding can play in strengthening national social protection systems more widely. The COVID-19 pandemic is also presenting examples of cross-country practices on how school feeding can be adapted as a crisis-response mechanism. More rigorous evaluations are needed to understand their impact on a wider range of outcomes at family and individual level, over a longer time period, and to assess their effects on dimensions such as social contracts and genderbased violence.

3.2 Economic and non-economic benefits of school feeding

Rigorous studies (Adelman et al., 2019; Kazianga et al., 2014; Powell et al., 1998) and systematic reviews (Kristjansson et al., 2007; Snilstveit et al., 2015) have shown that the provision of school meals can improve children's education, as well as their physical and psychosocial health, with most benefits accruing to more disadvantaged children. These effects are generally heterogenous and context-specific, depending on the economic environment and the quality of programme implementation. Importantly, in terms of evidence, most of the studies on the effectiveness of school meals predate the progress made in increasing school enrolment in the last two decades: net enrolment in primary schools increased globally from 83 percent in 1999 to 90 percent in 2016. Today, low-income countries are approaching universal primary school enrolment, which improves the potential of school-based health and nutrition programmes, including school feeding programmes, to cost-effectively reach large proportions of children and adolescents. In recent years, concurrent with changes in enrolment goals, the objective of improving nutrition has also shifted as many countries see school meals as a means to address the challenge of obesity, rather than primarily to offset undernutrition. Therefore, there is a growing need to understand the distribution of benefits across populations, particularly for the most vulnerable groups.

New and more rigorous evidence on the impact of national school feeding programmes includes an impact evaluation in Ghana conducted by the government with PCD and with the support of the Bill and Melinda Gates Foundation. A longitudinal cluster RCT was implemented across the ten regions of Ghana, covering 2,869 school-age children (aged 5-15). Communities were randomized to: 1) a control group without intervention; or 2) a treatment group delivering the reformed national school feeding programme, providing one hot meal a day in public primary schools. The study found a positive effect on aggregate learning, maths and literacy scores (with effect sizes of about 0.15 standard deviations). Moreover, larger effects were found in girls (about 0.25 standard deviations); children from households below the national poverty line (about 0.30 standard deviations); and those living in the northern regions (about 0.30 standard deviations). There was also evidence on the main impact pathways, including increases in enrolment (of about 4 percent) in these subgroups; a positive effect on aggregate cognition, digit span and standardized progressive matrices scores (all children ~0.15 standard deviations with larger effects in subgroups) (Aurino et al., 2018b); and increased linear growth in children 5-8 years (effect size about 0.1 standard deviation), in girls and in children living below the national poverty line (Gelli et al., 2019b). Further analysis of potential agriculture-related effects in Ghana is under way.

Another area of ongoing research centres on nutrition-sensitive programmes, such as school meals and early childhood development (ECD), and on how these interventions can be leveraged to deliver nutrition interventions at scale (Black et al., 2013; Black et al., 2017; Ruel and Alderman, 2013). Integrating nutrition and ECD services, for example, provides an opportunity for both continued coverage to pre-school children outside the priority age range for nutrition (<24 months), and a platform to influence caregivers of younger siblings still at home. However, there is little rigorous evidence on the effectiveness of scaling-up nutrition interventions through ECD platforms.

School feeding programmes create value across multiple sectors, including: education, health, nutrition, social protection and agriculture.

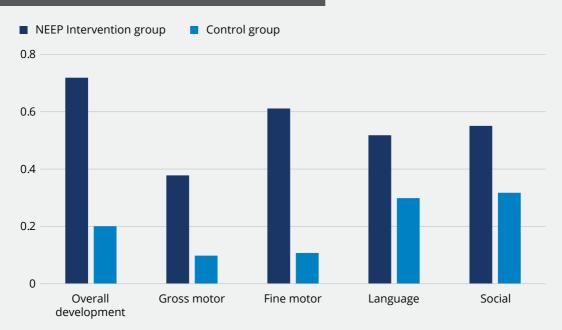
Figure 3.3 Improvements associated with nutrition-sensitive programming in Malawi

Legend: Younger siblings of schoolchildren receiving nutrition-sensitive, pre-school meals were found to have improved height-for-age and better child development scores one year after the end of the trial. Nutrition-sensitive programming is likely to benefit younger siblings as well, through programme impact pathways such as caregiver knowledge and parenting practices.

Height-for-age (HAZ), younger siblings



(Malawi Development Assessment Tool)



Source: Gelli et al., 2018; Gelli et al., 2019a.

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An RCT design has also been used to help fill evidence gaps on the impact of nutrition-sensitive programmes. The Nutrition Embedded Evaluation Programme Impact Evaluation (NEEP-IE) in Malawi was the first RCT of pre-school meals as a platform to reach pre-schoolers, as well as their younger siblings and caregivers at home. Results found that the intervention improved diets of pre-schoolers and their younger siblings, and also resulted in improvements in caregiver nutrition-related knowledge, nutritious food production at household level and improved growth in younger siblings (Gelli et al., 2018; Gelli et al., 2019a) (see Figure 3.3). Two years after the trial ended, the Government of Malawi is in the process of scaling-up the intervention with support from the World Bank, with the project document citing the RCT as evidence to justify the investment.

Experimental study designs have also been used to assess the effectiveness of school feeding programmes as part of safety net interventions in conflict/fragile settings. The World Bank estimates that up to 1.5 billion people live in areas affected by fragility, conflict or large-scale organized criminal violence (World Bank, 2011). Food insecurity, political instability and conflict are also interlinked (World Bank, 2011). All emergencies currently being addressed by WFP (in Burkina Faso, Democratic Republic of Congo, Mali, Niger, Nigeria, South Sudan, Syria and Yemen) are directly or indirectly the result of conflict.

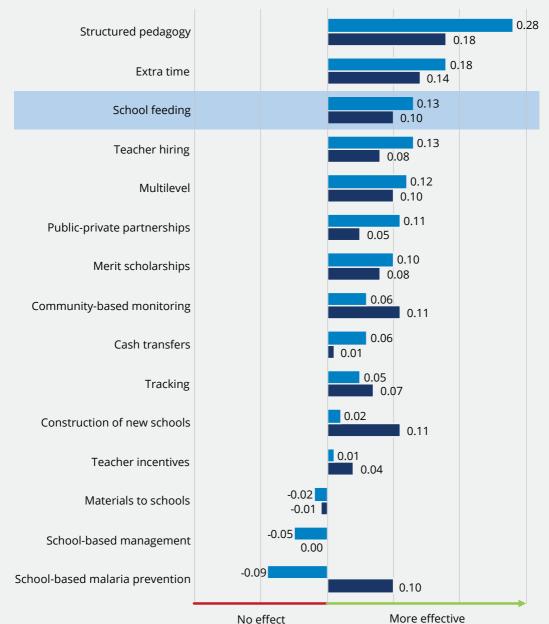
New evidence on the effectiveness of school meals in conflict settings, where rigorous studies are particularly difficult to conduct, includes a quasi-experimental study set in central Mali. This was a government study with PCD and the support of the Bill and Melinda Gates Foundation. The study built on a unique pre-crisis baseline and five-year follow-up to investigate the effects of school meals versus general food distribution (GFD) on children's schooling during conflict (further details of the study are shown in Case Study 3.1) The study found that school meals were associated with increases in enrolment of ten percentage points and led to approximately an additional half year of schooling over the five-year study period (Aurino et al., 2018a). In contrast, the provision of GFD was found to be associated with a decrease in school attendance of approximately 20 percent.

The effects varied by degree of conflict exposure. There was also some evidence that the receipt of food assistance triggered adjustments in child labour that were modality-specific: the school feeding programme reduced the participation of girls in any labour-related activity by about 10 percentage points (equivalent to a reduction in total time spent on labour of one month per year); while GFD actually increased children's labour, particularly among boys. Evidence from this study and other complementary analyses in Mali (Tranchant et al., 2018) suggests that humanitarian operations during conflict face important trade-offs, e.g. programme scale and effectiveness versus the practicalities of operating in areas under the control of armed groups, including security, governance and transparency.

Finally, school feeding has proven to deliver significant benefits on learning outcomes. In a recent publication by the French Development Agency and the World Bank (Bashir et al., 2018), school feeding was found to be the third most effective intervention at boosting learning outcomes among a package of education support interventions implemented in Sub-Saharan Africa and other developing countries. As illustrated in Figure 3.4, the effectiveness of school feeding is exceeded only by pedagogy-focused interventions (structured pedagogy and extra time), while school feeding over-performs all other interventions, including infrastructure investments (construction of new schools, materials to schools) and the majority of education support interventions (scholarships, cash transfers, teacher incentives, etc.).

Figure 3.4 Average effectiveness of interventions to boost learning outcomes, Sub-Saharan African countries compared with all low- and middle-income countries

Legend: In low and lower middle-income countries, school feeding is the third most effective intervention for boosting learning outcomes, immediately following pedagogy-focused interventions and out-performing all other activities, including infrastructure investments.



Sub-Saharan African countries All low- and middle-income countries

Source: Bashir et al., 2018, p. 126.

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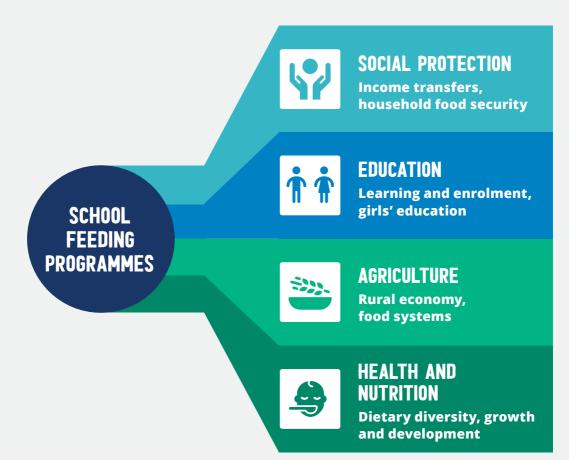
A meta-analysis of 145 recent empirical studies (Evans and Mendez Acosta, 2021) on how to increase access to and improve the quality of education in Africa confirmed these findings. This review found that school feeding yields significant gains in test scores and learning outcomes, with particularly large gains for girls and for children from the poorest households. According to the authors, "these results greatly strengthen earlier global evidence that school feeding is a promising strategy for boosting cognitive outcomes as well as access to school". These results can be put in perspective with the outcomes of other school-based programmes: "cash transfers are reasonably consistent in increasing access to school but not at improving learning... similarly, eliminating school fees has inconsistent impacts on the quality of education" while "school feeding offers consistent gains in access and learning".

3.3 Calculating the returns to school feeding: the economic value of school feeding programmes in low- and middle-income countries

When linked to nutrition and education, well-designed, equitable school feeding programmes contribute to child development through increased years of schooling, better learning and improved nutrition. Increased years of schooling arise from three factors: increased enrolments, better attendance and reduced dropout. School feeding provides consistent positive effects on energy intake, micronutrient status, school enrolment and attendance (Jomaa et al., 2011). The effects are particularly strong for girls. School feeding programmes have demonstrated effects on reducing anaemia in primary school-age children and adolescent girls (Adelman et al., 2019). As illustrated by the Finnish national core curriculum, in addition to providing nutrition, school meals also contribute towards education by raising awareness of the importance of healthy diets and nutrition in food-related education (Pellikka et al., 2019). See also Case Study 2.1.

In its 2016 report, the International Commission on Financing Global Education Opportunity, chaired by Gordon Brown, identified 13 non-teaching interventions as "highly effective practices to increase access and learning outcomes". These included three health programmes: school feeding, malaria prevention and micronutrient intervention (International Commission on Financing Global Education Opportunity, 2016). A recent United Nations agency review of evidence found that school feeding is among the two interventions with the strongest evidence of impact on equity and inclusion in education (the other being conditional cash transfers) (Mundy and Proulx, 2019).

School feeding is one of the most common safety nets, providing the daily support and stability that vulnerable families and children need, and was shown to be one of the first social protection solutions that poor countries turned to during the social shocks of the 2008 financial crisis (Bundy et al., 2009). Particularly when integrated into national social protection systems, school feeding can contribute to preventing and protecting people against poverty, vulnerability and social exclusion throughout their lives. Associating school feeding with other social assistance programmes such as scholarships, unconditional transfers and public works provides opportunities to address the multidimensional social and economic vulnerabilities faced by children and their families and helps to reinforce the impact of these programmes (WFP, 2018b).



Efficient programmes yield returns of up to US\$9 for every US\$1 invested.

Source: Bundy et al., 2018b

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Finally, well-designed school feeding programmes that procure food locally (home-grown school feeding) can offer additional benefits for smallholder farmers, including supporting local food production and economies, and promoting sustainable local markets for diverse, nutritious foods (WFP et al., 2018).¹⁰ Local procurement creates employment opportunities for women smallholder farmers or jobs in school canteens and improves the livelihoods of the communities near the schools; thereby contributing to women's economic empowerment and decision making (WFP et al., 2018).

Figure 3.5 illustrates the multiple benefits, showing that the single intervention of school feeding has consequences for at least four different sectors. These effects often operate across sectors and the effects are interconnected, e.g. the returns in terms of human capital development, through health, nutrition and education; and the returns from investment in the community, through social protection and local agriculture. Social protection helps promote social stability, and a stable community enhances the effects on education outcomes and opportunities for employment. It is these multiple and potentially multiplicative benefits that make well-designed school feeding programmes a particularly worthwhile investment.

Against this context, to fully understand and quantify investments in school feeding programmes and their returns, it is essential to assess the full intersectoral costs and benefits of such programmes. School feeding programmes offer the potential for multiple important benefits: not only in terms of creating a more productive population (human capital, through better health and education) but also in providing a social safety net to benefit the most vulnerable, and as a productive investment in local economies, especially for smallholder agriculture. These benefits can potentially accrue from the same, single programme, potentially providing major returns on every dollar invested.



^{10.} The resource framework defines home-grown school (HGSF) feeding as follows: HGSF constitutes a school feeding model that is designed to provide children in schools with safe, diverse and nutritious food, sourced locally from smallholders. "Sourced locally from smallholders" means that HGSF programmes: (1) maximize benefits for smallholder farmers by linking schools to local food production; (2) strengthen the capacities of smallholder farmers and communities to produce food; and (3) contribute to rural transformation.

School feeding programmes can directly create about 2,000 new jobs for every 100,000 children fed.

Economic benefit-cost analysis (BCA) provides a tool to help assess the economic consequences of policies by quantifying the costs and benefits of rolling out a given policy. The use of BCA to evaluate school feeding programmes can inform evidence-based policy decisions and can help governments understand the utility of collecting data on the costs and benefits of school feeding programmes. Such analyses can demonstrate how economic returns to national school feeding programmes can be estimated, particularly the returns to human capital (e.g. health and education), social protection and the local agricultural economy. These analyses also highlight the programmes' high policy relevance by helping to identify key distributional consequences (e.g. across socioeconomic status) and major equity implications, especially those that benefit the most disadvantaged and women.

A BCA conceptual framework was recently developed and tested on a global selection of 14 countries across Latin America, South Asia and Sub-Saharan Africa, where input secondary data were readily available (Verguet et al., 2020). This preliminary global BCA model aimed at quantifying the costs associated with running school feeding programmes in the selection of countries (e.g. drawing from the number of schoolchildren and delivery costs per country); and comparing these costs with four kinds of benefits (across the four sectors enumerated above): 1) health and nutrition gains, by tentatively quantifying the numbers of cases of soil-transmitted helminth infections and of anaemia that would be averted; 2) education and human capital gains, by computing resulting increases in school attendance and how such increases might later translate into future higher wages during the working adult life of schoolchildren; 3) social protection gains, by quantifying the monetary value of the food transfer (i.e. the income transfer) of the school meals to families and households; and 4) local economy gains, by attempting to simulate how the predictable food demand from school feeding programmes could potentially increase the agricultural production of local farmers.

Across the 14 countries included in the stylized global BCA model, it was estimated that around 200 million schoolchildren would benefit from school feeding programmes with total programme budgets amounting to approximately US\$11 billion per year. Health and nutrition gains could reach around US\$24 billion, while education and human capital gains could be approximately US\$156 billion. Furthermore, social protection gains for families could be around US\$7 billion, and school feeding programmes could stimulate potential economic gains to local agricultural economies worth up to US\$23 billion. Overall, the return on investment, in other words the ratio of benefits versus costs, could be of at least 7 to 1, and as high as 9 to 1, showing that school feeding programmes could be cost-beneficial when appreciated from an intersectoral perspective. Importantly, this preliminary analysis highlights the scale of potential costs and benefits of school feeding programmes. More detailed BCAs at the country level should be conducted to obtain more precise estimates and to fully understand the local and distributional specificities of school feeding programmes at the subnational level.

Box 3.2 The World Bank Group's approach to school health and nutrition

Shifting from vertical and sectoral approaches to comprehensive, multisectoral school health investments to improve human capital

Fernando Lavadenz Senior Health Specialist

Fatoumata Barry Health, Nutrition and Population Specialist

Mouhamadou Moustapha Lo Education Specialist

World Bank

Investing in the health and education of children and adolescents in lowand middle-income countries is critical to maximizing human capital. However, targeted investments in both sectors are currently insufficient to meaningfully improve current and future productivity (World Bank, 2018a; Schultz et al., 2018). The World Bank Group's (WBG) Human Capital Project (HCP), launched in 2018, is a global effort to encourage investments in people as a critical step to boosting inclusive economic growth and ending extreme poverty (World Bank, 2018a). In order to raise awareness of the cost of inaction and to encourage countries to invest in their people, the WBG developed the Human Capital Index (HCI), which measures the amount of human capital that a child born today can expect to attain by age 18. In Sub-Saharan Africa, for example, a child born today will only be 40 percent as productive as they could be due to shortfalls in health and education provision.

School health and nutrition (SHN) investments are therefore essential, as unhealthy and undernourished children and adolescents have reduced levels of learning and educational achievement and future productivity. It is equally important that investments in SHN shift from vertical programmes with weak governance; a lack of a multisectoral view; and implemented by one sector to more comprehensive, multisectoral and sustainable investments. Schools offer a cost-effective platform to provide simple, safe and effective health and nutrition interventions to children and adolescents. Access to SHN services in schools has also been recognized as a way to empower adolescent girls by reducing early marriages and delaying first pregnancy, both of which can limit a girl's future by trapping her into poverty, social exclusion, violence and chronic ill health.

To align with more sustainable investments, the WBG's Health, Nutrition and Population (HNP) and Education Global Practices have developed a common, multisectoral approach to ensure that returns on co-investment in SHN are optimized, producing important outcomes in both sectors. There are three main objectives to the SHN approach:

- Investment cases on SHN need to be developed at the country level to identify the gaps, needs and governance mechanisms for improved coordination and options for sustainable financing. The investment cases should be complemented with a diagnostic tool, an improved version of the SABER framework, the "Healthy-SABER," which is designed to strengthen SHN policies and enhance financial decision making at the country level.
- 2. An evidence-based guaranteed package of SHN services should be developed to increase access to cost-effective health interventions (including school-based deworming, school feeding, menstrual hygiene management, sexual and reproductive health, socio-emotional skills, Human Papillomavirus (HPV) vaccines, etc.). As part of the SHN package, school feeding has been internationally recognized as improving attendance, retention, schooling and, more recently, cognitive abilities (Drake et al., 2017). However, due to its high cost compared to other SHN interventions and for better results, school feeding must be combined with other health services, especially in disadvantaged areas.
- 3. Finally, building international consensus for the effective implementation of SHN is critical. In a strategic partnership with WFP, the WBG is working with other bilateral and multilateral agencies to assist countries in accelerating SHN programmes to improve health and education outcomes as a step to boosting inclusive economic growth and productivity to maximize human capital. ■

Box 3.3 USDA's perspective on school feeding

Shane Danielson

Senior Director, International Food Assistance Division, Global Programs

US Department of Agriculture

USDA's McGovern-Dole International Food for Education and Child Nutrition Program supports education, child development and food security in low-income, food-deficit countries. It donates United States agricultural commodities and financial and technical assistance for school feeding and maternal and child nutrition projects.

McGovern-Dole reduces hunger and improves literacy and primary education, especially for girls, by providing school meals, teacher training and related support. McGovern-Dole projects boost school enrolment and academic performance, and also improve children's health and learning capacity before they enter school through nutrition activities targeting pregnant and breastfeeding mothers, infants and pre-school children.

For sustainability, McGovern-Dole and its partner organizations ensure communities can ultimately continue activities independently or with support from other sources. Handover plans are developed collaboratively with partner governments and implementing partners.

In the fiscal year 2019 (FY 2019), USDA funded eight proposals worth US\$170 million; and 45,990 metric tons of United States-donated commodities will be provided during these four-to-five-year projects to countries in Africa, Asia and the Caribbean. In FY 2019, McGovern-Dole had a total of 46 active projects in 30 countries valued at US\$1 billion across the projects' lifespan.

In FY 2019, McGovern-Dole projects:

- Directly benefitted over four million children and community members.
- Fed nutritious school meals to over 3.1 million food-insecure children.
- Trained over 8,900 parent teacher associations to champion education in their communities.
- Educated over 20,000 teachers to improve instruction and literacy.
- Rehabilitated or constructed more than 4,200 facilities including latrines, kitchens, handwashing stations, storerooms and classrooms.

The Local and Regional Procurement (LRP) programme under McGovern-Dole supports school feeding and local agriculture. In FY 2019, McGovern-Dole awarded US\$15 million for LRP awards in three countries, procuring local commodities that complement United States-donated commodities.

In the United States, the national school lunch and breakfast programmes safeguard the health and well-being of schoolchildren and support United States agriculture. School meal programmes offer balanced, nutritious meals for all students with free or reduced-price meals for low-income children. On an average school day in FY 2019, 29.6 million students ate school lunches and 14.8 million ate a school breakfast.

The federal government provides funds, donates commodities and sets national standards for the nutritional content of meals and other programme requirements, including guidance and training for nutrition education and food safety. The programmes are implemented at the state level and in schools at the local level. Federal funding in FY 2019 was US\$12.8 billion in reimbursements, and purchased commodities distributed to schools were worth US\$1.33 billion.

Historically, these programmes were established to support agriculture, and a long-standing requirement is to use domestic products in these programmes. This link to agriculture is a major reason why the programmes have enduring political support.

More recently, significant activity has occurred linking school feeding to locally produced food. "Farm to School" efforts bring fresh, local foods into schools and foster economic opportunity for America's farmers. In FY 2020, USDA awarded over US\$12 million in Farm to School Grants across the country to producers, tribal nations, non-profits, state agencies and schools, reflecting both the Department's commitment and great interest in this effort in local communities.

3.4 The way forward

- More than ten years after the first ever Cochrane Review on school feeding programmes, the knowledge and evidence base on the impacts of school feeding interventions has grown significantly. In particular, human capital dynamics and the role of schools as part of child and adolescent development throughout the first 8,000 days of life have emerged as an essential dimension of school feeding programmes. A new Cochrane Review (expected to begin in late 2020) of academic evidence synthesis, updating the previous Cochrane Review, will examine the current evidence on school feeding in the broader context of school health and nutrition integrated programming.
- In light of recent data on the costs and benefits of school feeding, more technical assistance is needed to support governments further improve cost-efficiency and maximize the impacts of their school feeding programmes. The global coalition of partners for school health and nutrition is committed to increasing coordination and providing assistance to implementers of school feeding programmes to improve the quality and coverage of these programmes, especially for the most vulnerable children.

Case Study 3.1 Mali: Improving the prospects for peace and building social cohesion

Elisabetta Aurino

Economist

Imperial College London The positive effects of school feeding on schooling have been established by a wide body of evidence in non-crisis settings (see Drake et al., 2017 for a review), yet evidence on the effectiveness of school feeding in conflict settings remains extremely limited. A smart study design (Aurino et al., 2019) has analysed the educational impacts of school feeding during the recent conflict in Mopti, central Mali, providing unique, quasi-experimental evidence on this critical question.

Since 2012, Mali has experienced a series of political crises which compounded high levels of food insecurity. Strengthening the educational impacts of humanitarian response is particularly critical for Mali, where over half of its 14.5 million inhabitants are under 15, and primary schooling completion and youth literacy rates are among the lowest in the world (World Bank, 2020e).

By relying on a unique pre-crisis baseline from 2012, supported by PCD and the Bill and Melinda Gates Foundation, and a longitudinal four-year follow-up, this study estimates the effects of emergency school feeding implemented by WFP and other partners on children's educational outcomes.

The study found that school feeding had a positive impact on school enrolment, with an increase of about 10 percentage points in the probability of enrolment for children participating in the programme relative to the control group. This is a large increase, particularly given the low enrolment rates (around 40 percent in 2017). School feeding also positively affected retention and grade progression: on average, children in the school feeding group gained more than an additional half year of education compared with their peers. This effect was slightly larger among girls.

The study also examined differences in school feeding effects by conflict intensity, by differentiating between villages in which rebels were present at the local level (categorized as "high-conflict intensity"), and villages where rebel groups were not operating in the immediate vicinity ("low-conflict intensity" villages). There was no difference in the impact of school feeding on enrolment by degree of conflict intensity. However, the increase in grade progression was mostly driven by low-conflict intensity in villages. To understand the mechanisms underpinning these results, the study examined how the offer of school feeding changed child labour patterns. Child labour is an important coping strategy used by households in the face of severe adverse conditions, such as conflict, potentially leading to increased absenteeism and dropouts. The study hypothesizes that offering free school meals would lower opportunity costs of attending school, which can be especially high in crisis-affected settings. In addition, as child labour patterns are highly gendered, with girls tending to be more involved in housework and boys in farm work and pastoralist activities, it is likely that the programme may affect girls and boys differently.

Although the estimated effects for school feeding were suggestive of a protective effect against child labour (that is, a decline in participation and time spent in labour), coefficients were not statistically significant overall. However, when examining differences by gender, the study found that school feeding significantly decreased the participation of girls in any labour by about 10 percentage points, which accounted for a reduction in total time spent in work of about one month per year. This broad reduction was driven by a decrease in the time girls spent in farm work, while housework for them remained the same. The study explains this result as decreases in farm labour among girls may be more compatible with school attendance, the key condition for receiving the free meals.

In sum, school feeding was able to enhance enrolment and attainment in a context of conflict, protracted fragility and high food insecurity such as in Mopti, especially among girls. These findings are especially critical for the achievement of SDG 1 (social protection for all) and SDG 4 (education) for children living in a world where humanitarian crises are unfortunately more complex, recurrent and protracted.



CHAPTER 4 Partnerships for school feeding

P/Naomi Scott/

M

Previous chapters have shown how countries across the world increasingly recognize that well-designed and equitable school feeding programmes contribute to child and adolescent development through increased years of schooling and improved nutritional status. Multisectoral partnerships are critical to ensure that this recognition translates into integrated programmes, which bring together education, health, social protection and other development partners to promote and implement school health and nutrition programmes. One of these critical partnerships is a new strategic partnership between WFP and UNICEF, launched in January 2020 to ensure that by 2030, 35 million children in 30 of the poorest countries receive a package of essential health and nutrition services. Additionally, with a crisis of the magnitude of COVID-19, with far reaching health, education, social and economic impacts for learners, WFP and UNICEF are working with governments to safely reopen schools. Both agencies are working together to offer comprehensive support in terms of implementation and strengthened advocacy, resource mobilization and partnership initiatives to meet the critical needs of learners.

Global coalitions of partners have also been built over the past two decades in support of school health and nutrition. The Focusing Resources for Effective School Health (FRESH) Framework emerged in 2000 as an effort by multiple agencies to develop a consensus on how to promote health and nutrition of the learner as part of the overall investment in learning. Building on this platform, the school health and nutrition agenda was revitalized in 2019 when UNESCO re-convened an inter-agency group on School Health and Nutrition with the objective of strengthening global collaboration and promoting a more effective multi-agency school health and nutrition approach.

School feeding information networks at the global and regional level have been important fora for exchange between agencies working on school feeding and school health and nutrition. The longest running of these is the Global Child Nutrition Forum (GCNF) which convenes stakeholders engaged in school feeding on an annual basis. New initiatives are also being established by the Russian Federation and Germany, while several networks have been established at the regional level in Latin American and South Asia.

South-South Cooperation mechanisms are critical in promoting the exchange of knowledge between countries that are establishing national school feeding programmes. The WFP Centre of Excellence Against Hunger in Brazil is a major mechanism which promotes cooperation and currently supports 30 countries on a long-term basis. In 2019, the Government of Côte d'Ivoire and WFP launched a Regional Centre of Excellence Against Hunger and Malnutrition which will document, promote and share practices for the eradication of hunger and malnutrition learned from Côte d'Ivoire and other countries of the region.

There has been significant progress in the development of formal regional structures to promote partnership and coordination on school feeding at the regional level. These platforms provide an opportunity for countries and partners to come together to set policy, agree on action and channel specific support. The African Union is a key partner in supporting the scale up of nationally owned school health and school feeding programmes.

Country-level partnerships are critical in the development of integrated school health and nutrition packages. School health and nutrition approaches promote improved relationships at the national level through the promotion of inter-ministerial engagement within governments and national coordination of development partners working in different thematic areas.

4.1 An advocacy partnership for school health and nutrition

There is a growing consensus among countries and development and humanitarian partners of the need for a common, integrated approach to meet the health and nutrition needs of schoolage children and adolescents. This agenda first emerged formally in 2000 when it was identified as a priority under the Education for All (World Bank, 2014) movement and was supported by the launch of the FRESH framework (UNESCO et al., 2000). The framework was an effort by partners (including UNESCO, UNICEF, WFP, WHO, the World Bank and PCD) to agree on what was needed operationally to support the health and nutrition of the learner as part of overall investments in learning. The FRESH framework identified four pillars of investment in school health: school health policy; healthy school environment; health education; and health interventions, including school feeding to be delivered by schools, teachers, children and the community, with the goal of promoting better education results through school-based health and nutrition services.

Many countries and organizations have subsequently used the FRESH framework to define their school health and nutrition strategies, and to target the health and nutrition of the learner alongside national efforts to improve learning (Bundy, 2011; UNESCO et al., 2015). During this period, the FRESH partnership received support from key UN agencies, but was most active as a global information network led by non-state actors, including at various times: Save the Children, PCD and the International School Health Initiative (PCD, 2020).

Building on this platform, in 2019 UNESCO and WFP re-convened an inter-agency group on School Health and Nutrition,¹¹ with the objective of strengthening UN agency collaboration and promoting a more effective and integrated multi-agency school health and nutrition approach. The group's members are working together to identify priorities; scale up joint work through evidence-based interventions; and to advocate for collective action on school health and nutrition (see Box 4.1). As a response to the learning crisis exacerbated by COVID-19, in 2020 the UN Secretary-General launched a major campaign called Save Our Future. This campaign aims to reimagine education, developing a new vision for children in the decade ahead. It is led by the Education Commission and includes UNICEF, UNESCO, GPE, ECW and the World Bank, among others.

There is a growing coalition of development partners supporting governments in the scale up of school health and nutrition programmes.

^{11.} World Food Programme (WFP), United Nations Educational, Scientific and Cultural Organization (UNESCO), United Nations Food and Agriculture Organization (FAO), the Global Partnership for Education (GPE), the United Nations Children's Fund (UNICEF), the World Health Organization (WHO), the United Nations System Standing Committee on Nutrition (UNSCN), and the World Bank.

Box 4.1 Stepping up effective school health and nutrition – A UN partnership

Stefania Giannini

Assistant Director-General for Education The relationship between education, nutrition and health calls for a more integrated, systems approach to school health and nutrition, and coordinated action to bring effective, multi-component policies and programmes to scale.

UNESCO

UN and multi-lateral agencies have responded to this call, forming a new partnership around "Stepping up effective school health and nutrition", in collective commitment to advance the health and nutrition of schoolage children, so they are able to learn and grow; achieve their full potential; and shape the future of their communities and countries. The partnership includes FAO, the Global Partnership for Education (GPE), UNESCO, UNICEF, UNSCN, the World Bank Group, WFP and WHO.

Recognizing that investing effectively in learners' health, nutrition and well-being through school health and nutrition programmes can achieve big development gains, the partnership is increasing efforts to ensure that school health and nutrition is a key priority on national, regional and global agendas to build countries' human capital. Building on existing partnerships for school health and nutrition, the coalition partners are committed to align their efforts and mobilize their wide range of technical capacities, expertise and experience working with governments and other development partners as part of a global push on school health and nutrition. The partners identified four priority areas for joint work:

- 1. Advocating jointly to mobilize funding and support.
- 2. Generating and disseminating more and better data on school health and nutrition, to critically monitor progress and inform policy and programming at all levels.
- 3. Providing coordinated and evidence-based guidance and standards.
- Providing coordinated policy advice and support for advancing multisectoral policies and programmes embedded in national education systems.

The partnership invites governments and other partners to renew their own commitments to school health and nutrition and to increase and better align investments and efforts to bring proven interventions to scale and respond holistically to children's learning and growth needs. The renewed partnership started in an inter-agency meeting hosted by UNESCO in Paris in July 2019. Meeting participants unanimously affirmed the critical importance of school health and nutrition as an essential part of child development and to the achievement of inclusive education outcomes. Additionally, they recognized the need for programmes to cover a full age range of interventions to be delivered through coordinated action across sectors and partners to maximize investments in education and learning.

In critically reflecting on past UN efforts, participants acknowledge the current mismatch of investments between the health and education sectors and the low visibility of school health in SDG 4 (Quality Education) and SDG 3 (Good Health and Well-Being). Limitations in current approaches also relate to how actors work together and prioritize action. Too often, stand-alone interventions fail to address the critical needs of learners in a comprehensive manner. While we know what works, shared guidance and standards are missing to guide joint action and promote comprehensive programmes. Globally, there is very little systematic tracking of the health and nutrition status of school-age children, and we have no comprehensive information on the types and coverage of school health services available by country. Further, there is limited awareness and use of evidence available to inform decision making.

4.2 Operational partnerships for school feeding

Increasingly, high-income countries are realizing the need to respond to new evidence and meet the health, nutrition and education needs of the most vulnerable children. Multisectoral responses to the learning crisis and gender inequalities were a focus of the 2019 G7 Summit hosted by France,¹² building on 2018 G7 discussions in Canada where a call was made to support girls' education by addressing the health and nutrition barriers faced by adolescent girls.¹³

Countries including the United States, Canada and Norway have been strong supporters of school-based approaches, using schools as a platform for the delivery of integrated health and education programmes. The USDA McGovern-Dole programme, which aims to improve both good health and dietary practices and literacy, has been a long-standing partner of countries, UN agencies and non-state actors in the provision of comprehensive school feeding programmes. Similarly, Global Affairs Canada and Norway have committed financial support to multi-agency joint initiatives to increase girls' access to education in Chad and Niger, and Malawi respectively. Through these programmes, WFP, UNICEF and UNFPA are working with governments to establish school-based platforms that help break barriers to girls' education

^{12.} For additional information, please see the Common Declaration of Ministerial Ministers at the G7 2019: https://www.education. gouv.fr/reunion-des-ministres-de-l-education-du-g7-declaration-commune-6449

^{13.} This resulted in the Charlevoix declaration on quality education for girls, adolescent girls and women in developing countries, accessible online at: https://www.international.gc.ca/world-monde/international_relations-relations_internationales/g7/ documents/2018-06-09-quality-education-qualite.aspx?lang=eng

by providing complementary health and nutrition services, including school feeding, micronutrient supplementation, sanitation and hygiene services, deworming, sexual and reproductive health counselling and capacity strengthening of government partners.

Agriculture sector partners are critical supporters of school feeding programmes, linking local production to school food supply, with multiple benefits for poor households. FAO, for instance, supports school feeding by enabling policy, legal and institutional environments, facilitating food and nutrition education, and supporting inclusive procurement and value chains (FAO, 2020). Supporting countries to develop and implement home-grown school feeding (HGSF) has been an important driver of partnerships over the past decade. In 2018, some of the largest agencies and partners supporting countries to implement HGSF across the world came together for the first time to develop a joint framework to guide their capacity strengthening efforts. FAO, WFP, GCNF, IFAD, NEPAD and PCD collaborated to develop the Home-Grown School Feeding Resource Framework (FAO and WFP, 2018).

Global education sector partners are also crucial to ensure that investments in the health and nutrition of children deliver returns in learning and quality education. Convinced of the need to invest in both the learning as well as the learner (the well-being of the child), education partners are increasingly supporting a broader package of school health and nutrition interventions for children in school. In January 2020, WFP and UNICEF launched a new partnership to ensure that by 2030, 35 million children in 30 of the poorest countries receive a package of essential health and nutrition services (see Box 2.2). Large, global multilateral education funds, including GPE (see Box 4.2) and ECW (see Box 4.3) have also identified school feeding and school health and nutrition as funding and partnership priorities.

Health and development partners are also important supporters of school feeding programmes. WHO's Global School Health Initiative (WHO, 2020) mobilizes and strengthens health promotion and education activities to improve the health of students, school personnel, families and other members of the community through schools; while the World Bank is one of the largest funders of school health and nutrition programmes in countries across the world. The World Bank's Human Development Global Practices, and in particular its Education, Health Nutrition and Population, and Social Protection and Jobs thematic sectors are supportive of school feeding. The World Bank also provides technical and policy support through mechanisms including the Human Capital Project and SABER (see Box 2.6).

Agriculture, education, health and social protection are all active supporters of school health and nutrition programmes. In terms of financing, one of the mechanisms available to donors is debt-for-development swaps, which occur when a creditor country agrees with a borrower to forego repayment of public debt under the condition that the borrower invests part of the corresponding amount in agreed development projects. The aim of a debt-for-development swap arrangement is to reduce the external public debt of a developing country, in exchange for parallel investment in national social and economic development.

While debt swaps agreements are typically bilateral, between creditor and borrower governments, they can also involve an international organization (such as WFP). This third party provides transparency and effectiveness of programme implementation, thereby assuring the creditor that the funds are effectively invested in economic development. Social protection schemes related to SDG 2 "Zero Hunger" are usually among the priority areas for the allocation of debt-swap funds for creditors and borrowers. The investment of debt-swap funds in school feeding programmes and other safety nets is one of the most relevant interventions to strengthen the state-citizen relationship. Programmes such as school feeding deliver immediate and tangible benefits to citizens, while also supporting growth and development by improving human capital through enhanced education outcomes. The Egypt and Mozambique governments, together with their creditors, selected WFP to support the implementation of their debt-swap agreements by assisting their national school feeding programmes (see also Case Study 4.3).

Box 4.2 The Global Partnership for Education (GPE)

Sinead Andersen

Global Advocacy Team Lead

Global Partnership for Education GPE is the only multi-stakeholder partnership and fund dedicated exclusively to delivering inclusive and equitable quality education for all. GPE mobilizes partnerships and investments to transform education systems in developing countries, prioritizing the most vulnerable children with the greatest educational needs.

As part of its work to build equitable, inclusive and resilient education systems, GPE recognizes that good health and nutrition are essential for children's learning. School feeding is a vital tool that promotes health and learning, and reduces barriers that keep children out of school, especially girls and children marginalized by poverty, displacement or disability. Many GPE partner countries include school health and nutrition in their education sector plans. In 2018, GPE allocated over US\$15 million to support health and nutrition in partner countries. In Cambodia, GPE funds are supporting a comprehensive approach linking WASH, health and nutrition; in Niger GPE is building on an existing WFP programme to extend school feeding to areas suffering from food shortages, natural disasters and conflict; and in Tanzania a GPE-funded initiative is encouraging community participation in school feeding.

GPE's work at the country level is driven by national priorities, identified in education sector analyses and plans and developed in an inclusive manner through local education groups – government-led, multi-stakeholder bodies set up to support education planning, monitoring and implementation. WFP supports school feeding programmes in many GPE partner countries, and in some cases has coordinated local education groups or been an implementing partner for GPE grants.

GPE has been active at the global level, bringing partners together and highlighting the importance of nutrition in schools, particularly for adolescent girls. In 2018, together with Disease Control Priorities and the World Bank, GPE published a report *Optimizing Education Outcomes* (Bundy et al., 2018a), which proposes a high-return package of school health investments including school feeding. GPE also funded the School Health Integrated Programming initiative (2014-2018) which strengthened collaboration between ministries of health and education in Cambodia, Ethiopia, Ghana and Senegal, increasing awareness, capacity and operational and technical resources to include school health and nutrition in education sector plans. GPE is part of *Stepping up school health and nutrition*, a new partnership of UN and multilateral agencies to advance the health and nutrition of school-age children and adolescents.

In 2020, GPE created a funding window for countries to mitigate both the immediate and long-term impacts of the COVID-19 pandemic on education. As of August 2020, 52 grants had been approved for US\$429 million. This includes US\$1.3 million to nutrition programmes in eight countries to mitigate the effects of COVID-19, and US\$6.8 million to nutrition programmes in 15 countries to aid their recovery from the pandemic. In the Gambia, GPE will fund the distribution of food to 100,000 of the most vulnerable students while schools are closed, complementing a similar initiative funded by WFP in other districts of the country. Similar activities to provide food directly to families during school closures are being funded by GPE grants in Malawi, Guyana, Côte d'Ivoire and the Democratic Republic of Congo. In several countries, GPE grants will fund the development of school feeding or take-home rations in the recovery phase to encourage children to return to school.

Box 4.3 Education Cannot Wait

Zeinab Adam

Senior Advisor on Coordination, Development and Strategic Planning

Education Cannot Wait Education Cannot Wait (ECW) is the first global, multilateral fund dedicated to education in emergencies and protracted crises. It was established in 2016 as a key outcome of the World Humanitarian Summit. Over the past three years, ECW has raised over US\$560 million in financing for education in emergencies. ECW invests to support the delivery of inclusive and quality education in 32 emergency and protracted crisis countries. ECW plans to reach at least nine million children and youth through its strategic plan 2018-2021.

ECW aims to foster collective outcomes and greater commitment to meet the educational needs of millions of children and youth affected by crises. ECW recognizes that school feeding programmes in crisis contexts are a highly effective tool to address children's diet, nutrition, education and security needs during and after crises as part of a wider school-based education and health support package. These life-saving and enhancing safety nets help provide children and youth with a sense of normalcy and promote social cohesion and stability during crises; as well as provide opportunities after crises, which is key to build resilience. They also improve children's dietary intake and nutrition, which improves learning outcomes, retention and performance in school settings. ECW strives to promote collective outcomes by mobilizing joint action by government, UN agencies, NGOs and the private sector to support children and youth in crisisaffected countries. ECW has signed agreements with several partners to promote the school health and nutrition agenda, including WFP, UNICEF and UNESCO, among others. ECW partners with these agencies to advocate globally for greater political commitment and financial resources for school-based interventions that address children's education, nutrition and health needs in crises. At the country level, ECW facilitates the development of integrated education in emergency response plans, through which it supports the creation of coalitions of partners to work together to achieve collective education outcomes. ECW has been steadfast in responding to the detrimental impacts of the COVID-19 pandemic on the education system by supporting distant education, psychosocial support, school feeding, protection and WASH-related services, providing tailored support to national COVID-19 strategies and plans. ■

Box 4.4 Mary's Meals vision for school feeding

Graeme Little

Director of Programmes

Mary's Meals International Mary's Meals has been delivering school feeding programmes since 2002 and currently supports over 1.6 million children in over 3,000 schools and 19 countries across Africa, Asia, Latin America, Eastern Europe and the Caribbean.

Mary's Meals vision is that every child receives one daily meal at their place of education, and that those who have more than they need share with those who lack even the most basic things. Mary's Meals aims to reduce hunger for school-going children, enabling them to engage and progress through education, and to set them and future generations free from chronic poverty.

It delivers school feeding through programme affiliates (locally established organizations run directly by Mary's Meals) and programme partners (local organizations that implement school feeding programmes with Mary's Meals support.) Programme affiliates are critical to our programming, and programme partners may allow Mary's Meals to reach children in contexts that would otherwise be difficult or impossible to reach, or where they are best suited to reach local communities due to their access to infrastructure, staff and local knowledge – making it possible to deliver highly impactful, efficient and low-cost programmes.

Mary's Meals is supported primarily by a grassroots support base, and stewardship of resources and learning at all levels of programming is ensured through robust monitoring and evaluation. Mary's Meals remains engaged and committed to two-way sharing of learning and knowledge with other external organizations and fora, in the hope that, one day, all children will receive a daily meal in their place of education.

Results include

After the introduction of Mary's Meals:

The proportion of hungry children fell by

71%

School enrolment increased by

20%

The percentage of children repeating grades reduced from



From 2014-2019, Mary's Meals engaged with over 21,000 people involved in their programmes from Malawi, Zambia and Liberia, including children, teachers, volunteers and community members, to gain an understanding of programmatic impact.

In early March 2020, when COVID-19 began to take hold globally, almost all schools supported by Mary's Meals were closed. Suddenly, daily meals decreased from 1.6 million to a few hundred.

The organization's focus quickly centred on finding ways to reach the children unable to attend school, recognizing that, for many, their home had become a new place of education.

Within a matter of weeks, most programmes were reconfigured to serve almost all the children no longer attending school. This new model enabled families to access take-home rations, which were generally based on local diets, rations and the school calendar for each child enrolled in supported schools. These key principles allowed for a strong response across greatly varying contexts.

Rations were made available to a representative of each family to collect from the schools, which were used as distribution points. Mary's Meals commitment to strong community ownership and robust monitoring was maintained to ensure that the food reached the family of each child as intended. Distribution registers and some simple impact surveys were used in this new context.

In addition to serving children during this period, Mary's Meals continues to develop additional support projects to the most vulnerable in areas of high food insecurity. This includes holiday and emergency feeding in South Sudan, Ethiopia, Haiti, Syria and Zimbabwe. In areas with high food insecurity, where parents are often unable to work, and food prices have increased significantly, and Mary's Meals is adapting its response to this evolving situation.

Box 4.5 BMZ perspective on school health and nutrition

Federal Ministry of Economic Cooperation and Development

Government of Germany

Recognizing that sufficient, affordable and diverse foods are the basic requirements for human development, the German Federal Ministry for Economic Cooperation and Development (BMZ) has made food and nutrition security, agriculture and rural development a priority. BMZ promotes healthy diets for all at every stage of life, but nutrition interventions usually focus on the first 1,000 days, targeting women at reproductive age, pregnant and breastfeeding women, and small children. To reach school-age children and adolescents, BMZ supports national school feeding programmes via bilateral cooperation and in cooperation with WFP. School feeding programmes not only provide nutritionally valuable meals but can also contribute to a range of development goals, such as education, WASH, health and agriculture. Home-grown school feeding improves school meals and, at the same time, provides a predictable market for local producers leading to increased availability of a wide variety of foods in local markets, provided school feeding programmes are designed nutrition-sensitively. Home-grown school feeding programmes are therefore important additional nutrition interventions towards the achievement of sustainable development goals (especially SDG 2) and WHO nutrition targets.

Through its transitional development assistance, BMZ supports WFP school feeding, including home-grown school feeding, in a number of contexts and countries – for example within the integrated Sahel resilience initiative, in Burkina Faso, Chad, Mali, Niger and Mauritania. Here, school feeding is implemented as part of an integrated resilience approach, combining productive assets creation, malnutrition prevention and capacity strengthening activities over a period of five years in the same communities to transform livelihoods. Nutritious school meals and take-home rations are provided to motivate school retention and improve education. This is complemented by other activities in schools, such as school gardens or livestock to diversify schoolchildren's diets and support the school committees' incomegenerating activities. Schools are also leveraged as a platform to deliver messages on hygiene, family practices and environmental stewardship. In the context of COVID-19, the programme had to be adapted due to school closures, providing take-home food rations for children no

longer able to attend school. Within the first year of the initiative, 1,700 schools were assisted under school feeding programmes and overall 294,200 schoolchildren benefitted from the activities funded by BMZ. As integrated and multisectoral approaches are a cornerstone of BMZ's transitional development assistance, BMZ specifically supports WFP's partnership with UNICEF in implementing integrated school health and nutrition programmes in priority countries, including the Sahel, combining their operational capacities and respective expertise. ■

4.3 Global school feeding information networks

The Global Child Nutrition Forum (GCNF), the longest running global forum for school meals, held its 22nd Annual Forum in 2020. Since 2013, the Forum – an annual meeting of stakeholders engaged in school feeding – has partnered with the WFP Centre of Excellence against Hunger in Brazil and systematically promoted linkages with local agriculture and nutrition. The 2019 Forum, held in Cambodia, focused on Enhancing Value and Exploring Challenges and Good Practices in School Meal Programme Implementation; while the 2018 Forum, held in Tunisia, focused on National School Meal Programmes for Food and Nutrition Security and Multiple Social Benefits.

There are a growing number of countries interested in the development of global networks of partners to support school feeding. During Russia's presidency of BRICS in 2015, the Russian Federation and the World Bank jointly organized a Global Forum on Nutrition-Sensitive Social Protection Programmes which was held 10-11 September 2015. The Forum's aim was to further develop innovative and comprehensive approaches to social protection and food security. Since then, informed by the growing global consensus on the importance of school feeding programmes as safety nets which support human capital formation, the Russian Federation has been working with other BRICS countries to develop a network of partners to promote knowledge exchange on coordination of school feeding, recognizing it as one of the most impactful social protection programmes.

Germany is supporting low- and middle-income countries to help develop a World Coalition on the Provision of Healthy School Meals as part of the global Decade of Nutrition (see Boxes 4.5 and 4.6).¹⁴

Additionally, see Box 4.7 for a summary on Dubai Cares and its contribution to research and evidence as public goods towards education.

There is a growing number of countries interested in the development of global networks to support school feeding.

^{14.} For more detail see: http://www.fao.org/fileadmin/templates/cfs/Docs1819/cfs46/CFS46_TR_V_FOOD_SYSTEMS_CONTD.pdf

Box 4.6 World Coalition on sustainable healthy school nutrition

Angelina Balz

Federal Ministry of Food and Agriculture (BMEL)

Government of Germany **Idea:** Together with partners, Germany intends to establish a "World Coalition on sustainable healthy school nutrition." This World Coalition is a global action network of countries on a political level that aims to contribute to implementation of the results of the Second International Conference on Nutrition within the United Nations Decade of Action on Nutrition 2016-2025.

Goals: The World Coalition wants to expand the coverage of national school nutrition programmes and especially wants to improve the quality of the food and meals provided in schools. At the end of the Decade of Action on Nutrition in 2025, we aim to have increased the number of children receiving healthy, sustainable nutrition in schools.

Purpose: The World Coalition will bring together policymakers from interested countries to develop a shared understanding of the policies and programmes that can tackle both undernutrition and overweight in schoolchildren. Countries will learn from each other how to improve nutrition in the context of schools and other childcare facilities for children of all age groups.

Activities: The World Coalition will contribute to a global conference about school nutrition hosted by Germany in summer 2021 in Berlin. During the conference, key areas for policies will be discussed. The results will be fed into the UN Food Systems Summit in 2021. All interested countries are warmly invited to take part.

Moreover, the quality aspects that have to be dealt with in countryspecific nutritional guidelines and guidance for schools will be discussed and defined within the World Coalition. Through sharing experiences and exchanging lessons learned and best practices, the World Coalition aims to support the development, improvement and implementation of national guidelines for sustainable healthy school nutrition.

Box 4.7 Dubai Cares and its contributions to public goods

Annina Mattsson

Director of Programmes

Dubai Cares

For children to have a better education, it is essential to have an integrated, holistic approach towards school health and nutrition. Schools have to offer proper WASH facilities and health education to prevent disease, but nutrition should also feature in this education to promote children's overall well-being.

It is time for the international community of implementers, donors, governments and global stakeholders, to boost school feeding's contributions towards the attainment of sustainable development goals. School feeding plays an important role in helping countries achieve some targets directly (SDGs 2, 3, 4 and 5), and indirectly (SDGs 1, 8 and 10). Our collective direction should be towards reinforcing and strengthening the role of research and evidence-backed implementation of national school feeding programmes. This has been a core component of Dubai Cares' approach to supporting School Health and Nutrition (SHN) programmes since its inception in 2007.

What we have learned from Dubai Cares' school health and nutrition programmes is that school feeding not only increases children's access to education and schooling but, when these programmes are evidencegenerating, they are more likely to result in the reshaping of national policies that ensure school feeding remains a core pillar for educational access, retention and student health. It is with this strengthening of evidence, results and learning in mind, that Dubai Cares funds programmes such as WFP's school feeding to generate public goods. Current funding of public goods includes the establishment of a research consortium of partners on school feeding evidence; the creation of a global school feeding database; and the publication of this WFP flagship report. Successful programmes, which generate evidence, develop an ethos among policymakers that has allowed millions of children to remain in school, increasing their chances for a better future. It has also helped improve the effectiveness of service delivery in many national school feeding programmes; and contributed towards enhancing implementation, improved targeting and ensured cost-efficiency by continuous examination of the validity of assumptions against the reality of programme implementation.

Policy improvement should not come at the expense of programmatic scale and impact. School feeding programmes that have proved successful have integrated both relevant policy and powerful practice. They have also highlighted the essential role that national governments play as the main stakeholder in achieving success, and as the main vehicle for programmatic delivery. These programmes must never lose sight of their main objective, which is to provide a quality service that will ensure children stay in school, keep healthy and hopefully obtain a quality education, which in the long term will help lift people out of poverty, and provide the environment for a nation to improve its future. This is what we at Dubai Cares believe in, and what we strive for.

4.4 South-South Cooperation

South-South Cooperation plays a key role in the transfer of technical expertise on school feeding among countries. The WFP Centre of Excellence against Hunger in Brazil (WFP, 2017b) for instance emerges from the joint engagement of Brazil and WFP to support governments in Africa, Asia and Latin America to forge sustainable school feeding solutions. The WFP Centre is a global hub for South–South Cooperation, and for knowledge-building, capacity development and policy dialogue on food and nutrition security, social protection and school meals (see Box 4.8).

Building on this experience, in March 2019, the Government of Côte d'Ivoire and WFP launched a Regional Centre of Excellence Against Hunger and Malnutrition (CERFAM) based in Abidjan. CERFAM has an important role in documenting, promoting and sharing good practices for the eradication of hunger and malnutrition learned from Côte d'Ivoire and other countries in the region. The Centre will provide technical assistance in the implementation of policies and programmes to fight against hunger and malnutrition and will mobilize resources for the adoption of good practices and innovative solutions.

Box 4.8 The work of the WFP Centre of Excellence in Brazil: ten years of international cooperation

Sharon de Freitas and Yasmin Wakimoto

WFP Centre of Excellence against Hunger As part of WFP's efforts in humanitarian and development assistance, the organization sought to scale up partnerships with a broader range of actors. As a leading country implementing sustainable solutions for challenges and crises in stable contexts, Brazil's successful experience in improving food and nutrition security complemented WFP's leadership on school feeding worldwide. After a series of cooperative initiatives on humanitarian efforts and South-South Cooperation, WFP and the Government of Brazil created the WFP Centre of Excellence Against Hunger in Brazil (WFP CoE Brazil) in 2011. Since then, WFP CoE Brazil has operated as a hub for knowledge exchange and as a venue for policy dialogue for developing counties in Asia, Africa and Latin America. With the steadfast support and partnership of the Brazilian Cooperation Agency (ABC) and the Brazilian Fund for Education Development (FNDE), this new office started to support WFP partners and governments across the global south.

In its first five years of operations, WFP CoE Brazil organized 51 study visits in Brazil for 40 countries, promoted 38 in-country technical assistance missions of Brazilian experts, and supported the organization of 12 national participatory consultations. The office in Brasilia collaborated with countries to strengthen their national ownership and autonomy in the design and implementation of quality school feeding policies and programmes. This was made possible by an approach rooted in South-South Cooperation principles, and the expertise and political leadership provided by Brazilian policies and their success in poverty and hunger alleviation. This strength also helped build strategic partnerships to facilitate exchanges and networks, and contributed to an enabling environment for the pursuit of nationally owned solutions.

A key initiative deriving from these first five years has involved the African Union (AU). In 2015, a delegation of AU staff and ministers from African countries visited WFP CoE Brazil to learn from the country's experience in school feeding. This partnership delivered a series of outcomes and coordination mechanisms, including the adoption of the Continental Education Strategy for Africa 2016-2025 (CESA); the creation of the March 1st Africa Day of School Feeding; and the establishment of the Pan-African Network. Recently, WFP CoE Brazil finalized the first cycle of its partnership with the AU by supporting the study on Sustainable School Feeding Across the African Union (African Union, 2018). The study was launched in 2018, during the Africa Day of School Feeding, in Harare; and the CESA School Feeding Cluster instruments was launched during the Africa Day of School Feeding, in Abidjan.

At the country level, key outcomes of WFP CoE Brazil include the provision of continuous support to 28 countries, and engagement with 76 countries. These efforts resulted in the approval of 20 action plans and the adoption of legal and institutional mechanisms for home-grown school feeding by several countries. Successful examples are found in both Africa and Asia. With the support of WFP CoE Brazil, Kenya has adopted an ambitious National School Meals and Nutrition Strategy, which aims to reach 1.6 million children by 2022; Benin's programmatic frameworks and components have now mobilized almost US\$80 million from the government budget to catalyse the WFP school feeding programme phase-out through to 2023; Burundi approved a school feeding law, assuring better programme stabilization; and Bangladesh has instituted a national school meals authority under the Ministry of Primary and Mass Education.

In keeping with key changes in international development, over the last five years, much has changed in the methodology of WFP CoE Brazil. Countries progressively shifted their demands from wanting to learn about Brazil's experience towards technical advice on how to apply the knowledge acquired in study visits and other exchanges, and how to better design and implement national school feeding programmes. This also implied a gradual transition from the organization of numerous study visits, to a greater number of in-country technical missions and remote support provided by CoE experts to partner countries. WFP CoE Brazil has also become closer with WFP country offices, the prime actors in implementing programmes with national governments.

Requests for CoE technical support are mainly related to consolidating or improving school feeding programmes in the following areas: design and targeting; financing schemes; social participation and transparency mechanisms; intersectoral coordination; and monitoring and evaluation. Aiming to give an adequate response to these important changes, WFP CoE Brazil developed a remote support strategy called "Virtual Exchanges" and leveraged its long-standing school feeding experience to refine its products and services. In many WFP country offices and regional bureaux, WFP CoE Brazil's Virtual Exchanges supported systemic approaches relayed by WFP offices' operational assistance, especially in emergencies, such as the COVID-19 pandemic.

In 2019 alone, WFP CoE Brazil continuously supported ten countries in Africa and Asia in advancing their efforts on SDG 2 targets (Benin, Togo, the Gambia, Tanzania, Uganda, Lesotho, Mozambique, Burundi, Nepal and Armenia). Using South-South Cooperation and capacity strengthening approaches, WFP CoE Brazil supported five technical workshops, ten in-country missions and one ministerial visit to Brazil. WFP CoE Brazil also supported the design of 15 national policy documents; organized two major international school feeding and nutrition events; and provided direct and remote assistance to the WFP country office and Government of the Gambia to mobilize US\$16 million to deliver home-grown school feeding programmes. Since 2019, the WFP CoE Brazil has also reinforced its cooperation with the WFP regional bureau for West and Central Africa, based in Dakar, to support its planning and implementation. Finally, in partnership with the Brazilian Cotton Institute, WFP CoE Brazil is supporting smallholder cotton farmers in four African countries to increase the use of cotton by-products and foster sales of associated food-crops to school feeding programmes.

4.5 Partnerships and coordination at the regional level

There has been progress in the development of formal regional structures to promote partnership and coordination of school feeding at the regional level. These platforms provide an opportunity for countries and partners to come together to set policy, agree on action and channel support.

4.5.1 Africa

The African Union (AU) supports the scale up of nationally owned school feeding programmes (see Case Study 4.1). At the AU Summit in 2016, African Heads of States recognized homegrown school feeding as an important intervention which addressed education, hunger and poverty in an integrated manner. In 2017, the AU established a Home-Grown School Feeding Cluster – a continental platform that works to ensure coordination, strengthened partnerships and links between knowledge, policy and practice among African school feeding policymakers, practitioners and researchers, as well as the facilitation of knowledge exchange with non-African partners. The cluster is supported by the WFP Centre of Excellence in Brazil, the WFP Africa Office, FAO, UNESCO and UNICEF. In 2018, the cluster published a baseline study for school feeding efforts in Africa entitled Sustainable School Feeding Across the African Union (African Union, 2018).

The AU also established a regional forum in 2016, the Africa Day of School Feeding which is celebrated annually on 1 March. Each year, Ministers from around the continent meet to review the advances in school feeding; advocate for its prioritization in national policies; and agree on next steps. In 2019, the AU sent out a request to all G7 Education Ministers to prioritize the issue of school health, nutrition and school feeding.

At the subregional level, there are few active school-feeding networks, although there are wellestablished regional education coordination structures, including the Regional Coordination Group on SDG 4-Education 2030 for West and Central Africa, which is chaired by UNESCO, and the Regional Education in Emergency working group which is coordinated by UNICEF and Plan International.

4.5.2 Latin America and the Caribbean (LAC)

Over the past two decades, there has been an evolution in the type and level of participation of partners in school-based health and nutrition interventions, including school feeding. Led by national leadership and ownership, UN agencies, regional bodies and multilateral organizations, NGOs, academia and the private sector have increasingly come together.

Over the past decade, WFP has strengthened and diversified its partnership portfolio at regional level on social protection, nutrition and school feeding, including with regional bodies such as the Economic Commission for Latin America and the Caribbean (ECLAC) or the Secretaría de la Integración Social Centroamericana (SISCA); academia and think-tanks such as the Mexican National Institute of Public Health (INSP) and Oxford Policy Management (OPM); the private sector, such as DSM, Sodexo and Mastercard; and joint efforts with several UN agencies such as FAO, UNICEF and the World Bank.

For over ten years, Regional School Feeding Seminars (jointly organized by WFP and rotating national governments, in collaboration with other partners), have provided a unique platform to share knowledge across and outside the region; discuss successful approaches and common challenges, and foster South–South Cooperation for more sustainable and effective programmes. The 2017 Regional Seminar organized in Mexico saw high-level participation from more than 20 countries and a wide number of international and regional partners and experts. The next Regional School Meals Seminar for Latin America and the Caribbean is expected to take place in Colombia in 2021.

Regional studies and publications focusing on school feeding also play a fundamental role in fuelling regional dialogue at strategic and technical levels. Often, these are the result of joint efforts between governments and their partners. A regional publication released by FAO and WFP in 2019 describes how cooperation and joint efforts of the two agencies have developed and formalized in some countries, including Colombia, Honduras and Guatemala. One of the most comprehensive publications specializing in school feeding in the region – Smart School Meals – was released in 2018. Led by WFP, this product was the result of the efforts of 16 countries, UN agencies, NGOs and foundations, including FAO, UNICEF, UNESCO, PCD and GCNF, as well as recognized experts from academia, such as IFPRI, and the private sector.

The COVID-19 pandemic has triggered new partnership opportunities across the region. A regional letter of intent and a joint document to guide the school reopening process in the region were issued in 2020 by WFP, UNICEF, UNESCO, and the Pan American Health Organization (PAHO), calling for joint action including in school-based interventions, nutrition and social protection. A joint regional statement was issued by PAHO, UNICEF, WFP and FAO. Several global and regional guidelines on mitigating the effects of the COVID-19 pandemic have also been issued jointly by these actors.

4.5.3 Asia

In August 2016, the first meeting of the South Asia School Feeding Network was held in Bhutan, with participation from Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan and Sri Lanka. Experts from the seven countries met to share challenges, lessons learned and innovative approaches from school feeding programmes under implementation in each country.

The first meeting of the Southeast Asia School Feeding Network was held in July 2017, with participation from Cambodia, Indonesia, Lao PDR, Myanmar, the Philippines and Timor-Leste. The meeting brought together experts from the six countries to talk about how best to provide school meals for students in their countries.

Regional partnerships provide a platform for countries to come together to set policy, agree on action and channel support.

4.6 Partnerships and coordination at the national level

Given their multisectoral nature, school feeding programmes help national governments to improve dialogue across and within different line ministries, and coordinate with development partners. Lessons learned over the past decades suggest that operational partnerships work better when they are aligned with national policies and are overseen by national coordination mechanisms.

At the national level, a good understanding of a government's development priorities and the challenges it faces is key to articulating how school health and nutrition programmes contribute towards addressing a government's broader objectives. This is crucial to effectively and strategically engage national governments and to secure their long-term support for such programmes, particularly in a context of competing priorities and resource limitations. Such an approach to partnering with governments considers close engagement not just with relevant line ministries but also ministers of finance and planning who play a key role in administering funds from national budgets, including concessional loan disbursements by international financial institutions. Similarly, it is important to understand how international financial institutions work with governments and how school feeding interventions contribute to large-scale, government-led programmes financed through concessional financing. This, for example, could mean engaging in strategic dialogue with governments and their international financing partners to identify concrete ways for school feeding programmes to maximize the human capital impact of large-scale infrastructure investments in addition to investments in education, health and social protection. In the post-COVID-19 context, investments in providing alternative learning solutions through digital technology – high on the agenda of many governments and international financial institutions – could also become relevant.

Country-level partnerships are critical to developing and implementing integrated school health and nutrition packages. At the operational level, there are several examples of integrated programme design which brings together education, health and agriculture stakeholders to promote coordinated approaches to meeting the needs of children at the country level. These include integrated school health and nutrition packages that bring together governments, UN agencies and NGO partners to improve girls' access to education in Chad, Niger and Malawi, among others (see Box 2.4).

This approach is supported both by national governments and by development donors. USDA McGovern-Dole programmes, for example, call for the design of integrated approaches which bring together different actors through well-designed school feeding, literacy and school health programmes. In Cambodia, USDA-supported and WFP-implemented school meals are complemented with upgraded school infrastructure; early grade reading interventions; training of teachers by NGOs specialized in education; FAO HGSF support for farmers and school gardens; and research and evaluations on school feeding models in collaboration with the Ministry of Education.

NGOs are key players in the implementation of school feeding programmes, as well as influencing international policy by raising awareness at global and national level of the importance of school health and nutrition for children's well-being. NGOs have a comparative advantage in delivering effectively and accessing areas that larger agencies would be unable to reach alone. They also often have a long-term presence in, and a deep contextual understanding of, the communities which provides an invaluable link to the children and families they serve. UN agencies work closely with NGOs in the implementation of school feeding: for example, in 2019, WFP worked with 49 international NGOs and more than 80 local NGOs on school feeding programmes across the world.

Integrated programmes bring together stakeholders from education, health and agriculture to meet the needs of children. In many countries, local and international NGOs play a crucial role in leading the implementation of school feeding. NGOs including Mary's Meals, Catholic Relief Services, Project Concern International, Save the Children International, World Vision, Mercy Corps and Care International are among those engaged in school feeding in low-income countries.

The private sector is an important partner at the country level. Foundations and companies including Stop Hunger and Mastercard, among others, provide support to school feeding knowledge and research, and support countries to improve the effectiveness of their school feeding programmes. The WFP partnership with Stop Hunger, for example, has supported 17 countries since its inception, and in 2019 alone provided school meals for over 1.6 million children. Stop Hunger supported publication of the Food Safety and Quality Guidelines for Safer School Meals and provided technical assistance to WFP in areas including supply chain, procurement, food quality and safety issues related to school meals, with a special focus on gender. Similarly, Mastercard has supported the implementation of cost-benefit analyses to help make the economic case for school feeding in 20 countries.



4.7 The way forward

There is a growing coalition of partners working together to support governments to promote integrated packages for school-based health and nutrition service delivery, with school feeding an essential component. The new WFP School Feeding Strategy 2020-2030 calls for a stronger partnership approach through which governments, regional actors and development partners work together to deliver on the promise of improved human capital development for the most vulnerable children in the world. The following are some of the main priorities over the next ten years:

- Strengthen and expand joint advocacy efforts to increase global commitments to deliver school feeding interventions. Global partners need to work together to ensure that the well-being of schoolchildren is included in education, health and social protection sector discussions and global priorities. This includes updating global targets (including the SDGs), with indicators on school health and nutrition. Joint advocacy efforts should include the establishment of a global school health and nutrition coalition; the engagement of global and regional champions in education, health and nutrition, agriculture and social protection; as well as the mobilization of the general public to ensure a community-driven approach. National governments are leaders of country-level advocacy and implementation efforts and should coordinate partners to support the development and consolidation of integrated national programmes. Partners will include: governments, the United Nations system (WFP, FAO, WHO, UNICEF, UNHCR, UNFPA, UNESCO), ECW, GPE, the World Bank, the private sector, civil society organizations, NGOs, academia and research institutions.
- Increase understanding of existing funding and the landscape of opportunities for school health and nutrition. Better understanding of global funding for school feeding, and for school health and nutrition is critical. Identifying institutional and thematic resourcing will support improved institutional coordination and decision making for national governments, donors and implementing partners alike.
- Support regional groups that have prioritized school feeding and school health and nutrition.
 Support should be provided to the African Union, as well as partnerships with AUDA, OIC, ASEAN and other regional bodies as they seek to increasingly support regional efforts and ownership, in line with the new WFP School Feeding Strategy. These partnerships should be strengthened to support regional coordination and knowledge exchange. Expert technical and policy advice should be provided on social safety nets and protection; food security and nutrition; and education, with specific emphasis on reaching goals that promote gender equality.
- Expand South-South Cooperation approaches. Partners including the WFP Centre of Excellence in Brazil are key in this regard, along with other technical actors. Countries across Latin America, Asia and Africa have developed strong school feeding programmes and have already received delegations for exchange visits. This engagement could be formalized, with lessons shared through Centres of Excellence.

Case study 4.1 The African Union: Partnerships for school feeding

H.E. Sarah Mbi Enow Anyang

Commissioner for Human Resources, Science and Technology

African Union Commission At the African Union (AU) Summit in 2016, the Heads of State took the decision (Assembly/AU/Dec.589 (XXVI)) to acknowledge the value of school feeding as a major tool to contribute to the goals of the Continental Education Strategy (CESA 2016-2025) by achieving access, high performance and completion of education for all; while also contributing to ending hunger and alleviating poverty especially, where home-grown school feeding is practised.

Over the past few years, the AU with the support of WFP, has been working towards providing Member States with the tools to ensure children have access to integrated, impactful, sustainable and homegrown school feeding programmes. As a result, African countries have made school feeding a national priority.

In 39 countries across the African continent, governments are financing and managing national school feeding programmes. Ghana, Malawi, Kenya and Zimbabwe all feed over 1 million schoolchildren; while Egypt and Nigeria each feed more than 9 million children every day of the school year.

Many governments are increasingly sourcing food for school feeding locally from smallholder farmers in a bid to boost local agriculture, strengthen local food systems and move people out of poverty: 21 of the 39 countries implement home-grown school feeding programmes.

Over 65 million children across the African continent are receiving school feeding. However, more than 60 million children across Africa who live in extreme poverty still do not have access to these programmes. Escalating armed conflict is causing an unparalleled humanitarian emergency in several regions of Africa and the impact on children, women and men is dramatic. The greatest gaps in school feeding are in the Sahel region and the Horn of Africa, confirming that coverage is lowest where needs are greatest.

The African Union calls upon the Heads of State and governments to commit to strengthening school feeding, by encouraging domestic financing as a critical action to ensure a permanent, healthy and conducive learning environment in all subsectors in order to expand access to quality education. Furthermore, the AU and governments must forge strong partnerships, driven by our shared values and policy objectives and deliver impact on the ground. The AU also calls upon the international community to support the response to the growing humanitarian needs but also in scaling up resilience operations to promote education and improve the nutrition and well-being of schoolchildren in Africa, especially in those fragile countries that are not yet able to reach all vulnerable children on their own. Help us provide technical support to those countries that are ready to initiate or scale up their national programmes but are looking for guidance; and let us jointly advocate and position school health and nutrition as a priority on the continent.

Case study 4.2 Latin America and the Caribbean: Partnerships for school feeding

Alessio Orgera School Feeding Adviser

WFP Regional Bureau for Latin America and the Caribbean The problems affecting schoolchildren and adolescents today are not the same as a decade ago. In Latin America and the Caribbean (LAC), universal access to primary education is nearly achieved in most countries, and key priorities for governments are the expansion of education services to pre-primary and secondary school-age children and enhancing the quality of education for all children, ensuring that no one is left behind. The double burden of malnutrition, a rising concern in the region, has realigned priorities for school-age children: governments are increasingly promoting better diets, good nutrition and healthy eating habits; addressing and preventing micronutrient deficiencies; and tackling the specific needs of adolescent girls and other vulnerable groups. Schools are increasingly seen by policymakers as a privileged entry point to address the health and nutrition needs of girls and boys, and to maximize national investment in human capital development. LAC is now pioneering this vision, and school feeding is among the programmes that have been prioritized to achieve it.

School feeding is one of the largest safety nets in the region. Over 78 million schoolchildren receive meals every day, with an annual investment of approximately US\$4.3 billion, primarily coming from national budgets. Programmes are embedded in strong national policy and institutional frameworks. Acknowledging the high potential of their national school feeding programmes, several governments have undertaken efforts to maximize their outcomes. Traditionally designed primarily to tackle food and nutrition insecurity and improve access to primary education, school feeding programmes are increasingly being used as part of a broader, integrated approach to school-based health and nutrition, contributing to learning outcomes and therefore playing a key role in human capital development. Thanks to their wide coverage and stability, school feeding programmes have proved to be excellent channels to implement other health and nutrition interventions, including deworming, micronutrient supplementation, food fortification – particularly rice – and health and nutrition education, among others.

A growing number of countries are increasingly investing in home-grown school feeding approaches, with the dual objective of 1) promoting diet diversity and the introduction of fresh, local food in school meals; and 2) linking national programmes with local smallholder production, thereby enhancing resilience and helping to build more sustainable and inclusive local food systems. In some countries, schools have also proven to be excellent channels to promote gender-sensitive approaches and social behaviour change in several areas, including health, nutrition, and the prevention of violence and xenophobia. School feeding programmes in the region are largely recognized as a key part of wider national social protection systems, including their use and adaptation in shock response such as the prolonged droughts in the Dry Corridor of Central America; human mobility and migration crises; as well as epidemics such as the recent COVID-19 pandemic.

According to Smart School Meals (WFP, 2017d), a regional study carried out in 16 LAC countries, while many countries have clearly embarked on an ambitious journey to reform their school meals programmes and address these emerging challenges, the nutritional potential of school meals remains under-utilized. More sustainable investments are needed to maximize the nutritional impact of school feeding programmes, especially in addressing the rising double burden challenge. National management systems need to be reinforced to inform better decision making and improve the quality and sustainability of programmes. Innovation and digitalization have shown encouraging results in this respect. Improving coordination and complementarity with other interventions within national social protection systems is essential to maximize the impact and return on investment of these programmes. Additional investments are needed to expand home-grown school feeding approaches, and secure their undisputed benefits to nutrition and local food systems at scale. Lastly, as the region has been a laboratory of innovative approaches and best practices over the past two decades, it offers an important opportunity to systematize and share this knowledge among policymakers, and generate real change across the region and beyond.

Case study 4.3 The Russian-Mozambican debt-swap arrangement: National leadership and WFP's implementation

Annmarie Isler

Public Partnerships and Resourcing Division

World Food Programme

Mozambique's external debt has been a serious obstacle for investment in education and social protection with the country's debt situation estimated by the International Monetary Fund (IMF) to be "in distress". Public debt servicing represents an enormous burden on the country's budget, consuming over 50 percent of public revenue between 2018-2020 and contributing to the recent deterioration of the situation following the fall in commodity prices, and the suspension of donor funding. In April 2016, many creditors discontinued their support to the Mozambique Government after a substantial undisclosed debt was revealed, undermining the country's financial reputation, and leading to serious consequences, including the current state of default, and real exchange rate depreciation (48 percent since the end of 2014). Finding a sustainable way to restructure the Mozambican debt, while securing enough guarantees to secure the trust of creditors, has been a top priority by Government and International partners alike, both for achieving the SDG goals and securing national stability. Debt-fordevelopment swaps offer a solution for countries like Mozambique to generate additional resources without sacrificing fiscal and macroeconomic sustainability.

In 2013, Russia reached a bilateral agreement with Mozambique that provided for a debt-for-development swap of US\$146 million. Russia agreed that Mozambique would invest the funds from the debt swap in mutually agreed development projects with proportionate debt cancellation. Under this agreement, instead of making repayments to Russia, the Ministry of Finance of Mozambigue deposited funds into a special account opened by the Russian Vnesheconombank (VEB) at the Central Bank of Mozambigue. This arrangement prescribed that the Government of Mozambique lead the selection of both development projects and associated implementing partner. In terms of modality, the Government of Mozambique submitted a prospective project to the Russian Ministry of Finance for approval. The latter instructed the VEB to release funds for implementation by the Mozambican Government. The funds were subsequently converted into the national currency and allotted to the agreed implementing partner. Monitoring of the process is ensured through annual progress reports and a final report was presented to the creditor upon completion.

The National School Meals program (PRONAE) supported by debt-for-development swaps and implemented under a Memorandum of Understanding between WFP and the Mozambique Ministry of Education, was considered positive by countries as a means of promoting investment in resilience and addressing the root causes of hunger. WFP developed a proposal for channelling part of the debt-swap fund (US\$40 million) into PRONAE that leveraged WFP's technical and operational capacity in the country. In 2017, an agreement was reached whereby Mozambique transferred US\$8 million to WFP annually over a five-year period (during 2017-2021). WFP utilized the funds to support the implementation of PRONAE in partnership with the Ministry of Education and Human Development. This partnership further strengthened inter-sectoral coordination and the capacity of relevant government bodies. Debt swaps were thus used expeditiously to support development projects in Mozambique which may otherwise have remained underfunded. Furthermore, Mozambique was able to invest in the national education sector rather than using the funds to repay debts.

There were many aspects which contributed to the positive results. In terms of coordination and governance, active donor participation throughout the negotiations and implementation stages are essential to ensure all responsible parties are aligned towards the same objectives. In this vein, yearly tripartite meetings to review and evaluate the project status are highly recommended to ensure collective and synchronized action as well as enhancing the partnership. In addition, a feasible negotiation timeline should be agreed by all parties and adhered to so as not to lose the momentum. With regards to replicating the model, each case is different, and a balance should be struck between local needs and global best practices

In Mozambique, the school meals programme is an investment in the education sector but represents an important safety net and a powerful means of alleviating poverty and hunger of the most vulnerable households. It also represented an investment in the local economy with all food procurement taking place at local level, including from neighbouring small holder farmers. The provision of daily school meals incentivizes children to attend schools regularly, thereby contributing to reducing absenteeism and drop-outs, while allowing improved learning. WFP is committed to support the Government of Mozambique to transition towards a nationally owned, funded and managed home-grown school meals programme over the next years and increase Mozambican children' opportunities to thrive, and the debt-to-development partnership has been pivotal in this respect.



CHAPTER 5

The global and strategic role of WFP in school health and nutrition School feeding programmes have grown dramatically in quality and quantity over the last decade (see Chapter 1). It is countries and national governments which have driven this change: they invest most and make the biggest difference on the ground.

It is also clear that development partners can help strengthen and accelerate these government-led efforts (see Chapter 4), and that key changes to policy have played an important role in the growing sophistication of the programmes (see Chapter 2). WFP, as the United Nations lead on school feeding, has played important global roles both as a partner and as a catalyst for policy change; and is now taking more deliberate steps to strengthen and more clearly define these roles in the future.

This chapter describes WFP's new strategic outlook, its commitments and targets. It sets out what governments and partners can expect from WFP in the next ten years; what WFP's priorities and roles will be; and how WFP plans to change its way of working to provide more and better support to governments and children, using a new ten-year strategy to guide the process.

The new WFP 2020-2030 School Feeding Strategy was developed on the basis of evidence and policy analysis, and especially by listening to others. After 18 months of consultations with governments, development partners, NGOs and grass-roots organizations, the strategy was launched in January 2020. The strategy documents how WFP will advocate globally and work in partnership to help guarantee a proper school health and nutrition response for schoolchildren worldwide. In addition to continuing to implement programmes directly for those most in need, WFP will support governments to address their national goals and challenges, and in particular reach the 73 million vulnerable children in 60 developing countries that are currently not benefitting from school meals or other health interventions.

In many cases, WFP should not be the lead agency in tackling specific challenges, but instead will help find solutions by working with others and convening different actors. WFP will do this by leveraging its six decades of experience in supporting school feeding; its reach and knowledge of the poorest and hardest-to-reach populations; and its trajectory of working with more than 100 countries on sustainable national school feeding programmes.

WFP technical and policy support to national programmes could positively influence the quality of life of 155 million schoolchildren in 74 countries, while at the same time assisting countries' movement towards self-reliance.

Three major changes in WFP's approach are expected as the new strategy is rolled out:

- 1. WFP will change the way it works and acts in partnership; sharpen its advocacy, convening and influencing capacities; and will act as a catalyst and a facilitator of global, regional and country efforts on school health and nutrition.
- 2. WFP will change the way it works with governments, increasing the sustainability and institutionalization of its efforts through a better understanding of national priorities and challenges, better use of evidence and an enhanced focus on strengthening national systems and plans.
- 3. WFP will change the way it delivers school feeding, ensuring better integration, coherence and quality of programme delivery, including a stronger focus on the roles of diet and lifestyle on obesity, as well as undernutrition.

The new School Feeding Strategy also calls for more research to improve the quality of programmes, including creating designs which are more gender-sensitive and more responsive to climate change. The responsiveness of WFP's 2020-2030 strategy, and particularly its partnership approach, has already been proven to be more relevant in the COVID-19 era, while the closure of schools has already led WFP to redouble its efforts, working with partners to support countries provide school meal programmes for out-of-school children.

Tracking the roll-out of the strategy will be a deliberate feature of future editions of the *State of School Feeding Worldwide*, with the aim of monitoring progress and optimizing the strategic approach in response to this feedback.

5.1 The scale of WFP's efforts

WFP is the leading humanitarian organization saving lives and changing lives; delivering food assistance in emergencies; and working with communities to improve nutrition and build resilience. In emergencies, WFP is often first on the scene, providing food assistance to the victims of war, civil conflict and natural disasters. When the emergency subsides, WFP helps communities rebuild shattered lives and livelihoods. WFP works with its partners and governments to deliver long-term solutions that change people's lives by bridging the divide between humanitarian and development activities. This approach breaks the cycle of poverty and builds human capital by helping connect people – particularly schoolchildren, women and smallholder farmers who are furthest behind – with educational and economic opportunities. WFP is the largest humanitarian organization implementing school feeding programmes worldwide and has been doing so for over 50 years. In 2019, WFP provided school meals to more than 17.3 million children in 50 countries, often in the hardest-to-reach areas. In addition to its humanitarian role, WFP also has the UN mandate to support school feeding programmes worldwide. For over 50 years, WFP has helped more than 100 countries to establish nationally owned and sustainable programmes. In all cases, WFP aims to work in partnership with UN agencies and a large network of NGOs.

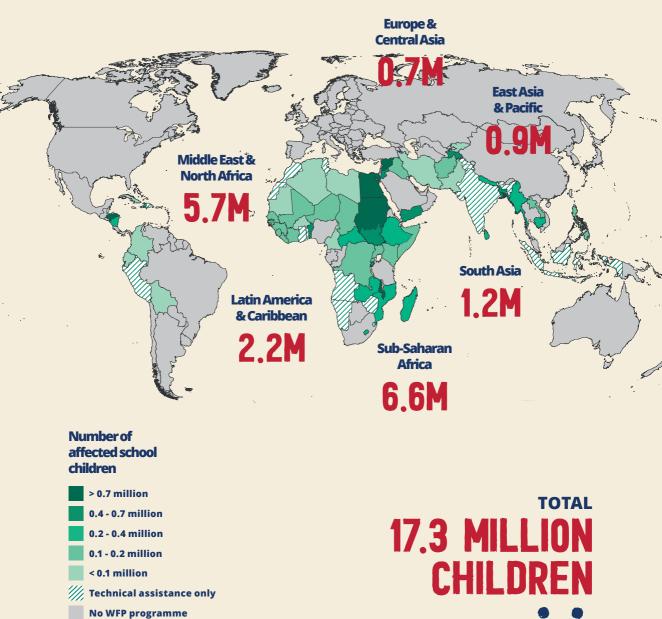
WFP works with governments in two ways, often simultaneously:

- 1. The organization provides school meals to vulnerable children in support of national objectives. In 2019, WFP provided school meals to more than 17.3 million children in 59 countries, with about 71 percent of the coverage in Sub-Saharan Africa and the Middle East (see map 5.1). In 2020, it has worked with these same countries to help them mitigate the effects of school closures due to the COVID-19 pandemic.
- 2. WFP provides policy support and technical assistance to help governments strengthen the sustainability of their school feeding programmes. As countries develop economically, WFP's direct operational support is no longer needed because governments take over the responsibility of managing and funding these programmes. Of the 100 countries which started programmes with WFP support, the transition to national ownership has already happened in 40 countries (see Kenya Case Study 5.3)



Map 5.1 Overview of WFP school feeding programmes around the world in 2019

Legend: WFP school feeding programmes reached 17.3 million children in 2019, the largest share of which are in Sub-Saharan Africa.



International Boundary
 Other Line of Separation
 Special boundary line

TT

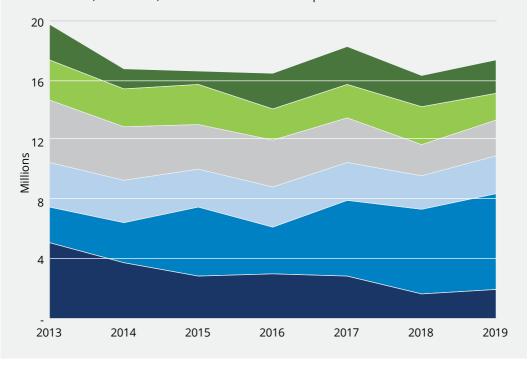
Since 2013, the number of children reached annually by WFP-managed programmes has been relatively stable at around 17 million children across the regions (see Figure 5.1). Transition to state-run programmes has occurred in several countries: in Cambodia, WFP's programme has reduced from 528,000 to 281,000 children following a transition plan with the government; and in Kenya and Zambia, 1.1 million and 900,000 children are now being supported by their respective governments. During this period, WFP has completely handed over programmes in Bhutan, Ghana, Indonesia, Sao Tome and Principe, Kenya and Palestine. It has also increased its coverage in crisis-hit countries.

Since 2013, WFP has also scaled up several operations in response to emergencies and crises in the Middle East and North Africa region, including in Egypt, Jordan, Sudan, Syria and Yemen.

Figure 5.1 Evolution of WFP school feeding beneficiaries between 2013 and 2020 (by WFP Regional Bureau)

Legend: The total number of children supported by WFP with school meals remained stable between 2013 and 2020, at around 17 million globally. Disaggregating by region illustrates a decrease in Asia and the Pacific, mostly driven by gradual handover to governments, and a marked increase in the Middle East and North Africa region, mostly in response to crises.

Latin America and the Caribbean
 East Africa
 Southern Africa
 West and Central Africa
 North Africa, Middle East, Central Asia and Eastern Europe
 Asia and the Pacific



WFP's planned budget in school feeding is about US\$740 million annually, making it one of the largest contributors to education and social protection efforts in low-income countries. In 2019, WFP had more than 160 subject experts working specifically on school feeding in 73 country offices, 6 regional bureaux, Centres of Excellence in Brazil and Côte d'Ivoire, and in WFP headquarters in Rome. WFP subject experts in nutrition, social protection, monitoring and evaluation also provide support to school feeding efforts.

Summary of WFP's school feeding activities in 2019

- WFP provided school meals or snacks to **17.3 million children**, of which **50 percent were** girls, in **90,000 schools**.
- Number of schoolchildren receiving assistance by WFP region:
 - Asia and the Pacific: 2.1 million
 - North Africa, Middle East, Central Asia and Eastern Europe: 6.4 million
 - West and Central Africa: 2.5 million
 - East Africa: 1.8 million
 - Southern Africa: 2.3 million
 - Latin America and the Caribbean: 2.2 million.
- In 2019, WFP implemented or supported school feeding programmes in **73 countries** (4 countries with direct implementation; 55 countries with direct implementation and technical assistance; and 14 countries with technical assistance only).
- Take-home rations in the form of food or cash-based transfers for 430,000 children.
- 4.5 million children received school feeding in emergency contexts.
- In **40 countries**, WFP provided support to smallholder farmers through home-grown school feeding programmes.

The number of children likely to benefit from WFP's technical assistance is difficult to estimate with precision. One common form of technical support is to help countries draft school feeding policies, laws and strategies. These are often multi-year efforts involving several stakeholders and lengthy processes, which ultimately benefit all the children in the national programme. In the case of Bangladesh, for example, the national school feeding policy is expected to benefit three million children (see Case Study 5.2).

WFP also helps governments strengthen national monitoring systems, define better targeting criteria and improve food quality. New national food fortification laws in India and Peru have benefitted millions of children who receive micronutrients such as iron and Vitamin A in their school meals.

Using this approach, WFP's technical and policy support could positively influence the quality of life of 155 million schoolchildren in 74 countries.

This estimate corresponds to the sum of all children that currently receive meals through government-run school feeding programmes in countries that will benefit from WFP's technical support as envisaged in the new WFP strategy. The majority of these children are in stable, middle-income countries, where WFP is increasingly transitioning from providing direct operational assistance to technical assistance and capacity strengthening.

This estimate does not include other types of indirect beneficiaries, including smallholder farmers and other actors along the supply chain, such as caterers, transporters and traders. This aspect could be further explored in future editions of the *State of School Feeding Worldwide*.

5.2 WFP's contribution to the sustainability and institutionalization of programmes

In its 2009 School Feeding Policy, WFP committed to support the transition to nationally owned programmes. This commitment was further strengthened in the updated policy of 2013 and reiterated in the *State of School Feeding Worldwide* publication of that same year. Over the last decade, an enormous effort has been made to ensure that school feeding programmes are properly embedded in national frameworks (see Figure 5.3 depicting the evolution of WFP policy and thinking on school feeding).

This section explores the changes between 2013 and 2019, by comparing the data from the *State of School Feeding Worldwide* 2013 (WFP, 2013a) and Chapter 1. However, this analysis focuses on countries with WFP support only.

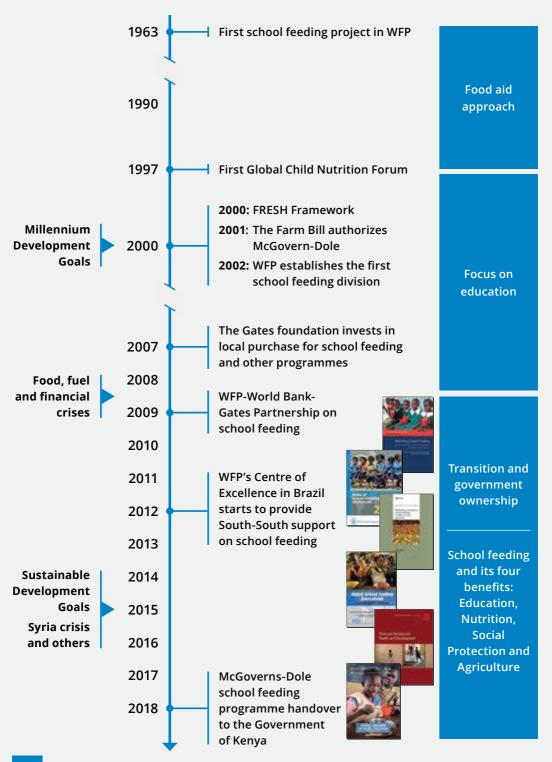
The analysis indicates that government programmes have been successful, but also highlights that these types of results take time. In many cases, these are processes that take five or ten years to complete, requiring a long-term view, patience, consistency and sustained investment from WFP, partners and donors.

The number of children receiving school meals in WFP-supported countries has increased from 69 million (2013) to 107 million (2019) (see Figure 5.4). During this period, the WFP direct assistance caseload has remained relatively stable at around 17 million children (see Figure 5.1); while the growth has been in government-led programmes, where caseloads have nearly doubled. This illustrates the progressive investments that governments have made to expand national efforts. The biggest increase has been in lower middle-income countries, but the data illustrate that low-income countries have also stepped up their own investments.

As mentioned in the previous section, although WFP's beneficiary caseload has remained stable overall, there have been significant variations in the size of programmes in specific countries and regions, which means that not all countries that received WFP support in 2013 continue to receive the same amount of support in 2020. WFP adapts to the country context, retargeting efforts to complement what governments are doing. For example, the government may expand its programme in urban and peri-urban areas, while WFP concentrates on supporting harder-to-reach areas of the country.



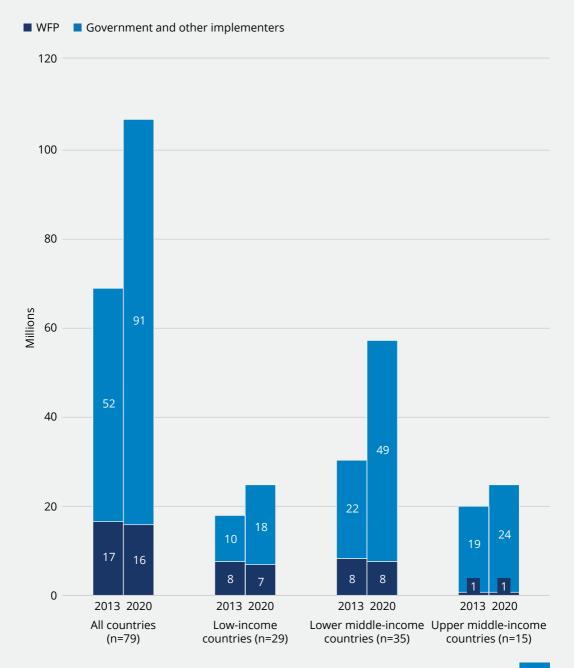
Figure 5.2 The evolution of a policy priority



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Figure 5.3 Numbers of children reached by school feeding programmes in countries supported by WFP

Legend: The number of children receiving school feeding in countries supported by WFP has significantly increased between 2013 and 2020, especially in lower middle-income countries where WFP has supported transitions to government-led programmes. This increase is entirely attributable to government investments, while WFP's support remained unchanged.

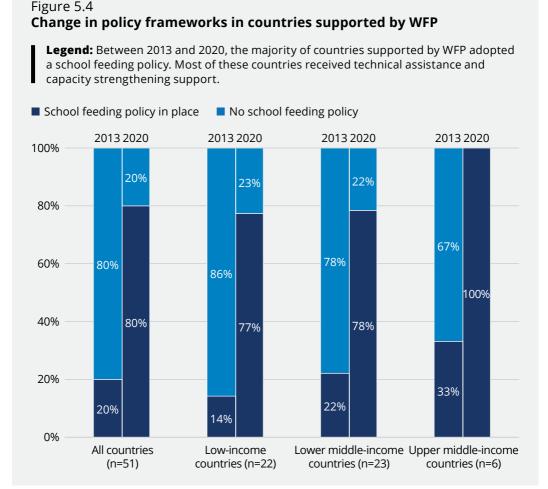


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In 2013, 20 percent of WFP-supported countries had a school feeding policy, law or strategy. In other words, very few countries had a proper policy framework that established school feeding programmes as part of broader national development efforts. In 2019, 80 percent of countries that WFP supports have a policy framework (see Figure 5.5).

Progress has been made in all income categories, even in low-income countries that started from a lower baseline in 2013. Particularly impressive is the progress made in several crisis-affected countries including Burkina Faso, Burundi, Chad, Republic of Congo, Ethiopia, the Gambia, Liberia, Madagascar, Malawi, Mozambique, Nepal, Togo and Yemen.

Since 2013, 30 countries have adopted school feeding policies, laws or strategies. In each of these countries, WFP supported the government to clarify its policies on school feeding, including support for national and regional workshops and consultations, assessments and studies in preparation for legal and policy documents; seconding staff to government offices to support these efforts; and study visits.



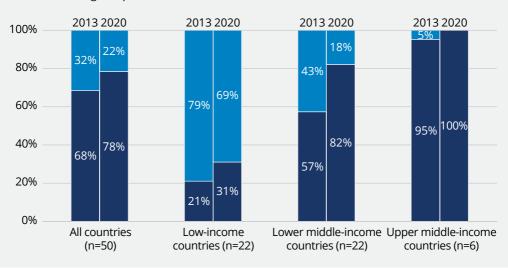
Most countries received support from the WFP Centre of Excellence in Brazil, starting with study visits to learn first-hand from the Brazilian experience, and then through direct technical assistance to help countries draft and approve national policies. The Centre of Excellence in Brazil has demonstrated the power of South-South Cooperation in generating political will and providing government-to-government targeted support (see Box 4.8).

Another important tool in the development of national policies was the SABER framework. Developed in 2011 by a World Bank-led partnership, the Systems Approach for Better Education Results (SABER) tool is an initiative to collect and disseminate comparative data and knowledge on education policies across all domains, including school health and school feeding. It is designed to help countries systematically evaluate and strengthen their education systems and policies. As mandated in its 2013 policy, WFP deployed the SABER tool in 55 countries, which helped governments design road maps towards the institutionalization of school feeding programmes. Based on the success of this tool, WFP is now working with the World Bank and partners on a revised version of SABER (see Box 2.6).

One last indicator that illustrates the trend towards progressive institutionalization is the programmes' funding sources. The data in Figure 5.6 indicate that since 2013, governments have increased their investments in school feeding in WFP-supported countries. Indeed, the trend in countries at all income levels is towards self-reliance, with a substantial movement towards domestic financing.

Figure 5.5 Change in funding sources in countries supported by WFP

Legend: The share of international donor funding tends to be higher in countries supported by WFP compared to the global average (see Chapter 1). Nevertheless, governments significantly increased their level of funding for school feeding between 2013 and 2020, especially in lower middle-income countries where WFP has been supporting transitions to government-led programmes.





5.3 Unfinished business: how many children are not receiving school health and nutrition support?

The majority of countries in the world are providing some level of school health and nutrition support, although the coverage is often limited (Sarr et al., 2017). The World Health Organization (WHO) estimates that 456 million schoolchildren – more than half of the target population – receive deworming treatment annually through school-based programmes in nearly all low and lower middle-income countries (WHO, 2019b), although these largely public efforts are variable in quality and coverage.

In many countries, the delivery of deworming medicines has been suspended or reduced in coverage due to school closures resulting from the COVID-19 pandemic. The medium-term plan in most countries is to resume mass drug administration as part of the reopening of schools.

Recent analysis shows that today nearly half the world's schoolchildren sit down to eat a meal at school. Almost all high and middle-income countries have high coverage rates. India now feeds 90 million children; Brazil and China 40 million each; and Egypt 11 million. Despite this progress, there are still some significant challenges.

It is apparent that several hundreds of million schoolchildren are receiving some health and nutrition interventions on a regular basis. But is this support reaching the children who have the greatest need? As explored in Chapter 1, while coverage of school feeding programmes is adequate in high and upper middle-income countries (reaching 80 percent of school-age children in most contexts), it remains inadequate in low-income countries (reaching only 18 percent of school-age children).

To answer this question, WFP partnered with PCD to explore the scale of need for school feeding in low- and middle-income countries globally (Drake et al., 2020). Of the 730 million primary schoolchildren enrolled in school, 338 million live where the coverage of school meals is inadequate (below 80 percent). Of these, 251 million children live in countries where there are significant nutrition challenges, including 20 per cent stunting in children younger than 5, and more than 30 percent anaemia among women (World Bank, 2020c).

The analysis shows that of the 251 million children living in countries with poor nutrition, a subset of 73 million are further challenged by living in extreme poverty, defined as less than USD 1.85 per day. These especially vulnerable 73 million children are spread across 60 countries: 84 percent in Africa; 15 percent in Asia and 1 percent in Latin America.

WFP will help governments reach 73 million of the most vulnerable children that do not currently benefit from school health and nutrition support. Supporting governments to reach these 73 million primary schoolchildren in 60 countries with nutritious meals and other school health interventions is a priority, and clearly a focus on Africa is needed. Bridging this gap will require supporting governments to expand coverage in countries with existing school feeding programmes and to initiate school feeding programmes in countries where they are lacking.

These estimates were calculated before the COVID-19 pandemic. The number of vulnerable children is likely to have increased as a result of the global crisis. Therefore, these figures should be considered a lower-bound estimate and should be revised once it is clear how many of the most vulnerable children have been able to return to school after the reversal of the school closures.

WFP will work with a growing coalition of development agencies, donors, the private sector and civil society organizations.

5.4 A renewed commitment: WFP's new school health and nutrition strategy

In 2019, WFP embarked on a comprehensive review of its support to school feeding programmes. This included a review of the existing evidence, lessons learned and best practices; and extensive consultations with internal and external partners. The process resulted in WFP's first ten-year school health and nutrition strategy, which was launched in early 2020.

Responding to the United Nations Decade of Action (2020-2030), WFP will work with governments and partners to ensure that all primary schoolchildren have access to good quality meals in school, accompanied by a broader integrated package of health and nutrition services. Building on its six decades of experience, WFP will advocate globally and nationally to ensure that the issue of school health and nutrition is prioritized.

Through this strategy, WFP will also contribute to promoting equity and inclusion, including, but not limited to, addressing issues of gender and for children with disabilities (see Box 5.2).

WFP will build on its existing operations in countries and leverage its expertise, tools, systems and partnerships to support countries to achieve their human capital objectives through increased investments in nutrition, quality of learning, gender equality and healthy growth. WFP does not aim to meet the needs of all 73 million primary schoolchildren directly or on its own. WFP will take a context-specific approach and adapt its role to the particular country situation, in partnership with other key players, including governments, UN agencies, the private sector, international financial institutions and NGOs. The following are the four main areas that WFP will invest in under the new strategy:

1 - Generating and sharing knowledge and best practice globally

As in 2009,¹⁵ WFP will work with partners to establish a research agenda for school feeding for the next ten years, based on a mapping of learning needs, to ensure that global gaps in the knowledge base are being filled. A research consortium will be set up and managed by an academic partner, to ensure evidence work is credible and rigorous. Future areas of research identified by the WFP strategy include:

- nutrition and diet quality of school-age children;
- development of indicators to measure the impact of school feeding on nutrition status of schoolchildren;
- the contribution of school feeding to human capital, costs, cost-benefit and cost drivers of national programmes;
- the impact of school feeding on girls' education and on adolescents;
- analysis of how countries have transitioned from external support to country financing and management of programmes;
- the cost-effectiveness of using school feeding programmes as a platform for the delivery of other services (health and nutrition, protection, etc.); and
- the contribution of school feeding to peace and stability outcomes as well as cognition and learning outcomes.

As the leading international agency supporting school feeding, WFP has the responsibility to house and make available global knowledge so that countries can use the information to improve programmes and provide adequate support to vulnerable children. Drawing on decades of engagement in school feeding, WFP will support the development of global public goods such as a comprehensive school feeding database and will document and share global lessons learned, best practices, standards and norms more effectively.

In recent years, new decentralized approaches are emerging on knowledge sharing, including South-South exchanges, knowledge hubs and other initiatives at the regional level. These approaches need to be supported to create more of a networked approach to knowledge rather than a centralized approach. However, better coordination is needed between all these initiatives to ensure coherence.

The World Food Programme has launched a new ten-year School Feeding Strategy.

^{15.} WFP revisited its research agenda in the wake of the publication of the World Bank's report *Rethinking School Feeding*, to which WFP contributed.

WFP will work with the World Bank and other relevant partners to document the results of almost five years of implementation of the SABER tool (see Box 2.6) and to update it for further use as part of the World Bank's new Universal School Health and School Feeding Strategy. WFP will develop an operational tool to assess national capacities for school feeding more effectively and to provide technical assistance. WFP will work with partners such as GCNF on a global school feeding survey. This periodic flagship publication will consolidate and report back on the state of school feeding worldwide. Better outcome indicators to document and track results of school feeding operations will be developed, in particular those related to nutrition and capacity development.

2 - Increasing the investment in school feeding: a new funding model

A new funding model that differentiates between contexts is needed. Low-income and fragile countries that do not have the same fiscal capacity as middle and high-income countries continue to rely on operational support from WFP, which in turn relies on a limited set of donors, making funds unpredictable and operations unsustainable. To finance its operations, WFP needs to establish a new compact with donors. A multisectoral approach is needed, bringing on board donors that have traditionally not been involved in funding school feeding programmes; blending funding from different sectors; and combining humanitarian and development funding streams. New multilateral funds, especially in the education sector, and innovative financing mechanisms are available that should also be explored.

In more stable and developed countries, governments need to move from relying on actors such as WFP and NGOs to financing their own national programmes. Countries could, for example, allocate funding from bilateral partners, negotiate debt swaps, introduce specific domestic taxes or levies, or work on corporate social responsibility projects with the private sector. WFP will learn to engage with governments in designing and implementing innovative fiscal policy approaches to finance national and regional school feeding programmes. The challenge for WFP is to support governments increase access to these funds while also securing funding for capacity strengthening activities. WFP needs to strengthen its ability to manage, implement and account for funding received from development sector partners.

International financial institutions, such as the World Bank, the African Development Bank, the Asian Development Bank and the Inter-American Development Bank as well as thematic funds such as the GPE and others will be crucial to enable this transition to national ownership and sustainability by channelling financing to national programmes. Funding for technical assistance and capacity development work would need to be secured for WFP to continue playing its enabling role. Private sector support has been instrumental in mobilizing resources, advocating and providing technical assistance to strengthen school feeding programmes. WFP will continue to work closely with the private sector and identify avenues to expand cooperation through innovative financing mechanisms and individual giving, to contribute to the reduction of the funding gap, especially in fragile contexts.

WFP will support governments to transition to nationally owned and funded programmes and enhance its direct support in fragile or low-income settings.

3 - Acting in partnership to improve and advocate for school feeding

WFP will champion the issue of school health and nutrition globally and advocate for its prioritization in the next decade of action towards the SDGs. Through its benefits to education, health and nutrition, social protection and local agriculture, WFP recognizes that school feeding directly contributes to SDG 1 "No Poverty", SDG 2 "Zero Hunger", SDG 3 "Good Health and Well-Being", SDG 4 "Quality Education", SDG 5 "Gender Equality", and indirectly contributes to SDG 8 "Decent Work and Economic Growth", SDG 10 "Reduced Inequalities", SDG 12 "Responsible Consumption and Production", SDG 16 "Peace, Justice and Strong Institutions" and SDG 17 "Partnerships for the Goals".

WFP will work with partners to ensure that the additional elements of an integrated package of school feeding and health for children, which are not part of its mandate or areas of expertise but are nevertheless crucial for children, are provided in an integrated way. Joint approaches are proving to be more effective and cost-efficient, including joint advocacy and communication strategies.

In July 2019, an inter-agency meeting co-organized by UNESCO and WFP highlighted the importance of better UN agency collaboration in the context of UN reform and the need for a new, more effective, efficient and integrated multi-agency school health and nutrition approach (UNESCO, 2020a). Under the leadership of UNESCO, WFP will support this new partnership opportunity at global, regional and country levels.

WFP will update its bilateral partnerships with agencies including UNESCO, UNICEF, UNFPA, FAO, GPE, World Bank and ECW through new memorandums of understanding or action plans, as appropriate. WFP will launch a joint initiative with UNICEF to provide an integrated package of school feeding and health, WASH and nutrition interventions. WFP is currently working with FAO on sustainable home-grown school feeding approaches, with a view to improving linkages between local farmers and school feeding programmes. Support will be provided to regional bodies such as the African Union to strengthen their leadership on school feeding.

At the regional and country level, WFP will work with governments as key stakeholders and with UN agencies and NGOs to:

- improve the effectiveness and efficiency of programmes and to provide better and more information to decision makers at the right time;
- engage and reposition school feeding in national policy discussions at the right level and with the right capacities;

- support upstream decision making by highlighting key trade-offs, best practices and solutions to governments; and
- WFP will foster multisectoral approaches at national level, convening across ministries, government structures and regional groups.

NGOs have clearly asked WFP to review its approach to partnering with them on school feeding. At the country level, there is an opportunity to develop shared platforms for knowledge sharing, development of indicators and coordinated support to governments. This may include jointly strengthening monitoring systems and transition plans. At regional and international levels, this engagement provides a basis for joint advocacy to increase the profile of school feeding and for global coordination and sharing of research, lessons learned and best practice. WFP will establish an NGO advisory board at global/headquarters level and include NGOs in various work streams, including the new research agenda.

The private sector – including multinational, national and local profit-making enterprises, foundations and individual giving – has been a strong player in school feeding, particularly in stable contexts where it has supported transition strategies with governments. Support in the form of funding, advocacy and technical support for the design and development of national school feeding programmes is increasingly being leveraged. An area of growth will be the development of new partnerships with national private sector companies who can and should be part of country-level advocacy and policy platforms to strengthen the quality and sustainability of school feeding interventions.

4 - Strengthening programmatic approaches in key areas

WFP has identified six thematic focus areas that will be further strengthened, which all require integrated, multisectoral approaches.

- **Girls' (including adolescents) education and well-being:** Helping girls stay in school, especially into adolescence, is an effective way of preventing early marriage and of delaying the first pregnancy, both of which can trap women in poverty, social exclusion, violence and chronic ill health. A multitude of gender inequalities hinder children's access to schools, especially girls. In some countries, WFP has successfully operationalized approaches with partners such UNICEF, UNFPA and UN Women to address some of these barriers through integrated platforms, which need to be supported and scaled up.
- Nutrition-sensitive school feeding:¹⁶ In the face of the double burden of malnutrition, priorities for school-age children include promoting healthy diets through nutrition education, physical activity and behaviour change communication; addressing and preventing micronutrient deficiencies; and tackling the specific needs of adolescent girls and other vulnerable groups. WFP will issue new nutritional guidelines for governments on how to design the best models based on their situation, nutritional needs and challenges, while promoting links with other health, hygiene and nutrition-related activities.

^{16.} WFP's 2017 nutrition policy frames the engagement towards improving nutrition in all WFP interventions.

- School feeding and the triple humanitarian-development-peace nexus: School feeding is part of an essential package to bridge immediate response and long-term development efforts. For children living in fragile and conflict-affected areas and refugee settings, school feeding can become an essential safeguard by contributing to a sense of normalcy and educational continuation. A robust conflict/context analysis needs to underpin WFP programmes to ensure that assistance is conflict-sensitive and does not result in protection risks for children. The contribution that school feeding might make to improving prospects for peace on different levels needs to be further researched.
- School feeding, food systems and value chains: Despite over a decade of work, home-grown school feeding programmes are still not implemented at scale. WFP will deploy its significant expertise in this area to ensure that the connection between school feeding and local agricultural production is a reality. This includes market analysis and supply chain support; links to local food systems and smallholder farmers' groups; access to energy; support of cash-based programming; shock-responsive programmes; and improved monitoring and traceability solutions for local procurement to governments. Strengthening partnerships with the UN Rome-based Agencies, specialized international and national NGOs, and farmers' organizations will be important in this regard.
- Data and digital innovation: WFP is developing a school feeding digital platform to increase near real-time data availability from operations and enable better and quicker decision making (see Box 5.3). Eventually, these solutions can be linked with national reporting and monitoring systems in support of government-led programmes. Digital solutions for attendance tracking, monitoring of meals served and stock management in schools will be developed. Integrated dashboards will support country offices to improve their programme quality where needed. Digital platforms to train school feeding actors on nutrition education, food quality and safety, and to promote healthy eating habits will be further developed. The school meal optimization tool, Menu Planner PLUS School Menus, will also help to improve menu design, focusing on nutrition, local sourcing and cost optimization.
- Local communities: A variety of community-based actors contribute to school feeding programmes including school management committees, parent teacher associations, teachers, parents, traditional authorities, village leaders, women's groups, farmer organizations and, of course, students. Local communities have an important role to play in implementation of school feeding activities in fragile and stable contexts, with increasing importance placed on their ownership of school feeding in stable contexts. WFP will strengthen the engagement of local communities in school feeding to ensure the sustainability of activities; children's attendance; community members' contribution to school feeding through in-kind or financial assistance; and parents and teachers' leadership in the management of the daily activities.

WFP will promote research on school health and nutrition.

Box 5.1 What WFP learned from COVID-19 in the context of school feeding and education

While the COVID-19 pandemic severely impacted the lives of the most vulnerable populations, it also gave WFP the opportunity to reflect on its current delivery of programmes. The key lessons WFP learned from the COVID-19 crisis are detailed below.

Looking beyond the immediate crisis: it is clear that the impact of COVID-19 will be felt for years to come. WFP must address the long-term implications of the pandemic on global food systems, unemployment and household incomes, and the effects on school feeding. Even as schools reopen, it is not guaranteed that all children will return to school as parents may no longer be able to afford to send their children back or require them to work for additional income. With the number of food insecure people increasing to record levels, WFP must find new ways to adapt its programmes in a post COVID-19 world.

Expand and scale up new programme modalities: WFP's response to school closures and the subsequent social shocks have shown the effectiveness of alternative feeding mechanisms in supporting children that no longer have access to school. WFP seeks to expand its programming options and scale up modalities such as the use of centralized kitchens and voucher systems, in order to build better, more flexible school feeding programmes. Specific attention will be brought to populations in urban settings as they will be most affected by the pandemic.

Strengthen partnerships with UN agencies, NGOs and the private sector: WFP recognizes the need to strengthen ongoing partnerships and ensure investments from donors are part of the broader education sector response. WFP must also capitalize on the COVID-19 response and support governments in bringing forward school feeding in their national policies. WFP's work with ministries of education; NGOs such as World Vision and Save the Children; and the private sector, e.g. Mastercard and Sodexo, is crucial to the long-term success of the strategy.

Box 5.2 UNESCO's Global Education Monitoring Report on inclusive school health and nutrition: A summary

Social inclusion and development are closely interlinked. In order to make progress towards the SDGs and the international pledge of leaving no one behind, policies need to tackle inequalities and ensure inclusive approaches. According to the UN Department of Economic and Social Affairs, social inclusion is "...the process of improving the terms of participation in society, particularly for people who are disadvantaged, through enhancing opportunities, access to resources, voice and respect for rights" (United Nations Department of Economic and Social Affairs, 2016). As such, any efforts to build human capital through school health and nutrition programmes must factor in and plan for these interventions to offer channels to improve the participation of all children, especially those who are most vulnerable to exclusion, including, but not limited to, children with disabilities.

UNESCO's Global Monitoring Education Report 2020 (UNESCO, 2020c), titled "Inclusion and education: All means all", states that school feeding programmes can promote equity and inclusion, recognizing their contribution to poverty reduction, nutrition, health and education. The report highlights the government-led school feeding programme in Ghana which increased test scores, especially among girls, poor children and those from northern regions. The programmes in Yemen and India are also featured. The social aspect of school meals is highlighted in the report, while acknowledging that meaningful inclusion through sharing of school meals can be difficult to achieve in some contexts. Additionally, the report recommends cooperation across multiple actors, government departments and sectors, presenting school health and nutrition programmes as an example, with 89 percent of countries implementing such programmes (UNESCO, 2020c).

Children with disabilities are at higher risk of being excluded from education or dropping out, and school feeding programmes are recognized for having educational impacts on the most vulnerable learners (PCD, 2015). Approaches that are designed to meet the needs of all children, including those with disabilities, are referred to as disability-inclusive school health and nutrition (Graham et al., 2017). For instance, Zanzibar's 2008-2016 Education Sector Plan notes that enrolment of children with special needs is low, which leads to insufficient support for people with special needs. As such, its focus is on designing disability-inclusive education interventions; collecting more accurate data; and improving training for teachers (Government of Zanzibar, 2007). In Kenya, the home-grown school feeding programme aims to improve targeting and data collection for all vulnerable children, while sensitizing children and parents, and providing vocational training to improve economic outcomes (PCD, 2013). ■

Box 5.3 Digital innovation in school feeding – Menu Planner PLUS, School Connect and Integrated Dashboards

Pierre-Guillaume Wielezynski

Director of Digital Transformation

World Food Programme Leveraging the power of technology, WFP developed three digital initiatives to help make school meals more nutritious and make data more available in a timely manner.

Building on earlier solutions and jointly with the Partnership for Child Development (PCD), the Menu Planner PLUS software is a digital solution that optimizes school menus with the potential of making them more nutritious, cost-efficient, and locally sourced using an advanced mathematical algorithm. The whole process is conducted in four easy steps and the results can be crafted to meet local recipes and culture.

Bhutan was the first country to support the development and piloting of Menu Planner PLUS as an operational application. The first Menu Planner PLUS-designed menu was implemented in the region of Punakha and underscored essential ways to improve school feeding rations. The Menu Planner PLUS menu is 20 percent cheaper than the previously used menu while maintaining its nutrient content and led to a 70 percent increase in food sourced from local farmers, all while respecting local eating habits. The scale up of the tool will start with three additional countries in the last quarter of 2020.

Another project in progress is 'School Connect', a digital data tracking solution working in unstable connectivity contexts that was developed by WFP specifically for school feeding programmes. Combined with the data integration project 'Integrated Dashboards', the aim is to reduce administrative work linked to paper-report handling and speed up data collection and analysis by equipping school feeding managers with near real-time interactive online dashboards on programme performance.

School Connect, which was tested by the Burundi operation in 20 schools in 2019/20, runs on electronic devices with an internet browser and facilitates tracking of important school feeding indicators such as enrolment, attendance, food utilization and current food inventory levels in schools.

The application is integrated with WFP's enterprise data management platform DOTS and Tableau analytics platforms to perform insightful school data analyses and provide staff with interactive, near real-time dashboards and alerts based on operational key performance indicators. This will enable better informed decisions for programme operations teams.

The application will help WFP not only improve operational efficiency, such as last mile food deliveries, better planning of monitoring visits and reporting to partners, but will also contribute to longer-term programme improvements aimed at increasing feeding days and nutritional impact.

School Connect will be scaled up to all WFP-supported schools in Burundi and rolled out to additional countries during 2020/21. ■

5.5 The way forward

- Responding to the United Nations Decade of Action (2020-2030), WFP will work with governments
 and partners to jointly ensure that all primary schoolchildren have access to good quality meals
 in school, accompanied by a broader integrated package of health and nutrition services. Building
 on its six decades of experience, WFP will advocate globally and nationally to ensure that the
 issue of school health and nutrition is prioritized.
- WFP will build on its existing operations in countries and leverage its expertise, tools, systems and partnerships to support countries to achieve their human capital objectives through increased investments in nutrition, quality of learning, gender equality and healthy growth. The following are the four main areas that WFP will invest in under the new strategy:
 - generating and sharing knowledge and best practice globally;
 - increasing the investment in school feeding through a new funding model;
 - acting in partnership to improve and advocate for school feeding; and
 - strengthening programmatic approaches in key areas.

Case study 5.1 Nepal: handover and transition story

Ministry of Education, Science and Technology

Government of Nepal

In 1996, the Government of Nepal took its first step towards ownership and sustainability of its school feeding programme by creating the Food for Education Programme and establishing an institutional framework. In 2008, the government initiated its own cash-based school feeding programme in five districts. The start of the McGovern-Dole programme in 2009 also provided an additional boost to government efforts, allowing WFP to accompany and support the Ministry of Education. After 24 years, the school feeding programme was institutionalized and fully embedded in Nepal's national system.

Over the last ten years, thanks to sustained investment by USDA and with support from WFP, the government has consolidated its policy and institutional framework: school feeding is now included in the national education sector policy; the government designed and launched a national school meals operational plan; and progressively increased the number of staff in the department/unit responsible for the programme within the Ministry of Education. These efforts have led to impressive results; for example, the current National Development Plan mentions school feeding as a programme that has helped to raise net enrolment and retention rates in schools; lower dropout rates; and achieve gender parity.

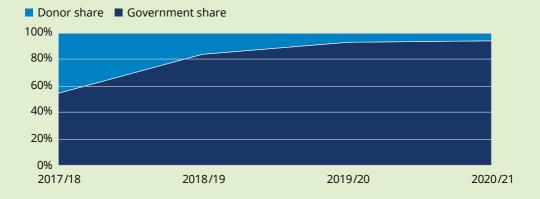
WFP, with support from USDA, also invested US\$18 million in capacity strengthening activities to support the transition. This investment has led to WFP indirectly benefitting the 2.8 million children who are currently part of the school feeding programme, demonstrating that supporting governments to expand their own programmes is more sustainable and cost-efficient in the long term.

In 2018, WFP commissioned a cost-benefit analysis in Nepal, which found that every US\$1 invested in school feeding yielded an economic return of between US\$4.1 and US\$5.2 (WFP, 2018a). These advocacy efforts, combined with increased fiscal space and national budgets, led the government to progressively increase its financial allocations to school feeding, accelerating and consolidating the transition to national ownership. This enabled the government to reach the most important milestone during handover which is an increased budgetary allocation. As illustrated in Table 5.1, over the last four years, the national budget for school feeding has almost quadrupled (from US\$20 million in 2017 to almost US\$70 million in 2020), as external support has decreased (from US\$4.2 million in 2017 to US\$2.8 million in 2020) illustrating a successful transition process.

Nepal Budget (US\$ millions)	2017/18	2018/19	2019/20	2020/21
Cash-Based School Meals budget supported by the Government	20.9	27.2	53.1	69.6
Food-based School Meals budget supported by external donors (USDA and WFP)	4.2	3.9	3.0	2.9
Total budget	25.1	31.1	56.1	72.5
Share of school feeding in the education sector budget	1.6%	2.5%	3.6%	4.6%



Nepal Budget (children)	2017/18	2018/19	2019/20	2020/21
Cash-based School Meals supported by the Government	286,392	1,112,000	2,229,000	2,800,000
Food-based School Meals supported by external donors (USDA and WFP)	236,000	218,815	173,114	154,410
Total beneficiaries	522,392	1,330,815	2,402,114	2,954,410
Government share	55%	84%	93%	95%
Donor share	45%	16%	7%	5%



These investments have translated into more children being progressively supported. Between the Government of Nepal, USDA and WFP, a total of 7.2 million children have been fed since 2017 with a yearly increase in coverage of about 186 percent. Most of this increase is due to the scaling-up of the national, cash based programme, which accounts for 96 percent of the total caseload in 2020. The fact that 4.6 percent of the education sector budget is now allocated to school feeding further demonstrates the government's commitment to the programme and its importance to overall education-sector goals. ■

Case study 5.2 Bangladesh: The transition process

The school feeding programme, which started with WFP support in 2001, is currently transitioning from an externally supported programme towards full government ownership. As stated in the new National School Meal Policy (NSMP) approved by the Prime Minister in August 2019, the aim is to reach all primary schoolchildren with locally produced meals by 2030. The National School Meal Policy will be implemented in a phased approach with technical support provided by WFP. During the transition, the number of children reached will increase.

The government plans to deliver school feeding to all students in government primary schools by 2024. The food provided will gradually shift from fortified biscuits to diverse hot meals. Currently, the government allocates US\$75 million per year to the programme. The costs after full implementation of the National School Meal Policy is estimated at US\$910 million a year, which the government has committed to cover. ■

Case study 5.3 Kenya: Consolidation of its national school feeding programme

Since the 1980s, the Ministry of Education, together with WFP, has successfully implemented a school meals programme targeting the most food-insecure areas with the lowest school enrolment and completion rates, and high gender disparities. This programme included all primary schools in the arid and semi-arid lands of Kenya and in the unplanned urban settlements of Nairobi.

In 2009, the Government of Kenya made a bold move to start the first national home-grown school feeding (HGSF) programme in Africa taking on board an initial 540,000 children from the WFP-supported programme. The Ministry of Education and WFP agreed on a gradual handover strategy, which was completed in June 2018. Today, the government's programme, guided by the National School Meals and Nutrition Strategy (2017-2022), reaches over 1.6 million children in arid and semi-arid counties, exceeding the coverage achieved when WFP provided operational support by more than 400,000 children. Funding from the government increased from US\$8.5 million in 2009 to US\$24 million in 2018.

Kenya illustrates how government commitment can transform a programme from relying on donor support to full government financing and national ownership. The school meals programme in Kenya has become one of the strongest in Africa. The Government of Kenya will continue to work with WFP and other partners to strengthen the programme. Currently, the priorities are to:

- strengthen the data and management information system through digitization of HGSF processes to enhance efficiency, effectiveness and accountability;
- provide training on implementing and managing the school meals programme for education officers, teachers and parent representatives;
- strengthen coordination structures at national, county and school levels; and
- take advantage of South-South Collaboration to strengthen its programme and share experiences with other countries. ■



Case study 5.4 Tunisia: A sustainable school feeding strategy

Ministry of Education

Government of Tunisia

Tunisia was among the first countries in the Middle East and North Africa (MENA) region to establish a national school feeding programme: the programme was implemented just after the country's independence and following the first reform of the education system in 1958. The aim of the country's national school feeding programme was to ensure that all children receive primary education, particularly the most vulnerable living in rural areas, and to boost the nutrition status of students in primary school.

In 2020, the programme reached 260,000 schoolchildren (125,000 girls and 135,000 boys), in 2,500 primary schools (25 percent of children in 50 percent of primary schools). The programme, fully funded by the government, is under the responsibility of the Ministry of Education and is implemented under a highly decentralized model, whereby all food procurement and management is conducted at the school level. The budget of the national school feeding programme doubled in 2019, reaching US\$16 million per year. The Tunisian Government invested US\$1.7 million in the construction and equipment of a pilot central kitchen and development of a School Food Bank.

With the support of WFP, a sustainable school feeding strategy was adopted in 2014. The purpose of the strategy is to:

- strengthen regulatory frameworks and tools in the areas of governance, targeting, cost-effectiveness, nutritional quality of school meals, and safety, monitoring and evaluation;
- support the upgrading of the current decentralized school feeding model in certain schools to increase the system's capacity to provide nutritious and hot meals;
- support the management of new implementation methods that are effective, responsible and promote local development; and
- support the revitalization of school gardens as centres of nutrition and environmental education.

An innovative model was implemented, and piloted, using locally sourced foods for school meals, based on nutrition and hygiene guidelines, and delivered from a central kitchen to satellite schools. In partnership with the National Nutrition Institute, Ministry of Health and WFP, nutritious, balanced meals were designed, contributing to a more diversified diet to address the double burden of malnutrition: micronutrient deficiencies leading to conditions such as anaemia, and obesity. Moreover, in partnership with the Ministry of Agriculture, school gardens were created as hubs of nutrition and environmental education, as well as a complementary source of vegetables and fruits for school lunches, in line with a home-grown school feeding approach.

School feeding activities create jobs and generate profit for smallholder farmers, as well as for those involved in the transportation, processing and preparation of food along the school feeding supply chain. Such job creation in rural communities can provide off-farm income generation opportunities, many of which are filled by women. Off-farm investment may, in turn, further stimulate productivity and agricultural employment, producing a "virtuous cycle" benefitting long-term food security and improving welfare in rural households. Driven by the lessons learned and best practices stemming from the pilot experiences, the government plans to streamline this approach across schools participating in the school meals programme nationwide. The National School Feeding Programme (PNAS) also acts as a social protection mechanism for the schoolchildren reached.

Due to the COVID-19 emergency, which forced the closure of all schools, students no longer received the meals on which they depended, which aggravated the already dire situation of poor families. These children will lose the protection of key vitamins and micronutrients they receive in the school meals, with negative impacts on their learning. Moreover, loss of food support in schools may compound health impacts at a time when staying healthy and keeping a strong immune system is particularly important.

As a response to COVID-19, an innovative and rapid solution was identified through flexible cashbased transfers (CBT) to reduce the human and social suffering caused by the COVID-19 pandemic for those households of children that have not received school meals due to school closures. The objective was also to harmonize the school feeding database with the national social register and make sure food security and nutrition aspects are part of the targeting criteria of vulnerability.

Case study 5.5 Lebanon: A school feeding programme in an emergency context

Niamh O'Grady

Evaluations Officer

WFP School-Based Programmes Service The Evaluation of Emergency School Feeding Activities in Lebanon (2016-2019) is part of a four-country (Democratic Republic of Congo, Niger, Syria and Lebanon) Evaluation Series on School Feeding in Emergency or Fragile Contexts, commissioned by WFP and funded by Canada. The evaluation series promotes learning at the strategic and operational levels, both globally and in-country.

Data collection was based on a mixed-method approach, including a quantitative and qualitative survey along with interviews with key informants. The evaluation questions focused on:

- 1. The appropriateness of school feeding to the needs of boys and girls in the evolving crisis context.
- 2. The coherence of SF with the humanitarian response of WFP and other actors.
- 3. The effects of SF on education, food and nutrition security of boys and girls.
- 4. The effects of SF on the ability of households to cope with crises, and the effects on the local economy.
- 5. The additional effects of SF on social cohesion, psychosocial well-being and exposure to harmful practices (child labour, early marriage).
- 6. The creation of a sustainable system for SF in line with government priorities and capacities.

The presence of an estimated 1.5 million displaced Syrians in Lebanon has placed increased demands on infrastructure and basic services, and has exacerbated the vulnerability of the refugees. Concurrently, Lebanon is dealing with a deepening economic and social crisis resulting in increased vulnerability and poverty in Lebanese communities.

The evaluation found that school feeding in Lebanon has contributed to improved diet diversity, and reduced food insecurity and short-term hunger for both Lebanese and Syrian children. The design of the school feeding programme appropriately responded to the differing needs of both Lebanese and Syrian refugee children while recognizing the distinctions and similarities between both population groups. The programme allowed for adjustments to contextual changes and the nutritional needs of beneficiaries. Evidence shows that the programme had a greater impact on food security for Syrian children where levels of food insecurity were higher.

School feeding has increased the retention of children in both morning and afternoon school shifts – especially the latter – and is positively influencing the enrolment rate of Syrian refugees. Schools where the school feeding interventions took place have reported improved retention rates, and the availability of school snacks provided an incentive for enrolment, although a multitude of social, economic, cultural and institutional barriers remain, putting students at risk of dropping out of school.

Targeting criteria emphasized reaching communities with a high concentration of vulnerable Lebanese and Syrian refugee families. However, the weighting of gender-sensitive vulnerability or protection concerns was less evident when selecting the intervention schools in the eight governorates.

Coordination of educational efforts and sharing of information took place in the education sector working group. However, direct synergies or targeted complementary actions between school feeding and interventions implemented by other UN agencies and NGOs were limited. A link between a national school feeding programme and the wider national social protection system and strategy is not yet evident, largely because a nationwide, gender-sensitive social protection system is at a nascent stage.

There was no conclusive evidence that school feeding had a direct effect on negative coping strategies and there was limited evidence of impact on social cohesion between Lebanese and Syrian children. However, the school snack distribution was perceived to instil a feeling of equality between children. In the nutrition summer camps, it was found that social cohesion did not happen automatically and that concerted efforts to bring together population groups from different nationalities or socioeconomic backgrounds were required.



Conclusions

WFP/Shehzad Noorani/**Bangladesh**

This publication provides an analysis of the state of school feeding worldwide before the COVID-19 pandemic, and an assessment of the impact of the pandemic and its implications for the future. It seeks to identify some of the key obstacles and their solutions.

Building on these plans and recommendations, this section highlights five priority actions for school feeding, starting with a key role in helping to safely reopen schools, and then focusing on new ways to improve the quality and cost-effectiveness of national school feeding programmes.

1.

The most immediate priority is to help countries re-establish effective school feeding programmes. How can we accelerate global efforts to safely reopen the schools closed in response to the COVID-19 pandemic?

The global coalition to Save our Future makes this need very clear in defining its first Action Area:

Prioritize reopening schools, deliver vital services to children, and treat the workforce as frontline workers: School closures were necessary to curtail the COVID-19 pandemic, but there are great costs to children from being away from school. Governments will need to reopen schools as soon as it is safe to do so, make concerted efforts to get children back into school and ensure that vital services including nutrition, physical and mental health services, WASH, and child protection services are put in place urgently to support children as well as the workforce in and outside of school. (Save our Future, 2020)

Re-establishing school feeding programmes is a key contribution to this priority action, with the goal of at least returning to the situation as it was at the beginning of 2020. This is a major priority for WFP into 2021, which requires working with countries and development partners to understand the key challenges and develop effective solutions.

2.

Before the pandemic, school feeding programmes were least present where they were needed most. Can innovative approaches to financing bring new hope to the 73 million children who are most in need?

Before COVID-19, a significant number of children were not being reached by any programme. WFP analysis estimates that 73 million of the most vulnerable schoolchildren across 60 countries will still be systematically excluded even if we return to pre-pandemic levels of coverage. Identifying the barriers to inclusion for these children, and finding new and effective ways to surmount them, is a key goal of the new WFP strategy.

Preliminary analyses show that more than 90 percent of the costs of school feeding programmes are being met from domestic funds, but the most vulnerable children are in countries least able to provide this support. Therefore, external funds will be required to take the first step in the journey towards self-reliance. Filling this gap will require an approach that goes beyond the current financing options, for example, an expanded role from new-generation partners such as the BRICS countries; new financial instruments such as social investment bonds; and, perhaps most importantly, stronger recognition of the need for development partners to pool their investments across several sectors, including health, education and agriculture.

3.

The available data on school feeding focus on public-sector programmes in low- and lower middle-income countries. What more might we learn from programmes managed by the BRICS countries, high-income countries and the private sector?

Most of the data examined in this publication were obtained from providers of free and subsidized programmes, mainly national public-sector programmes and a minority that are supported, and sometimes implemented, by external partners. Yet nearly half the world's free and subsidized meals are delivered by the BRICS countries, and a substantial proportion of the remainder are delivered by high-income countries. There is also a substantial, but currently unknown proportion of school meals that are provided by the private sector, including in the United States and a substantial minority in India, probably of the order of 20 million meals a day. There is currently a data bias towards public-sector programmes, resulting in the fact that there is less information available about school feeding programmes implemented by the private sector and in high-income countries. To help correct this bias, and widen the scope of learning opportunities, there is a need for a universal, global database of school feeding programmes.



4.

School feeding programmes that are connected to the local purchase of food (commonly known as home-grown school feeding) have proven their worth in middle-income countries. How can low-income countries scale up home-grown school feeding efforts as part of their national programmes?

The largest school feeding programmes in the world all rely on the principle of locally sourced food. The BRICS countries, which provide 48 percent of the world's free or subsidized school meals daily, all use nationally sourced food. In Brazil, there is a particular focus on local production through a requirement that 30 percent of school food originates in the immediate vicinity of the school. These measures help create local jobs, shorter supply chains, and make local farmers' markets more predictable and stable. They also increase access to fresh local produce and help establish life-long dietary preferences for fresh locally available foods.

Yet a majority of low-income countries continue to rely heavily on imported foods. There is a need to better understand the constraints for low-income countries, and to help them scale-up HGSF efforts as key elements of their national programmes.

5.

School feeding programmes provide the world's most extensive safety net and play a key role in the response to conflicts and emergencies. Can we further sustain and enhance the resilience of food systems through a new generation of school feeding programmes that are more cost-efficient and more environmentally-sensitive?

WFP was awarded the 2020 Nobel Peace Prize in part because of the role the organization's school feeding programmes play in addressing hunger and peacebuilding as part of the immediate response to conflict and emergencies. To maintain resilience in the longer term, and to transition to sustainability, food systems need to evolve in response to local needs and context. One under-explored area for refinement is age-targeting: are interventions, such as at pre-school age, more cost-efficient than others; is there a need for more age-specific diets, for example during the extra demands of the growth spurt? Another under-developed area with great potential is enhancing the environmentally-sensitive aspects of home-grown school feeding, such as shortening food chains and minimizing post-harvest losses. Focusing on better understanding of cost-efficiency and context could lead to a new generation of precision school feeding systems.

WFP/Leonora Baumann/Democratic Republic of the Congo

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Glossary

Beneficiaries	Those who receive the benefits of a particular social programme. For this publication, it refers to primary and secondary school-age children between 5-18 years who receive food in school feeding programmes.
Costs	The per-child cost of school feeding is estimated as the total expenditure associated with school feeding activities divided by the number of beneficiaries. The figure reflects costs related to commodity procurement, transportation, storage and handling, and personnel. Community contributions are not included (Gelli and Daryanani, 2013). Cost recovery refers to the programme costs being offset by contributions from beneficiaries or communities.
Coverage	The proportion of school-attending children who are beneficiaries of school feeding programmes.
Development partners	An umbrella term for stakeholders that support the development efforts of national, subnational or local authorities, depending on the particular context. Development partners can include: bilateral donors (national governments providing international development assistance); UN agencies and institutions (WFP, UNICEF, FAO, UNESCO, UNFPA, UNSCN, WHO); international financial institutions (IMF, WB, AfDB, AsDB, EBRD, IADB); other multilateral agencies (e.g. IsDB, EIB, OFID, AIIB); multi-stakeholder partnership global pooled funds (GPE, ECW); international NGOs (Plan International, Save the Children International, World Vision International, Care International, Relief International, Dubai Cares); international civil society organizations (PCD, International Food Policy Research Institute, the Millennium Villages Project, GCNF); and civil society at the local level.
Deworming	A treatment to control intestinal worm infections such as helminths (roundworm, ringworm and hookworm) and schistosomiasis. The World Health Organization has recommended giving children albendazole or mebendazole to treat helminths and praziquantel to treat schistosomiasis.
Dietary diversity	The consumption of a proper balance of different foods that provide all the macronutrients and micronutrients needed for healthy growth and productive life.

Food-based safety nets	Category of interventions that provide direct, regular and predictable food assistance to the most vulnerable people to: (1) prevent them from falling below a minimum level of food security as a result of a shock; (2) increase their resilience to shocks; and (3) in some cases, promote their food security (Grosh et al., 2008). The retail value of a food transfer in the local market is referred to as an income transfer.
Food systems	Interlocking networks of relationships that encompass the functions and activities involved in producing, processing, marketing, consuming and disposing of food from agriculture, forestry or fisheries.
Fortification	The practice of deliberately increasing the content of essential micronutrients (such as Vitamin A, iron, iodine or zinc) to foods (FAO and WHO, 2006).
Home-grown school feeding	A school feeding model designed to provide children in schools with safe, diverse and nutritious food, sourced locally from smallholders.
Investment	The total budget allocated to school feeding by the government or WFP, or an estimation of that budget. In this publication, investments are estimates based on secondary data and not on information from national balance sheets.
National school feeding programme	A programme managed by the government either alone or with the support of WFP or other development partners to provide food on a regular basis to schoolchildren.
Nutrition-sensitive programme	Interventions addressing the basic and underlying determinants of malnutrition: namely, food security, caregiving, and access to health services and a safe and hygienic environment. Nutrition-sensitive programmes also address the enabling environment through technical assistance to governments, including advising on policies in complementary sectors.
School feeding	The provision of food to children or their households through school- based programmes. Such programmes can provide meals, snacks or conditional household transfers in the form of cash, vouchers or in- kind, take-home rations.
School health and nutrition	Health and nutrition programming designed for school-age children and outreach activities that expand the effect of programmes within communities and to children not in schools. The services provided through school health and nutrition go beyond feeding, and may include additional interventions such as deworming, vaccination, vision screening, nutrition education and water, sanitation and hygiene (WASH).

Acronyms

ASEAN	Association of Southeast Asian Nations
AU	African Union
AUDA	African Union Development Agency
BCA	Benefit–Cost Analysis
BMEL	Federal Ministry of Food and Agriculture (Germany)
BMGF	Bill and Melinda Gates Foundation
BMZ	Federal Ministry of Economic Cooperation and Development
	(Germany)
BRICS	Brazil, Russia, India, China and South Africa
CCAFS	Climate Change, Agriculture and Food Security
CERFAM	Regional Centre of Excellence Against Hunger and Malnutrition (Côte d'Ivoire)
CESA	Continental Education Strategy for Africa
CoE	Centre of Excellence
COVID-19	Coronavirus Disease 2019
DCP3	Disease Control Priorities, Third Edition
DORA	Annual Division of Revenue Act (India)
ECD	Early Childhood Development
ECLAC	Economic Commission for Latin America and the Caribbean
ECW	Education Cannot Wait
FAO	Food and Agriculture Organization
FRESH	Focusing Resources on Effective School Health
FY	Fiscal Year
GBV	Gender-based Violence
GCNF	Global Child Nutrition Forum
GDP	Gross Domestic Product
GFD	General Food Distribution
GPE	Global Partnership for Education
HCI	Human Capital Index
HGSF	Home-Grown School Feeding
HIV/AIDS	Human Immunodeficiency Virus / Acquired Immune Deficiency Syndrome
HNP	Health, Nutrition and Population
HPV	Human Papillomavirus
IAEA	International Atomic Energy Agency
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute

IFRC	International Federation of Red Cross and Red Crescent
ILO	International Labour Organization
INEE	Inter-agency Network for Education in Emergencies
INSP	National Institute of Public Health (Mexico)
LAC	Latin America and the Caribbean
MDMS	Mid-Day Meal Scheme (India)
MENA	Middle East and North Africa
MOESCS	Ministry of Education, Science, Culture and Sports (Armenia)
MOEYS	Ministry of Education, Youth and Sport (Cambodia)
NEEP-IE	Nutrition Embedded Evaluation Program Impact Evaluation
NEPAD	New Partnership for Africa's Development
NGO	Non-governmental Organization
NSNP	National School Nutrition Programme (South Africa)
OIC	Organization of Islamic Cooperation
РАНО	Pan American Health Organization
PCD	Partnership for Child Development
PNAE	Programa Nacional de Alimentacão Escolar (Brazil)
RCT	Randomized Controlled Trial
SABER	Systems Approach for Better Education Results
SDG	Sustainable Development Goal
SF	School Feeding
SH	School Health
SHN	School Health and Nutrition
SIFI	Social and Industrial Foodservice Institute (Russia)
SISCA	Secretaría de la Integración Social Centroamericana
SOFI	State of Food Security and Nutrition in the World (Name of Report)
SRH	Sexual and Reproductive Health
SSM	Smart School Meals
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations International Children's Fund
UNSCN	United Nations Standing Committee on Nutrition
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
WASH	Water, Sanitation and Hygiene
WB	World Bank
WBG	World Bank Group
WFP	World Food Programme

Annex I: Recent publications by the World Food Programme and partner agencies

World Food Programme publications

A Chance for Every Schoolchild - WFP School Feeding Strategy 2020-2030.

In January 2020, the School-Based Programmes (SBP) division launched a ten-year strategy advocating for increased investment in the health and nutrition of schoolchildren and adolescents.

In this strategy, WFP lays out how it will advocate globally, and work in partnership, to address gaps in guaranteeing a proper school feeding provision for children in schools. In many cases, WFP may not be the lead agency in tackling specific challenges, but by working with other agencies to shed light on the issue of school feeding and convening different actors, WFP will help find solutions to the challenges identified. WFP will do this by leveraging its six decades of experience supporting school feeding; its reach and knowledge of the poorest and hardest-to-reach populations; and its trajectory of working with more than 100 countries on sustainable national school feeding programmes.

WFP. 2020. A Chance for Every Schoolchild – WFP School Feeding Strategy 2020-2030. Available at: https://docs.wfp.org/api/documents/WFP-0000112101/download/

School Feeding Situation Analysis - needs and challenges in WFP programming

This document forms part of a wider situation analysis carried out by the School-Based Programmes Service with contributions from the WFP CoE in the second half of 2018 and informs WFP's School Feeding Strategy 2020-2030. It is focused around areas of organizational action that are needed for the effective delivery of quality school feeding programmes and technical assistance, including strategies, programme quality, partnerships, people, systems and evidence.

The analysis was developed based on a consultative process. The starting point was to review and analyse the following sources:

- Country Strategic Plans (CSPs) a rapid review of 82 already-approved CSPs from all regions.
- Reports of regional school feeding workshops held in 2017-2018.
- The external audit of WFP School Feeding (2016).
- The draft synthesis of school feeding evaluations by the Office of Evaluations (2017).
- Twenty WFP evaluations (school feeding, portfolio, operation and impact evaluations).

Consultations were then carried out:

- School-Based Programmes Service Strategy Retreat (August 2018).
- Regional Programme Adviser Meeting (September 2018).
- Consultation calls with regional bureau programme teams and school feeding focal points (August-September 2018).
- Global Child Nutrition Forum side-event for WFP staff (October 2018).
- Discussion within School-Based Programmes team and inputs from CoE and headquarters colleagues (August-November 2018).

WFP. 2018. *School Feeding Situation Analysis – needs and challenges in WFP programming.* Available at: https://docs.wfp.org/api/documents/WFP-0000112503/download/

School Feeding in 2018 - Beyond the Annual Performance Report 2018 Series

This thematic report, produced jointly by the Performance Management and Reporting Division and School-Based Programmes, summarizes WFP's progress in school feeding on the ground and its efforts to review, discuss and learn from past experience to inform its future strategic direction.

The report highlights WFP's achievements in 2018 to assist the world's most vulnerable children and their families, communities and governments through school feeding activities based on analysis of annual and country performance reports. It also presents the previously unpublished findings of a stocktaking exercise covering recent evaluations, audits, and country, regional and global discussions, conducted in 2018, which forms the basis for WFP's new global strategy.

WFP. 2018. *School Feeding in 2018 – Beyond the Annual Performance Report 2018 Series.* Available at: https://docs.wfp.org/api/documents/WFP-0000110344/download/

Selected partnership resources

Borkowski, A., Ortiz-Correa, J. S., Bundy, D. A. P., Burbano, C., Hayashi, C., Lloyd-Evans, E., Neitzel, J., and Reuge, N. 2021. COVID-19: Missing More Than a Classroom. The impact of school closures on children's nutrition. Innocenti Working Paper 2021-01. Florence: UNICEF Office of Research – Innocenti.

Bundy, D.A.P., Burbano, C., Grosh, M., Gelli A., Jukes M. & Drake, L. 2009. *Rethinking school feeding: Social safety nets, child development, and the education sector.* Washington, DC, World Bank. Available at: https://docs.wfp.org/api/documents/WFP-0000020650/download/

Bundy, D.A.P., De Silva, N., Horton, S., Jamison, D.T. & Patton, G.C. 2018. *Disease Control Priorities, Third Edition: Volume 8. Child and adolescent health and development.* Washington, DC, World Bank. Available at: https://openknowledge.worldbank.org/handle/10986/28876

Bundy, D.A.P., de Silva, N., Horton, S., Jamison, D.T. & Patton, G.C., eds. 2018b. *Re-Imagining School Feeding: A High-Return Investment in Human Capital and Local Economies*. Washington, DC, World Bank. Available at: https://dcp-3.org/sites/default/files/resources/CAHD_eBook.pdf

Cohee, L., Halliday, K., Gelli, A., Mwenyango, I., Lavadenz, F., Burbano, C., Drake, L. & Bundy, D.A.P. forthcoming. The Role of Health in Education and Human Capital: why an integrated approach to school health could make a difference to the futures of schoolchildren in low income countries. Perspectives. *Journal of The American Society of Tropical Medicine and Hygiene.*

Drake, L., Woolnough, A., Burbano, C. & Bundy, D.A.P. 2016. *Global School Feeding Sourcebook: Lessons from 14 countries*. London, UK, Partnership for Child Development, Imperial College. Available at: https://docs.wfp.org/api/documents/WFP-0000020953/download/

Hatløy, A. & Sommerfelt, T. 2017. Rethinking emergency school feeding: A child-centred approach. Oslo, Fafo-report 2017:24. Available at: https://docs.wfp.org/api/documents/WFP-0000070146/download/

UNICEF & WFP. 2020. *School Health and Nutrition: Ensuring a better future for all children.* Available at: https://docs.wfp.org/api/documents/WFP-0000112545/download/

UNESCO, FAO, GPE, UNICEF, UNSCN, World Bank Group, WFP & WHO. 2020. Stepping up effective school health and nutrition - A partnership for healthy learners and brighter futures. Available at: https://docs.wfp.org/api/documents/WFP-0000115787/download/

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

Programme guidance

WFP. 2020. From the School Gate to Children's Plate: Golden Rules for Safer School Meals. Available at: https://docs.wfp.org/api/documents/WFP-0000105252/download/

The new Food Safety and Quality Guidelines for Safer School Meals assign school feeding programme managers responsible for the overall quality and safety of the food provided in schools, and those responsible for designing training for cooks and food handlers at school level with the basic food safety principles and good practices for the selection, storage, preparation and serving of food.

WFP, FAO, IFAD, NEPAD, GCNF & PCD. 2018. *Home-Grown School Feeding Resource Framework*. Technical Document. Available at: https://docs.wfp.org/api/documents/WFP-0000074274/download/

This resource framework is a guidance tool for stakeholders involved in programme design, implementation and monitoring of home-grown school feeding programmes and the related policy and institutional environment, including governments and development partners providing technical and financial assistance, as well as civil society, community-based organizations and the private sector.

World Bank. 2016. *Manual for SABER School Feeding Exercise*. Available at: http://wbgfiles.worldbank. org/documents/hdn/ed/saber/supporting_doc/Background/SHN/SABER_SchoolFeeding_Manual.pdf

This manual, published by WFP and the World Bank in 2016, helps stakeholders plan and implement a SABER school feeding assessment at country level.

WFP. 2017. School Meals Monitoring Framework and Guidance. Available at: https://docs.wfp.org/api/ documents/WFP-0000023832/download/

A set of indicators and guidance to measure outputs and outcomes of school meal programmes, in line with the 2013 School Feeding Policy.

Country Case Studies developed by the World Food Programme and External Partners

Bangladesh

WFP. 2018. The impact of school feeding in Bangladesh. Available at: https://docs.wfp.org/api/documents/ WFP-0000105838/download/

WFP. 2019. *The school feeding programme in Bangladesh – A Case Study.* Available at: https://docs. wfp.org/api/documents/WFP-0000112387/download/

Benin

Government of Benin, WFP and Mastercard. 2019. *Programme d'alimentation scolaire du Bénin -Analyse CoûtBénéfice.* Available at: https://docs.wfp.org/api/documents/WFP-0000114270/download/

Bhutan

WFP. 2018. *Home-grown school feeding in Bhutan*. Available at: https://docs.wfp.org/api/documents/ WFP-0000105579/download/

Bolivia

Sidaner, E. & Torres, S. 2014. *Bolivia's complementary school feeding: A case study.* WFP. Available at: https://docs.wfp.org/api/documents/WFP-0000020516/download/

Cambodia

WFP. 2019. *Home-grown school feeding in Cambodia*. Available at: https://docs.wfp.org/api/documents/ WFP-0000106647/download/

Costa Rica

Sidaner, E. & Montenegro, M.E. 2014. Costa Rica's School Child and Adolescent Food and Nutrition Programme. WFP. Available at: https://docs.wfp.org/api/documents/WFP-0000020537/download/

Ethiopia

WFP. 2019. *Home-grown school feeding in Ethiopia*. Available at: https://docs.wfp.org/api/documents/ WFP-0000106647/download/

Ghana

Dunaev, A. & Corona, F. 2018. *School feeding in Ghana - Investment case: Cost-benefit analysis report.* Government of Ghana, WFP and Mastercard. Available at: https://docs.wfp.org/api/documents/WFP-0000108072/download/

WFP. 2018. *Home-grown school feeding in Ghana*. Available at: https://docs.wfp.org/api/documents/WFP-0000105577/download/

Guatemala

WFP. 2019. *Home-grown school feeding in Guatemala*. Available at: https://docs.wfp.org/api/documents/ WFP-0000107060/download/

Haiti

WFP. 2019. *Home-grown school feeding in Haiti*. Available at: https://docs.wfp.org/api/documents/WFP-0000105582/download/

Indonesia

Government of Indonesia, WFP & Mastercard. 2018. *National school meals programme in Indonesia – Cost-benefit analysis*. Available at: https://docs.wfp.org/api/documents/WFP-0000103420/download/

Kenya

WFP. 2016. Using Local Cereals and Local Mills to Supply School Meals in Kenya's Kakuma Refugee Camp. Available at: https://docs.wfp.org/api/documents/WFP-0000117001/download/

WFP. 2018. *Home-grown school feeding in Kenya*. Available at: https://docs.wfp.org/api/documents/WFP-0000105578/download/

Kyrgyz Republic

WFP. 2018. How WFP supported the government of the Kyrgyz Republic to optimize the national school meals programme: A case study on nutrition-sensitive programming in a lower-middle-income country. Available at: https://docs.wfp.org/api/documents/WFP-0000073347/download/

Madagascar

Government of Madagascar, WFP & Mastercard. 2019. *L'analyse coût-bénéfice de l'alimentation scolaire* à *Madagascar*. Available at: https://docs.wfp.org/api/documents/WFP-0000115670/download/

Niger

WFP. 2017. *Results and lessons learned from WFP's efforts to support adolescent girls in Niger.* Available at: https://docs.wfp.org/api/documents/WFP-0000117053/download/

Rwanda

WFP. 2019. *Home-grown school feeding in Rwanda*. Available at: https://docs.wfp.org/api/documents/ WFP-0000106253/download/

Tunisia

WFP. 2018. *Home-grown school feeding in Tunisia*. Available at: https://docs.wfp.org/api/documents/ WFP-0000105580/download/

Government National Strategic Plans and Policies

The following national school feeding policies, evaluations, and plans were developed in collaboration with national governments.

Government of Congo. 2016. *Politique nationale d'alimentation scolaire*. Available at: https://docs.wfp. org/api/documents/WFP-0000117050/download/

Government of Kenya. 2017. *National school meals and nutrition strategy 2017-2022.* Ministry of Education Ministry of Health Ministry of Agriculture, Livestock and Fisheries. Available at: https://docs. wfp.org/api/documents/WFP-0000116843/download/

Government of Malawi. 2015. *National school health and nutrition policy.* Ministry of education science and technology. Available at: https://docs.wfp.org/api/documents/WFP-0000117051/download/

Government of Nigeria. 2016. *Nigeria home grown school feeding strategic plan.* Available at: https://docs.wfp.org/api/documents/WFP-0000116838/download/

Annex II: Online resources on school health and nutrition in the context of the COVID-19 pandemic

About this annex

This annex compiles online resources on school health and nutrition in the context of the COVID-19 pandemic. UN agencies, governments and external partners pooled together knowledge on the following topics of interest:

- What is COVID-19?
- What steps can you take to protect yourself from COVID-19?
- How are agencies and governments responding to COVID-19?
- How does COVID-19 impact school health and nutrition?
- What is the current status of schools? Are schools closed? Do children still have access to meals?

This annex is available online at the following address: https://docs.wfp.org/api/documents/WFP-0000120030/download/

Annex III: Methodology and sources used for estimating children receiving school feeding, coverage and investment

A3.1 Sources

Similar to the *State of School Feeding Worldwide 2013* (WFP, 2013a), this publication draws on a combination of primary and secondary sources for quantitative data about children receiving school feeding, coverage and investment. Each source was selected based on the following criteria:

- 1. Relevance: sources that contain standard indicators on school feeding.
- 2. Credibility: sources published by official and academic institutions.
- 3. Availability: sources in open and public access.
- 4. Timeliness: sources published recently.

Primary sources are:

- 1. The USDA-sponsored GCNF Global School Feeding Survey, published in 2019 (85 countries) (GCNF, 2019). The Global Survey of School Meal Programs © is the property of GCNF and is protected by copyright, all rights reserved. It may not be reproduced or distributed without prior written consent. Funding for the 2019 survey and a follow-up survey in 2021 is provided, in part, by USDA under agreement number FX18TA-10960G002.
- 2. WFP's 2019 Annual Country Reports, published in 2020 (72 countries) (WFP, 2020d).

Secondary sources include recent reports, publications and case studies. When selecting secondary sources, the overarching principle was to use only sources published by official institutions. Therefore, three categories of publications were used as secondary sources: official reports published by governments; official reports published by international organizations; and peer-reviewed academic papers.

The full list of secondary sources used for this publication are:

- 1. The World Bank's State of Social Safety Nets 2018 (2018b) (90 countries).
- 2. The African Union's report on Sustainable School Feeding (2018), published in 2018 (33 countries).
- 3. WFP's report on *Smart School Meals in Latin America and the Caribbean* (2017d), published in 2017 (16 countries).
- 4. The *Global School Feeding Sourcebook* (Drake et al., 2016), jointly published by the World Bank, WFP and PCD/Imperial College in 2016 (14 countries).

- 5. Individual country case studies and government reports for the following nine countries:
 - Japan (Ishida, 2018)
 - United Kingdom (UK National Statistics, 2019)
 - Spain (Muñoz et al., 2018)
 - France (République française/Assemblée nationale, 2015)
 - Brazil (FNDE, 2020)
 - India (Republic of India/Ministry of Education, 2020)
 - China (Case Study 1.1)
 - Rwanda (Republic of Rwanda/Ministry of Education, 2018)
 - Russia (Communication from the Social & Industrial Foodservice Institute, 2020).

Several countries appeared in more than one of these secondary sources. In this case, only one data point was used for each country based on the following criteria:

- 1. If more than one source cites data for the same country, the most recent data point was used, based on the reference year.¹⁷
- 2. If more than one source of information is available for the same country and the same reference year, the most comprehensive source was used for instance, one source may cover a particular programme while the other source covers all the existing programmes in the same country.

For instance, data on Botswana were available from the following sources:

- State of School Feeding Worldwide 2013 (reference year: 2012).
- Global School Feeding Sourcebook, published in 2016 (reference year: 2013).
- State of Social Safety Nets 2018 (reference year: 2013).
- Report on Sustainable School Feeding across the African Union, published in 2018 (reference year: 2017).
- GCNF Global School Feeding Survey, published in 2019 (reference year: 2018).

In application of the selection criteria, only the GCNF Global School Feeding Survey was used in this publication for Botswana.

In eight countries where no new data were available, beneficiary data from the *State of School Feeding Worldwide 2013* (WFP, 2013a) are re-published in this publication, considering that the data remain the most recent available estimate for these countries. These eight countries are excluded from all 2013-2020 comparisons presented in this report.

Finally, in 36 countries where reported data were unavailable, beneficiary numbers were estimated using available information from the World Bank and UNESCO based on the same methodology used in 2013.

As a result of this selection criteria, Figure A3.1 illustrates the number of countries from each source used in this publication.

Figure A3.2 illustrates how the data set presented in this publication is broken down between reported data and estimations.

Table A3.1 presents the sources from which school feeding data were obtained.

^{17.} The reference year corresponds to the schoolyear the data apply to, which may be different from the publication date.

Figure A3.1 Breakdown of countries by data source (n=163)



Figure A3.2 Breakdown of sample by source and income level (n=163)

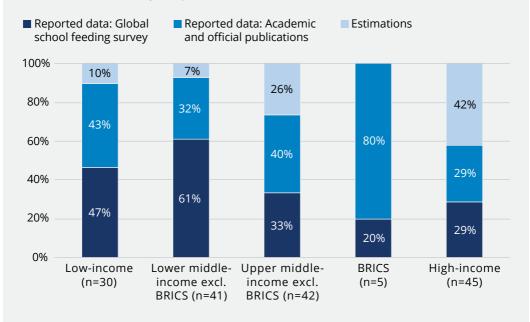


Table A3.1 Sources used for school feeding data

Source	Symbol (cf. annex IV)	Number of countries in the data source	Number of countries used in this report	Country names
African Union, Sustainable School Feeding in the African Union	AUSSF	33	3	Angola, Ghana, Tanzania
USDA- sponsored, GCNF Global School Feeding Survey	GCNF	85	67	Armenia, Bangladesh, Benin, Bhutan, Botswana, Burkina Faso, Cameroon, Colombia, Comoros, Côte d'Ivoire, Cyprus, Czech Republic, Egypt, eSwatini, Ethiopia, Fiji, Finland, the Gambia, Greece, Guatemala, Guyana, Honduras, Hungary, Indonesia, Iraq, Kazakhstan, Kenya, Kyrgyzstan, Laos, Lesotho, Liberia, Madagascar, Malawi, Malaysia, Mali, Mongolia, Namibia, Nauru, Nepal, Niger, Nigeria, Palau, Panama, Philippines, Portugal, Republic of Moldova, Saint Lucia, Sao Tome and Principe, Senegal, Sierra Leone, South Africa, Sri Lanka, Sudan, Switzerland, Syria, Thailand, Timor-Leste, Togo, Trinidad and Tobago, Tunisia, Uganda, United Arab Emirates, United States of America, Uruguay, Viet Nam, Zambia, Zimbabwe
World Bank, State of Social Safety Nets 2018	SSSN	90	12	Argentina, Cabo Verde, Chile, Costa Rica, Grenada, Lithuania, Mauritius, Morocco, Peru, Poland, Palestine, Turkey
WFP, State of School Feeding Worldwide 2013	SSFW	105	8	Australia, Canada, Hong Kong, Croatia, Iran, Ireland, Jamaica, Sweden

	Symbol (cf. annex IV)	Number of countries in the data source	Number of countries used in this report	Country names
WFP, Smart School Meals 2017	SSM	16	9	Bolivia, Cuba, Dominican Republic, Ecuador, El Salvador, Haiti, Mexico, Nicaragua, Paraguay
WFP, Annual Country Reports 2019	WFP ACR	72	19	Algeria, Burundi, Cambodia, Central African Republic, Chad, Republic of Congo, Democratic Republic of the Congo, Djibouti, Guinea-Bissau, Jordan, Lebanon, Libya, Mauritania, Mozambique, Myanmar, Somalia, South Sudan, Tajikistan, Yemen
Other sources: government reports, case studies and individual country publications	OS	-	9	Brazil, China, France, India, Japan, Russia, Rwanda, Spain, United Kingdom
Estimations	est.	-	36	Afghanistan, Albania, Antigua and Barbuda, Bahrain, Barbados,
				Belarus, Belize, Bermuda, Bosnia and Herzegovina, Bulgaria, Dem. People's Republic of Korea, Dominica, Estonia, Guinea, Israel, Italy, Kuwait, Latvia, Luxembourg, Malta, Marshall Islands, Pakistan, Puerto Rico, Qatar, Saint Vincent and the Grenadines, Saudi Arabia, Serbia, Seychelles, Singapore, Slovakia, Slovenia, St. Kitts and Nevis, Tonga, Ukraine, Uzbekistan, Venezuela

Data on costs come from a subset of the same sources whenever one of these sources contained cost data. This subset is comprised WFP Annual Country Reports for 42 WFP school feeding programmes; the GCNF Global School Feeding Survey for 34 countries; the report on *Sustainable School Feeding Across the African Union* for seven countries; and the *Smart School Meals* report for six countries.

A3.2 Limitations

While the data set presented in this publication is only based on reliable sources, it has some limitations. The multiplicity of sources translates in differences of methodology: some sources report all children receiving school feeding in a particular country, but for other countries, only primary school children are reported.

Another limitation is the quantity of indicators provided by each source: the number of children is provided in all sources, but coverage data, funding data and other indicators were only available for a more limited set of countries. The analytics presented in this publication systematically specify the sample size available for each indicator.

The discrepancy in reference years is a third limitation of the data set presented in this publication. While some sources were published less than a year before this report was published, such as the GCNF Global School Feeding Survey and WFP's Annual Country Reports, other sources are older and/or present data pertaining to earlier school years.

In order to provide a comprehensive picture of school feeding programmes globally, this publication combines country data spanning almost a decade. This approach has been used in similar reports, such as the World Bank's State of Social Safety Nets 2018 and provides a good level of confidence for a majority of countries and for cross-country analytics and trends. The main advantage of this approach is its comprehensiveness, as it maximizes the number of countries for which a data point is available, but the potential lack of accuracy of some older data points remains an important limitation.

Finally, reported data from the global school feeding survey and other sources include beneficiary information covering three levels of education (pre-primary, primary and secondary schools), but the estimates for 39 countries only cover primary schoolchildren due to a lack of data on coverage for the remaining age groups. As a result of this conservative approach, the totals presented in this publication are probably under-estimated.

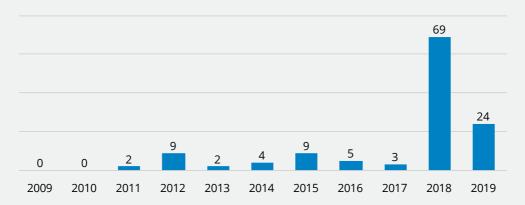


Figure A3.3 Breakdown of countries with reported data by reference year (n=127)

A3.3 Children receiving school feeding

The number of children receiving school feeding presented in this publication represents the total number of children benefitting from school feeding in a given country.

While the majority of these children receiving school feeding are supported by a government-funded and government-led school feeding programme, some countries have opted for locally-managed school feeding programmes and/or collect contributions from parents to finance their school feeding programmes. In keeping with the approach in the *State of School Feeding Worldwide 2013* (WFP, 2013a), beneficiaries of school feeding should be understood as "children receiving meals, or another form of food, in schools" (not as "children benefitting from free and government-funded school meals").

When more than one school feeding programme exists in a given country, the number presented in this publication is the total number of individual beneficiaries, net of overlaps if any. This operation is generally made by the individual data providers listed in section A3.1 of the present annex, and the net total corresponds to the number reported by each of these sources, but this was verified as part of the data consolidation process. Three possible configurations were found, as described in Table A3.2.

In a limited number of countries, 2013 estimates needed to be updated in light of new data reported and published after the publication of the *State of School Feeding Worldwide 2013*. The only country where beneficiary data had to be updated is the United States, where the *State of School Feeding Worldwide 2013* (WFP, 2013a) mistakenly reported a total of 45 million children, instead of 30 million children in 2013. Although beneficiary headcounts in other countries were not updated, other 2013 analytics were updated based on data made available more recently. For instance, coverage rates were revised and updated based on newly reported numbers of enrolled children.

Table A3.2 Possible configurations of school feeding programmes for the purpose of calculating net total beneficiaries

Si	tuation		Calculation of net total beneficiaries
1	The country h	as only one school feeding programme	The number of beneficiaries of this programme corresponds to the number of beneficiaries in this country.
2	The country has two or	The programmes overlap: some (or all) children benefit from both programmes. (e.g. the National School Lunch Program and the School Breakfast Program in the USA).	The number of beneficiaries do not add up. Depending on the situation, the size of the larger programme may correspond to the net total.
3		The programmes do not overlap: each programme benefits a distinct group of beneficiaries. (e.g. the National School Feeding Programme and the WFP School Feeding Programme in Mali).	The number of beneficiaries add up: the net total corresponds to the sum of beneficiaries of the different programmes.

A3.4 Coverage

School feeding coverage in country (or group of countries) i (C_i) is defined as the number of children receiving school feeding in primary schools (B_i) divided by the number of pupils in primary schools (P_i):

$$C_x = \frac{B_i}{P_i}$$

Variables description:

B_i: number of children receiving school feeding in primary schools in country i, as reported in the best available source as defined in the present publication.

P: number of pupils in primary schools of country i, as reported by the UNESCO Institute for Statistics.

Coverage estimates range between 0 and 100 percent by definition, as there cannot be more children receiving school feeding than children at schools (pupils or enrolees).

The following formula was applied to calculate average coverage for a group of countries x, such as income groups or the BRICS group:

$$C_i = \frac{\sum B_{i,x}}{\sum P_{i,x}}$$

For each group of countries x, the total number of children receiving school feeding $\sum B_{i,x}$ was divided by the total number of pupils $\sum B_{i,x}$

Box A3.1 Income classification of countries

This publication follows the classification of countries by income groups, as defined by the World Bank and updated every year. The version used in this publication is the "2020 fiscal year" classification of countries, which is based on the 2018 gross national income per capita (Atlas method) and calculated as follows:

Income category	GNI per capita thresholds
Low-income countries	US\$1,025 or less
Lower middle-income countries	between US\$1,026 and US\$3,995
Upper middle-income countries	between US\$3,996 and US\$12,375
High-income countries	US\$12,376 or more

The full list of countries included in each of these income groups is available on the World Bank's website (World Bank, 2019b) and reproduced in Annex IV of the present publication.

In addition to these four income groups, an additional aggregate comprised of the five emerging countries commonly referred to as BRICS countries (Brazil, Russia, India, China and South Africa) is displayed as a separate entity in most analytics presented in this publication. These five countries belong to two of the four income groups: India is classified a lower middle-income country and Brazil, Russia, China and South Africa are classified upper middle-income countries in the 2020 fiscal year. As a result, in analytics and figures presented in this publication (such as most figures in Chapter 1), the five BRICS are displayed twice: once in their respective income group, and a second time as part of this specific aggregate.

As a result, averages and percentages applicable to lower middle-income countries (resp. upper middle-income countries) are applicable to the entire lower middle-income category, inclusive of India (resp. upper middle-income category, inclusive of Brazil, Russia, China and South Africa) as defined by the World Bank. In addition, averages and percentages applicable to the BRICS aggregate are applicable to the stand-alone group formed by these five countries. Double counting did not result from this approach – in subtotals and global totals, Brazil, Russia, India, China and South Africa were each counted once.

A3.5 Estimations

The number of children receiving school feeding and level of investment was estimated for countries where information was not available from any of the previously mentioned sources, based on the following criteria and rules:

- The number of children receiving school feeding was only estimated for countries known to have a school feeding programme. This criterion was met whenever one of the previously mentioned sources reported school feeding beneficiaries in the past, and there have been no reports of termination of the school feeding programme.
- In these countries, beneficiaries were estimated using the average coverage in countries from the same income group, applied to the number of primary schoolchildren as reported by the UNESCO Institute for Statistics.

Coverage by income group was calculated based on all countries with reported data, which belong to one of the four income groups classified by the World Bank (see Box A3.1 above). The percentages used to calculate these estimations are shown in Table A3.3.

Table A3.3

Coverage rates used for estimating the number of children receiving school feeding

Income category	Coverage rate used for estimations
Low-income countries	21%
Lower middle-income countries	45%
Upper middle-income countries	58%
High-income countries	85%

The coverage in high-income countries was used for the estimations, but is not presented in the text of the report due to the small number of high-income countries.

In order to estimate school feeding beneficiaries in country $i(B_{i(estimated)})$, the coverage by income group (C_x) was multiplied by the number of pupils in primary schools in country $i(P_i)$:

$$B_{i(estimated)} = C_x \times P_i$$

Pi was obtained from the UNESCO Institute for Statistics. Of the 39 countries for which beneficiaries were estimated, 3 were low-income countries, 3 were lower middle-income, 13 were upper middle-income countries and 20 were high-income countries.

A3.6 Investment

Calculations for the global investment in school feeding are presented in section 1.4 of the present publication and reproduced below in Table A3.4. Investment is defined as the total budget allocated to school feeding, or an estimation of that budget. Information on country expenditure on school feeding is not available in all countries, but available data are presented in section 3.1 of the present publication. Only countries which have a school feeding programme were included in the investment estimation.

Table A3.4 Four estimates of the total yearly investment in school feeding

Source	Number of countries	Number of children	Investment value	Estimated global investment (US\$)
Actual	92	279 million	Budget allocated	29 billion
reported	92	279 million	Average cost per	27 billion
cost only			income group	
Actual	155	388 million	Budget allocated for	43 billion
reported			92 countries which	
cost and			have data; average	
estimations			cost per income	
			group for remaining	
			63 countries	
	155	388 million	Average cost per	41 billion
			income group	

The different methods used to estimate the global investment in school feeding reported in the above table are the following:

(1) Estimated global investment: US\$29 billion

Sample: 92 countries

The first approach, which resulted in a figure of US\$29 billion, is based on national budgets as reported in the GCNF Global School Feeding Survey (77 countries); the report on *Sustainable School Feeding Across the African Union* (6 countries); the *Smart School Meals* report (7 countries); and the *Global School Feeding Sourcebook* (2 countries).

According to this approach, the global investment $M_{(i)}$ is the sum of all reported national budgets (G_i) across these 92 countries for which data was available:

$$M_{(1)} = \sum_{i=1}^{80} G_i$$

(2) Estimated global investment: US\$27 billion

Sample: 92 countries

The second approach, which resulted in a figure of US\$27 billion, is an alternative estimation for the same sample of countries as the first estimation. Instead of using reported budget figures, total investment M(2) was estimated as the sum of the average cost AC from income group x multiplied by the number of beneficiaries in country i across the 92 countries:

$$M_{(2)} = \sum_{x=1}^{4} \sum_{i=1}^{80} (AC_x \times B_i)$$

B, may have been reported in the survey or estimated using average coverage as described earlier. The income grouping used for average costs is the same as that used in beneficiary and coverage calculations.

Table A3.5 presents the average cost per income group as used for this calculation.

Table A3.5Average cost per income group used for estimating global investment

US\$46.24
US\$57.25
US\$98.53
US\$260.96

(3) Estimated global investment: US\$43 billion

Sample: 155 countries

The third approach, which resulted in a figure of US\$43 billion, was calculated using the two previously discussed methods, applied to a broader sample to include not only countries with reported cost data, but also countries with no cost data, using reported or estimated beneficiaries to estimate the level of expenditure. To the US\$29 billion figure estimated using approach (1), it adds an estimation using approach (2) for an additional 63 countries which are known to have a national school feeding programme, and for which no reported budget data were available. The number of beneficiaries, as reported in this publication, was multiplied for each country by the average cost corresponding to the income group of that country. The resulting values were summed up across the set of 63 countries. The full calculation for approach (3) is described as follows:

$$M_{(3)} = \sum_{i=1}^{80} G_i + \sum_{x=1}^{4} \sum_{i=81}^{154} (AC_x \times B_i)$$

(4) Estimated global investment: US\$41 billion

Sample: 155 countries

The fourth approach, which resulted in a figure of US\$41 billion, was calculated using approach (2), applied to the full sample of countries where beneficiary data were available. As described above, the number of beneficiaries as reported in the present publication was multiplied by the average cost per income group of the country, and these values were summed up across the full set of 155 countries. This calculation can be summarized by the equation below:

$$M_{(4)} = \sum_{x=1}^{4} \sum_{i=1}^{154} (AC_x \times B_i)$$

^{18.} The average cost used for estimations is the average cost per child observed in each income group. It may differ from the standardized cost, as calculated in the Cost Benchmark presented in section 3.1 of the present publication, which normalizes feeding days and other variables to improve comparability across countries.

Annex IV: Country-specific indicators of school feeding

Country		Updated 2 estimates		2020 data				
	In- come level	Reported children receiving school feeding (1,000s)	Estimated children receiving school feeding (1,000s)	Reported children receiving school feeding (1,000s)	Estimated children receiving school feeding (1,000s)	Source (reference year)	Esti- mated cover- age	Esti- mated cost
Afghanistan	L	1,841	_	_	1,342	est.	_	_
Albania	UM	_	111	_	99	est.	_	_
Algeria	UM	31	_	40	_	WFP ACR (2019)	1%	_
American Samoa	UM	N/A			N/A			
Andorra	Н	N	/A			N/A		
Angola	LM	221	_	1,516	_	AUSSF (2017)	27%	206
Antigua and Barbuda	Н	_	7	_	9	est.	_	_
Argentina	UM	_	3,024	1,688	_	SSSN (2015)	36%	-
Armenia	UM	38	_	103	_	GCNF (2018)	65%	47
Aruba	н	N	/A			N/A		
Australia	Н	5	_	5	_	SSFW (2012)	0%	_
Austria	Н	N	/A			N/A		
Azerbaijan	UM	N	/A			N/A		
Bahamas	Н	N	/A			N/A		
Bahrain	Н	_	59	_	96	est.	_	_
Bangladesh	LM	1,930	_	2,965	_	GCNF (2018)	15%	28
Barbados	Н	_	15	_	17	est.	_	_
Belarus	UM	_	230	_	248	est.	_	_
Belgium	Н	N	/A			N/A		
Belize	UM	_	26	_	29	est.	_	_
Benin	L	324	_	460	_	GCNF (2018)	21%	104
Bermuda	Н	_	3	_	4	est.	_	_
Bhutan	LM	82	_	75	_	GCNF (2018)	19%	64
Bolivia (Plurinational State of)	LM	1,906	_	2,383	_	SSM (2013)	100%	_
Bosnia and Herzegovina	UM	_	113	_	92	est.	_	_
Botswana	UM	330	_	359	_	GCNF (2018)	100%	84
Brazil	UM	47,271	_	40,197	_	OS (2019)	100%	34
British Virgin Islands	Н	N	/A			N/A		
Brunei Darussalam	Н	N	/A			N/A		
Bulgaria	UM	_	167	-	152	est.	-	-
Burkina Faso	L	2,209	_	3,864	_	GCNF (2018)	100%	12
Burundi	L	190	_	613	_	WFP ACR (2019)	28%	32
Cabo Verde	LM	86	_	3	_	SSSN (2015)	5%	50
Cambodia	LM	756	_	281	_	WFP ACR (2019)	13%	37
Cameroon	LM	43	_	18	_	GCNF (2018)	0%	218
Canada	Н	293	_	293	_	SSFW (2012)	12%	_
Cayman Islands	Н	N	/A			N/A		
Central African Republic	L	284	_	242	_	WFP ACR (2019)	30%	_
Chad	L	255	_	138	_	WFP ACR (2019)	6%	83

Country		Updated a stimates		2020 data	I			
	ln- come level	Reported children receiving school feeding (1,000s)	Estimated children receiving school feeding (1,000s)	Reported children receiving school feeding (1,000s)	Estimated children receiving school feeding (1,000s)	Source (reference year)	Esti- mated cover- age	Esti- mated cost
Channel Islands	н	N	/A			N/A		
Chile	Н	2,263	_	1,829	_	SSSN (2015)	100%	332
China	UM	26,000	_	40,000	_	OS (2019)	39%	_
China, Hong Kong SAR	Н	244	_	244	_	SSFW (2012)	67%	_
China, Macao SAR	Н	N	/A	N/A				
Colombia UM		3,334	_	5,388	_	GCNF (2018)	63%	107
Comoros	LM	_	20	_	_	GCNF (2018)	0%	_
Congo	LM	233	_	142	_	WFP ACR (2019)	_	105
Costa Rica	UM	603	_	691	_	SSSN (2014)	100%	_
Côte d'Ivoire	LM	374	_	976	_	GCNF (2018)	25%	16
Croatia	Н	152	_	152	_	SSFW (2012)	93%	_
Cuba	UM	956		827		SSM (2015)	100%	
Curaçao	Н		/A	027		N/A	100 /0	
	н		35	15		GCNF (2018)	14%	180
Cyprus Czechia	Н		/A	1,351		GCNF (2018)	14%	203
	L	1,922	/A	1,551	318		100%	203
Democratic People's Republic of Korea Democratic Republic of the Congo	L	1,922		124	576	est. WFP ACR (2019)	1%	55
Denmark	н			124		· · · · · · · · · · · · · · · · · · ·	190	55
				20			20%	220
Djibouti	LM	28		20		WFP ACR (2019)	29%	328
Dominica	UM	-	5		4	est.	-	-
Dominican Republic	UM	1,372	_	1,739		SSM (2016)	100%	148
Ecuador	UM	1,789	_	2,873	_	SSM (2015)	100%	52
Egypt	LM	7,002	_	11,201	_	GCNF (2018)	77%	5
El Salvador	LM	1,313	-	1,300	_	SSM (2016)	100%	24
Equatorial Guinea	UM		/A			N/A		
Eritrea	L	N	/A			N/A		
Estonia	Н		47	—	72	est.	_	_
eSwatini	LM	328	_	365	_	GCNF (2018)	100%	10
Ethiopia	L	681	_	2,539	_	GCNF (2018)	16%	8
Faroe Islands	Н		/A			N/A		
Fiji	UM	N	/A	40	_	GCNF (2018)	19%	68
Finland	Н	795	-	840	_	GCNF (2018)	99%	615
France	Н	3,320	_	6,000	_	OS (2015)	70%	_
French Polynesia	Н	N	/A			N/A		
Gabon	UM	N	/A			N/A		
Gambia	L	159	_	165	_	GCNF (2018)	41%	42
Georgia	UM	N	/A			N/A		
Germany	Н	N	/A			N/A		
Ghana	LM	352	—	1,700	—	AUSSF (2017)	39%	39
Gibraltar	Н	N	/A			N/A		
Greece	н	N	/A	6	_	GCNF (2018)	0%	237
Greenland	Н	N	/A			N/A		
Grenada	UM	_	9	7	_	SSSN (2012)	53%	-
Guam	н	N	/A			N/A		

Country		Updated a stimates		2020 data				
	In- come level	Reported children receiving school feeding (1,000s)	Estimated children receiving school feeding (1,000s)	Reported children receiving school feeding (1,000s)	Estimated children receiving school feeding (1,000s)	Source (reference year)	Esti- mated cover- age	Esti- mated cost
Guatemala	UM	3,052	_	2,459	_	GCNF (2018)	84%	67
Guinea	L	553	_	_	375	est.	_	_
Guinea-Bissau	L	126	_	178	_	WFP ACR (2019)	_	57
Guyana	UM	17	_	14	_	GCNF (2018)	_	71
Haiti	L	2,155	_	876	_	SSM (2016)	_	119
Honduras	LM	1,460	_	1,300	_	GCNF (2018)	80%	18
Hungary	Н	_	250	1,004	_	GCNF (2018)	100%	265
Iceland	Н	N	I/A			N/A		
India	LM	113,600	_	90,415	_	OS (2019)	63%	16
Indonesia	LM	125	_	100	_	GCNF (2018)	0%	163
Iran (Islamic Republic of)	UM	3	_	3	_	SSFW (2012)	0%	_
Iraq	UM	555	_	633	_	GCNF (2018)		27
Ireland	Н	91	_	91		SSFW (2012)	16%	_
Isle of Man	Н	-	I/A	5.		N/A	1070	
Israel	Н		505	_	776	est.	_	_
Italy	н		1,815		2,454	est.		
Jamaica	UM	311		311		SSFW (2012)	100%	
Japan	Н	9,770		8,864		OS (2018)	96%	
lordan	UM	115	_	419		WFP ACR (2019)	37%	_
Kazakhstan	UM		634	3,059		GCNF (2018)	95%	11
Kenya	LM	1,991		1,754		GCNF (2018)	21%	16
Kiribati	LM		I/A	1,754		N/A	2170	10
Kosovo	UM	N/A				N/A		
Kuwait	Н	_	137	_	237	est.	_	_
Kyrgyzstan	LM	301	-	595	257	GCNF (2018)	100%	23
Lao People's Democratic Republic	LM	177		196		GCNF (2018)	21%	73
Latvia	H	177	73	190	103	est.	2170	75
Lebanon	UM		297	32	105	WFP ACR (2019)	6%	
Lesotho	LM	445	237	387		GCNF (2018)	90%	34
Liberia	LIVI	648		287		GCNF (2018)	24%	36
Libya	UM			207		WFP ACR (2019)	2470	
Liechtenstein	H		I/A	21		N/A	_	
Lithuania	H		I/A	636		SSSN (2016)	100%	
Luxembourg	H	_	23	- 030	32	est.		
Madagascar	L	237		568	52	GCNF (2018)	12%	18
Malawi	L	790		2,936		GCNF (2018) GCNF (2018)	65%	5
Malaysia	UM	790	1,930	500	_	GCNF (2018)	16%	133
Maldives	UM		1,930	500	_	N/A	1070	100
Mali	L	354		515		GCNF (2018)	19%	48
	<u> </u>	554	16	515			1970	40
Malta Marshall Islands			16	_	21 5	est.	_	_
Marshall Islands	UM	196	4			est.	0.04	_
Mauritania	LM	186	76	52	_	WFP ACR (2019)	8%	
Mauritius	UM	—	76	75		SSSN (2011)	84%	
Mexico	UM	5,164	-	6,358	_	SSM (2015)	45%	66

Micronesia (Federated States of) Monaco Mongolia Montenegro Morocco Mozambique Myanmar Namibia Nauru Nepal Netherlands New Caledonia New Zealand Nicaragua Niger Niger Nigera Nigera North Macedonia Northern Mariana Islands Northern Mariana Islands Norway Oman Pakistan Palau Palestine Panama Papua New Guinea	In- come level LM LM UM LM UM UM UM UM H H H H	N 	Estimated children receiving school feeding (1,000s) /A /A 135 /A 	Reported children receiving school feeding (1,000s) 309 1,267 200	Estimated children receiving school feeding (1,000s)	Source (reference year) N/A N/A GCNF (2018) N/A	Esti- mated cover- age 99%	Esti- mated cost
Monaco Mongolia Montenegro Morocco Mozambique Myanmar Namibia Nauru Nepal Netherlands New Caledonia New Zealand Nicaragua Niger Nigera Nigera Nigera North Macedonia Northern Mariana Islands Northern Mariana Islands Norway Oman Pakistan Palau Palestine Panama Papua New Guinea	H LM LM LM LM UM UM L UM L H H	N 	/A 135 /A — — —	1,267		N/A GCNF (2018)	99%	<u></u>
Mongolia Montenegro Morocco Mozambique Myanmar Namibia Nauru Nepal Netherlands New Caledonia New Zealand Nicaragua Niger Nigera Nigera Nigeria North Macedonia Northern Mariana Islands Northern Mariana Islands Norway Oman Pakistan Palau Palestine Panama Papua New Guinea	LM UM LM LM UM UM L UM L H H	— N 1,423 427 310 225 N	135 /A — — —	1,267	_	GCNF (2018)	99%	11
Montenegro Morocco Mozambique Myanmar Namibia Nauru Nepal Netherlands New Caledonia New Zealand Nicaragua Niger Nigera Nigera North Macedonia Northern Mariana Islands Northern Mariana Islands Northern Mariana Islands Norway Oman Pakistan Palau Palestine Panama Papua New Guinea	UM LM LM UM UM L H H	1,423 427 310 225 N	/A — — —	1,267	_	· · · ·	99%	11
Morocco Mozambique Myanmar Namibia Nauru Nepal Netherlands New Caledonia New Zealand Nicaragua Niger Nigera Nigera North Macedonia Northern Mariana Islands Northern Mariana Islands Northern Mariana Islands Norway Oman Pakistan Palau Palestine Panama Papua New Guinea	LM L UM UM L H H	1,423 427 310 225 N	_ _ _		_	N/A		44
Mozambique Myanmar Namibia Nauru Nepal Netherlands New Caledonia New Zealand Nicaragua Niger Nigeria North Macedonia Northern Mariana Islands Northern Mariana Islands Northern Mariana Islands Norway Oman Pakistan Palau Palestine Panama Papua New Guinea	L LM UM L H H	427 310 225			_			
Myanmar Namibia Nauru Nepal Netherlands New Caledonia New Zealand Nicaragua Niger Nigeria North Macedonia Northern Mariana Islands Northern Mariana Islands Norway Oman Pakistan Palau Palastine Panama Papua New Guinea	LM UM UM H H	310 225 N		200		SSSN (2014)	29%	_
Namibia Nauru Nepal Netherlands New Caledonia New Zealand Nicaragua Niger Nigeria North Macedonia Northern Mariana Islands Northern Mariana Islands Norway Oman Pakistan Palau Palestine Panama Papua New Guinea	UM UM L H H	225 N			_	WFP ACR (2019)	3%	58
Nauru Nepal Netherlands New Caledonia New Zealand Nicaragua Niger Nigeria North Macedonia Northern Mariana Islands Norway Oman Pakistan Palau Palestine Panama Papua New Guinea	UM L H H	N		353	_	WFP ACR (2019)	7%	_
Nepal Netherlands New Caledonia New Zealand Nicaragua Niger Nigeria North Macedonia Northern Mariana Islands Norway Oman Pakistan Palau Palestine Panama Papua New Guinea	L H H			366	_	GCNF (2018)	75%	29
Netherlands New Caledonia New Zealand Nicaragua Niger Nigeria North Macedonia Northern Mariana Islands Norway Oman Pakistan Palau Palestine Panama Papua New Guinea	H H H	471	/A	3	_	GCNF (2018)	100%	483
New Caledonia New Zealand Nicaragua Niger Nigeria North Macedonia Northern Mariana Islands Norway Oman Pakistan Palau Palestine Panama Papua New Guinea	H H		-	636	_	GCNF (2018)	12%	39
New Zealand Nicaragua Niger Nigeria North Macedonia Northern Mariana Islands Norway Oman Pakistan Palau Palestine Panama Papua New Guinea	Н	N	/A			N/A		
Nicaragua Niger Nigeria North Macedonia Northern Mariana Islands Norway Oman Pakistan Palau Palestine Panama Papua New Guinea		N	/A			N/A		
Niger Nigeria North Macedonia Northern Mariana Islands Norway Oman Pakistan Palau Palestine Panama Papua New Guinea	LM	N	/A			N/A		
Nigeria North Macedonia Northern Mariana Islands Norway Oman Pakistan Palau Palau Palestine Panama Papua New Guinea		967	_	1,200	_	SSM (2015)	_	49
North Macedonia Northern Mariana Islands Norway Oman Pakistan Palau Palestine Panama Papua New Guinea	L	168	_	193	_	GCNF (2018)	5%	68
Northern Mariana Islands Norway Oman Pakistan Palau Palestine Panama Papua New Guinea	LM	155	_	9,830	_	GCNF (2018)	38%	26
Norway Oman Pakistan Palau Palestine Panama Papua New Guinea	UM	N	/A			N/A		
Oman Pakistan Palau Palestine Panama Papua New Guinea	Н	N/A		N/A				
Pakistan Palau Palestine Panama Papua New Guinea	Н	N	/A			N/A		
Palau Palestine Panama Papua New Guinea	Н	N	/A			N/A		
Palestine Panama Papua New Guinea	LM	2,078	_	_	10,405	est.	_	_
Panama Papua New Guinea	Н		1	2	_	GCNF (2018)	100%	374
Papua New Guinea	LM	389	_	65	_	SSSN (2014)	13%	
Papua New Guinea	Н	461	_	463	_	GCNF (2018)	95%	50
· · · · · · · · · · · · · · · · · · ·	LM		/A			N/A		
Paraguay	UM	10	_	1,086	_	SSM (2014)	100%	103
	UM	3,000	_	2,398	_	SSSN (2015)	67%	119
	LM	92	_	2,300	_	GCNF (2018)	16%	41
Poland	Н	-	/A	730	_	SSSN (2011)	32%	
Portugal	н	1,615	_	1,317	_	GCNF (2018)	100%	57
Puerto Rico	н		193		192	est.	_	
Qatar	н	_	57		130	est.	_	
Republic of Korea	н		/A		150	N/A		
	LM		70	305	_	GCNF (2018)	98%	38
· · · · · · · · · · · · · · · · · · ·	UM	N	/A	555		N/A	5070	50
	UM	2,647		8,287	_	OS (2019)	100%	
Rwanda	L	541	_	724	_	OS (2019)	7%	23
	UM		13	724	_	GCNF (2018)	41%	150
	UM		9		8	est.		
	UM		/A	_	0	N/A	-	_
San Marino	H		/A /A			N/A N/A		
	н LM	40		47		GCNF (2018)	99%	6
·		40	2 126	4/	2 700		99%	0
Saudi Arabia	ш		2,136		2,790	est.		
Senegal Serbia	H LM	764		588	 155	GCNF (2018) est.	18%	11

Country		Updated a estimates		2020 data				
	ln- come level	Reported children receiving school feeding (1,000s)	Estimated children receiving school feeding (1,000s)	Reported children receiving school feeding (1,000s)	Estimated children receiving school feeding (1,000s)	Source (reference year)	Esti- mated cover- age	Esti- mated cost
Seychelles	Н	_	6	_	8	est.	-	_
Sierra Leone	L	530	_	836	_	GCNF (2018)	61%	9
Singapore	н	_	189	_	198	est.	_	_
Sint Maarten (Dutch part)	н	N	/A			N/A		
Slovakia	н	_	137	_	191	est.	_	_
Slovenia	н	_	69	_	105	est.	_	_
Solomon Islands	LM	N	/A			N/A		
Somalia	L	139	_	165	_	WFP ACR (2019)	_	100
South Africa	UM	8,821	_	9,200	_	GCNF (2018)	80%	55
South Sudan	L		/A	460	_	WFP ACR (2019)	36%	88
Spain	Н	_	1,750	1,759	_	OS (2016)	28%	_
Sri Lanka	UM	1,264	_	1,467	_	GCNF (2018)	84%	33
St. Kitts and Nevis	Н		4		5	est.	_	_
St. Martin (French part)	Н	N	/A			N/A		
Sudan	LM	1,630	_	1,362		GCNF (2018)	27%	17
Suriname	UM		/A	1		N/A	-	
Sweden	Н	1,181	_	1,181	_	SSFW (2012)	100%	_
Switzerland	н		/A	81		GCNF (2018)	13%	6
Syrian Arab Republic	L	46	_	1,309		GCNF (2018)	63%	69
Tajikistan	L	330		417	_	WFP ACR (2019)	54%	23
Thailand	UM	1,677		4,082		GCNF (2018)	82%	183
Timor-Leste	LM	288	_	302		GCNF (2018)	100%	43
Togo	L	40		91		GCNF (2018)	6%	49
Tonga	UM	40	8	91	10	est.	070	49
	H		84	141	10			220
Trinidad and Tobago			04		_	GCNF (2018)		229
Tunisia	LM	240	4 220	360		GCNF (2018)	22%	74
Turkey	UM	_	4,239	6,182		SSSN (2013)	100%	
Turkmenistan	UM		/A			N/A		
Turks and Caicos Islands	H		/A			N/A		
Tuvalu	UM		/A	2.654		N/A	0.494	
Uganda	L	94	_	3,651	_	GCNF (2018)	34%	3
Ukraine	LM	-	758	_	762	est.	_	_
United Arab Emirates	Н		/A	821	_	GCNF (2018)	85%	
United Kingdom	H	3,791	_	1,275	_	OS (2019)	17%	_
United Republic of Tanzania	L	1,275	_	28		AUSSF (2017)	0%	30
United States of America	Н	30,000	-	30,000	_	GCNF (2018)	100%	623
United States Virgin Islands	Н		/A			N/A		
Uruguay	Н	256	_	274	—	GCNF (2018)	66%	221
Uzbekistan	LM	_	959	_	1,130	est.	_	-
Vanuatu	LM		/A			N/A		
Venezuela (Bolivarian Republic of)	UM	4,031	_	_	1,904	est.	_	-
Viet Nam	LM		3,409	_	_	GCNF (2018)	0%	-
Yemen	L	65	-	680	_	WFP ACR (2019)	17%	26
Zambia	LM	2,112	_	1,194	_	GCNF (2018)	31%	5
Zimbabwe	LM	N	/A	3,219	—	GCNF (2018)	100%	5

Annex V: Detailed methodology and data used for the global school feeding cost benchmarks presented in Chapter 3

Lack of data availability and the heterogeneity of school feeding programmes present challenges when comparing school feeding unit costs across countries and programmes. The most comprehensive database for school feeding intervention costs was published in 2011, using 2008 price points (Gelli et al., 2011). Key results from this database were subsequently analysed in the *State of School Feeding Worldwide 2013* (WFP, 2013a).

In the present publication, Chapter 3 updates these estimates with data collected since 2013, principally from 2016 to 2020, using the same sources described in Chapter 1. There are four data sources: World Food Programme project planning data (n= 42 countries); the USDA supported Global Child Nutrition Forum 2020 Global School Feeding Survey report (GCNF, 2019) (n=34 countries); the 2018 Sustainable School Feeding Across the African Union report (African Union, 2018) (n=7 countries); and the 2017 Smart School Meals: Nutrition-Sensitive National Programmes in Latin America and the Caribbean report (WFP, 2017d) (n= 6 countries). Where GCNF and WFP data were available, they were prioritized over other data sources, and in the absence of these data for a particular country, the most recent available data point was used. When both GCNF and WFP data were available for a country, the highest per capita cost of school feeding was selected, on the assumption that it was likely to be the most comprehensive cost estimate.

All types of school feeding programmes were included in the analysis (take-home rations, on-site meals and snacks), as well as transfer modalities (cash-based transfers to schools for local procurement, and central procurements with in-kind deliveries to schools). To ensure comparability between countries, costs were standardized by the number of feeding days across countries. In comparing cost data between the 2013 and 2020 reports, it is important to note that the 2013 cost data were standardized both by the number of feeding days and the nutritional value of the meals, but the 2020 cost data could not be standardized by nutritional value due to the lack of available information on the nutritional composition of the meals

The cost data were normalized and analysed as shown below for each of the four different data sources.

USDA supported Global Child Nutrition Forum (GCNF) Global School Feeding Survey Data

The cost per meal from GCNF data was computed using the calculation below

Cost Per Meal = <u>(Average Number of Beneficiaries Over Year)</u> × (Yearly Number of Feeding Days)

Cost per year normalized over 200 feeding days

Normalized Cost Per Year = Cost Per Meal × 200

Programmes with a specific nutrition objective were identified based on positive responses to the survey question: "Programmes include objective to meet nutritional goals?" HGSF programmes were identified using multiple conditional positive responses to the statement "Farmers were involved", combined with a positive answer to the statement "Food source purchased, domestic" or "Food source in-kind, domestic".

World Food Programme (WFP) project planning Data

The cost per meal from WFP data was calculated as follows:

Cost Per Meal = Yearly Budget Per Ration Type (Average Number of Beneficiaries Over Year) × (Yearly Number of Feeding Days)

Cost Per Meal = Average of Cost per Meal per Ration Type

Cost per year normalized over 200 feeding days

Normalized Cost Per Year = Cost Per Meal × 200

WFP data were Available at 2020 country school feeding budgets from a sample of 50 countries for which data were available. WFP data excluded costs of rations for cooks and programme assistants. Food for these beneficiaries was filtered out based on ration descriptions which mentioned "cooks" or "helpers". Programmes with a nutrition objective were identified based on ration and activity names which included "nutrition", "nutritious" or "nut". HGSF programmes were identified by a qualitative review of WFP Country Strategic Plans which mentioned HGSF/home-grown school feeding.

Sustainable School Feeding across the African Union (AUSSF) Data

AUSSF data were used as reported in the publication and could not be normalized over 200 feeding days. Countries with nutrition objectives could not be identified from the available data, therefore AUSSF countries were excluded from the nutrition objective analysis. Programmes with HGSF were identified using the tables from pages 16 to 29 of the AU report from the data point "Actual and prescribed percentage of smallholder supplies".

Smart School Meals (SSM): Nutrition-Sensitive National Programmes in Latin America and the Caribbean Data

SSM data were used as reported in the publication and were already normalized over 200 feeding days. Countries with programmes with nutrition objectives were identified using table 3 page 42-42 of the SSM report, using the main focus field. HGSF programmes could not be identified from the report and were excluded from the corresponding analysis.

Table A5.1 Price points used for cost analysis

Country	Income Level	Data Source	Reporting Year	Estimated Cost (Reporting year US\$)	Estimated Cost (2020 US\$ Value)
Algeria	UM	WFP	2020	64	64
Angola	LM	AUSSF	2017	206	216
Armenia	UM	GCNF	2018	56	57
Bangladesh	LM	WFP	2020	136	136
Benin	L	GCNF	2018	110	112
Bhutan	LM	GCNF	2018	58	59
Bolivia	LM	SSM	2016	45	48
Botswana	UM	GCNF	2018	84	86
Brazil	UM	GCNF	2018	34	35
Burkina Faso	L	WFP	2020	120	120
Burundi	L	WFP	2020	61	61
Cambodia	LM	GCNF	2018	56	58
Cameroon	LM	GCNF	2018	243	248
Central African Rep.	L	WFP	2020	57	57
Chad	L	GCNF	2018	92	94
Colombia	UM	WFP	2020	181	181
Congo	LM	GCNF	2018	117	119
Congo, Dem. Rep.	L	AUSSF	2017	55	58

Country	Income Level	Data Source	Reporting Year	Estimated Cost (Reporting year US\$)	Estimated Cost (2020 US\$ Value)
Côte d'Ivoire	LM	WFP	2020	83	83
Cuba	UM	WFP	2020	25	25
Cyprus	Н	GCNF	2018	207	211
Djibouti	LM	AUSSE	2017	328	343
Dominican Rep.	UM	SSM	2016	148	158
Ecuador	UM	SSM	2016	52	56
Egypt, Arab Rep.	LM	WFP	2020	23	23
El Salvador	LM	SSM	2016	24	26
Eswatini	LM	WFP	2020	57	57
Ethiopia	L	WFP	2020	35	35
Finland	Н	GCNF	2018	647	660
Gambia, The	L	AUSSF	2017	30	31
Ghana	LM	AUSSF	2017	39	41
Guatemala	UM	GCNF	2018	75	76
Guinea	L	WFP	2020	38	38
Guinea-Bissau	L	WFP	2020	34	34
Haiti	L	WFP	2020	53	53
Honduras	LM	WFP	2020	24	24
India	LM	GCNF	2018	14	14
Iraq	UM	GCNF	2018	30	30
Jordan	UM	WFP	2020	126	126
Kenya	LM	WFP	2020	30	30
Kyrgyzstan	LM	GCNF	2018	28	28
Lao PDR	LM	GCNF	2018	83	85
Lebanon	UM	WFP	2020	231	231
Lesotho	LM	WFP	2020	25	25
Liberia	L	WFP	2020	48	48
Libya	UM	WFP	2020	68	68
Madagascar	L	WFP	2020	36	36
Malawi	L	WFP	2020	23	23
Mali	L	WFP	2020	55	55
Mauritania	LM	WFP	2020	22	22
Mexico	UM	GCNF	2018	79	81
Moldova	LM	GCNF	2018	45	46
Mozambique	L	GCNF	2018	58	59
Myanmar	LM	WFP	2020	48	48
Namibia	UM	GCNF	2018	30	30

Country	Income Level	Data Source	Reporting Year	Estimated Cost (Reporting year US\$)	Estimated Cost (2020 US\$ Value)
Nepal	L	WFP	2020	38	38
Nicaragua	LM	WFP	2020	34	34
Niger	L	WFP	2020	87	87
Nigeria	LM	GCNF	2018	29	30
Pakistan	LM	WFP	2020	31	31
Palau	Н	GCNF	2018	406	414
Panama	Н	GCNF	2018	56	57
Paraguay	UM	SSM	2016	103	110
Peru	UM	SSM	2016	119	127
Philippines	LM	GCNF	2018	45	46
Portugal	Н	GCNF	2018	63	65
Rwanda	L	WFP	2020	16	16
Sao Tome and Principe	LM	GCNF	2018	6	6
Senegal	LM	WFP	2020	33	33
Sierra Leone	L	WFP	2020	58	58
Somalia	L	WFP	2020	72	72
South Africa	UM	GCNF	2018	45	46
South Sudan	L	WFP	2020	129	129
Sri Lanka	UM	WFP	2020	34	34
Sudan	LM	WFP	2020	33	33
Syria	L	WFP	2020	88	88
Tajikistan	L	WFP	2020	44	44
Tanzania	L	AUSSF	2017	30	31
Thailand	UM	GCNF	2018	183	187
Timor-Leste	LM	GCNF	2018	41	41
Тодо	L	GCNF	2018	57	58
Tunisia	LM	GCNF	2018	77	78
Uganda	L	WFP	2020	25	25
Uruguay	Н	GCNF	2018	239	244
USA	Н	GCNF	2018	693	707
Yemen	L	WFP	2020	44	44
Zambia	LM	GCNF	2018	5	5
Zimbabwe	LM	AUSSF	2017	48	50

State of School Feeding Worldwide 2020

Healthy and well-nourished children learn better. One of the most important human capital investments that a country can make is to support the health, nutrition and learning of its children. This publication by the United Nations World Food Programme (WFP) provides an analysis of how countries across the world are supporting their children through effective school feeding programmes.

In 2013, WFP published the first edition of State of School Feeding Worldwide, the first ever global snapshot of school feeding programmes. This 2020 version follows a similar format, using the best available data sources to describe key aspects of coverage, implementation practices and costs of programmes worldwide. This second edition seeks to analyse the direction and scale of change between 2013 and 2020. The award of the 2020 Nobel Peace Prize has further strengthened WFP's commitment to deliver on the 10-year strategy *A Chance for Every Schoolchild*.

The 2020 edition is being published with an even greater sense of urgency as the outbreak of the COVID-19 pandemic in February 2020 brought an end to a near-decade of sustained global growth in school feeding programmes. At the height of the crisis, 199 countries had closed their schools and 370 million children were suddenly deprived of their daily school meal. This shock has highlighted the importance of school feeding as a social safety net, and has sharpened global resolve to restore access to education and to create school-based programmes that can play a stronger role in protecting the health and nutrition of children.

Before the COVID-19 pandemic, national school feeding programmes delivered school meals to one in every two schoolchildren every school day, more than at any time in human history. This publication examines how this most extensive social safety net in the world was created, and explores how countries can build-back-better and re-establish effective school feeding programmes.



Via Cesare Giulio Viola 68/70, 00148 Rome, Italy - T +39 06 65131 **wfp.org**

