State of School Feeding Worldwide 2022

WFP
World Food Programme

SAVING LIVES
CHANGING LIVES

INCLUDING A SPECIAL REPORT ON ADOLESCENTS

A HOLISTIC APPROACH TO ADOLESCENT WELL-BEING – SCHOOL FEEDING IN THE CONTEXT OF

Published in 2022 by the World Food Programme
Via C.G. Viola, 68-70, Rome 00148, Italy

Recommended citation:
WFP. 2022. *State of School Feeding Worldwide 2022*. Rome, World Food Programme.
ISBN 978-92-95050-12-9 (print)
ISBN 978-92-95050-16-7 (online)

Cover photo: WFP/Cesar Lopez/Cambodia - WFP/Ahmed Altaf/Yemen - WFP/Francis Thawani/Malawi
WFP/Evelyn Fey Bandaro/Chad

Printed: March 2023

State of School Feeding Worldwide 2022

WFP
World Food Programme

SAVING LIVES
CHANGING LIVES

Table of Contents

Boxes, case studies, figures, maps and tables

Boxes:

Case studies:

Figures:

Maps

Tables

Acknowledgements

The *State of School Feeding Worldwide 2022* publication is a result of collaboration with many institutions and individuals. We appreciate their support and thank all who gave their time and expertise to the realization of the publication.

The publication provides a thematic focus on school feeding post COVID-19 and builds on the conceptual framework presented in WFP's 2020-2030 School Feeding Strategy: A Chance for Every Schoolchild: Partnering to Scale-Up School Health and Nutrition for Human Capital. This strategy was developed by the WFP School-Based Programmes Service, under the leadership of Carmen Burbano de Lara (Director).

The analysis and approach presented in this publication are based on a global vision developed by Carmen Burbano de Lara (WFP) and Donald Bundy (London School of Hygiene and Tropical Medicine) who also guided all aspects of drafting and production. The publication was prepared under the overall guidance and final approval of Valerie Guarnieri, Assistant Executive Director, Programme and Policy Development Department.

State of School Feeding Worldwide publication editorial team

Director: Carmen Burbano de Lara (WFP School-Based Programmes)
Senior Adviser: Donald Bundy (London School of Hygiene and Tropical Medicine)

Edward Lloyd-Evans, Azinwi Ngum Nkwah, Sandra Camargo, Miriam Njoki Karinja, Maria-José Rojas, Sandra Hittmeyer, Sophie Jenter, Niamh O'Grady, Adriana Pepe, Jutta Neitzel and Soha Haky, Neill Holland and Delia Boccia

This publication is a global public good made possible by the strategic partnership between the World Food Programme and Dubai Cares. It was developed under the project Scaling Up School Health and Nutrition Across Africa – technical capacities and evidence to optimize national programming and with the financial support of Dubai Cares. The World Food Programme is grateful for the support of the Dubai Cares Board of Directors, Chief Executive Officer Tariq Al Gurg, Director of Programmes and his staff.

The publication was led by Edward Lloyd-Evans (Head of Research and Policy, WFP, School-Based Programmes Service) with direct project management support from Sandra Camargo. We would like to particularly thank those who provided inputs for specific sections, front and back matter, boxes and case studies: Miriam Karinja who provided support in data analysis and evidence; Maria-José Rojas, Sandra Hittmeyer, Sophie Jenter and Neill Holland who drafted Chapter 2 on the School Meals Coalition and facilitated partner clearance of content and Veronique Sauvat for drafting the Sustainable Financing Initiative country case studies. Neill Holland for drafting and editing parts of Chapter 3; Adriana Pepe and Soha Haky who drafted and coordinate inputs for Chapter 4 with support from Hanna Walsh, Jutta Neitzel and Niamh O'Grady; Maria-José Rojas who provided internal review and feedback and Azinwi Ngum Nkwah who supported data visualization, the front and back matter, including referencing, table of contents, acronyms, glossary, annexes and coordinated consolidation of the publication. Overall strategic guidance, editing, review and technical feedback was provided by Professor Donald Bundy (Director of the Global Research Consortium for School Health and Nutrition, and advisor to the World Food Programme).

We are grateful to additional members of the writing and review team: Veronique Sauvat (WFP, School-Based Programmes), Kevin Watkins and Liesbet Steer (the Education Commission) who wrote Section 3.1 on the investment case for school health and nutrition; Noam Angrist (Co-Chair of the Analytics and Metrics Community of Practice of the Research Consortium for School Health and Nutrition) and Lauren Cohee (Center for Vaccine Development and Global Health, University of Maryland School of Medicine) who wrote Section 3.2 on the new metric for measuring the impact of health and nutrition on education; Dan Raiten, Alison Steiber, and Andrew Bremer (Eunice Kennedy Shriver (National Institute of Child Health and Human Development NIH/ NICHD), who wrote Section 3.3 on rethinking nutrition at school-age; Danny Hunter and Mark Lundy (Alliance of Bioversity International and CIAT – CGIAR), who wrote Section 3.4 on food systems and agriculture: implications of home-grown school feeding for biodiversity and contribution to diet diversification; Stéphane Verguet (Harvard T.H. Chan School of Public Health) and Linda Schultz (Research Consortium for School Health and Nutrition who wrote Box.3.2; John Spangler (The Rockefeller Foundation) who wrote Box 3.3 on collaboration on fortified food; Melissa Vargas (FAO, Food and Nutrition Division [ESN]), Michele Doura and Jutta Neitzel (WFP, School-Based Programmes) who wrote Box 3.4 on a new global methodology for setting school meal nutrition guidelines and standards; and Linda Schultz, Kate Morris and Samantha Owen (Research

Consortium for School Health and Nutrition) for their valuable inputs to the report.

We would like to thank the writing and coordinating team at the Partnership for Maternal, Newborn and Child Health (PMNCH), for the *Special Report on School feeding in the context of a holistic approach to adolescent well-being;*
Co-authors: Meheret (Mimi) Melles-Brewer, PMNCH; David Ross, FIA Foundation; Janani Vijayaraghavan, Plan Canada; Alicia Sanchez, UNAIDS; Chiamaka Nwachukwu, Kings College Hospital; Dr Jonathon Klein, International Association for Adolescent Health and International Pediatrics Association; Bhavya Nandini, PMNCH; Ann-Beth Moller, WHO; Sophie Kostelecky, PMNCH; Dr Nicola J Gray PhD FRPharmS FSAHM, University of Huddersfield, UK, on behalf of UNESCO Chair 'Global Health and Education'; Lucy Fagan, UN Major Group for Children and Youth; Sarah Baird, (GAGE) George Washington University; Desmond Nji Atanga, DESERVE; Chris Armstrong, Plan Canada; Anshu Mohan, PMNCH. Contributors: Nicola Jones, Global Evidence (GAGE), ODI, London, UK; Joanna Herat, UNESCO; Don Bundy, London School of Hygiene and Tropical Medicine.

We are grateful to Ramin Gallenbacher and Jutta Neitzel (WFP, School-Based Programmes) for their contribution in drafting the piece on School Connect; Raul Saenz and Soha Haky (WFP, School-Based Programmes) for drafting the piece on the School Meal Planner, with country contributions from Phuntsho Wangmo Binai Lama and Udaya Sharma (WFP Bhutan Country Office), Marianna Rocha and Noimilto Mindo (WFP Mozambique Country Office), Dr Kalana Peiris (WFP Sri Lanka Country Office), Maria Fulcar (WFP Dominican Republic Country Office) Moses Ceesay (WFP Sierra Leone Country Office) and Director of the National School Feeding Secretariat (Sierra Leone).

We are equally grateful for contributions from the Partnership for Child Development and AUDA-NEPAD; additional partner contributions came from:

France

- Ms Céline Jurgensen, Ambassador and Permanent Representative of France to the United Nations in Rome
- Mr Sylvain Fournel, Deputy Permanent Representative of France to the United Nations in Rome
- Mr Thomas Sauvageot, Policy Officer at the Permanent Representation of France to the United Nations in Rome

Finland

- Ms Tanja Grén, Permanent Representative of Finland to FAO, WFP and IFAD

Benin

- Ms Sylvie Adote, Education Unit, Presidency of the Republic
- Ms Alice Mingninou, Technical Advisor, Focal Point National Programme for Integrated School Feeding, Ministry of Nursery and Primary Education
- Mr Germain Zinsou, Coordinator of the Management and Coordination Unit of the UNSDCF, Ministry of Economy and Finance

Rwanda

- Mr Pascal Gatabazi, Chief Technical Advisor at the Ministry of Education, Rwanda

United States of America

- Mr Shane Danielson, Senior Director, International Food Assistance Division, Global Programs of USDA
- Ms Diane DeBernardo, Food Security and Nutrition Advisor, International Food Assistance Division, Global Programs at USDA
- Ms Molly Kairn, Acting Director, McGovern-Dole Branch, International Food Assistance Division, Global Programs at USDA
- Ms Lindsay Carter, Director, McGovern-Dole Branch, International Food Assistance Division, Global Programs at USDA

African Union

- Mr Hambani Masheleni, A.g. Director Department of Education, Science, Technology and Innovation & Head of Education Division at the African Union Commission

World Vision

- Ms Sheri Arnott, Director of Policy, Disaster Management, World Vision International
- Mr Edouard Ngoy, Operations Director, World Vision Central African Republic

Islamic Development Bank

- Mr Jawara Gaye, Lead Global Education Specialist at the Islamic Development Bank

Education Cannot Wait

- Mr Graham Lang, Chief of Education, and the team of Education Cannot Wait

Dubai Cares

- Ms Mada AlSuwaidi, Deputy Director of Programmes

We are grateful to the following people who facilitated the submission of external contributions: Jutta Neitzel, Maria-José Rojas, Soha Haky, Sandra Hittmeyer and Sophie Jenter (WFP, School-Based Programmes); Falaman Djanguenane (WFP Togo Country Office), Khaled Ayoub (WFP Jordan Country Office), Miyoba Mukengami (WFP Zambia Country Office), Rosemarie Rivas (WFP El Salvador Country Office), Laurent Demande (WFP Central African Republic Country Office) and Fernanda Sandoval (WFP Ecuador Country Office).

We equally thank Elizabeth Burgessims, WFP Gender Office for her review, insights and recommendations. Administrative support was provided by Constantine Akeibar, Madeline Tejada (WFP, School-Based Programmes) with the help of Dorothy Ongombe (WFP, Goods and Services Procurement).

We would like to thank the WFP Publications Review Committee and Helen Clarke, Kirsty McFadden and the WFP Creative, Content and Branding team for their support to graphic design and coordination of this publication project. The publishing and dissemination process was led by Caroline Dendulk, WFP's Director of the Communications, Advocacy and Marketing Division and Greg Barrow, WFP's Deputy Director of the Communications, Advocacy and Marketing Division.

We are grateful to the Government of Finland and to the Government of France for providing photographic content. We would like to thank Asja Hadzihasanovic and the INK Innovation and Knowledge Management team for their support with the ISBN, copyright and library services.
The publication was edited by Catherine Simes and designed by Sixeleven s.r.l. Translations were provided by Translated SRL; and the different versions reviewed and edited in French by: French: Veronique Sauvat, Emilie Sidaner and Michele Doura (WFP, School-Based Programmes), Nail Lazrak (WFP, Corporate Performance Planning); Spanish: Carmen Burbano (Director School-Based Programmes); Russian: Maria Tsvetkova (WFP); Chinese: Dageng Liu and Jishun Cui (South-South and Triangular Cooperation); Portuguese: Mariana Rocha and Narcia Walle (WFP Mozambique Country Office), Sharon Freitas and Vitoria Rufino (WFP Brazil Center of Excellence); and Arabic: Soha Haky (WFP, School-Based Programmes).

This publication builds on several data sources, including the 2021 Global Child Nutrition Foundation (GCNF) Global Survey of School Meal Programmes, funded by the United States Department of Agriculture. We are grateful to Arlene Mitchell (Executive Director, GCNF) Heidi Kessler and Ayala Wineman (GCNF) for their support and collaboration on this publication. Additional data sources used in this publication were published by the World Bank, the African Union, and the governments of Japan, and Rwanda as cited in Annex III.

The publication was independently peer reviewed by: Harold Alderman (International Food Policy Research Institute/CGIAR), Boitshepo Bibi Giyose (African Union Development Agency [AUDA-NEPAD], Sylvie Avallone (University of Montpelier) and Francis Zotor (University of Ghana). Their valuable comments helped enhance the quality of the publication.

Foreword

Over the past two years, the world has faced an unprecedented food security crisis. The ripple effects of COVID-19 have combined with conflict, climate change, soaring food prices and, most recently, the global impact of the war in Ukraine, triggering a perfect storm of hunger.

The human suffering is immense: 349 million people in 79 countries are marching towards starvation, including 153 million children and young people. Inevitably, this daily struggle for survival is profoundly damaging their education. The global food crisis could undo a decade of progress in enrolling the world's poorest children in school, and yet we know that education offers them the best route out of poverty and malnutrition. Hunger threatens to steal their future.

Fortunately, there is a proven solution. School feeding programmes play a critical role in encouraging the poorest families to send their sons– and especially their daughters– to school. Once in the classroom, school meals ensure children are well-nourished and ready to learn.

The *State of School Feeding Worldwide 2022* assesses the impact that COVID-19 and other global events have had on school-based food and nutrition programmes since the last report in 2020.

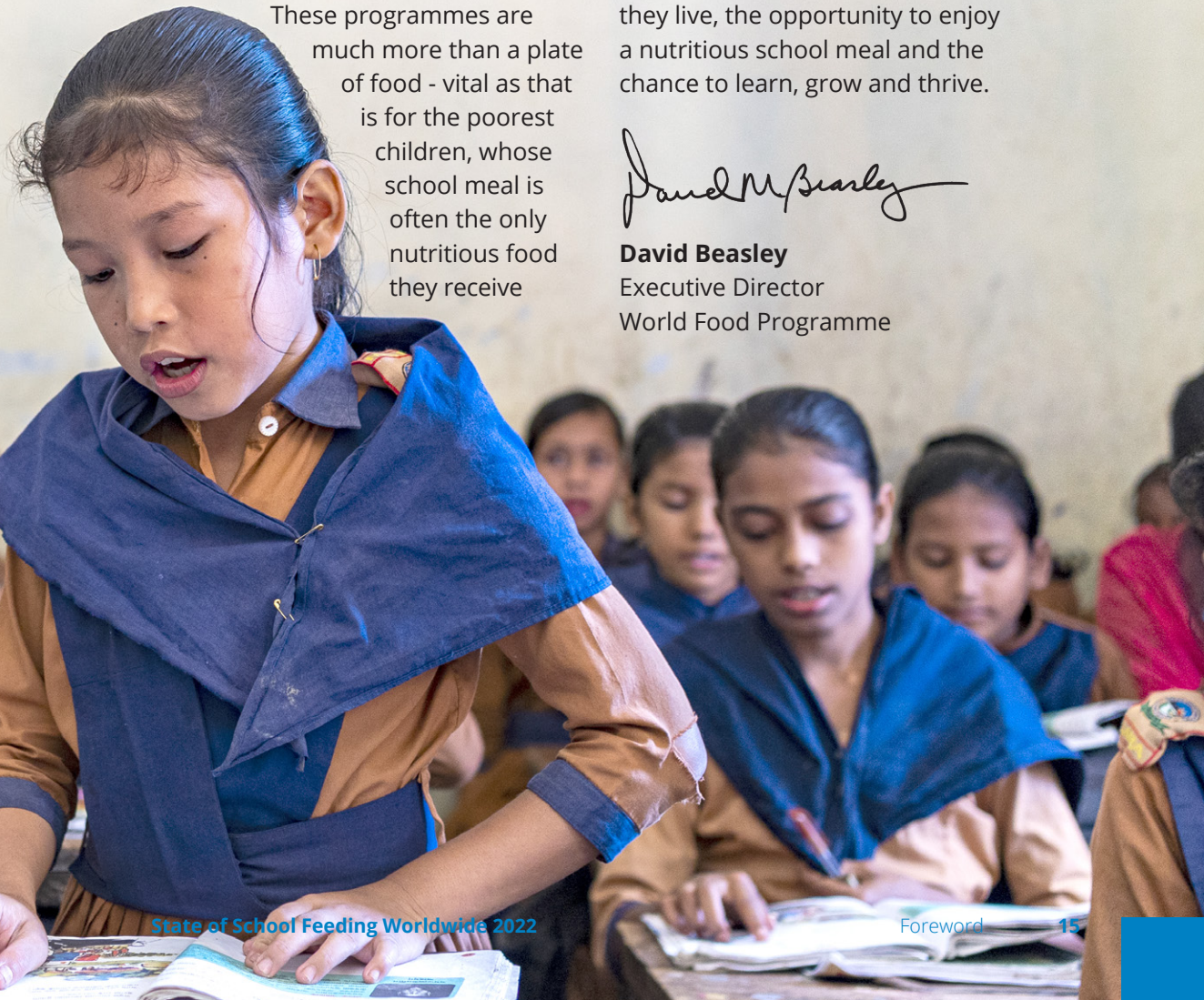
It highlights what has been done to overcome the unprecedented challenges of the pandemic and, critically, identifies the key principles that underpin successful school feeding programmes as governments bolster their education systems for the future.

WFP/Sayed Asif Mahmud

The report also showcases the work of the School Meals Coalition. I am hugely proud of the World Food Programme's contribution to this groundbreaking initiative, launched in 2021 as a global partnership between governments, non-governmental organizations (NGOs) and education experts. To date, 76 countries have joined the Coalition - each one committed to investing in ambitious national school feeding programmes capable of reaching every vulnerable child.

These programmes are much more than a plate of food - vital as that is for the poorest children, whose school meal is often the only nutritious food they receive each day. When done right, school feeding programmes improve the health and education of children; make communities more resilient; promote gender equality; and support national economies and social stability. They are truly the best investment any government can make.

The School Meals Coalition offers an inspiring vision of the future and WFP is fully committed to working with our partners across the world to bring it to life. Together, we will succeed in giving every child, no matter where they live, the opportunity to enjoy a nutritious school meal and the chance to learn, grow and thrive.



David Beasley
Executive Director
World Food Programme

Key Messages

Despite the cessation of almost all school meal programmes worldwide when schools closed due to the COVID-19 pandemic in 2020, school feeding is again one of the largest and most widespread social safety nets in the world.

- The number of children being reached by school meal programmes now exceeds pre-pandemic levels and the possible damage resulting from school closures is being repaired.
- 418 million children now benefit from school meals worldwide, which is 30 million more than the 388 million children reached before the pandemic in early 2020.
- Overall, approximately 41 percent of children enrolled in primary school now have access to a free or subsidized daily school meal, rising to 61 percent in high-income countries.
- This recovery has been more than 90 percent supported through domestic funds, and almost all countries have formally adopted national policies that will help ensure these are continuing commitments.
- School meal programmes have created approximately four million direct jobs in 85 countries, which equates to 1,377 jobs for every 100,000 children fed. Most of these jobs are related to the preparation of food, benefitting local cooks and small catering companies, most of them led by women.

This rapid and unprecedented rebound has been driven by national political leadership at the highest levels, channelled through the School Meals Coalition.

- Political leaders from 76 countries (at the time of publication) representing 58 percent of the world's population across all income levels, co-created the School Meals Coalition in less than a year.
- The country-led Coalition is supported by 83 stakeholders (at the time of publication), including major UN agencies and development partners and is modelling a new multilateral approach to development.
- The Coalition represents a US$48 billion global industry which is almost entirely funded by countries worldwide at all income levels.
- The Coalition's actions are based on independent evidence co-created by the Coalition's Research, Sustainable Financing, and Data and Monitoring Initiatives.
- Thanks to the Coalition there has been a sea change in the level of political will around school meals. In Rwanda, for example, President Paul Kagame's administration has already met the commitment announced in 2021 of reaching universal school feeding coverage. The country has moved from supporting 660,000 children in 2020 to 3.8 million in 2022. In Benin, President Talon announced a national budget commitment of US$270 million over the next five years to scale up the national programme.

The major challenge now is that the recovery has been least effective in low-income countries: coverage is least where it is needed most.

- While there has been a huge recovery overall, the reach of school meals in low-income countries remains 4 percent below pre-pandemic levels.
- Despite other demands post-pandemic and the severe tightening of the fiscal space, low-income countries have increased their domestic funding for school meals from approximately 30 percent in 2020 to 45 percent in 2022.
- Disappointingly, while low-income countries have increased their domestic investment there has been a reduction in international support, down from US$267 million in 2020 to US$214 million in 2022.
- There is a need for a new compact that responds to this transition towards greater country ownership and funding. Development partners, especially international financial institutions, should commit to increasing support for school meal programmes by US$1 billion.

There is an opportunity to leverage the school meal platform for more climate-smart and sustainable food systems, that deliver better nutrition and more diverse diets.

- School-age children are bearing the brunt of the current food crisis. WFP estimates that 349 million people in 79 countries are marching towards starvation, including 153 million children and young people. School meal programmes have become the world's most extensive safety net, and present a powerful opportunity to transform the lives of children and their families affected by the food crisis.
- The global annual investment of US$48 billion in school meal programmes creates a huge and predictable market for food, and offers an extraordinary opportunity to transform food systems and diets, and to respond proactively to the global food crisis.
- School meal programmes can purchase more local food and match quality diets to local production, increasing local agrobiodiversity and strengthening food sovereignty. This can support smallholder farmers, especially rural women and indigenous producers.
- Climate-smart school meal programmes could be part of the vanguard of country efforts to become more climate resilient, by diversifying diets, aligning agriculture and procurement to local food sovereignty, and by rethinking energy and farming practices.

Executive Summary

Executive Summary

This analysis by the United Nations World Food Programme (WFP) describes the *State of School Feeding Worldwide* in 2022, two years after the onset of the COVID-19 pandemic. Previous reports on the *State of School Feeding Worldwide* were published first in 2013 (WFP, 2013), and then in 2020 (WFP, 2020d), just as the pandemic was emerging in full force, and the world's schools were closing. This 2022 version takes up the story as schools reopen, and as countries join together in a global School Meals Coalition to rebuild their children's future.

This edition follows a similar format to the previous reports, using national surveys to explore key aspects of coverage and implementation practices of school-based health and nutrition programmes worldwide. The report examines the direction and scale of change between 2020 and 2022 to explore the effects of the pandemic on children and adolescents, and the scale and effectiveness of responses by national school meal programmes across the globe.

The closure of schools, which peaked in April-May 2020, plunged the world into an unprecedented learning crisis and simultaneously removed the safety net of school meal programmes that had been built to protect our children. The counterfactual experience of having no schools not only reaffirmed the fundamental role of schools in the education of the next generation, but also brought into stark relief the complementary importance of school systems in ensuring the well-being of the learner and the creation of human capital. Governments across the world have emerged from the pandemic with a much clearer understanding of the need to invest in both the education and well-being of their schoolchildren and adolescents, and of the need to create national programmes that ensure both good education and quality school-based health and nutrition services.

Throughout 2021, governments increasingly came together recognizing the need for a new approach to supporting schoolchildren, while at the same time supporting more sustainable diets and food systems. This culminated in the launch of a global School Meals Coalition at the UN Food System Summit in October 2021. The Coalition has grown into a partnership of currently 76 member states, with responsibility for 58 percent of the world's schoolchildren, spanning the full range of geographies and across high, middle and low-income countries. This new country-led Coalition is supported by 83 stakeholders, including major UN agencies and development partners.

The School Meals Coalition has identified three key goals:

- Restoring what we had (by 2023) by supporting all countries to re-establish effective school meal programmes and repair what was lost during the pandemic.
- Reaching those we missed (by 2030). The most vulnerable, in low and lower middle-income countries, were not being reached even before the pandemic.
- Improving our approach (by 2030) by improving the quality and efficiency of existing school meal programmes in all countries; facilitating a healthy food environment in schools; and promoting safe, nutritious and sustainably produced food, linked to local production where appropriate.

Although this is a powerful and determined Coalition, we were still surprised by the latest surveys which revealed that the number of children being fed had already rebounded to 418 million, exceeding the 388 million reported pre COVID-19 in January 2020. Initially, this looked like the first goal had been met 12 months early (in 2022 not 2023) but closer analysis showed that while some countries had indeed rebuilt and even expanded their school meal programmes, others, especially many low-income countries, were still in the earliest stages of responding.

There is also an important message about the need for external development partners to particularly target support at low-income countries. Low-income countries did everything in their power to maintain their school feeding coverage during the crisis phase (2020-2022) of the COVID-19 pandemic. Despite these efforts, it is the programmes in low-income countries which lag behind the rest of the world: while there is a positive rebound overall, the children reached in low-income counties remains 4 percent below pre COVID-19 coverage levels. The low-income countries themselves have increased the proportion of investment from domestic funds, up from 30 percent to 45 percent, despite contraction of fiscal space. However, contributions from donors have fallen from 69 percent to 55 percent, a shortfall which is likely to reflect donors' competing priorities, and which has resulted in lower coverage despite even the poorest countries taking on an increasing share of the burden. Shouldn't donors particularly help those countries that help themselves?

Today, we estimate that the average coverage of free or subsidized school meals is around 41 percent, rising to 61 percent in high-income countries. The challenge ahead is to level up all national programmatic responses, especially in low-income and lower middle-income countries.

Although not all countries have achieved instant success, the needle has begun to move. With its single voice and new vision, the School Meals Coalition has already changed the landscape, bringing a new multilateral narrative to development and a new focus on recovery from COVID-19 - not only on educating a lost generation, but also on well-being, health (including mental health) and the creation of human capital. This new focus also includes supporting more sustainable food systems; creating local jobs, especially for women; and introducing more climate-friendly approaches using schools as a platform for community resilience. The Coalition's superstrength is its recognition that investing in an effective programme has multisectoral benefits, each dollar returning some nine dollars across health, education, social protection and agriculture alone.

The scale of the countries' response reflects the scale of the problem and the scale of the programmes: the political economy of school meals has grown from a US$43 billion global industry in 2020 to US$48 billion today. Despite this, school meal programmes only attract US$300 million in Official Development Assistance. Disappointingly, while country investments have increased, the amount of Official Development Assistance has actually fallen since the arrival of COVID-19. Countries are exploring innovative new approaches to domestic financing, which already represents 98 percent of the investment, including hydro-carbon taxes, VAT and development bonds. Timebound and well targeted Official Development Assistance can help countries transition more quickly to self-reliance, indeed 44 countries have already followed that route. If development partners, especially international financial institutions such as multilateral development banks would commit to increasing support for school meal programmes by US$1 billion (or 0.6 percent of current development assistance flows) they could play an even more important role in supporting the Coalition's goals, especially as countries transition from lower income to middle income status. Governments are betting on the next generation; it is perhaps time that donors did too?

As the COVID-19 pandemic retreats, a food crisis emerges. Hunger is on the increase as food prices rise in response to inflation, energy costs, the impact of

weather on farming and the conflict in Ukraine. Well organized food systems offer an effective way to respond, and the near US$50 billion industry for school meal programmes worldwide offers a particularly promising opportunity to help secure the future of the world's children. To make this work, there needs to be a better understanding of the linkages between agricultural production and the quality diets that children and adolescents need to thrive. This in turn needs a new vision of agriculture for school food that respects food sovereignty, enhances biodiversity and is climate friendly. As countries seek to rebuild their school health and nutrition programmes, they are also beginning to focus on more climate-smart, biodiverse and culturally appropriate agricultural systems.

This report on the *State of School Feeding Worldwide* comes at an extraordinary moment in the history of human development. In 2020, when the world closed its schools in response to the COVID-19 pandemic, a crisis in education was created with critical consequences for the future of the individual children concerned, and for the global economy. We now realize that closing schools removed the world's most extensive safety net for children and adolescents (World Bank, 2018), with terrible consequences for the well-being of a whole generation. However, out of this harm has arisen a coalition which is changing the face of development with a new multilateral approach geared to support the next generation, paving the way towards a more sustainable, better future. This report explores where we are now, and where the world is going as it seeks to build a new world of opportunity for our children and adolescents.


WFP/Cassandra Prena

Main findings

Despite school closures and the cessation of almost all school meal programmes worldwide in 2020, school feeding is again one of the largest and most widespread social safety nets in the world, benefitting 418 million children globally.

Data from 176 countries suggest that approximately 418 million children now benefit from school feeding worldwide, a slight increase from the 388 million children observed in 2020. This variation (about +7 percent) is modest enough to be considered non-significant and still within the range of expected variations for figures of this magnitude. Collectively, these findings suggest that school feeding programmes have returned to pre-pandemic levels and damage resulting from school closures is now being repaired.
Building human capital depends on high-quality education as well as good health and nutrition. School-age children and adolescents – spanning ages 5 to 19 years – require particular attention from both the education and health sectors. It is during these formative years that children and adolescents undergo physical, emotional and cognitive changes - the same years they are in school.

The recovery has been least effective in low-income countries, and coverage of school feeding programmes is still lowest where it is most needed.

Despite the overall number of children receiving school meals having recovered to reach pre-pandemic levels, and some low-income countries having expanded their school meals coverage, there remains a nearly 4 percent reduction in the number of children fed in school in low-income countries. This reflects the fact that some low-income countries have not yet been able to rebuild their national programmes, and need more help.
As part of the Data and Monitoring Initiative led by WFP, there is a continuing process of improving the precision of data reported in the *State of School Feeding Worldwide* reports. In this report, we provide more precise data on the coverage of school meals by using more accurate methods to estimate the denominator: the number of children needing to be fed. These estimates suggest that approximately 41 percent of children enrolled in primary school benefit from school meal programmes globally. The coverage varies greatly with income level: approximately 18 percent of schoolchildren in low-income countries receive free or subsidized school meals, compared to 39 percent in lower middle-income countries and 48 percent in upper middle-income countries. This emphasizes yet again the need to give stronger focus to the needs of low-income countries.

Despite severe tightening of fiscal space, low-income countries have increased their domestic funding for school meals, while donor support in these same countries has declined in both proportion and real terms.

The share of domestic funding in low-income countries has increased from approximately 30 percent in 2020 to 45 percent in 2022, a total of US$392 million. During this same period, there has been a reduction in international support, from approximately US$267 million in 2020 to US$214 million in 2022.

External donor support for investing in the well-being of children and adolescents does not respond to the priority that national governments give to these programmes.

A financing landscape analysis found that donor support tends to be fragmented and dominated by a proliferation of small grants – with few leveraging effects on national strategies. Most donors and development banks lack integrated school feeding strategies. This suggests there is a need for a compact in which national governments increase efforts and the global community fills gaps where needed, in particular to support the countries most in need and those which are transitioning towards greater country ownership and funding. The scoping analysis recommends that development partners, especially international financial institutions such as multilateral development banks, commit to increasing support for school meal programmes by US$1 billion (or 0.6 percent of current development assistance flows), which could play an important role in supporting the School Meals Coalition's goal to help countries, particularly those at the crucial transition from low income to lower middle-income status.

There is a welcome and continuing trend for school meal programmes to become formally part of institutional policy and to be deliberately linked with other health and nutrition programmes that contribute to the well-being of the learner.

This report confirms that almost all school feeding programmes around the world are led by national governments. Evidence available confirms that more and more governments are stepping up their policies. The 2020 report observed that, while 79 percent of countries had specific school meals policies in place, only 73 percent of low-income countries had such policies. The 2022 surveys show that 82 percent of low-income countries now have a school meals policy and that, overall, more than 87 percent of all countries have a specific school feeding policy in place. This is an important change, and a strong indicator of the growing governmental commitment at all economic levels.

School feeding programmes are rarely delivered as isolated interventions but are more often the platforms through which important complementary education, nutrition and health activities are delivered. More than 80 percent of the countries surveyed reported that they have complementary health activities in conjunction with school feeding. Evidence shows that the school system is an exceptionally cost-effective platform through which to deliver an essential integrated package of health and nutrition services, including school meals, deworming, iron and folic acid supplementation, vision screening and oral health. This reinforces the importance of school feeding programmes as catalysts of crucial interventions to promote well-being among schoolchildren and adolescents.

The School Meals Coalition has emerged as a prominent and innovative vehicle for multilateral action, and addresses multiple Sustainable Development Goal (SDG) outcomes.

Political leaders from 76 countries, representing all economic levels and 58 percent of the world's population, have joined the School Meals Coalition in less than a year. The Coalition has also attracted formal support from 83 major UN and other development partners. The Coalition is led by a task force of


Government of Finland/Virpi Kulomaa

12 countries, which held their first ministerial meeting in Helsinki in October 2022, hosted by the Government of Finland, one of the two founding chairs. France, the co-chair, will host a second ministerial meeting in October 2023, when all 76 countries will be invited to participate.

Through its partner-led initiatives, the School Meals Coalition will work to address three key bottlenecks to action: better evidence for decision making, sustainable financing and reliable data.

To date, the Coalition has launched three initiatives to support these actions:

- The Research Consortium for School Health and Nutrition launched in May 2021 and is led by the London School of Hygiene and Tropical Medicine. The consortium facilitates global collaborations between academic, research and development partners to fill the knowledge gap in school health and nutrition.
- The Sustainable Financing Initiative was established under the leadership of the Global Education Forum, and is led by the Education Commission. The initiative seeks to improve donor coordination; the efficiency of funding arrangements; help countries increase their fiscal capacity; and marshal the resources necessary to scale up and transition to national school meal programmes with a particular focus on low income and lower middle-income countries.
- The Data and Monitoring Initiative was established with the goal of improving and institutionalizing the availability of quality data on national school meal programmes worldwide for evidence-based decision making and tracking of progress over time. It serves as the key monitoring and reporting initiative for the three objectives of the School Meals Coalition.

In a special report, the Partnership for Maternal, Neonatal and Child Health identifies the role of national school meal programmes in supporting the health and well-being of adolescents globally.

School meal programmes are an essential component of a truly integrated healthy and health-promoting education system that contributes to achieving adolescent well-being. Good health and optimum nutrition go beyond the absence of disease and malnutrition to feeling well and having the capacity to cope vigorously with daily tasks. School meals can make an important contribution to adolescents' safety and to them having a supportive environment. For poor families, school feeding incentivizes adolescents to stay in school and their parents not to remove them from school.

WFP has reinforced its leadership role in school meals by making it a corporate flagship intervention, strengthening its capacities at all levels to support governments and improving its ability to demonstrate results.

As the lead UN agency for this area of work, WFP has three roles in the global school meals agenda:

1. Support governments with their school meal programmes:
WFP provides policy support, technical assistance, evidence and know-how to help upper-middle, lower-middle and low-income governments establish or strengthen the sustainability of their school feeding programmes. WFP's technical and policy support has indirectly influenced the quality of life, access to education and nutritional status of 106 million schoolchildren in 77 countries and local communities, including strengthening of agricultural production and improving the lives and livelihoods of smallholder farmers and partners across the food system value chain.

2. Provide operational support to countries:
When necessary, WFP provides school meals to vulnerable children in support of national objectives. In 2021, WFP provided school meals to 15.5 million children in 57 countries, with approximately 72 percent of the coverage in Sub-Saharan Africa and the Middle East.

3. Establish, coordinate and maintain three global public goods:

- *The School Meals Coalition*: As the Coalition's secretariat, WFP supports countries of all income levels to share experiences, access financing and improve their approaches, supported by a global network of partner organizations. WFP helps all Coalition partners to coordinate action and connect to the initiatives, which it helped to incubate and launch.
- *The State of School Feeding Worldwide*: This publication is issued every two years and provides quantitative and qualitative information on the state of school feeding across the globe. The publication also monitors the progress of the School Meals Coalition and achievements towards the goals of improving school health and nutrition.
- *The Global School Meals Database*: WFP is establishing a global database of school meal indicators, that will be available to all countries and partners, to track progress annually.

Priorities for action

1. Ensure that schools remain open and ensure that coverage is sustained or expanded.

2. Support the Sustainable Financing Initiative in helping low-income countries to identify novel and effective ways of funding programmes, and in helping all countries transition to self-reliance.

3. Strengthen the availability of mission-critical data on school meal programmes through the following global goods: the Data and Monitoring Initiative, the *State of School Feeding Worldwide* reports and the "good examples" community of practice from the Research Consortium for School Health and Nutrition.

4. Support the connection between school meals, food systems and climate change. Prioritize national government access to independent evidence on the costs, benefit and effectiveness of different home-grown school feeding programme designs, as well as on climate change and food sovereignty.

5. Explore the role of school meal programmes as the world's most extensive safety net and ensure that they are part of the response to the food and climate crises.

State of School Feeding Worldwide 2022

This publication is part of a series of reports by WFP, as announced in the 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 four chapters:

Chapter 1 - School feeding programmes in 2022: scale, coverage and trends
Chapter 2 - School Meals Coalition: progress and opportunities
Chapter 3 - New advances in understanding school meals: innovations and sustainable programming
Chapter 4 - The global and strategic role of WFP in school health and nutrition.

This edition also contains a special report contributed by the Partnership for Maternal, Newborn and Child Health, titled *School feeding in the context of a holistic approach to adolescent well-being*.

Introduction

Introduction

This is the official publication of the United Nations World Food Programme on the *State of School Feeding Worldwide in 2022*.

When the previous report was published in early 2021, the world was facing an uncertain future as the COVID-19 pandemic circled the globe. We reported then that, at the beginning of 2020, school meals had reached more children worldwide than at any time in human history. However, the arrival of COVID-19, and the closure of the world's schools in mid-2020, changed everything. All children everywhere were suddenly deprived of an education; 370 million schoolchildren lost their one guaranteed meal of the day; and 124 million people were pushed into extreme poverty.

For the first time in recorded history, the world experienced what it was like to have no schools anywhere. It soon became clear that the loss of schools also meant the loss of all those school-based systems that support the education, health, nutrition and general well-being of the learner. A whole generation of children was at risk. As the 2020 report went to press, massive global efforts were under way to find new means of reaching school-age children and adolescents without the school platform. However, none equalled school-based methods in terms of cost or effectiveness, and the future looked bleak.

Two years later, most countries have reopened schools and welcomed hungry children back into the classroom. Free school meals have provided an incentive for children to go to school, and for their parents to send them. These meals are contributing to the return to health and well-being of the generation that has missed out on so much.

State of School Feeding Worldwide 2022 explores the global status of programmes at the start of 2022, as WFP and its partners in government and civil society work together to recover from the pandemic and build new and more resilient and impactful school meal interventions. The publication also describes how this process has been accelerated by countries coming together in a School Meals Coalition which was formed during the Food Systems Summit in 2021.


WFP/Fredrik Lerneryd

The emerging role of State of School Feeding Worldwide as the global barometer of school meals.

An up-to-date report on the status of national school meal programmes is an essential tool to assist public understanding of school feeding procedures and practices. In 2013, WFP broke new ground in this area with the publication of *State of School Feeding Worldwide,* and in 2020 the second edition was issued to build on that earlier experience. With the launch of the 2022 edition, the third in the series, WFP is committing to a series of regular reports to provide a continuing overview of school meal programmes everywhere in the world, focusing on national programmes implemented by governments.

Each report will be published following a similar format, using the best available data sources to describe the scale and coverage of programmes. The series will provide a succinct summary of new advances in school meals, outcomes and the partnerships associated with school meal programmes. This is not a report on WFP activities but an overview of the work of all actors involved in support of school meal programmes worldwide.

Looking back at schools and food

School meals have 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. At the beginning of the twentieth century there were geographically targeted attempts to address social protection, such as the 1907 act in the United Kingdom that sought to deliver food through schools in some of the poorest communities. By the 1940s, this approach had been expanded to include universal national programmes, such as in Finland and Sweden, and was often combined with a vision of school meals as a stimulus for agricultural production, as in the United States of America (United States).

School meals are 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 meals 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 address lost opportunities and to invest in the next generation.

In 2009, the World Bank and WFP, in collaboration with the Partnership for Child Development, 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 meal 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 meals 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 & Bundy, 2011) and of the scale and quality of evaluations and trial design (Kristjansson et al., 2007). It became clear that governments invest in school meals not because they deliver on one goal, but because they deliver on many.

A history of school feeding publications

Over the last decade, there has been a sustained improvement in the quality and quantity of school meal programmes delivered by governments and development partners, and a concomitant increase in the quantity and quality of research. The analysis of *State of School Feeding Worldwide* (WFP, 2013, 2020d) 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). The Partnership for Child Development, with assistance from the Bill and Melinda Gates Foundation, among others, has supported new randomized trials of school meals, which have become seminal to the understanding of programmes in stable situations, such as in the national school meal programme in Ghana (Gelli et al., 2019) and internally displaced persons (IDP) camps in Uganda (Adelman et al., 2019); and in emergency situations, such as when the national school meal programme was interrupted by a coup in Mali (Aurino et al., 2018). In 2017, the third edition of the World Bank's Disease Control Priorities (Jamison et al., 2017) 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 mirrored 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. The policy was updated in 2013 to further leverage school meals 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 school feeding. This publication is part of a concerted effort to strengthen the knowledge and evidence base in this area.

The structure of this publication

This publication is comprised of four chapters and a Special Report covering the following topics:

- **Chapter 1: School feeding programmes in 2022: scale, coverage and trends** – provides an update on the number of children receiving school meals around the world, coverage and funding, with new analytics on sources of funding, employment, policies and programmes.

- **Chapter 2: The School Meals Coalition: progress and opportunities** – provides an overview of the mandate and initiatives of the new global school meals communities of practice, highlighting how governments, partners, UN agencies and civil society have come together to advance school health and nutrition.

- **Chapter 3: New advances in understanding school meals: innovations and sustainable programming** – is a summary of the latest evidence on school meal programmes and includes an updated global cost (value for money) benchmark and a review of academic evidence.

- **Chapter 4: The global and strategic role of WFP in school health and nutrition** – takes stock of WFP's renewed commitment to school meals and its near-term strategy to support governments as they rebuild from COVID-19 and meet the challenge of administering successful national school meal programmes in times of global instability.

- **A Special Report: School feeding in the context of a holistic approach to adolescent well-being** – presents research and findings on the first 7,000 days of lifetime development, and the connection between providing school meals to adolescents, and national human capital development.

This publication also contains case studies from around the world and detailed boxes to highlight some key sectoral and thematic issues. The report relies on input from WFP's experience, and from outside WFP from technical experts and policymakers with first-hand knowledge of their topics. These contributions provide a perspective beyond the global data, and more immediate insights into the experiences, challenges and lessons learned by countries and partners.

Topics covered in the boxes and case studies include:

- 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 meals and school health and nutrition; and
- lessons learned about specific innovative experiences from non-state actors.

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 Meal 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 meal programmes typically include health interventions: in the sample of countries examined in this publication (see Chapter 1) over 80 percent of national school meal programmes provided complementary health and nutrition interventions.

This publication preferentially uses the term school meals or school feeding because they are 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 *State of School Feeding Worldwide* are likely to echo this broader adoption of school meals and school health and nutrition in its terminology.

WFP welcomes feedback on this publication. Correspondence 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 2022: scale, coverage and trends

This chapter, together with Annexes I and II at the end of the publication, provides an overview of the current status of school meal programmes worldwide based on surveys of 176 countries and states. Annex III gives a detailed description of the data collection and management approach.

This chapter responds to one of the main goals of WFP's new ten-year school feeding strategy which calls for "a more rigorous monitoring and evaluation of school meals programmes to demonstrate results and measure success". The data and insights build on the methodology and analysis used in State of School Feeding Worldwide 2020 (WFP, 2020d) and are intended to give readers a current assessment of key global metrics in school meals, including the proportion of students receiving school meals; the reach of national initiatives; and the scale of national (domestic) and international investment.

The data provided here represent the most up-to-date information on school feeding, and are based on a more complete data set than the previous reports in 2013 and 2020, comprising a larger sample of countries, more direct observations and fewer estimations.

One important use of the data sets is to gain a longitudinal understanding of the trajectory of school meal programmes worldwide: are we seeing a rising or falling trend over time? This is particularly important in the context of assessing recovery from the COVID-19 pandemic. In this chapter we compare the 2022 data with our observations two years ago in the 2020 report. A more complete explanation of data collection and management processes is given in Annex III.

In some cases, we also refer to observations from the 2013 report to provide a longer-term perspective. The 2013 report was the first truly global effort to describe school meal programmes worldwide and provides a valuable and unique baseline reference. However, methodologies have evolved and improved over the last ten years, and the 2013 report relied on a range of data collection methods which differs from those in use today. Therefore, our main longitudinal analysis focuses on changes during the period from 2020 to 2022.

Current evidence indicates that approximately 418 million children at the pre-primary, primary and secondary school levels are now reached by school meal programmes worldwide, an apparent increase of 30 million from the 388 million children reached in the pre-pandemic 2020 report.

We know that almost all school meal programmes worldwide collapsed during the COVID-19 pandemic; therefore, the 2022 data suggest that there has not only been a major restoration of school meal programmes worldwide to pre-pandemic levels, but an increase to levels never previously achieved. Data from the global monitoring of school meals during COVID-19 closures (WFP, 2022) shows the restoration of school meals over the two-year period was a gradual process characterized by variations analogous to the different peaks and mitigation measures to control the pandemic, with the highest proportion of missed school meals occurring from the start of the pandemic up to September 2020.

The increase of 30 million children reached by school feeding, about +7 percent of the total, is within the range of expected variation and may not be significantly different from the 2020 total, for example, uncertainties around data collection and the massive influence of even small changes in the largest programmes, such as in India, Brazil and China

More detailed analysis shows the importance of income level and geography. In low-income countries, for example, the number of children fed by school meals has fallen by approximately 4 percent, with the biggest declines observed in Africa. Understanding the detail of these patterns of change is relevant to finding appropriate solutions, and points to a need for more focused and accelerated efforts that strategically target the already most disadvantaged and vulnerable schoolchildren in low-income countries.

Overall, more than 98 percent of funding for national school meal programmes comes from national budgets. This confirms observations in the 2020 report and shows that most school meal programmes around the world are operated and funded by national governments. The estimated global investment in school meals has increased from US$43 billion in 2020 to US$48 billion in 2022.

The share of domestic funding in low-income countries for school meal programmes has grown from approximately 30 percent in 2020 to 45 percent in 2022, despite the increasing constraints on fiscal space. Ironically, the sustained or increased levels of domestic funding have not been matched by levels of international support for school feeding, which instead have fallen from approximately US$267 million in 2020 to US$214 million in 2022.

The growing domestic interest in school meals is also reflected in the rate of adoption of policies and laws governing school meals: evidence shows that an increasing number of governments are adopting and strengthening their school meals policies. A big change since 2020 is that the proportion of lower middle-income and upper middle-income countries with specific school meal policies is currently nearing the same level as in high-income countries. Again, it is the low-income countries which are lagging behind.

It is estimated that school meal programmes led to the creation of nearly four million direct jobs in 85 countries, which equates to 1,377 jobs for every 100,000 children fed. The comparable estimate for 2020 was three million jobs in 48 countries, equating to 1,668 jobs for every 100,000 children. There are many uncertainties in these estimates, but they suggest that countries have indeed reinstated their school meal infrastructure since the COVID-19 pandemic. These estimates also reaffirm that school meal programmes are an important contributor to job creation, in the range of 1,000–2,000 jobs for every 100,000 children receiving school meals.

School meal programmes are rarely delivered as isolated interventions but provide the platforms through which important complementary education, nutrition and health activities are delivered. The proportion of national programmes providing complementary interventions in 2020 and 2022, were 93 percent and 80 percent respectively. This confirms that the majority of countries use an integrated approach to school health to secure the health, nutrition and well-being of children and adolescents. It also suggests that complementary services have yet to reach pre-pandemic levels, which may be attributable to the slower recovery of some of the most widely adopted school-based health services, especially deworming.

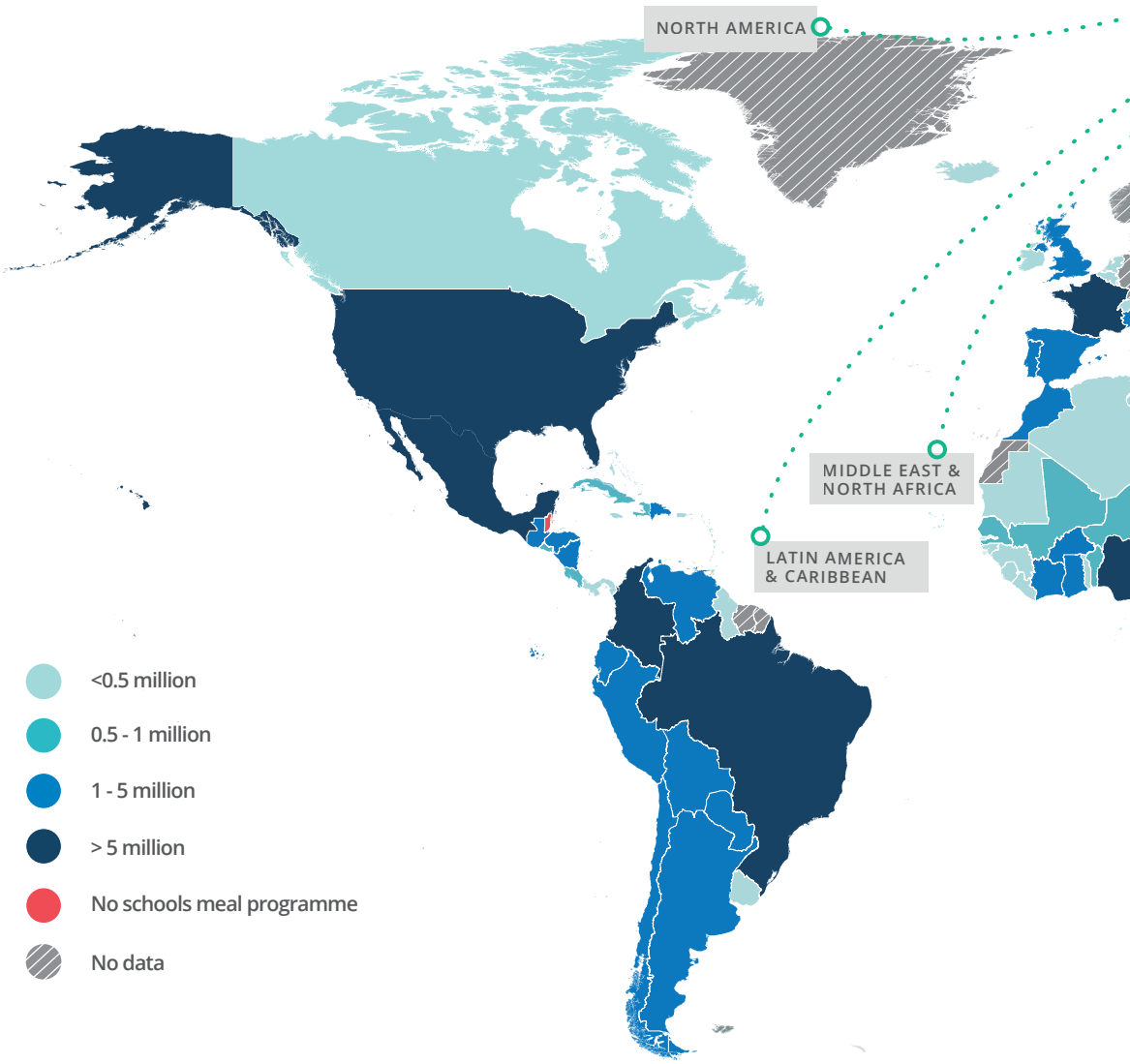
This suggests that in most countries school meal programmes have returned to their pre-pandemic levels and that almost all countries have made significant efforts to reverse the harm caused by school closures. Almost all these efforts were supported by domestic funds, and inevitably it is therefore low-income countries which have recovered the least quickly.

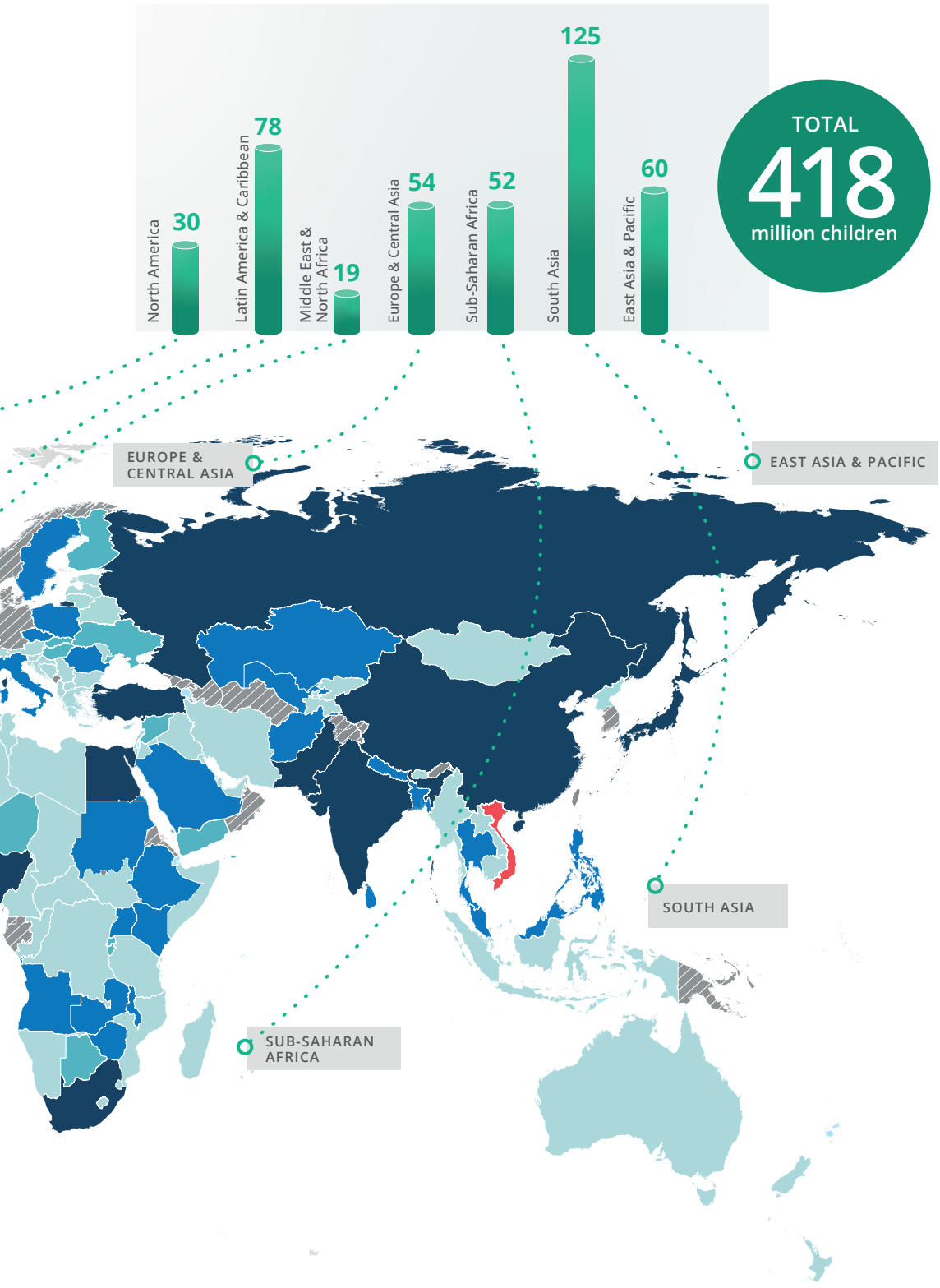
WFP/Cassandra Prena

1.1 Number of children receiving school meals

The most recent global data suggest at least 418 million pre-primary, primary and secondary schoolchildren are receiving school meals based on a sample of 176 countries.

Map 1.1
Children receiving school meals around the world




North America
30
Latin America & Caribbean
78
Middle East & North Africa
19
Europe & Central Asia
54
Sub-Saharan Africa
52
South Asia
125
East Asia & Pacific
60
TOTAL
418
million children
EUROPE & CENTRAL ASIA
EAST ASIA & PACIFIC
SOUTH ASIA
SUB-SAHARAN AFRICA

Data sources

For this edition of *State of School Feeding Worldwide*, the data presented were drawn from publicly accessible, official sources including the World Bank, the African Union, WFP and the Global Child Nutrition Forum (GCNF) Global Survey of School Meal Programs (from both rounds of surveys conducted in 2019 and 2021, 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 I). In 31 countries, no more recent data were available than that reported in the 2020 report; for the rest of the sample, data were derived from the latest GCNF Global Survey of School Meal Programs (2021) (Global Child Nutrition Foundation, 2022) and are new observations.

Overall, the 2022 analysis is based on a sample of 176 countries, up from 163 countries in 2020 and 154 in 2013 (Figure 1.1 and Figure 1.2). Reported data were available from 176 countries (up from 127 in 2020 and 105 in 2013), accounting for approximately 1.2 billion school-age children (i.e. children enrolled in pre-school, primary and secondary schools in the countries included in the sample). Compared to 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 and 18 in 2022. Estimates for the 18 countries not in the Global Survey of School Meal Programs (2021) survey were obtained from a comprehensive review of case studies, publications and reports.

A specific effort was made to obtain information from high-income countries through direct contact with government focal points. This 2022 edition reflects some progress as only 10 percent of countries relied on estimations compared to 22 percent in 2020. Finally, for countries where insufficient information was obtained, parameters were estimated using the available information and other sources from the World Bank and UNESCO (see Annex II).

Figure 1.1

Breakdown of countries by data sources (N=176)

Legend: *Approximately 70 percent of data was sourced from the recent USDA-funded GCNF Global Survey for 2021. Of the remainder of the data, 20 percent was sourced from reports published by WFP, the World Bank, the African Union and other sources, while 10 percent was based on estimations.*

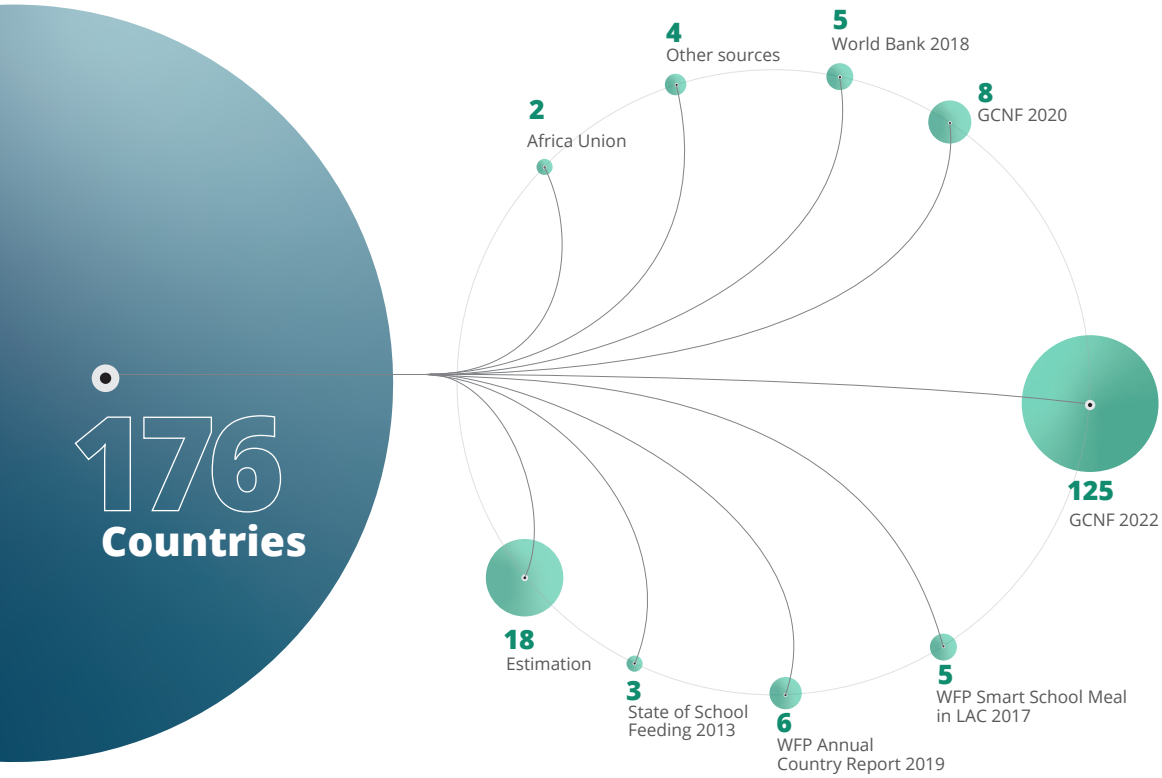
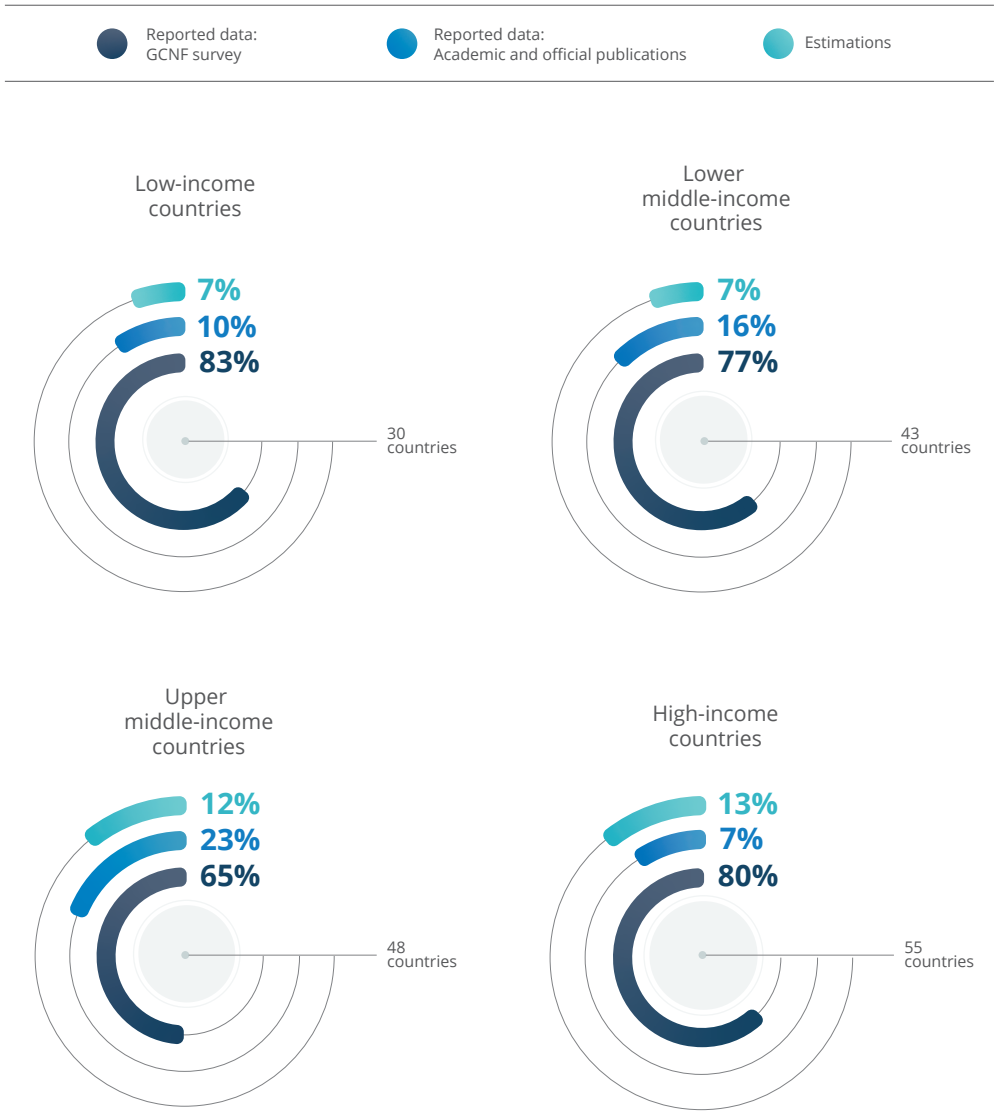


Figure 1.2

Breakdown of sample by source and income level (N=176)

Legend: *Similar to 2020, reported data accounts for over 90 percent of low-income and lower middle-income countries in the sample. Countries for which estimates were required reduced and were in the high-income level group - 12 percent versus 42 percent in 2020 - and upper middle-income level group - 13 percent versus 26 percent in 2020.*



WFP/Badre Bahaji

Number of children receiving school meals

Data available from the compiled data set suggest that approximately 418 million children are being fed around the world (Map 1.1). This represents an increase of 30 million (approximately 7 percent) from the 388 million children reported in the 2020 edition of this report (WFP, 2020d). This observed increase persists even when accounting for the increased number of countries reporting data for this analysis.

The majority of this increase (94 percent) is driven by 20 countries; India in particular reported an increase of 16 million children fed (106 million in 2022, compared to 90 million in 2020). Overall, Brazil, Russia, India, China and South Africa together account for nearly half of the total number of children receiving school meals. Of the 30 million increase in the number of children receiving school meals between 2020 and 2022, these five countries account for 19 million of the increase in the number of children fed. Data from Brazil and South Africa were comparable to those from 2020, while in China, the reported number of children fed fell from 40 million to 37 million over the course of two years. The China data refer specifically to those fed by a programme targeted at poor and vulnerable children in rural areas. We would expect the number of children on this programme to decline as the number of households in poverty declines. In December 2021, China declared an end to extreme poverty, which would contribute to a decline in the number of children on the programme, as would continuing rural-urban migration. In future surveys we aim to better understand this relationship by assessing the number of children who graduated from the targeted programme to participate in routine food provision by schools.

As in 2020, South Asia reported the largest number of children receiving school meals in 2022 (125 million), followed by Latin America and the Caribbean (80 million), East Asia and the Pacific (56 million) and Sub-Saharan Africa (53 million).

Mindful of the fact that the data used to compile this report compare observational data collected at two time points, it does not show the extent to which the closure of schools disrupted access to school meal programmes globally during the COVID-19 pandemic.

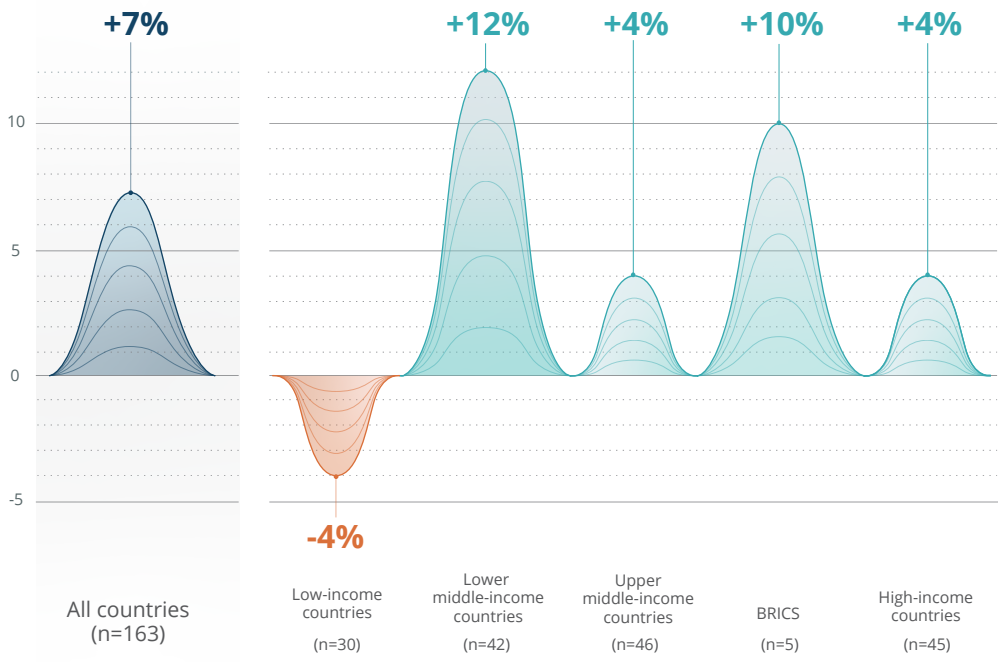
Change in the number of children receiving school meals since 2020

The change in the scale of programmes between 2020 and 2022 is examined for the 163 countries for which data were available for both years (Figure 1.3). The latest available data suggest that the number of children receiving school meals worldwide has increased since 2020 (by approximately 7 percent), but this trend is not consistent across income groups. It is particularly concerning that there has been a decline of 4 percent in low-income countries. High-income, upper middle-income and lower middle-income countries show a consistent, modest increase (respectively +4 percent, +4 percent and +12 percent) (Figure 1.3).

Figure 1.3

Change in the number of children receiving school meals by region and income level between 2020 and 2022

Legend: *Between 2020 and 2022, the number of children receiving school meals globally increased by 7 percent. This modest increase was consistent across all income levels, except low-income countries where the number of children fed in school reduced by 4 percent.*



1.2 Coverage of school meal programmes

Consistent with the 2020 edition of *State of School Feeding Worldwide*, coverage is defined in this report as the proportion of school-attending children who benefit from a school meal programme. While the school meals data presented in Section 1.1 of this publication cover pre-primary, primary and secondary education, the analysis of coverage data is limited here to primary schoolchildren only, due to the more inconsistent availability of data for the other two age groups.

For this report, we have stepped up the quality of estimates of the denominators (the number of children in school who could be fed) using data from the UNESCO Institute of Statistics. This greater precision has had the effect of reducing the apparent coverage in all estimates in 2022 versus 2020, which makes coverage comparisons difficult to interpret, and indeed resets these 2022 results as the baseline. The effect is small, around 5 percent, but the greater future precision of the data more than warrants this change.

Coverage in each country was estimated using the number of children reported to receive school meals in primary schools, divided by the number of children enrolled in primary schools as reported by the UNESCO Institute for Statistics (2021). 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 II.

As shown in Figure 1.4, approximately 724 million children are enrolled in primary schools globally, of which 115 million are in low-income countries; 320 million in lower middle-income countries (incl. Brazil, Russia, India, China and South Africa [BRICS]); 211 million in upper middle-income countries (incl. BRICS); and 78 million in high-income countries. Approximately 36 percent, or 259 million of these schoolchildren live in one of the BRICS countries.

Figure 1.4

Children enrolled in primary schools around the world

Legend: *724 million children are enrolled in primary schools globally, of which 115 million are in low-income countries; 320 million in lower middle-income countries (incl. BRICS); 211 million in upper middle-income countries (incl. BRICS); and 77 million in high-income countries.*

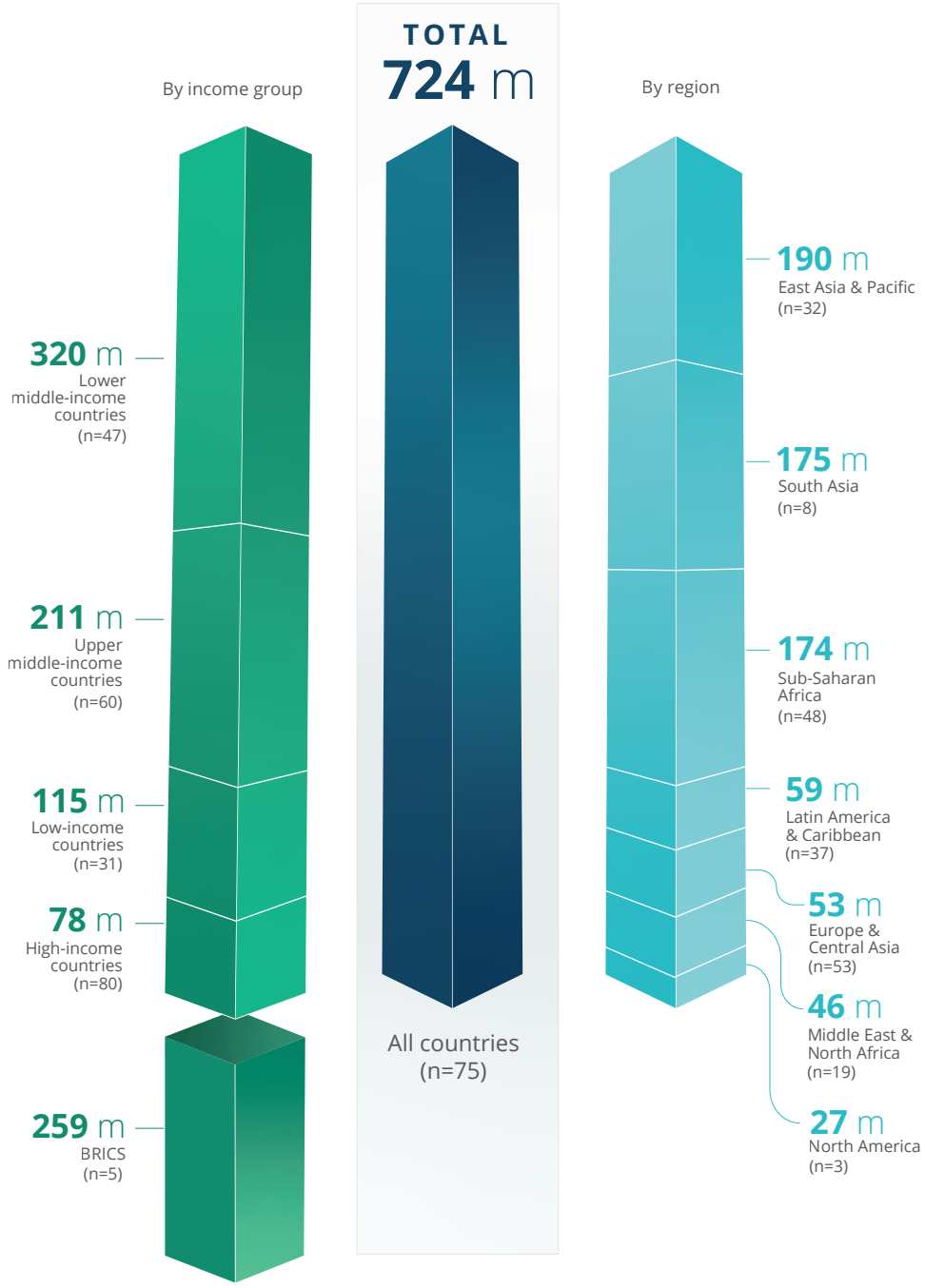
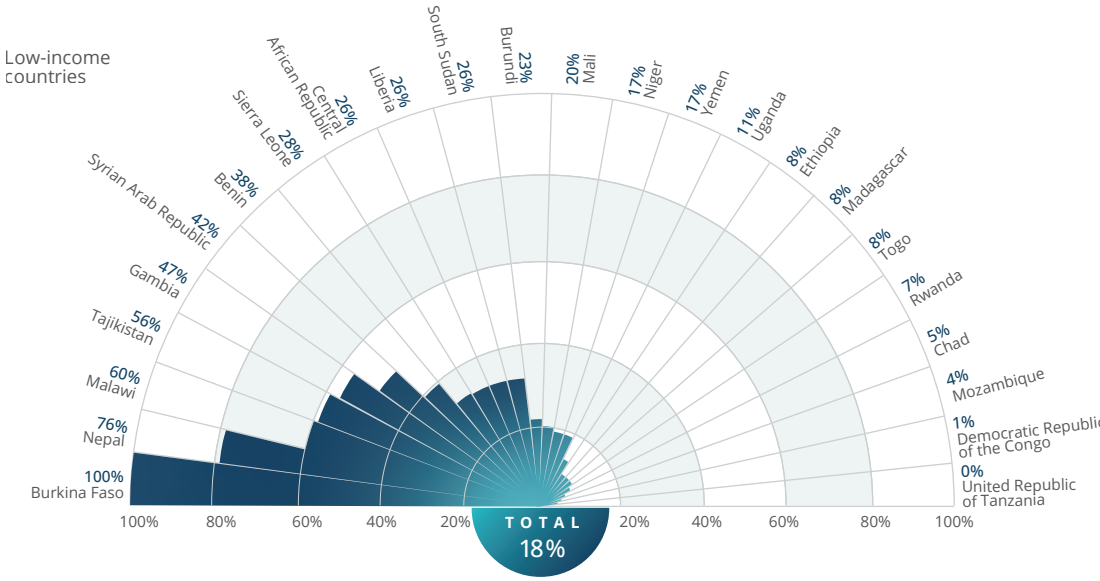
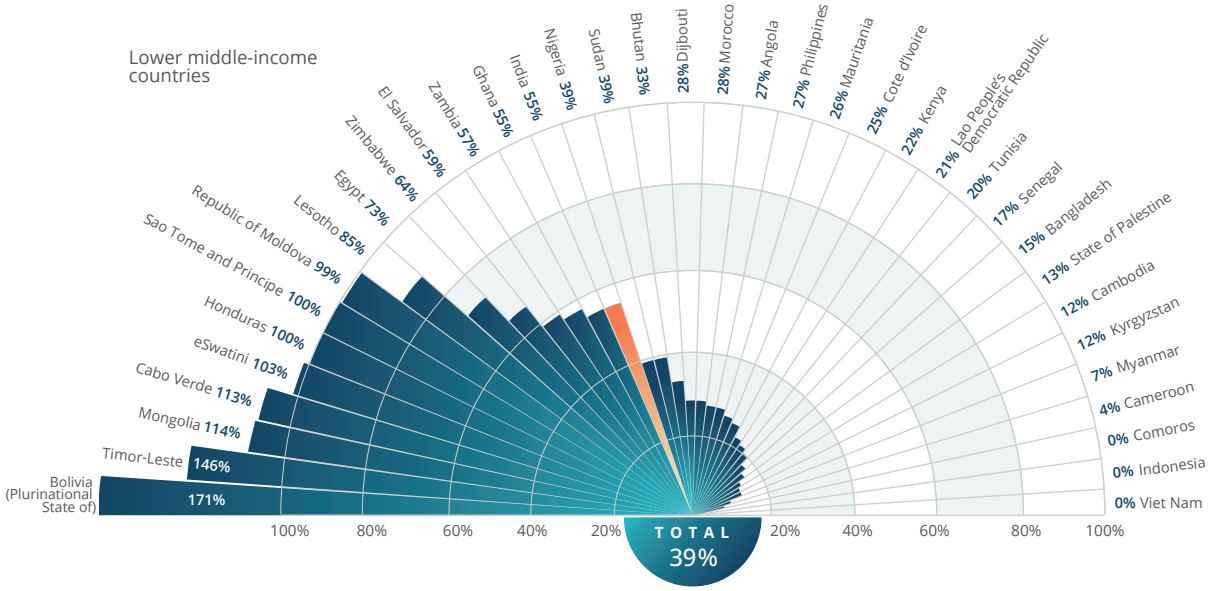


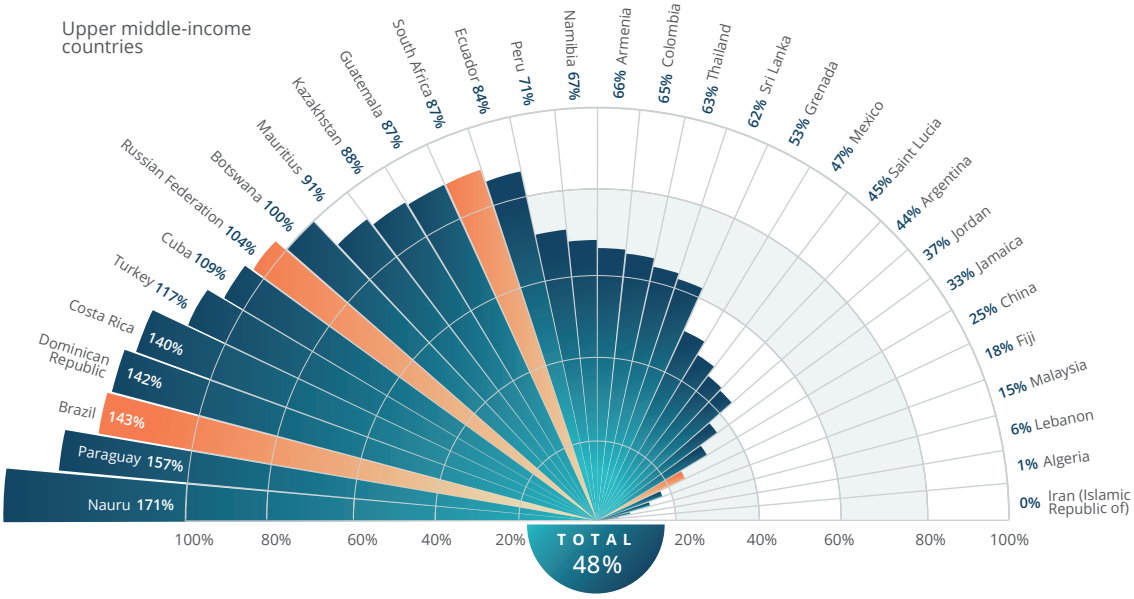
Figure 1.5

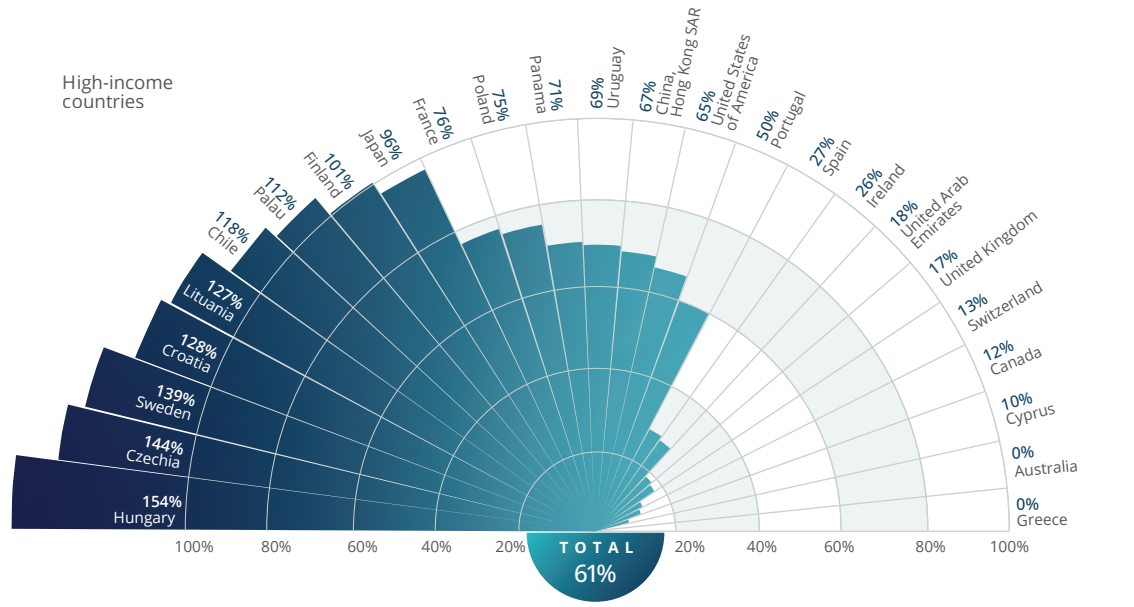
Coverage of school meal programmes by country income level

Legend: *On average, 18 percent of schoolchildren in low-income countries receive school meals, compared to 39 percent in lower middle-income countries, 48 percent in upper middle-income countries and 61 percent in high-income countries. Brazil, Russia, India, China and South Africa have an average coverage of 50 percent.*









Overall, approximately 41 percent of children enrolled in primary school benefit from school meal programmes globally. Data suggest that coverage increases with income level, with low-income, lower middle-income, upper middle-income and high-income countries presenting coverage of 18 percent, 39 percent, 48 percent and 61 percent, respectively.

Figure 1.6

Coverage in 2022 by income category

Legend: *Coverage of school meals remains lowest in low-income countries and highest in high-income countries.*

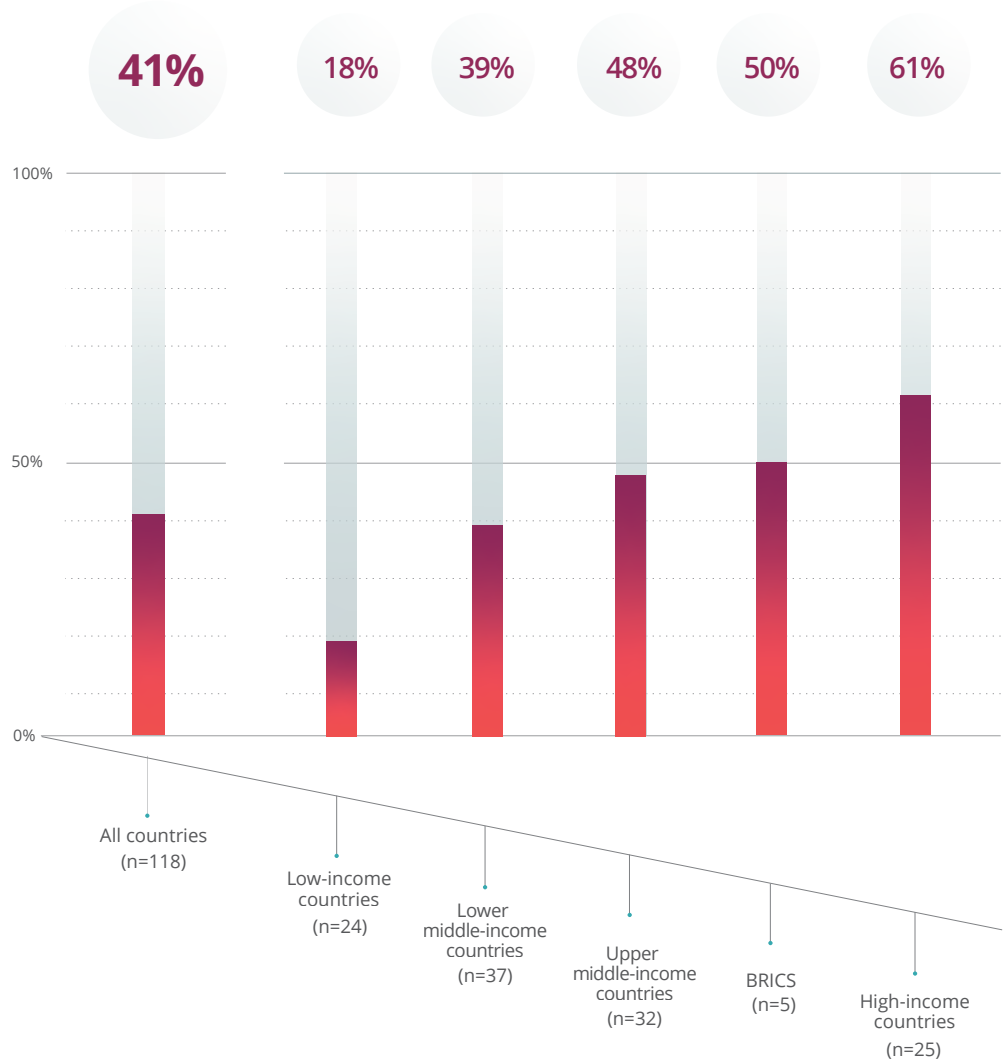
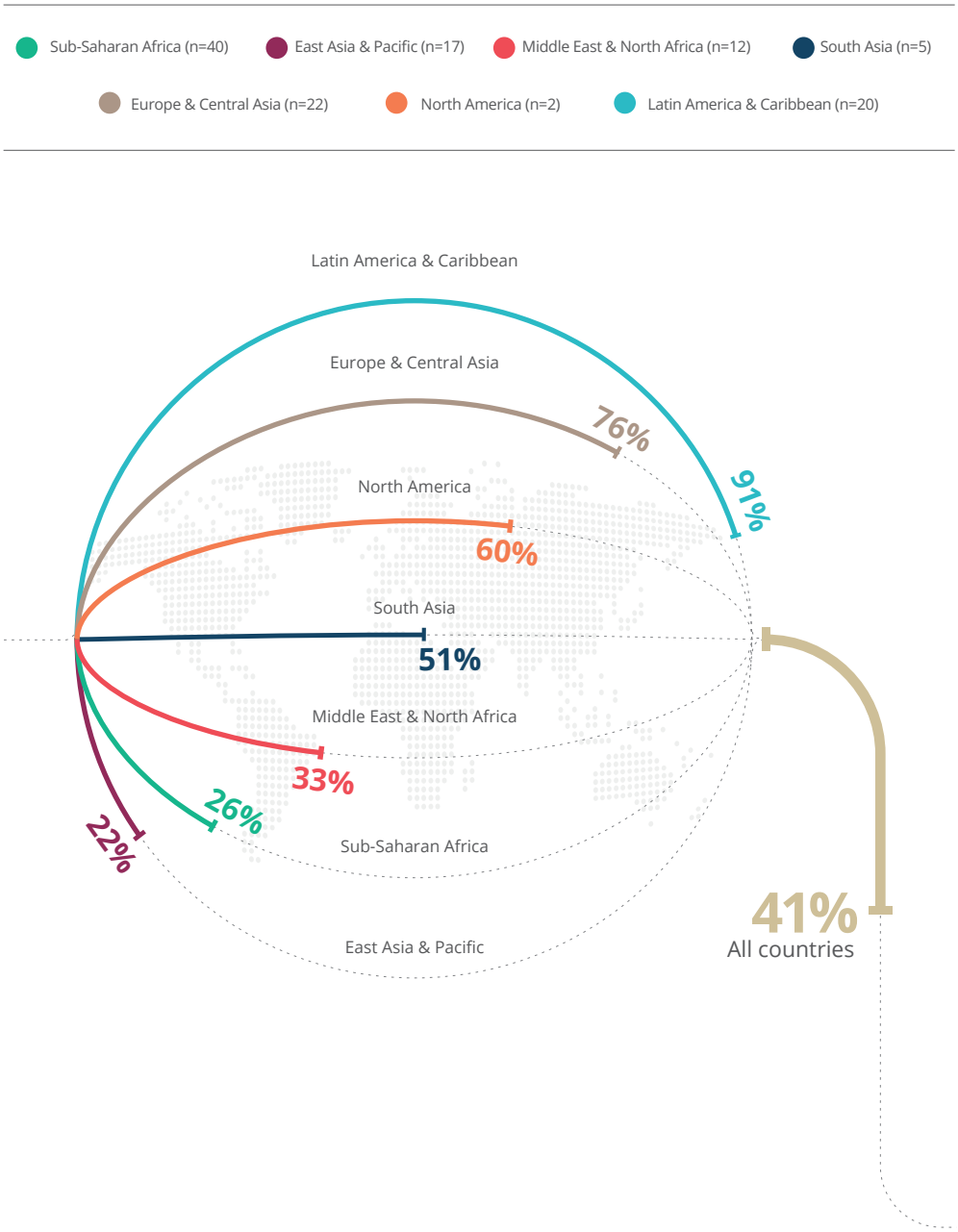


Figure 1.7

Coverage in 2022 by world region

Legend: *Coverage by region in 2022 was highest in Latin America and the Caribbean and lowest in Sub-Saharan Africa and East Asia.*



1.3 Annual financial investment in school meals

According to the latest available data, in 2022 annual global investment in school meals is between US$47 billion and US$48 billion per annum, most of which is from domestic, national government budgets.

These estimates are based on four sources of reported expenditure covering 100 countries:

- *Global School Feeding Sourcebook*, (Drake et al., 2016)
- WFP report *Smart School Meals – Nutrition-Sensitive National Programmes in Latin America and the Caribbean*, (WFP, 2017b)
- African Union report *Sustainable School Feeding*, (African Union, 2018)
- USDA-sponsored Global Survey of School Meal Programs carried out by GCNF, (Global Child Nutrition Foundation, 2022).

In addition, following procedures that were used in the 2020 analyses (see Annex II), we were able to estimate expenditure for an additional 76 countries. These estimates were calculated based on the average cost per capita of school meals (by income group, derived from reported expenditure) multiplied by the number of children fed in school in each of these 76 countries. Table 1.1 shows annual investment in 100 countries based on actual reported expenditure (US$34–35 million), and the annual investment in 176 countries, based on a combination of actual and estimated expenditure (US$48–49 billion).

WFP/Hebatallah Munassar

Table 1.1

Four estimates of the total yearly investment in school meals[1]

Source	Number of countries	Number of children receiving school meals	Investment value	Estimated global investment (US$)
Actual reported cost only	100	314 million	Budget allocated	35 billion
	100	314 million	Average cost per income group	34 billion
Actual reported cost and estimations	176	418 million	Budget allocated for 100 countries which have data average cost per income group for remaining 76 countries	49 billion
	176	418 million	Average cost per income group	48 billion

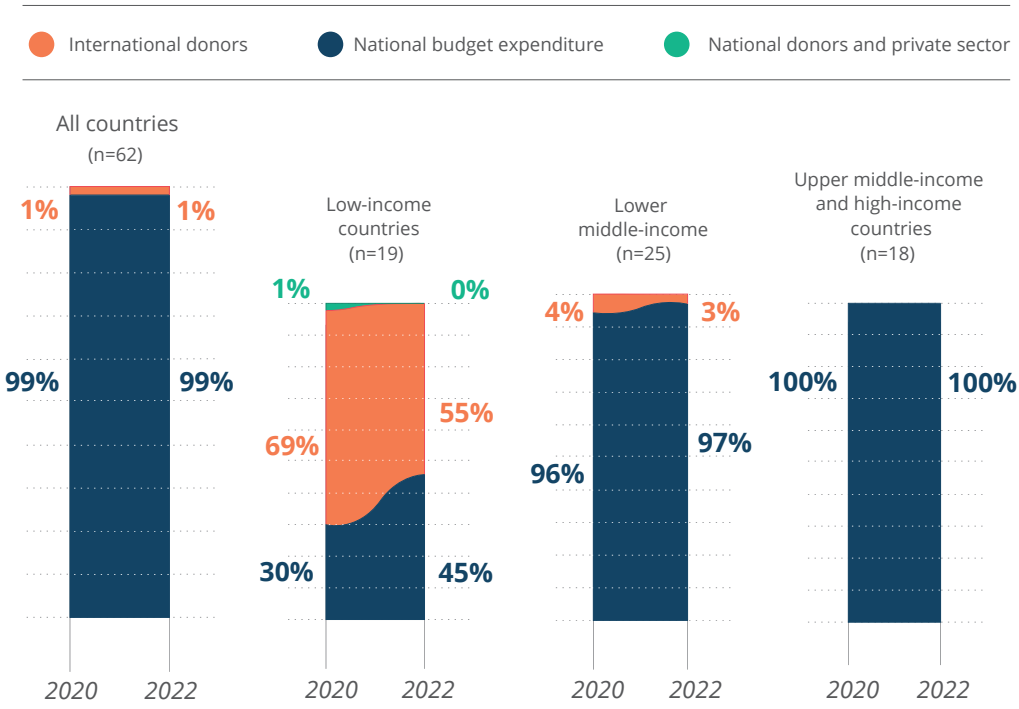
[1] Following the methodology developed in the previous edition of this publication, global aggregate investment figures were estimated by applying two different methods on two different beneficiary samples. The four resulting estimates provide a range of plausible values. The two sets of investment 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

As in the 2020 report, evidence on sources of funding for school meal programmes in 2022 are based on the USDA-sponsored, Global School Feeding Survey carried out by GCNF in 2021 (Global Child Nutrition Foundation, 2022). 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 UN agencies, including WFP, and non-state actors.

Domestic funds are the main source of funding in all countries except for low-income countries, where international donors are still the main financial investors in school meal programmes. Despite this external support, funding in low-income countries remains low. However, these countries have still managed to increase their investments from 30 percent in 2020 to 45 percent in 2022 (see percentage of funding in Figure 1.8).

Figure 1.8
Breakdown of aggregate expenditure by source of funding in 2020 and 2022
Legend: *Domestic funding represents over 98 percent of the share of funding for school meals globally.*



Compared to the 2020 data (Figure 1.8), all income level groups either increased or maintained the same proportion of investments in school feeding. Only low-income countries show a visible change, with the proportion of funding from external donors dropping from 69 percent to 55 percent, while their domestic share of the funding has increased from 30 percent to 45 percent. The increase in national investments in low-income countries is in line with reporting in *State of School Feeding Worldwide* 2020 (WFP, 2020d), where domestic investments rose from 17 percent in 2013 to 28 percent in 2020.

This trend of increasing domestic funding is encouraging and confirms a growing prioritization of school meals by low-income governments; however, the magnitude of investments in this part of the world remains largely unchanged (from US$387 million in 2020 to US$392 million in 2022) (Table 1.2). This is because the modest increase in domestic funding has been accompanied by an equally modest decline in international funding (from US$267 million in 2020 to US$214 million in 2022).

Table 1.2
Comparison of financial investment between 2020 and 2022
(N=62 countries for which data were available for both 2020 and 2022)

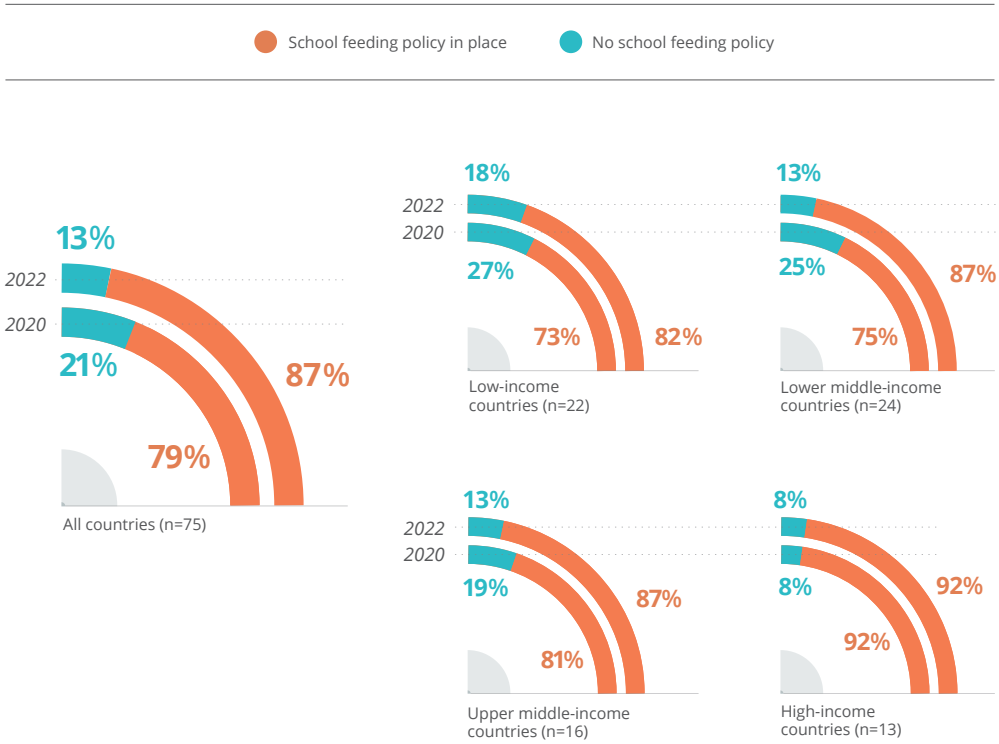
	2020			
Income level	**Government**	**International**	**Other**	**Total 2020**
Low	116 million	267 million	4.6 million	387 million
Lower middle	2 billion	88 million	4.7 million	2.2 billion
Upper middle/high	41 billion	46 million	42 million	41 billion
Total	**43 billion**	**400 million**	**51 million**	**43 billion**

	2022			
Income level	**Government**	**International**	**Other**	**Total 2022**
Low	176 million	214 million	1.7 million	392 million
Lower middle	2.4 billion	62 million	--	2.5 billion
Upper middle/high	31 billion	66 million	171 million	31 billion
Total	**33 billion**	**342 million**	**1.8 million**	**34 billion**

1.5 National institutions: policy frameworks and programme design

Newly available data confirm the 2020 observation, showing that an increasing number of countries are strengthening and broadening the policy and legal frameworks governing their school meal programmes.
As shown in Figure 1.9, this trend is consistently observed in all income groups. The share of low-income countries that have an established policy framework for school meals has increased from 73 percent in 2020 to 82 percent in 2022; while in lower middle-income countries the increase was from 75 percent in 2020 to 87 percent in 2022. The proportion of lower middle-income countries and upper middle-income countries that have a school meals policy is the same and overall comparable to high-income countries.

Figure 1.9
Status of school meals policy frameworks in 2020 and 2022
Legend: *Between 2020 and 2022 there was a steady but modest increase in the number of countries adopting a school meals policy across all income levels.*



1.6 School meals and employment

As part of the 2021 USDA-sponsored Global Survey of School Meals Programs, administered by GCNF (Global Child Nutrition Foundation, 2022), new data were collected on jobs created by school meals. This data aims to provide new insight into employment dynamics, yet another multisectoral aspect of school meal programmes.

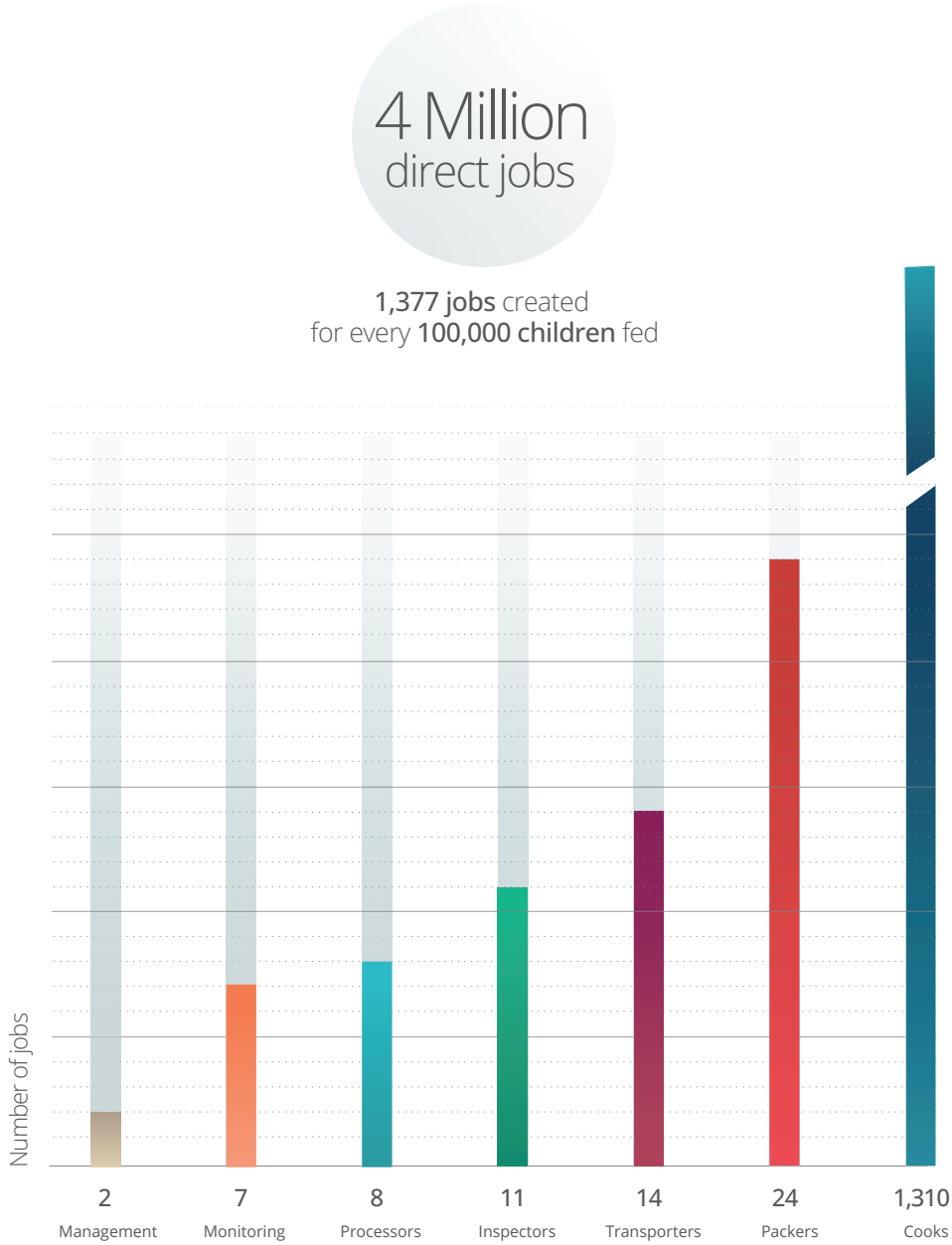
For this edition, the analysis is based on a sample of 85 countries from all income level groups, feeding approximately 273 million children.
This represents more than half of all children receiving school meals globally.
In these countries, school meal programmes directly created approximately four million jobs.

As in the 2020 analysis, the data show that school meal programmes led to the creation of 1,377 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 only covers direct jobs created by the implementation of school meal programmes: it does not include indirect employment or business opportunities generated by school meals, for instance when local farmers benefit from programmes implemented under a home-grown school feeding model.
Therefore, the results presented in this chapter are a conservative estimate.

Figure 1.10

Jobs created for every 100,000 children receiving school meals (N. countries=85)

Legend: *For every 100,000 children receiving school meals, 1,377 direct jobs are created by school meal programmes.*



1.7 Integrated school health and nutrition programmes

School health and nutrition programmes typically include an integrated package of interventions that together seek to meet the needs of the learner in the local context. School meals 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 latest GCNF Global Survey of School Meal Programs, funded by USDA, new data were collected on these ten complementary activities (Figure 1.11). Data were drawn from a sample of 125 countries included in the survey and are summarized below. Overall, only 24 countries (19 percent) reported having no complementary programme in place. Almost 50 percent of countries had one to three complementary programmes; and approximately 30 percent reported more than four complementary activities provided with school meals.

Brazil, India, China and South Africa all reported having integrated packages; data were unavailable for Russia. India reported the delivery of more than six complementary interventions.

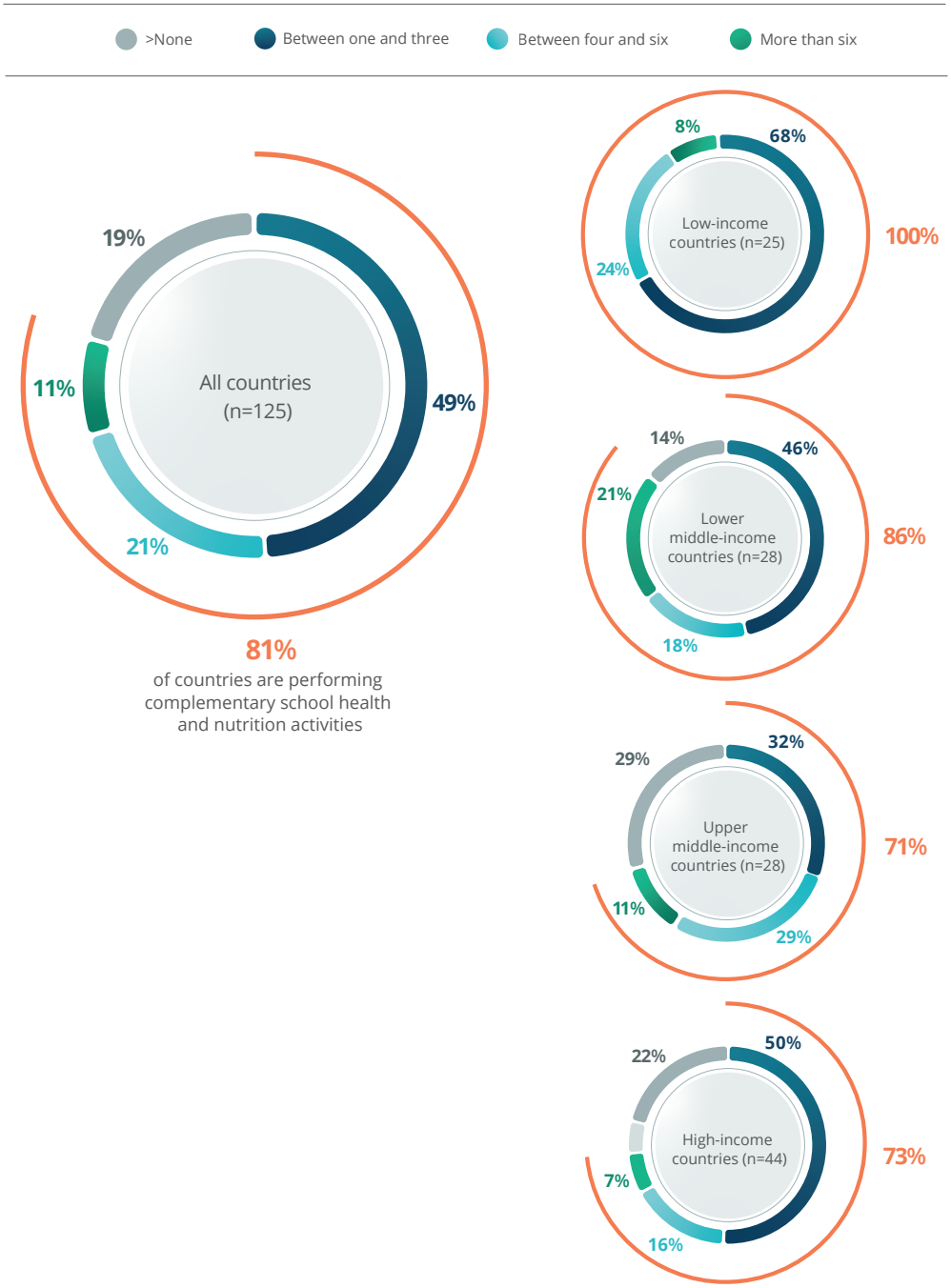
The most common complementary programme was handwashing (N. 96, 76.8 percent), followed by:

- Deworming: N. 47 (37.6%)
- Weight measurement: N. 42 (33.6%)
- Height measurement: N. 40 (32.0%)
- Menstrual hygiene: SAN. 33 (26.4%)
- Eye testing: N. 28 (22.4%)
- Dental cleaning: N. 27 (21.6%)
- Hearing testing: N. 20 (16.0%)
- Anaemia testing: N. 14 (11.2%)

Figure 1.11

Number of complementary activities implemented in conjunction with school meals

Legend: *>80 percent of governments implement school meals in conjunction with complementary health and nutrition interventions. Approximately 11 percent of governments deliver a fully integrated package of at least six interventions.*



1.8 The way forward

The new data again suggest that in most countries school meal programmes have returned to their pre-pandemic levels of coverage.

Almost all these efforts have been supported by domestic funds, which have increased from US$43 billion to US$48 billion globally, and represent 98 percent of total investment. Despite major constraints on public finances due to the health and economic costs of the COVID-19 pandemic, low-income countries have increased the proportion of the costs of school feeding from domestic budgets: up to 45 percent from 30 percent pre-pandemic. Despite this, low-income countries remain those with the greatest need and least coverage.

Paradoxically, while countries have been actively rebuilding after COVID-19, the level of international support has declined in both absolute and proportionate terms. There is now a particular need to ensure the availability of sustainable financing to support low-income countries, and of transitional financing to help lower middle-income countries step up to provide new, more efficient and self-reliant programmes. The creation of the Sustainable Financing Initiative by the School Meals Coalition is a major step towards addressing this need (see Chapter 2).

In another important new development, member countries of the School Meals Coalition recognized the need for better and more standardized collection of data across the world and have launched a Data and Monitoring Initiative. This initiative, supported by WFP, is working with governments and partners to enhance national data and monitoring systems for school meal programmes, including the identification of a core set of indicators for comparability and creating a global database, as a global public good, to systematically collect, store and curate data (see Chapter 2).

eat right. Academy of Nutrition and Dietetics Foundation
Bioversity International
CIAT
AFI
AfricaRice
AUDA-NEPAD
AVSI
Breakfast Club of Canada
C40 Cities

The Coalition for Healthy School Food / La Coalition
CRS Catholic Relief Services
Health Science Law
cesc
The Chefs' Manifesto
CHIDDO
cirad
Comune di Milano
CVG

CBS Copenhagen Business School
Counterpart International
Dubai Cares
EAT
Education Cannot Wait
EYElliance Glasses Change Lives
Food and Agriculture Organization of the United Nations
Cielo Mex

food4education
Food for Thought
FOODINSIDER.IT enjoy good food
ForAfrika
gain
global child nutrition foundation
Global Communities
GPE

Graça Machel Trust
GBVS
HarvestPlus
ICLEI
IFAD Investing in rural people
Indigenous Partnership
INRAE
ILRI CGIAR
International Parliamentary Network for Education
CGIAR IRRI

IUNS
République Française IRD
Kitchen Connection
London School of Hygiene & Tropical Medicine
Research Consortium for SHN
mary's meals
MTE
Northumbria University Newcastle
nourishing schools
OSAA

OXFAM
Pacific School Food Network
PCD The Partnership for Child Development
PLAN International
RESOLVE TO SAVE LIVES
The Rockefeller Foundation
Save the Children
SolidarMed
SpeakUpAfrica
the Education Commission

The Global FoodBanking Network
The Power of nutrition
UN Nutrition
unesco
unicef for every child
University of Leeds
University of Toronto
Food Systems for the Future
War Child

WFP World Food Programme
World Health Organization
WorldFish
World Vegetable Center
World Vision
WWF
ZOA

Chapter 2

School Meals Coalition: progress and opportunities

School Meals Coalition

Nutrition, Health and Education for Every Child

In early 2020, as the World Health Organization (WHO) declared the coronavirus outbreak a public health emergency of international concern, school feeding programmes were delivering more meals than ever before, but the COVID-19 pandemic brought this decade of global progress to a sudden halt.
In April 2020, during the height of the crisis, almost all countries closed their schools, leaving 370 million school children without access to the one meal a day they could rely on.[2]

Mobilized in response to this massive crisis, a group of more than 76 countries led by Finland and France, with more than 83 partners (including UN agencies, think tanks and academic partners) launched the School Meals Coalition during the United Nations Food Systems Summit in 2021.The Coalition is an innovative, government-led network of action which recognizes that school meals are a key social safety net for vulnerable children and households. It reaffirms the value of the education system and well-functioning schools in the delivery of school health and nutrition interventions.[3]

Thanks to the Coalition, since 2021 there has been a sea change in the level of political will around school meals. In Rwanda, for example, President Paul Kagame's administration has already met the commitment announced in 2021 of reaching universal coverage of school feeding. The country has moved from supporting 660,000 children in 2020 to 3.8 million in 2022. In France, President Macron included subsidized school lunches priced at EUR 1 in his poverty reduction plan and during COVID-19 the safety net was extended to university students. In Benin, President Talon has announced a national budget commitment of US$270 million over the next five years to scale up the national programme. In December 2021, following a campaign promise, Prime Minister Justin Trudeau of Canada tasked the ministers responsible for agriculture, and children and social development with creating the first national policy for school food, which is widely expected to lead to a budget commitment for a school meal programme in Canada. Finally, in September 2022, President Biden unveiled the new National Strategy on Hunger, Nutrition and Health, which includes the objective of expanding free school meals to all children in the United States.

[2] **WFP.** 2021. State of School Feeding Worldwide 2020. Available at: *https://www.wfp.org/publications/state-school-feeding-worldwide-2020*
[3] **WFP.** 2021. The impact of Covid-19 on school feeding around the world. Available at: *https://docs.wfp.org/api/documents/WFP-0000127651/download/*

This chapter explains what the Coalition is about, how it functions and the various roles of its members in advancing progress. It is likely that by the time this publication is released, the Coalition will have continued to evolve as it adapts to the challenges that its member countries are confronting. The *State of School Feeding Worldwide* is an opportunity to take stock of these efforts and will serve as the primary reporting mechanism for the Coalition every two years. However, it is not the only source of information available: updates can be found on the Coalition's website and monthly newsletter where the constant stream of real-time information is shared with partners.

WFP/Marco Frattini

2.1 The School Meals Coalition: mandate, goals and objectives

The main goal of the School Meals Coalition is to ensure that, by 2030, every child receives a healthy, nutritious daily meal in school. The Schools Meals Coalition also aims to improve the quality and expand the scale of school meal programmes globally, in a manner that is tailored to local contexts, and which simultaneously transforms food, education, social protection and health systems for the better. The aim of the Coalition is to "connect the dots" between the different sectors by supporting education goals while ensuring healthy food environments in schools; promoting nutritious and sustainably produced food; diverse and balanced diets; and by linking to local and seasonal production where appropriate.

In the long term, the goal is to improve and strengthen nationally owned, self-reliant programmes for all member countries.

The School Meals Coalition has the following three objectives:

1. Restore what we had (by 2023): Ensure that all countries, regardless of income level, restore access to school meal programmes for the 370 million children who lost access during the COVID-19 pandemic.

2. Reach those we missed (by 2030): Reach the most vulnerable children, in low and lower middle-income countries, who were not being reached even before the pandemic. Increase the efficiency of programmes to enable low and lower-middle income countries to become more self-reliant.
   - Reach 73 million girls and boys living in extreme poverty and hunger in 60 low and lower-middle income countries.[4]
   - Work towards mobilizing US$4.7 billion annually (US$3 billion from domestic sources and US$1.7 billion from international sources) to cover the cost of reaching the most vulnerable children in low and lower-middle income countries with sustainable programmes.[5] While most of the financial resources should be mobilized on a domestic basis by governments, international commitments towards supporting school meal programmes should focus on countries that do not have the resources necessary to ensure coverage for all vulnerable populations.

[4] **Drake, L., Fernandes, M., Chu, K., Lazrak, N., Singh, S., Ryckembusch, D., Burbano, C. and Bundy, D.A.P. 2020.** "How Many Poor Children Globally Could Benefit from New Generation School Feeding Programmes, and What Would be the Cost? Frontiers in Public Health

[5] **WFP 2020:** "A Chance for Every School Child: Partnering to scale up School Health and Nutrition for Human Capital"

- Enable 15 low and lower middle-income countries to transition from donor-supported to nationally owned and funded school meal programmes. Work with all low-income countries to increase the share of domestic resources to cover school meal needs.

3. Improve our approach (by 2030):

- Promote access to locally and sustainably produced food, respecting national and subnational contexts and providing adequate support to smallholder farmers and businesses, where appropriate. Given the growing interest in many regions, such as Africa and Latin America, in scaling up home-grown school feeding approaches, there is a need to encourage all potential partners including WFP, FAO, IFAD, UNICEF and NGOs to support a process of stocktaking best practices, lessons learned and guidance on how to scale up the effective implementation of the home-grown concept at national and regional levels, where appropriate.
- Ensure that countries implementing school meal programmes have defined context-specific national school meals quality and nutritional standards and policies for their programmes.
- Ensure that programmes are implemented alongside an integrated health and nutrition package of interventions (these can include for example deworming, water and sanitation, micronutrient supplementation, school gardens, among others).[6]
- Develop standardized ways to measure dietary quality and track the growth and development of school-age boys and girls.

[6] **WFP. 2021. State of School Feeding Worldwide 2020.**
Available at: *https://www.wfp.org/publications/state-school-feeding-worldwide-2020*

2.2 What the Coalition is and what it is not

The word "coalition" is not commonly used in the development space because it lacks specificity. It is difficult to grasp or pin down and becomes difficult to define. This, however, is precisely the reason why the School Meals Coalition has proven to be a powerful mobilization mechanism.

A commonly used definition of the word "coalition" is an alliance of different organizations or people who agree to act together to achieve something. Another interesting definition is a group that is formed to undertake an enterprise beyond the resources of any one member.

Both of these definitions are useful to define the School Meals Coalition. The initiative is about governments and partners agreeing to work together, to improve the quality, sustainability and scale of national school meal programmes and complementary interventions. It is an adaptive and flexible network of networks that pools resources, best practices, experience, information and technical support. It addresses implementation bottlenecks; strengthens evidence for decision making; provides opportunities for improved coordination; and generates the political will and buy-in needed for advancement through advocacy.

The Coalition is a voluntary, collaborative partnership that is based on clear and action-oriented commitments. It aims to become a community which shares good practices; optimizes cooperation, synergy, harmonization and complementarity; and which evolves into a multi-actor network to help countries meet their commitments to school feeding.

Despite its catalytic role, the Coalition is not and will not become a funding mechanism: it will not disburse or manage funding for countries or partners. Significant amounts of financing will be needed to improve and scale up programmes in various countries. The Coalition recognizes the sovereignty of member states in leading on this, and domestic financing arrangements will be discussed, defined and handled at the country level, led by national institutions.

Members of the Coalition have defined the following principles, which help to further explain what the group is and how it works:

- Government-led, partner-supported: The Coalition was formed by governments for governments, to advance a key policy priority. Representatives of countries that have signed the Declaration of Commitment are the members of the Coalition and are at the centre of this initiative. Progress will also require action by all stakeholders, including international organizations, academia, civil society and the private sector. Organizations that have signed the Declaration of Support are considered partners of the Coalition.

- Country-level focus: The Coalition is rooted in country-level action and is committed to providing lasting benefit in the lives of children and their families. At the national level, the Coalition will require strong leadership by governments (translated into a clear vision and a coherent and well-articulated strategy) and ownership supported by political commitments; sustainable financial commitments; a good governance structure; and strong coordination among partners across sectors. Initiatives and partners at the global level will focus on supporting country-level action.

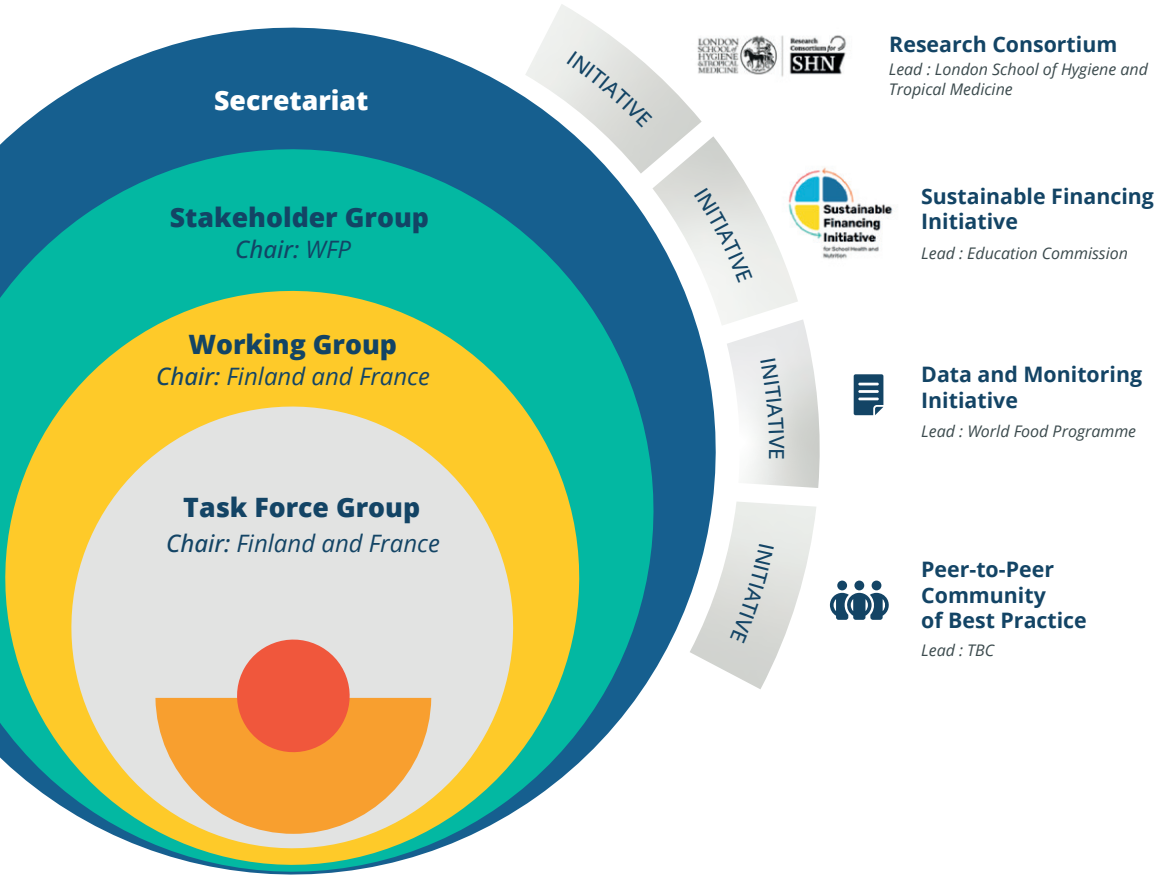
- Child-focused, multisectoral action and partnerships: It takes several sectors working together to help children fulfil their potential. Key among these sectors are education, health/nutrition, social protection and food systems. No one sector is fully and totally the owner of this agenda. The Coalition will model what a true multisectoral approach could look like and will address the challenges and ambiguities that this entails with the intention of working together to develop actions, incentives and collaboration involving relevant sectors at the subnational, national and global levels.

- Evidence-based action: The Coalition is based on research, especially over the last 15 years, by partners including the World Bank, the Partnership for Child Development of the Imperial College in London, the International Food Policy Research Institute, the London School of Hygiene and Tropical Medicine, FAO, WFP and others.

2.3 How the School Meals Coalition works: structure

Following discussions and inputs after its launch, the Coalition favours a minimalistic and flexible approach towards its structure. It has three main groups, plus a secretariat and four partner-led initiatives that make up its agile structure.

Figure 2.1
Structure of the School Meals Coalition



Source: School Meals Coalition

- The Task Force Group is the Coalition's decision making body. Currently co-led by Finland and France, the task force is made up of focal points from each of the leading member countries: African Union, Finland, France, Guatemala, Honduras, Japan, Kenya, Iceland, Rwanda, Senegal, Sweden and United States. The task force determines the Coalition's overall strategic direction; sets yearly priorities; provides guidance and leadership to the work of the secretariat and the initiatives; and leads on political advocacy and positioning.

- The Working Group encompasses all member states that have signed the Declaration of Commitment with the Coalition. Co-chaired by Finland and France, this group is primarily a broad forum for information sharing; dissemination of best practices and country experience; establishment and mobilization of further partnerships and alliances between countries and with other partners; and sharing of expertise and institutional support.

- The Stakeholder Group is chaired by WFP and encompasses all organizations that have signed the coalition's Declaration of Support. Like the working group, this is a broad forum for information sharing, mainly at the technical level.

At the global level, organization and management of the Coalition is supported by WFP through augmented capacity in its School-based Programmes Division in Rome, which serves as the Coalition's secretariat. In this role, WFP leverages its significant presence through its country, regional and liaison offices, and works with partners to support country efforts. WFP sees this as an enabling function, overseeing and coordinating specific initiatives designed to support country-level action.

2.4 How the Coalition comes to life: the initiative and work at global level

The Coalition's initiatives are designed to tackle the most significant challenges to implementation and scale-up of programmes at country level.
Each initiative is led by a Coalition partner and has its own structure designed in response to the work and challenges it is addressing. In practice, the initiatives operationalize the Coalition's work at the global level and have become large networks of partners interested in supporting specific thematic areas.
A detailed description of the initiatives is provided below, including the scope, role within the Coalition, methods, anticipated deliverables and key milestones.

Research Consortium for School Health and Nutrition Initiative - lead partner: London School of Hygiene and Tropical Medicine

The Research Consortium for School Health and Nutrition was launched in May 2021 as the School Meals Coalition's first initiative. It was established to generate evidence on the effectiveness of school health and nutrition programmes and to provide guidance on effective policymaking in this area. The initiative is guided by a ten-year research strategy on school health and nutrition that aligns with and supports WFP's ten-year programmatic strategy on the same subject. The secretariat of the Research Consortium is hosted by the London School of Hygiene & Tropical Medicine and facilitates global collaborations between academic, research and development partners to fill the knowledge gap in school health and nutrition. This structure ensures the independence of the research. The Consortium functions through a global network of communities of practice – a voluntary network of researchers and practitioners undertaking research related to school health and nutrition, operating as independent entities whose research agendas are autonomously managed. The initial Communities of Practice include:

- Impact and Evidence: The group is updating a Cochrane/Campbell systematic review to assess the impact of school health and nutrition in the key education metrics that are used to select "smart buys" for the sector.

- Analytics and Metrics: The group is quantifying the returns of school health and nutrition interventions across sectors through economic assessments of the value for money, return on investment, and equity and gender impact of school health interventions, as well as assessing the effect of health interventions on learning outcomes.

- Good Examples: The group is developing case studies to assess and showcase the enabling factors in the design, implementation and financing of large-scale and long-standing national school meal programmes.

- Nutrition Measurement: The group is establishing a common framework of indicators to monitor the nutritional status of school-age children and adolescents. A further set of cross-cutting themes guide the work of the communities of practice and ensure well aligned, equitable participation. These include:
  - Diversity, equity and inclusion of academics, decision makers and reviewers, with a particular emphasis on geographic diversity.
  - Estimating the true cost of programmes and supporting countries to secure external financing where needed, and to increase domestic financing for national programmes where feasible.
  - Cultivating talent among students and young academics to professionalize school feeding among emerging professionals.

The Research Consortium is designed to respond to requests from Coalition countries, recognizing what emerges as key research topics and refining its research strategy in response. The Consortium is also specifically designed to support the efforts of the five UN agencies concerned with the well-being of children – FAO, WFP, WHO, UNESCO and UNICEF – which have endorsed this effort.

Along with WFP, the Consortium serves as technical adviser to the Data and Monitoring Initiative and *State of School Feeding Worldwide* report and works with country offices on value-for-money studies. The Consortium is a member of the FAO/WFP School Feeding Standards project (see Chapter 3) and participates in the Technical Advisory Group for UNESCO's Global Health Status Report. It also supports UNICEF as a member of the BOND-KIDS steering committee to achieve consensus on nutrition indicators for school-age children and adolescents and is co-author of WHO analysis papers, sponsored by the Partnership for Maternal, Newborn, and Child Health.

Sustainable Financing Initiative for School Health and Nutrition – lead partner: Education Commission

The Sustainable Finance Initiative's goal is to work with governments and donors to increase and better coordinate financing (domestic and international) for school feeding programmes with a particular focus on low-income and lower middle-income countries.

The Sustainable Financing Initiative has four global objectives:

- Undertake a landscape analysis of global financing for school health and nutrition programmes and explore options currently used for long-term financing in lower and lower middle-income countries.
- Generate additional knowledge and data, especially around funding mechanisms.
- Identify opportunities for donors to coordinate more effectively on existing funding and co-invest in programmes, using the cross-sectoral dimension of school health and nutrition programmes: education, health, social protection, agriculture and rural development.
- Share evidence and data collected on financing challenges and options.

The initial phase of the Sustainable Financing Initiative (2021–2022) included scoping research on national financing, the role of donors, international financing and the private sector. Seven country case studies (Bangladesh, Benin, Bolivia, Guatemala, Rwanda, Senegal, Tanzania) explored a diversity of contexts allowing for a greater understanding of financing patterns and challenges to sustainability. Key findings illustrate the diversity of financing options available to governments. Rwanda and Bangladesh, for instance, rely mainly on general revenues while international financing remains high in Senegal; and the Rwanda school feeding programme also requires cash or in-kind household contributions. Benin tested a promising innovation by launching SDG bonds which met with success on financial markets; while Bolivia relies on earmarked taxes (hydrocarbons) to finance its school feeding programme, and Guatemala uses VAT funds.

A series of promising financing options was developed for the Investment Case for School Health and Nutrition paper and fed into the preparatory work for the United Nations Transforming Education Summit in September 2022.
Over the next two years, the Sustainable Financing Initiative's road map includes three action lines:

- Analyze: Improve knowledge about current levels and patterns of domestic and wider development financing, including innovative financing options. Carry out analysis of national school feeding programmes, with a focus on the public financing context for developing successful integrated approaches. Research will
  - summarize lessons from countries with large-scale programmes (for instance Brazil, Bolivia, India, Ghana and Nigeria);
  - deepen analyses of fiscal space and financing mechanisms in the initial seven country case studies;
  - provide an overview of approaches to the design of procurement systems for home-grown school feeding, focusing on regulatory measures designed to generate benefits for smallholder agriculture, environmental goals and public health.

    This research will adopt a broad political economy perspective and will focus on domestic financing options and trade-offs.

The initiative will develop a clearer picture of donor financing and innovative options. Key issues addressed in this stream will include:

- documenting current levels and patterns of donor support for school health and nutrition programmes given poor reporting on cross-sectoral programmes;
- exploring the role, policies and perspectives of key bilateral donors and multilateral development banks for expanding cross-sectoral approaches; and
- exploring the scope for new and/or expanded financing for school meal programmes through instruments such as SDG bonds, impact investment, debt relief and the role of philanthropy.

- Act: Work with a limited number of countries who are members of the School Meals Coalition, committed to expanding their national school feeding programme. The Sustainable Financing Initiative will work closely with national authorities and support the development of sustainable financing strategies. It will mobilize expertise and research to evaluate the costs of different school feeding strategies; explore the range of resource mobilization options; and feed policy dialogue with government bodies and school meals stakeholders, including local sector representatives and donors.

- Amplify: Contribute to influencing governments and international actors to invest more resources in school health and nutrition programmes. The Sustainable Financing Initiative will communicate and disseminate research findings and country programme progress to inform global advocacy at both regional and international levels.

At the time of writing, a steering committee for the initiative was being organized. It will provide strategic guidance for the initiative's objectives and deliverables, and will contribute to global advocacy; political and technical support for school feeding financing strategies; and provide a peer review of research papers.

WFP/Vlad Ushakov

Data and Monitoring Initiative – lead partner: World Food Programme

The Data and Monitoring Initiative was established with the goal of improving and institutionalizing the availability of quality data on national school meal programmes across the globe for evidence-based decision making and tracking of progress over time. It serves as the key monitoring and reporting initiative for the School Meals Coalition's three objectives. With global annual investment of US$48 billion, school meal programmes are a substantial part of governments' budgets worldwide. These significant investments reflect the growing recognition of the returns of such school meal programmes in terms of human capital, social safety nets and local economies. Therefore, it is evident that governments need essential, up-to-date and reliable data, to understand and optimize programmes, and particularly to monitor and track progress over time. With such data on school meals and complementary activities, various stakeholders will be able to share and exchange information; identify knowledge gaps for research; identify best practices; guide policies; track progress; and improve the quality and cost-effectiveness of programmes.

The Data and Monitoring Initiative has three objectives:

- Establish an agreed core set of indicators, with clear calculation and reporting methodologies, so that governments can improve the consistency and comparability of data. These indicators are not intended to replace national-level definitions, but to establish a core set of indicators that all countries can collect and adapt, including indicators for nutrition in school-age children, if feasible.
- Establish an agreed set of reporting processes that help governments systematically capture and report high-quality data and avoid duplication of demands.
- Create a database on school meals and complementary activities, as a global public good, that systematically collects, stores, curates and makes accessible timely national data on school meals, and school health and nutrition programmes. The school meals database will be designed as the single, official and trusted global database that is institutionalized within UN infrastructure for data collection and hosting.

The Data and Monitoring Initiative is guided by a steering committee which provides strategic direction, oversight and ensures quality assurance. The steering committee comprises intergovernmental/government institutions (African Union, AUDA-NEPAD, OECD, USDA), foundations, academia and civil society (GCNF, Partnership for Child Development, Research Consortium, Rockefeller, Alliance Bioversity CIAT), and UN agencies (FAO, UNICEF, UNESCO-UIS, WHO and GAMA, WFP). The steering committee is convened and chaired by WFP, which also provides and hosts the steering committee secretariat. The steering committee leads three technical working groups on indicators, processes and database creation and reports to the School Meals Coalition during the Coalition's regularly scheduled meetings.

Since its launch in March 2022, some key highlights of the Data and Monitoring Initiative include:

- Consultative process undertaken with various partners including UN agencies, intergovernmental institutions, foundations, civil society and academia involved in the indicator's technical working group to map and rank existing indicators for school feeding programmes. Through the consultations and working group sessions, approximately 104 existing indicators were mapped and ranked using defined criteria to establish a set of core indicators for monitoring national school meal programmes.
- The initiative began a process of engaging with countries and regional bodies such as SADC and ECOWAS to understand countries' data needs and processes to ensure these needs are reflected in the indicator working group's outputs.

Peer-to-peer Community of Best Practice Initiative

A member state group-led peer-to-peer network is being established to share lessons learned from national and local contexts and to inform and disseminate evidence-based policy and programme standards and guidance to strengthen school meal programmes. Learning from different approaches, the emerging network will bring together partners to support governments in sharing best practices, evidence and lessons learned, which will improve the linkages between education, agriculture, health and nutrition, and support integrated programmes and policies.

As a first step towards establishing this peer-to-peer community, FAO and WFP, supported by the German Federal Ministry of Food and Agriculture have put in place an online school food global knowledge hub.[7] The hub is part of a wider project that seeks to develop a methodology for supporting countries to set and implement nutrition standards for their school food programmes and policies. The hub will:

- enhance dialogue around the need and potential of setting nutrition standards for school meals and other school food;
- allow the exchange of experiences and lessons learned for improving the quality of school food and food education between and within countries and stakeholders; and
- stimulate the involvement and participation of schoolchildren and adolescents in the process of improving the quality of their school food and food education.

The hub will serve as an exchange platform and database for various target groups including school staff, practitioners, policymakers, parliamentarians, youth, researchers, UN agencies and international organizations, among others. As new interests arise, the hub will be expanded and transformed to continue to cater for governments' needs for exchange and sharing.

[7] **Home | School food global hub| Food and Agriculture Organization of the United Nations (fao.org)**

WFP/Irenee Nduwayezu

2.5 How the Coalition comes to life: country engagement and connections to the Coalition initiatives

The Coalition's main goal is to accelerate progress at the national level. Member countries are therefore encouraged to work on bold national targets and commitments, and to expand and strengthen their programmes or support others to do the same. At the time of publication, a total of 18 countries have already formally submitted commitments to the Coalition.

This section highlights how different countries have engaged in the Coalition, demonstrated their leadership, while also benefitting from the Coalition.

Government of France/Minister of Agriculture/Xavier Remongin

France

In France, the school meal programme delivers more than 1.1 billion meals per year. School meals are a central part of France's food policy: approximately 75 percent of the country's 12.9 million schoolchildren receive a meal in school at least once a week. This is crucial to meet a number of fundamental challenges well beyond the feeding dimension itself, including public health and nutrition, social justice, gender equality, citizenship, agricultural and economic development, sustainable development and education – including food education and awareness.

The Government of France understands the power of school meals as an important safety net to help tackle inequalities and level the playing field to help tackle inequalities. This is why, as schools started to reopen in 2021 following the COVID-19 pandemic, together with Finland, France set out to lead the establishment of the School Meals Coalition. It has provided strategic and political leadership throughout the past two years, with President Macron publicly supporting and advocating for the Coalition and its goals.

As part of its commitment, France funds school feeding projects in countries affected by food crises, such as Afghanistan, Cameroon, Haiti, Lebanon, Niger, Ukraine, Yemen and Venezuela. It also committed to strengthen its own school meal programme. Indeed, France worked to ensure that, in 2022, meals served in schools contain at least 50 percent sustainable and quality products, including at least 20 percent organic products. To further widen access to school meals for all, EUR 50 million in aid has been allocated to school canteens in rural communities as part of the recovery from COVID-19.

Legislation was also introduced that requires a compulsory vegetarian menu every week; and, since 2020, as part of the fight against climate change, a compulsory action plan to reduce food waste has been established for every canteen. Finally, plastic cooking, heating or serving containers will be banned from 2025. France has supported the establishment of several Coalition initiatives, including technical and human resources to build the Sustainable Financing Initiative to support governments in their transition and ownership of programmes. French research institutes also actively contribute to the work of the Research Consortium for School Health and Nutrition. As announced on 18 October 2022 by the Secretary of State for Development, Francophonie and International Partnerships, Ms Chrysoula Zacharopoulou, France will host the first Global Ministerial Meeting of the School Meals Coalition in Paris in 2023.

Finland

In Finland, free-of-charge school meals have been provided since the 1940s and have become an integral part of the Finnish education success story.
School meals are an important form of social protection. Equal access to education and free-of-charge school meals have been key factors in supporting economic growth and transforming Finland into a knowledge-based society.
All children attending pre-primary, basic and upper secondary education are now entitled to a free-of-charge nutritious meal every school day.
The meals contribute to food-related education by raising awareness of the importance of healthy diets and nutrition and by promoting local food culture.

The Government of Finland is a proud co-founder of the School Meals Coalition and has made several commitments to the Coalition, both at domestic and global levels. Minister for Development Cooperation and Foreign Trade Mr Ville Skinnari is WFP's Global Champion for School Meals. In this role, Minister Skinnari provides high-level advocacy work to generate interest and resources for school meals. In addition, Finland advocates for school meals at the diplomatic level in various international forums. Finland also leads the School Meals Coalition member state task force and working group, and the strategic coordination of Coalition activities together with France. Finland hosted the first Ministerial Meeting of the task force in Helsinki in October 2022.

Finland doubled its support to WFP's school meal programmes in 2021 and financially supports the Coalition secretariat. In 2022, Finland provided a junior professional officer to support the School Meals Coalition secretariat at WFP. Finland also supports other actors, who are part of the wider education sector and enhance school meal programmes.

At the national level, Finland commits to implement school meals procurement criteria which prioritize environmentally friendly cultivation methods, food safety, nutrition, animal welfare and health aspects. Finland is also ready to provide technical expertise for countries wishing to develop their school meal programmes. To facilitate this, Finland has developed a website with information on the Finnish school meals system and connections to Finnish companies and experts, which can be found at: https://www.educationfinland.fi/schoolmeals.

Rwanda

The Government of Rwanda has shown impressive leadership in expanding its school meal programme and is working towards strengthening its quality. In 2019, at a National Leadership Retreat, President Kagame and his Prime Minister called for a complete revamp of the national school feeding programme and an ambitious, comprehensive national scale-up. School meals had become a national priority.

It was therefore only natural that Rwanda was one of the first countries to join the Coalition and to submit a national commitment. In 2021, as part of its commitments to the Coalition, Rwanda's Minister of Education announced that the government would achieve universal coverage of school feeding for basic education, and further increased its budget from US$8 million in 2020 to US$33 million in 2021. Already in 2022, Rwanda has announced impressive progress, increasing national school feeding coverage from 660,000 to 3.8 million students, alongside another budget increase, from US$33 million to US$74 million.

Rwanda is also working to strengthen programme links to local markets through the development of local supply chains in close collaboration with stakeholders in the agriculture sector. The aim is to maximize the benefits of the programme and expand them to benefit the whole community.

Currently, the government is working closely with the Sustainable Financing Initiative and the Research Consortium to document its impressive achievements and to learn from other governments how to sustain and keep growing its success. While the scale-up of the school meal programme has been impressive, the government recognizes that it still needs to build capacity and establish structures to ensure that these gains are maintained and can be further expanded.

Benin

In 2021, Benin joined the global School Meals Coalition with strong engagement from the President of the Republic, Patrice Talon, who has made school meals a flagship initiative for the country.

Benin has made tremendous efforts and commitments to school meals in recent years. In 2016, the school meal programme reached barely 20 percent of students, or one in five children, with a national budget of just under US$1.5 million per year. The government set a goal to increase coverage and ensure a hot meal in school. By 2018, the encouraging results motivated Benin to proceed from one in three children to one in two children.

In 2021, as part of the nation's announcement on joining the School Meals Coalition, Benin also made public its plan to move towards universal school meals coverage. It will start by investing more in school meal programmes, with a budget increase from US$79 million to US$240 million over the next five years.

The government is also looking at the quality and sustainability of the programme, working with partners to find solutions to provide better school feeding and to introduce a national school meal law, which would help anchor the programme as a key government safety net.

United States of America

In August 2021, the United States joined the School Meals Coalition, represented by the United States Department of Agriculture (USDA) Secretary Vilsack. At the political level, Secretary Vilsack has had an active role, representing the United States at the launch of the School Meals Coalition at the Food System Summit and joining high-level authorities during the celebration of the Coalition in November 2021, highlighting the United States' commitment to the Coalition and its objectives.

At the beginning of 2022, the United States announced an increase of US$750 million in school meal reimbursements for the year. School lunch reimbursement rates usually do not increase during the school year; however, in 2022, due to the COVID-19 pandemic, USDA allowed schools to benefit from

the highest reimbursement rates available. The increased funding helped schools to continue meeting their mission of giving children healthy and nutritious meals. In June 2022, in response to the ongoing impact of rising food costs, the United States also committed to providing an additional US$943 million through school year 2022–2023 to support the purchase of American-grown foods for school meal programmes. Both actions are a response to the significant challenges school meal programme operators continue to face, such as high food costs.

In support of other countries, USDA's McGovern-Dole International Food for Education and Child Nutrition (McGovern-Dole) programme supports education, child development and food security in low-income, food-deficit countries through United States donated agricultural commodities and financial and technical assistance for integrated school feeding and maternal and child nutrition projects. In 2021, McGovern-Dole reached over 2.1 million school-age children through 55 active projects in 31 countries with technical, financial and in-kind support, including 50,900 metric tons of nutrient-dense United States food commodities, valued at US$13 million, for school meals and snacks. McGovern-Dole projects reached 14,446 schools with a variety of interventions to improve education and the quality of school meals for primary and pre-primary children. McGovern-Dole trained 10,851 teachers and delivered more than 2.8 million teaching and learning materials to schools, teachers and children. More than 11,240 Parent Teacher Associations received training to manage school meal programmes.

As part of its commitments, the United States has been involved in several Coalition initiatives, including the Research Consortium's Nutrition Measurements Community of Practice via its BOND-KIDS project. The BOND-KIDS project, which stands for Biomarkers of Nutrition for Development - Knowledge Indicating Dietary Sufficiency, is grounded in the recognition that while the focus of efforts to support school-age children was primarily on "learning, as a priority outcome in evaluation of these programmes, much less attention was being paid to the learner". USDA also serves on the steering committee of the Data and Monitoring Initiative as well as the initiative's technical working groups. This initiative will provide guidance to policymakers on high-quality and age-appropriate diets and identify agreed nutrition indicators that can be consistently collected for school-age children, adolescents and youth.
The United States is also participating in the Sustainable Financing Initiative's task force, offering the McGovern-Dole Programme as a potential model for multi-year financing aimed at future programme sustainability.

2.6 How the Coalition comes to life: how partners are engaging and supporting Coalition countries and initiatives

While countries are setting goals and targets for their school meal programmes, they might request support for implementation of some of these plans and actions. The Coalition provides a network of partners and experts working on different areas of school meal programmes and wider health and nutrition services in schools. At the time of writing, 83 stakeholders from academia, think tanks, NGOs, foundations, UN agencies and civil society have committed to work together to support governments achieve their goals. Their support ranges from research to advocacy, technical support and implementation. Partners come together through particular initiatives at global level, but also to support governments with their plans at national and local levels.

The following are examples of support to governments:

WFP/Simon Pierre Diouf

African Union Commission and African Union Development Agency (AUDA-NEPAD)

The African Union is one of the main initiators of the School Meals Coalition. In March 2021, the Communique of the Africa Day of School Feeding Celebration called on all governments and partners to join the emerging School Meals Coalition and to advocate for the placement of home-grown school feeding in global discussions.

As a member of the Coalition's task force, the African Union Commission called on the member states to join and commit to the Coalition's goals and has positioned and brought forward the issue in several official Declarations and Communiqués, including Africa's Common Position on Food Systems; the 7th Africa Day of School Feeding Communique; the Call to Action resulting from the Special High-Level Dialogue of the Presidents of the General Assembly and the Economic and Social Council in 2022; the Communique of the Pan African Parliament on strengthening nutritional resilience and food security in Africa; and the African Declaration for the Transforming Education Summit in 2022.

AUDA-NEPAD provides support to member states through technical assistance and guidance to strengthen home-grown school feeding approaches. In 2022, the agency launched guidelines to implement and strengthen home-grown school feeding programmes in the continent. AUDA-NEPAD also works closely with other Coalition partners, such as the Partnership for Child Development and WFP to roll out SMP PLUS, a digital solution for the design and management of nutritious, locally sourced and cost-efficient school meal menus.

Both the African Union Commission and AUDA-NEPAD work closely with partners to publish the African Union Biennial Report on home-grown school feeding. The next iteration is to be launched in 2023. This important publication is not only an accountability mechanism but also helps ignite new commitments and generate interest across the continent.

Having the African Union Commission and AUDA-NEPAD steering the Coalition's work has been key to connecting the Coalition's goals to continental priorities, in line with the Continental Education Strategy for Africa (CESA 16-25). The Africa Day of School Feeding Celebration, every 1st March, will remain an important milestone and moment for the Coalition to celebrate the impressive progress made in Africa and to ensure that the support partners can provide is aligned to the needs of African nations and broadly to the African Union Agenda 2063.

Dubai Cares

In 2021, Dubai Cares became the first major partner and promoter of the School Meals Coalition by providing a strategic grant to WFP for the establishment of several of the Coalition's major initiatives. Thanks to this enabling grant, work has been focused on supporting the African Union with several of its goals (see African Union piece above) and establishing the Coalition's robust evidence-based approach – namely the creation of the Research Consortium and support to its various communities of practice.

Dubai Cares also supports the generation of strategic research and evidence particularly for school meals and school health and nutrition in Africa, with the aim of informing investment and programming on the continent. Research and evidence projects supported by Dubai Cares include: the first school health and nutrition database as a continental public good; publication of the State of School Feeding; a Cochrane Systematic Review: using the rigorous Cochrane methodology to assess the effectiveness of school feeding programmes for improving the physical and psychosocial health of children and youth in all countries of the world; LAYS: making the case for investment in school feeding programmes that support better learning; and a Value for Money Assessment: The Return on Investment for School Feeding.

Dubai Cares has also supported advocacy and capacity strengthening work with the African Union, through the yearly Celebration of the Africa Day of School Feeding and validation of the AUDA-NEPAD Home-Grown School Feeding Guidelines.

In late 2021, in partnership with Expo 2020 Dubai and the UAE Ministry of Foreign Affairs and International Cooperation, Dubai Cares hosted the RewirEd Summit. The aim of the summit was to be a catalyst in redefining education to ensure a future that is prosperous, sustainable, innovative and accessible to all.

At the Summit, Dubai Cares, along with WFP and the Education Commission hosted a round table, Rethinking Investment in Human Capital: Innovation in Financing National School Meal Programmes. The round table was also the soft launch of the School Meals Coalition's Sustainable Financing Initiative.

The session brought together national planners and international partners to rethink current financing models; introduce innovative approaches; and support countries in building sustainable, inclusive, as well as national school health and nutrition programmes. Participants agreed on the urgent need to develop innovative ways to finance school meals and offered broad support for the work of the School Meals Coalition.

The discussion fed into plans for the Sustainable Financing Initiative by highlighting the need to transition from external financing to sustainable domestic financing of school meal programmes; the need to identify innovative financing systems, approaching school feeding more synergistically and cross-sectorally; as well as the need to reinforce the critical importance of research, and evidence and data harmonization to determine the impact of school feeding programmes on education and health outcomes in the short and long term.

The *Rewiring Education for People and Planet* report, which was developed by Dubai Cares in collaboration with the Education Commission, highlights the importance of school meals. One of the six concrete win-win solutions identified by the report is to scale school meals and school health interventions to end hunger and improve health and well-being.

Finally, Dubai Cares has been an active proponent of stronger cross-sectoral collaboration and a holistic and integrated approach to education, announcing the Framework for Global Education Transformation: a comprehensive, future-focused and human-centric education framework that has school health and nutrition at its core.

Education Cannot Wait

Education Cannot Wait (ECW) was launched at the 2016 World Humanitarian Summit as the world's global fund for education in emergencies and protracted crises. As a member of the School Meals Coalition, ECW is committed to strengthening school feeding systems and programmes that lift barriers to education for the world's most vulnerable children.

In 2020, ECW partners reached nearly 206,800 children and adolescents (53 percent girls), through school feeding programmes in seven countries. For example, in Somalia, ECW provided quality school feeding to almost 17,000 students (46 percent girls) to ensure that students could focus on learning in the classroom. These interventions contributed to reduced dropout rates and helped ensure that children attend and stay in school.

Integrating nutrition and school feeding into the ECW's Multi-Year Resilience Programmes has been a critical strategy for expanding access to education and improving school retention rates across a number of crises worldwide. In autumn 2022, ECW published its new Strategic Plan 2023–2026, which includes school feeding as one of its programmatic priority areas.

As stated in its new Strategic Plan, and through membership of the Coalition, ECW aims to advocate globally for greater political commitment and financial resources to school-based interventions that address children's education, nutrition and health needs during crises. To ensure effective programming, ECW plans to strengthen its collaborations to document and generate evidence on innovative approaches to assess the effect of school feeding programmes on children's well-being, safety and education. This includes assessing how school feeding intersects and influences a sense of hope and normality in communities emerging from conflict; reduces child recruitment into armed forces and groups; builds bridges across divided communities; and encourages citizens' positive attitudes towards the state.

Islamic Development Bank

The Islamic Development Bank (IsDB) has been committed to investment in education systems since 2018, with the approval of its first Education Sector Policy in December 2018. The vision contained in the policy supports the building of "Education systems that transform knowledge and learning for human development" as a key component of human capital development.

Over the years, IsDB investments in education have been largely directed towards school infrastructure, teaching and learning materials, curriculum and assessment reforms, teacher training and other capacity building activities to enhance the learning environment and improve the efficiency of the education system. IsDB is now adopting a holistic approach to its investments in basic and secondary education in which school health, nutrition and WASH are included as central pillars or operation components. This is anchored in the overwhelming evidence that school health and nutrition programmes contribute to increasing school attendance and improving retention rates and therefore have the potential to improve learning outcomes.

With several IsDB member countries in Sub-Saharan Africa committed to the School Meals Coalition, IsDB sees an opportunity to partner with WFP to optimize its financing to support school meal programmes as a response to both the learning and food crises.

IsDB is currently developing one of the first cross-sectoral approaches to financing school meal programmes by pooling funding from different sectors within the bank. A new financing window *"Investing in the Learner's Future – The Human Capital Development Initiative"* is currently being set up in partnership with WFP. This initiative will support the funding of systemic approaches to school feeding in government national strategies and domestic financing efforts.

IsDB has therefore been a crucial partner in developing and piloting new approaches to innovative financing from multilateral development banks. IsDB is contributing to the development of work on sustainable financing within the Coalition. The bank participated in the launch of the Coalition's Sustainable Financing Initiative and is a member of its steering committee.

UN agencies

The leaders of the Food and Agriculture Organization of the United Nations (FAO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Children's Fund (UNICEF), WFP and the World Health Organization (WHO) signed a joint declaration expressing their strong support for the School Meals Coalition and for the importance of scaling up global school feeding and school health and nutrition programmes to support children's healthy development and education.

These five agencies have committed to working together to help governments determine their priorities and commitments and to assist them in working towards their implementation and achievement. The agencies will provide operational support; policy and technical guidance; support the collection and analysis of more and better data and evidence; and advocate for increased investment to enhance the quality and reach of school meals and school health and nutrition programmes.

One key outcome of this partnership is the "Ready to learn and thrive: school health and nutrition around the world" report, coordinated by UNESCO and launched in 2023. The report provides an overview of the extent to which countries have school health and nutrition policies and programmes in place, based on data collected by the five agencies and other partners. This joint publication, which is also supported by the Global Partnership of Education (GPE), aims to encourage efforts to improve, scale up and sustain comprehensive school health and nutrition policies and programmes to improve the overall well-being of learners and to provide a basis for monitoring progress. School meals are an important part of the school health and nutrition integrated package analysed in the report.

To promote guidance and exchanges on the optimal design and implementation of school food policies, FAO and WFP launched the School Food Global Hub, the first platform to be established under the School Meals Coalition's Peer-to-Peer Initiative (see Peer-to-Peer Community of Best Practice Initiative in Section 2.4). Prior to the launch of the Coalition, WFP and UNICEF had strengthened their partnership to provide integrated school health and nutrition services in the most vulnerable countries. Under the Coalition, the agencies are able to coordinate their work with other partners and support the development of government national plans and targets.

The five UN agencies (FAO, UNESCO, UNICEF, WFP and WHO) are all members of the Data and Monitoring Initiative and serve on its steering committee, where they provide strategic direction, oversight and ensure quality assurance. Additionally, staff from each agency serve as technical experts in three working groups focused on advancing the initiative's objectives (indicators, processes and database creation). Similarly, WHO and the other agencies are engaged with the Research Consortium's BOND-KIDS project, to better understand how such programmes might be improving not only academic outcomes via the amount and quality of dietary intake and subsequent nutritional status of school-age children, but also what impact the interventions have on children's health and development.

WFP/Sayed Asif Mahmud

2.7 The way forward

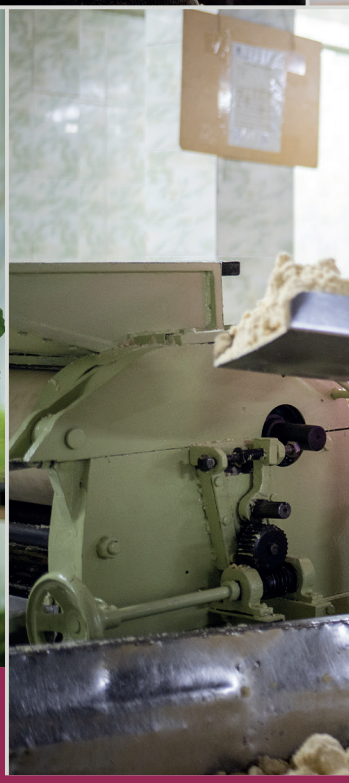
In October 2022, in celebration of the School Meals Coalition's first anniversary, Coalition members and partners organized a virtual School Meals Coalition Week and the first Ministerial Meeting in Helsinki. These two milestone events concluded with a Call to Action[8], endorsed by all partners, and a Leaders' Declaration[9] endorsed by the twelve Coalition task force members, which together set out a robust road map for 2023 and beyond.

[8] *https://schoolmealscoalition.org/wp-content/uploads/2023/03/Call-to-Action-School-Meals.pdf*
[9] **School Meals Coalition Leaders' Declaration**

The Helsinki Declaration includes a series of calls to action by member countries and partners to accelerate achievement of the School Meals Coalition goals. These include:

- Governments and/or local authorities to expand national and/or local revenue to finance integrated school meal programmes, by exploring innovative financing options.
- National and/or local governments to prioritize strengthening the efficiency and equality of spending on school feeding, including developing robust targeting criteria that factor in need, as well as inequalities and multiple forms of discrimination, to reach girls and the most vulnerable and marginalized children.
- Development partners to increase aid spending on school meal programmes by US$1 billion, which is equivalent to 0.6 percent of current development assistance flows, as development partners have an important role to play in supporting low and lower middle-income countries' transition to sustainable, country-owned and financed school meal programmes.
- International financial institutions and multilateral development banks to set a collective lending target of US$750 million in concessional financing, and an equivalent amount in non-concessional financing channelled towards school meal programmes.
- International financial institutions and multilateral development banks to launch initiatives which mobilize concessional, non-concessional and innovative financing for school meal programmes, considering the high and self-reinforcing rates of return of cross-sectoral, home-grown school feeding investment.
- Member states and other stakeholders to strengthen their monitoring, evaluation and learning systems for school meal programmes and support the inclusion of a school meals indicator in SDG 4: Quality Education (framework revision).

In 2023, there will be the Food Systems stocktaking moment, that will take place in Rome and the Global Ministerial meeting of the School Meals Coalition will take place in Paris. These will be opportunities to assess and celebrate country progress and encourage all members and partners of the Coalition to redouble their efforts to ensure that by 2030 every child receives a healthy and nutritious meal in school.



Chapter 3

New advances in understanding school meals: innovations and sustainable programming

This chapter shares important emerging evidence and insights regarding developments in school meals, school health and nutrition. It details developments that have emerged since the preceding report, and aims to form a core component of this and future State of *School Feeding Worldwide publications*.

Chapter 3 aims to spotlight emerging and innovative areas of research that the editorial board considers are of potential interest to the wider school meals community. As this report is published biennially and is intended to have a shelf-life of two years, there is a particular focus on work that is novel and early in its publication cycle. To enhance the accessibility of these studies, they are presented as summaries of work that has been published in detail in scientific and policy literature. The reader is encouraged to access the original publications for references and more detailed follow-up. The summaries have been commissioned by the editorial board and are written by the authors of the original articles who are solely responsible for the content.

The chapter is in two sections. The first presents recent analyses by expert technical groups around the world, covering four topical areas and highlighting emerging evidence and insights regarding developments in school meals, school health and nutrition. The second section presents research that is under way in member countries of the School Meals Coalition to raise awareness of and encourage participation in these global efforts.

Section 1: Analyses

The four topic areas analysed are:

- **Education & School Meals** – Summary prepared by The Research Consortium for School Health and Nutrition, coordinated by the London School of Hygiene and Tropical Medicine, and the Sustainable Financing Initiative, which is coordinated by the Global Education Commission as part of the School Meals Coalition. This is a summary from their joint memo to the Global Education Forum, April 2022 "*The Investment Case for School Health and Nutrition*".

- **New metric for measuring the impact of health and nutrition on education** – Summary prepared by Noam Angrist, visiting fellow at the University of Oxford, focused on bridging the gap between evidence in health and education and its translation into scaled policy and practice.
  The summary is from an upcoming paper that assesses Learning-Adjusted Years of Schooling (LAYS), a core element of the World Bank's Human Capital Index for quantifying the cost effectiveness of education interventions.

- **Rethinking nutrition at school age** – Summary prepared by the Eunice Kennedy Shriver National Institute of Child Health and Human Development, USDA-Foreign Agriculture Service and the Academy for Nutrition and Dietetics. The summary – a result of collaboration between the Research Consortium for School Health and Nutrition and the above-mentioned partners – describes new breakthroughs in evidence building on how school feeding programmes are improving not only academic outcomes, via the amount and quality of dietary intake and subsequent nutritional status, but also how these interventions are supporting child health and development, and how such outcomes can be measured.

- **Food systems and agriculture: implications of home-grown school feeding for biodiversity** – Report prepared by Alliance of Bioversity International and the International Center for Tropical Agriculture (CIAT) at the Consultative Group on International Agricultural Research (CGIAR). The Alliance of Bioversity International and CIAT, are both part of CGIAR, which is a global partnership that unites organizations engaged in research to reduce rural poverty, increase food security, improve human health and nutrition, and sustainable management of natural resources. This report, prepared specifically for this 2022 edition of *State of School Feeding Worldwide*, highlights the work on home-grown school feeding across the Latin America and Caribbean region.

Section 2: New and ongoing research

In addition to the above summaries which highlight recent developments in four topical areas related to school feeding, four areas have been highlighted in this section which describe ongoing research in School Meals Coalition member countries. These programmes of work have relevance to the wider school feeding community, and we intend to report on their outcomes in future editions of *State of School Feeding Worldwide*.

In *Box 3.2,* the **Research Consortium of the School Meals Coalition**, whose research agenda is driven by the Coalition signatories, describes new value-for-money studies taking place in six countries, and how the Research Consortium is working through a global network of communities of practice to strengthen the evidence base on barriers to national school health and nutrition programmes.

In *Box 3.3*, **The Rockefeller Foundation** details how its Good Food Strategy, which aims to increase the availability and access to food that is good for people and good for the planet, serves as a basis for the partnership that began in 2021, which sees The Rockefeller Foundation, WFP and the Government of Rwanda working together to make school meals more nutritious without adding cost.

In *Box 3.4*, **FAO and WFP** detail their efforts, supported by the German Government, in developing a new global methodology for setting nutrition guidelines and standards for school meals. This three-year project is intended to assist government stakeholders and institutions with reliable rules, principles and recommendations designed to improve the nutritional quality, quantity and adequacy of school meals.

WFP/Arete/Nick Sells

3.1 The investment case for school health and nutrition[10]

Summary prepared by The Research Consortium for School Health and Nutrition and the Sustainable Financing Initiative, led by The Education Commission as part of the School Meals Coalition.

This summary (reproduced here with permission) includes information from a memo prepared for the Spring 2022 Meeting of the Global Education Forum to address the importance of the condition of children as a determinant of education outcomes, and specifically the role of school meals in addressing the well-being and learning of schoolchildren. It also includes elements of a Financial Landscape Analysis (Watkins, 2022) that highlights the investment case for school meal programmes in low and lower middle-income countries and identifies financing gaps. It then explores the financing options and opportunities available to these countries in the current, financially constrained environment.

WFP/Badre Bahaji

[10] **Investment-case-for-school-health-and-nutrition.** Memo #4 to inform the Global Education Forum April 2022 Case for Investment Paper. Prepared by two initiatives of the School Meals Coalition: The Research Consortium for School Health & Nutrition and the Sustainable Financing Initiative

3.1.1 The importance of investing in the learner

The condition of children is one of the most powerful determinants of learning outcomes. Healthy and well-nourished schoolchildren learn better; have a greater opportunity to thrive and fulfil their potential as adults; and increase their earning potential.

The dynamic interaction between health and education is one of the driving forces for developing the human capital that drives shared prosperity. Aggregated at the national level, investments in human capital drive national economies, with over 70 percent of the wealth of high-income countries attributed to human capital compared to 40 percent in low-income countries.

Building human capital depends on high-quality education and good health and nutrition. School-age children and adolescents from the age of 5 to 19 require particular attention from both the education and health sectors. It is during these formative years, and while at school, that children and adolescents undergo physical, emotional and cognitive changes. Therefore, the school system represents an exceptionally cost-effective platform through which to deliver an essential integrated package of health and nutrition services to schoolchildren, such as school meals, deworming, iron and folic acid supplementation, and vision screening, among others.

Nutritionally adequate school meals provide an incentive for families to ensure their children regularly attend school and support children to focus on their studies. The 2016 International Commission on Financing Global Education Opportunity identified school meals as a highly effective, non-teaching practice to increase access and learning outcomes; and a recent UN agency report ranked school meals among interventions that had the strongest evidence of impact on equity and inclusion in education. Benefits are felt most acutely by vulnerable students and girls. In low and lower middle-income countries, approximately 300 million schoolchildren have iron-deficiency anaemia, causing them to lose some six IQ points per child. For these reasons nearly every country in the world provides some form of national school meal programme, with nearly half of primary schoolchildren in lower middle-income countries eating a meal at school.

School meals are cost-effective and cost-beneficial because of the substantial returns across multiple sectors. The single intervention of school feeding can have effects across at least four different sectors: agriculture, education, health and nutrition, and social protection, with US$9 in returns for every US$1 invested (Verguet et al., 2020). School feeding programmes that procure food locally can offer additional benefits for smallholder farmers, supporting local food production and economies, and promoting sustainable local markets for diverse, nutritious foods. School meals also serve as an important safety net, supporting families' efforts to counter threats to the food system and supply chain.

A renewed focus on the health and well-being of learners has the potential to transform education. Most "business as usual" education interventions do not result in measurable improvements in education outcomes, e.g. over half the education interventions reviewed were not shown to be effective (Angrist et al., 2021; Azevedo et al., 2021). This makes the case for redirecting some traditional investments from the ineffective "business as usual" approaches to demonstrably more effective approaches, such as school health and nutrition, which could be truly transformative.

A feature of the current context is the rapidly shrinking fiscal space available to governments in low and lower middle-income countries. Having increased spending during the COVID-19 pandemic (albeit at levels and rates dwarfed by those in rich countries), poorer developing countries are now adjusting to reduced revenue projections, increased debt servicing and less benign growth prospects. Budget pressures are also mounting in the face of acute financing gaps for social provision and infrastructure investment. The case for school meals financing has to be made – and won – in the face of extreme fiscal stress and competing demands.

3.1.2 Estimating the costs of an integrated response

It is apparent from the findings in Chapter 1 of this report and previous publications that several hundreds of millions of schoolchildren are receiving school meals on a regular basis. While coverage of school feeding programmes is adequate in high and upper middle-income countries (reaching 61 and 48 percent respectively of school-age children in most contexts), it remains inadequate in low-income countries (reaching only 18 percent of school-age children). How many vulnerable children are missing out on school meals and where are they?

To answer this question, WFP partnered with the Partnership for Child Development 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 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 percent stunting in children younger than five, and more than 30 percent anaemia among women (World Bank, 2020). 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 US$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.

This raises two questions for policymakers: how much will it cost to scale national programmes in low and lower middle-income countries to reach an additional 73 million children with school meals and complementary health interventions; and which financing modalities can countries utilize to finance these programmes in the context of reduced fiscal space and ballooning education funding gaps?

As presented in Chapter 1, annual global investments in school feeding are estimated to be between US$43 billion and US$48 billion. The cost of covering an additional 73 million children in need of school feeding is US$4.7 billion, an average of US$64 per child per year. Adding complementary school health interventions would cost an additional US$620 million in middle-income countries and US$510 million more in low-income countries, giving an estimated cost of the integrated package of US$5.8 billion annually, with around half that amount for low-income countries.

3.1.3 Exploring the challenges in financing school meal programmes

The COVID-19 pandemic and the current food crisis has left the world facing a triple crisis of learning, poverty and malnutrition. The World Bank estimates that the share of ten-year-old children living with 'learning poverty', unable to read or write, has increased from 53 percent to over 70 percent since 2020. Learning disparities have increased sharply with the poorest children falling further behind: the poorest children and girls are bearing the brunt.

Rising poverty and malnutrition are compounding this learning crisis. WFP estimates that 153 million children have been impacted by the rising food and hunger crisis.The global food crisis has pushed another 23 million children into acute food insecurity across 82 countries – a 17 percent increase.

School feeding programmes have been part of the social protection systems of high-income countries for decades and have the potential to counteract the effects of this triple crisis in low and middle-income countries.

However, despite robust cost-benefit evidence, school meal programmes in low-income countries remain under-financed. Fiscal space has been shrinking due to slower growth, reduced revenue collection and growing external debt pressures. As Chapter 1 shows, aid donors and multilateral development banks have also underinvested. Overall aid to school meals in 2022 was US$214 million, a reduction from US$267 million in 2020.

So, what might a road map towards more sustainable financing for these programmes, particularly in low-income countries, look like? The following are key takeaways from the landscape financing analysis carried out so far.

- Growing political commitment and ambitious strategies must be backed by robust financing plans. Political commitment to school meals has been growing around the world. This is demonstrated by the success of the School Meals Coalition with 76 countries and 83 partners joining the Coalition in less than a year (see Chapter 2 for more details). Approximately 87 percent of countries have adopted national school feeding policies or strategies (up from approximately 80 percent in 2020 and 42 percent in 2013) and institutional arrangements for delivery, including through ministries of education (at centralized or decentralized level) and, in some cases, with

governing bodies including several sectors (education, health, agriculture and social protection). However, these policies are seldom supported by costing estimates or a credible financing strategy. This indicates that, in many cases, there appears to be a striking gap between the broad level of ambition defined in school meal policies and the provisions made in medium-term financial plans and budget allocations.

- Fiscal space is limited but it is possible to increase the volume of domestic investments. The bulk of school meal financing comes from national budgets, especially in lower middle-income countries where about 97 percent of financing is domestic (see Chapter 1). However, the fiscal space is shrinking and external debt servicing has emerged as a mounting constraint. Debt relief is therefore one pathway towards an expanded fiscal space, although the current debt profile does not easily fit into a new multilateral debt reduction framework. Expanding fiscal space through increased revenue collection is an important long-term strategy that must be pursued. The International Monetary Fund estimates that on average low-income and lower middle-income countries could sustain a 23 percent tax-to-GDP ratio, an increase from the current 17 percent average for low-income countries and 20 percent average for emerging markets. Country case studies also highlight innovative revenue mobilization strategies. While most governments are financing school meal programmes from general revenues, Bolivia has raised revenues from hydrocarbon taxation; Guatemala has financed school feeding from VAT; and Benin has used an SDG bond.

- International support is low and fragmented suggesting the need for a global compact. The financing landscape analysis highlights low levels of donor aid for school meals, except from one donor (the United States). Aid tends to be fragmented and dominated by a proliferation of small grants – with few leveraging effects on national strategies. Most donors and development banks lack integrated school feeding strategies. School meals, which benefit several sectors, fall in between sectoral silos (education, agriculture, health) which drive financing allocations for most donors and multilateral development banks.

This suggests there is a need for a bold new initiative which could be built around a compact in which national governments increase efforts and the global community fills gaps where needed, in particular to support those countries most in need and those transitioning towards greater country ownership and funding. Aid donors should commit to increasing aid for school meal programmes by around US$1 billion (a mere 0.6 percent of current development assistance flows). The European Union could act as a global champion by providing up to half of this amount, focusing on low-income countries and the 30 countries identified by WFP as requiring US$1.75 billion in additional finance.

Multilateral development banks are particularly well placed to give greater priority to school meals through concessional and non-concessional lending, while also leveraging their balance sheets more effectively through risk guarantees and less conservative lending policies. This should include at least US$750 million in concessional lending and an equivalent amount in non-concessional lending. Mechanisms such as the International Financing Facility for Education could be explored to unlock multilateral development bank financing for both low-income and lower middle-income countries.

WFP/Badre Bahaji

3.2 New metric for measuring the impact of health and nutrition on education

Summary prepared by Noam Angrist (Co-Chair of the Analytics and Metrics Community of Practice of the Research Consortium for School Health & Nutrition) and Lauren Cohee (Center for Vaccine Development and Global Health, University of Maryland School of Medicine)

This summary is from an upcoming paper that assesses Learning-Adjusted Years of Schooling (LAYS), a core element of the World Bank's Human Capital Index for quantifying the cost effectiveness of education interventions. Specifically, the summary highlights evidence from recent aggregated malaria prevention studies, which shows that malaria prevention is extremely cost-effective in terms of certain education outcomes, such as attention and decoding. These health interventions can, in some cases, be more cost-effective in improving education outcomes than traditional education interventions, such as the provision of additional textbooks. The summary explores the returns to education on investments in improving the health and nutrition of the learner with education interventions to improve the quality of the learning. While we might expect that traditional education interventions provide an immediate learning gain, health interventions such as school meals, malaria prevention, deworming, etc. might have surprisingly cost-effective education benefits.

Human capital is a central driver of economic development and social welfare (Angrist et al., 2021). Typically, human capital refers both to an individual's health and education. A prominent example includes the World Bank's recently launched Human Capital Index, which has two core pillars: health and education (Kraay, 2019). While health and education are inter-linked, with healthy individuals more likely to be able to acquire and complete education, and educated individuals more likely to lead healthy lives, health and education sectors are often siloed. Indeed, health interventions rarely assess their impact on education outcomes, leaving complementarities unknown and undervalued (Kruk et al., 2022).

In rare cases when multisectoral outcomes are considered, they can illuminate surprising findings. For example, school-based deworming, primarily a health intervention, has shown cost-effective effects on education outcomes, such as school attendance in Kenya (Miguel & Kremer, 2004), with long-term effects

on earnings (Hamory et al., 2021). Similarly, school feeding interventions, an important class of school-based health interventions with over 400 million children receiving school meals worldwide, have shown positive effects on schooling and learning (Aurino et al., 2020; Kazianga et al., 2012).

We summarize below the forthcoming results by Angrist and Cohee et al. exploring the effects of one of the most consequential health interventions, malaria prevention, on education outcomes. While prior evidence establishes correlations, with observational studies linking malaria infection in schoolchildren to lower cognitive function and school performance, limited systematic evidence aggregates causal evidence from randomized trials. We focus on school-based interventions, where the potential to affect education outcomes is high as schools provide a cost-effective and scalable delivery platform.

An estimated 200 million school-age children are at risk of infection with Plasmodium falciparum in Sub-Saharan Africa: prevalence of infection reaches 50 percent among schoolchildren in many endemic areas (Clarke et al., 2017; Mathanga et al., 2015; Nankabirwa et al., 2014; Pinchoff et al., 2016); (Were et al., 2018; Yapi et al., 2014). P. falciparum infection rarely results in severe illness or death in this age group, but commonly causes acute clinical malaria and, due to developing immunity, chronic infections. The adverse effects of P. falciparum infection in school-age children on education occur through multiple causal pathways: school absences leading to decreased opportunities for learning; and impaired cognitive function and development limiting short-term as well as long-term ability to benefit from learning opportunities.

We conducted a random-effects meta-analysis, pooling 12 study treatment arms and outcomes, building on an earlier systematic review (Cohee et al., 2021). We added a study that did not meet the inclusion criteria for the prior review because it took place outside of Sub-Saharan Africa; we included it as it was a seminal study generating interest in this area. As the impact of interventions on cognition and education is largely mediated through initial health improvements, only studies in which the intervention decreased P. falciparum infection rates and/or anaemia were included in this meta-analysis.

We analysed the effects on education outcomes including cognition, literacy and numeracy. We standardized outcomes across studies. In addition, we conducted the analysis with outcomes expressed in terms of a new education measure, which is gaining prominence in education called the

"learning-adjusted years of schooling" (LAYS) measure (Angrist et al., 2020; Filmer et al., 2020). This measure combines schooling and learning into a single composite measure. LAYS can be interpreted as a high-quality year of schooling – that is, schooling which results in substantial learning – according to global benchmarks. LAYS is in many ways comparable to "disability-adjusted life years" (DALYs) in the health sector (as estimated in the Global Burden of Disease study), enabling value-for-money comparisons across a range of outcomes. The measure has gained prominence in education and is increasingly in regular use: it forms the education pillar of the World Bank's Human Capital Index, and is used to review global evidence by the Global Education Evidence Advisory Panel.

For our meta-analysis, we grouped studies into two main categories by outcome: (a) decoding and attention; and (b) literacy and numeracy. We also included a third category for studies with a distinct epidemiology; specifically, studies that took place prior to large-scale bed net programmes where additional malaria prevention interventions might be particularly effective.

For decoding and attention outcomes, we found a positive and statistically significant effect of 0.12 standard deviations. However, for literacy and numeracy outcomes, we found a small and non-statistically significant effect. Decoding and attention are early cognition skills and are most plausibly linked to immediate health improvements which improve cognitive functioning, whereas results in literacy and numeracy are more likely to be seen in the long term. Within each subgroup, we found little heterogeneity. This suggests that findings were generalized well within a category, with effects statistically similar across studies and contexts. We conducted a secondary analysis using the LAYS measure. For interventions targeting decoding and attention, we estimated an effect of 0.15, the equivalent of nearly two high-quality months of schooling gained. We compared the cost effectiveness of interventions focused on malaria chemoprevention with other well-known programmes in education using the LAYS measure. A recent review compiled results across 150 impact evaluations in education in terms of LAYS, including categories such as teacher training, grants for schools and education technology, among others (Angrist et al., 2020). We found that malaria prevention compares favourably with some of the most cost-effective programmes in education, and is more cost-effective than many education programmatic interventions, such as some efforts to change textbook provision and teacher training programmes, although of course textbooks and teachers remain essential to the delivery of education. These results are driven by a combination of moderate effectiveness on a par

with average effective education interventions, but with substantially lower costs. In summary, our results show malaria prevention can be extremely cost-effective in terms of improving certain education outcomes, such as attention and decoding. These health interventions can, in some cases, be more cost-effective in improving education outcomes than traditional education interventions, such as the provision of additional textbooks. While we might expect that traditional education interventions provide an immediate learning gain, health interventions such as malaria prevention – and potentially others such as school meals and deworming – might have surprisingly cost-effective education benefits, enabling children to achieve their full human capital potential.

WFP/Alejandro Chicheri

3.3 Rethinking nutrition at school age

Summary prepared by the Eunice Kennedy Shriver National Institute of Child Health and Human Development, USDA-Foreign Agriculture Service and the Academy for Nutrition and Dietetics.

The summary is a result of collaboration between the Research Consortium for School Health and Nutrition and the above-mentioned partners. Significant gaps exist in our understanding of how school feeding programmes might be improving not only academic outcomes via the amount and quality of dietary intake and subsequent nutritional status, but what impact these interventions are having on children's health and development and how practically such outcomes can be measured. The result of recent efforts to close these evidence gaps, as documented here, has become known as the "Biomarkers of Nutrition for Development: Knowledge Indicating Dietary Sufficiency: the BOND-KIDS Project".

As highlighted throughout the *State of School Feeding Worldwide* 2022, the global community has recognized the continued and critical role of school meal programmes in supporting the health and development of children between 5 and 19 years old. A key aspiration underpinning the development of this report is to inform and be informed by various stakeholder communities about how best to reinforce and improve these programmes and their anticipated outcomes. It was as a result of this process that a series of conversations began between the Eunice Kennedy Shriver National Institute of Child Health and Human Development, the London School of Hygiene and Tropical Medicine, Global Research Consortium for School Health and Nutrition, USDA-Foreign Agriculture Service, and the Academy for Nutrition and Dietetics.

During these conversations, it became clear that while a great deal of attention had been paid to infants and children during the critical "first 1,000 days" (i.e. pregnancy through the first two years of life), much less attention had been paid to the next "7,000 days" (through to age 19 years). Moreover, while the focus of efforts to support school-age children had been primarily on "learning: as a priority outcome in evaluation of these programmes, much less attention was being paid to the learner". The result of these conversations has become known as the *"Biomarkers of Nutrition for Development: Knowledge Indicating Dietary Sufficiency: the BOND-KIDS Project"*.

What is BOND-KIDS?

The fundamental working premise of BOND-KIDS is that children represent a complex biological system that interacts with an internal (metabolism, physiology, nutrition, genetics, health status, across a range of developmental stages) and external (home, community, economic, social, behavioural and physical environment) ecology. The characteristics of a child's nutrition ecology are shown in Figure 3.1.

Figure 3.1
Child Nutrition Ecology

Using this basic conceptual framework, the challenge was how to organize a process to address the core components of this ecology and create a framework as a resource to the community, to support efforts to improve and evaluate current and new programmes.

An additional aspiration was to fully engage the community of stakeholder agencies and organizations to build a process by which the findings of BOND-KIDS could be implemented and harmonized to ensure the data that might evolve from such a process is useful and, to the extent possible, non-controversial and compatible across settings (e.g. clinical or population surveillance, global North and South). A final but critical outcome of the BOND-KIDS process would be the identification of key evidence gaps that could become the focus of a targeted research agenda.

To accomplish these goals, BOND-KIDS was organized as follows:

- Secretariat led by staff of the National Institute of Child Health and Human Development/Academy for Nutrition and Dietetics who provided logistical and content support to the project.
- Scientific Steering Committee providing input on both the content and the process, consisting of representatives from the United States (USDA, CDC, USAID) and global agencies (WFP, FAO, UNICEF, WHO) and civil society involved in the development, implementation, monitoring and evaluation of programmes to provide nutritional support to school-age children.
- Thematic Working Groups focusing on four themes reflecting the elements of nutritional ecology, including efforts to develop a framework for the translation of new evidence to support context-specific and equitable programmes; and integrating global efforts to assess the impact of interventions on key outcomes of children's growth and development between 5 and 19 years.

Figure 3.2
Structural organization of BOND-KIDS

Application of the ecological approach was accomplished via the organization of four interacting thematic working groups tasked with the development of BOND-KIDS outputs. The specific focus of each working group is highlighted in Box 3.1.

Box 3.1

Description of the BOND-KIDS Working Groups

Working Group 1: Biology

Focus: To explore the internal environment including nutritional needs, particularly how they impact function and exert effects on key biological systems e.g. growth (linear/body composition), neurodevelopment, endocrinology/reproductive health, immunology, etc. and relevant outcomes.

Working Group 2: Environment

Focus: Psychosocial and related environments including the physical environment and impact on cognitive/behavioural development, school performance, and adaptability, including food choice and eating behaviour.

Working Group 3: Assessment

Focus: Identification of key factors and measurements to support nutritional (exposure, status, function, effect) and other relevant measures of function and how they might be employed to assess the need for and impact of programmes designed to provide nutritional support to school-age children.

Working Group 4: Translation and Implementation

Focus: Development of a set of guiding principles to inform a framework focused on how best to translate and implement current and emerging evidence to inform programme, policy and standards of care; and ensure both the safety and efficacy of context-specific, equitable programmes to address nutritional needs of school-age children domestically and globally and inform efforts to measure these impacts.

The work of these groups will be published and broadly disseminated. This will hopefully serve as the basis of both a targeted research agenda and a second BOND-KIDS phase through the auspices of the Research Consortium and partners. This will test and develop the evidence to support implementation of the BOND-KIDS ecological approach and ongoing and future programme development and evaluation.

The focus of BOND-KIDS, supported by subsequent input from the global stakeholder community, was and remains the shared recognition of the need for better tools to measure the functional impact of school-based nutritional interventions on the health and development of school-age children (5-19 years). The development and implementation of such tools only reinforces the need for, and value of the global community's interventions to improve children's nutrition and health; and, the ultimate goal, to support children's ability to become the best version of themselves.

3.4 Food systems and agriculture: implications of home-grown school feeding for biodiversity and contribution to diet diversification

Report prepared by Alliance of Bioversity International and CIAT – CGIAR. The Alliance of Bioversity International and the International Center for Tropical Agriculture (CIAT), is part of CGIAR, a global research partnership for a food-secure future.

This report prepared for the *State of School Feeding Worldwide* 2022, highlights that while a great deal of work has been carried out on home-grown school feeding across the Latin America and Caribbean region, evidence of its impact is limited. This presents an ongoing challenge to decision making, policies, and the design and implementation of home-grown school feeding programmes. An Analytical Framework to better understand the key drivers and issues that influence linkages between school meal programmes and local food systems is presented in the report.

Over the past decade, a great deal of work has been carried out on home-grown school feeding across the Latin America and Caribbean region, yet rigorous evidence of its impact is limited: good practices, lessons learned and valuable experiences from successes and failures have not been adequately assessed and analysed. This presents an ongoing challenge to decision making, policies, and the future design and implementation of home-grown school feeding programmes and their expansion. To address this challenge, a systematic assessment using literature reviews, stakeholder consultations and country case studies was made to determine the impact and interaction of home-grown school feeding approaches across five thematic areas. A key objective was to highlight how home-grown school feeding can broaden the benefits of school meals - which already include social protection, nutrition and education - to include agriculture and community development, especially in incorporating more traditional, local foods and strengthening food sovereignty. Cross-cutting issues related to gender and social inclusion, indigenous peoples, climate change and the COVID-19 pandemic were also explored. To guide the study, an Analytical Framework, building on frameworks used in the High Level Panel of Experts 2017 Nutrition and Food Systems Report (HLPE, 2017), and outlined for home-grown school feeding (FAO and WFP, 2018), was developed to better understand the key drivers and issues that influence linkages between school meal programmes and local food systems, identify current evidence gaps and key areas for future investment.

While it is often acknowledged that home-grown school feeding is a 'win-win' model across the school food value chain, providing family farmers with increased opportunities to participate, improved access to markets and income-generating opportunities, the literature actually reveals little empirical evidence on the economic benefits to smallholders and local farmer organizations. While most evaluations of these programmes in Latin America and the Caribbean underline their effectiveness in generating economic benefits for male and female producers and their families, this is largely based on anecdotal evidence. Evaluators acknowledge that the model and approach is sufficiently effective, but that economic benefits could not be "quantified at the time of the evaluation, due to the lack of adequate evaluation data." This lack of quantified data also applies to the diversification of local agricultural production and of local and traditional foods procured by schools for school meals. We still know little about the diversity of foods produced for schools; the quality of school meals; and what children are actually eating.

One way to enhance the diversity of local foods in home-grown school feeding, while strengthening food sovereignty, is better designed and implemented programmes which create the conditions for more effective participation by rural and urban women, including indigenous producers (Singh, 2021; Singh & Conway, 2021). Traditionally women play a strong role in the conservation and use of agrobiodiversity; have greater control over local traditional foods; cultivate biodiverse home gardens; collect wild foods and fish; and use products that are often marginalized in the larger food economy. Indigenous peoples are also recognized custodians of the majority of the world's biodiversity, including that used for food (FAO, 2021).

However, despite notable examples, such as in Brazil and Honduras, the participation of women and indigenous producers in these initiatives often remains low. Despite policies and laws that aim to facilitate their participation, women and indigenous producers often face multiple barriers and constraints to their effective participation as providers to home-grown school feeding including: complex registration and participation procedures; limited capacity to provide a regular supply of large quantities of produce and undertake stringent delivery conditions; institutional discrimination; poor understanding of traditional foods by those implementing the programmes; poor information on public tendering processes; and inappropriate food safety regulations. A key constraint is also the lack of sex-disaggregated and indigenous peoples' data in home-grown school feeding. Interestingly, the review reveals that, in cases

such as Brazil and Honduras, where efforts are made to enhance women's participation in local purchasing, this has contributed to improvements in the diversity and quality of the food served and consumed in schools and other public facilities; enhanced awareness of consumers about local foods; and ultimately helps preserve agrobiodiversity.

Some countries are in the process of developing new forms of public support through targeted public food procurement which present opportunities for more local food diversity and agroecological products to be included in home-grown school feeding. In Brazil, at least 30 percent of the food purchased through Programa Nacional de Alimentação Escolar must be bought directly from family farmers, while both the Programa Nacional de Alimentação Escolar and the Programa de Aquisição de Alimentos pay a premium of up to 30 percent in the price of organic or agroecological produce and prioritize purchases from settlers of the agrarian reform, quilombolas and indigenous communities. The Alliance of Bioversity International and CIAT have supported partners in Brazil to use these policy instruments as entry points for incorporating more native, nutrient-rich food biodiversity into school meals (Beltrame et al., 2021). The alliance has also worked with partners, communities and farmers to support them to develop value chains for underutilized local foods linking to school markets through home-grown approaches such as for African leafy vegetables in Kenya and other local food biodiversity in schools in Guatemala and India.

Home-grown school feeding approaches based on greater utilization of local food biodiversity, while strengthening food sovereignty, brings multiple benefits. It supports the participation of smallholders, especially rural women and indigenous producers, ensuring that healthy and culturally appropriate food produced through ecologically sound and sustainable methods is available in school menus. It also contributes to greater food diversity on farms. A recent study found that the structured demand for diversified food products and a price premium for certified organic and agroecological production in Brazil's public food procurement through the Programa Nacional de Alimentação Escolar increased farm-level agrobiodiversity; the use of agroecological practices; and played a key role in driving transitions on family farms from low agrobiodiversity, input-intensive farming systems to diversified farming systems and a significant increase in the cropped area under diversified farming systems (Valencia et al., 2019). This means more resilient landscapes, which highlights the key role of home-grown school feeding programmes as a strategic entry point for stronger climate-resilience components in school feeding (Hunter et al., 2022).

WFP/Edmond Khoury

Box 3.2

Value-for-money studies in six countries – Research Consortium update

National value-for-money assessments have proven to be very powerful tools to make the case for governments to scale up their school feeding programmes, in part because they show income multipliers across sectors. Yet, to date, only very modest modelling work has quantified the value-for-money of school feeding programmes in low and middle-income countries.

The Research Consortium Analytics and Metrics Community of Practice has developed pioneering economic models (Verguet et al., 2020) to estimate the full multisectoral costs and benefits of school meals across multiple sectors. The Analytics and Metrics Community of Practice now aims to showcase the potentially large value-for-money from investing in school meals, with analyses conducted in six countries across the Africa region where governments have expressed demand for this form of empirical work. This pioneering work is led by an ambitious partnership that collaboratively involves an interdisciplinary group of academics, researchers and policymakers from institutions in the six countries and members of the Analytics and Metrics Community of Practice, with funding support from NORAD and operational support from WFP country offices.

The value-for-money model includes the total costs associated with running national school meal programmes annually; assesses the unit cost (per child reached) of delivering school meals; and disaggregates by socioeconomic status and by gender to assess the equity impact of the programmes. Lastly, the model computes the multisectoral benefits of the school meal programme, including:

- The health and nutrition gains for the children reached by school meals, including averting soil-transmitted helminth infections, preventing anaemia, and potentially promoting healthy diets and eating habits among children.
- The education gains conveyed by school meals through increasing school attendance and educational attainment, which then will be translated into increased years of education and future higher wages into working adult life.
- The social protection gains materialized by the food (hence income) transfer to children and their families.

The local economy gains achieved through demand for local food production and developing the local agricultural economy.
The data and economic tools generated by the project will be made publicly available online via the Research Consortium for School Health and Nutrition website, the African Union Development Agency and the forthcoming Global School Feeding Database being developed by the Data and Monitoring Initiative.

The Analytics and Metrics Community of Practice will leverage the convening power of the Africa Union Development Agency and regional economic communities - namely the Economic Community of West African States and the Southern African Development Community - to bring together actors interested in such economic analyses. This structure will

i) facilitate joint learning among member countries;
ii) enable interdisciplinary policy exchange between this network, the Research Consortium for School Health and Nutrition, and the Analytics and Metrics Community of Practice; and
iii) strengthen existing capacity while simultaneously setting a precedent for other countries to join in and take forward similar analyses.

Contributed by: The Research Consortium for School Health and Nutrition

Box 3.3

A collaboration on fortified food

Increasing the availability of and access to food that is good for both people and the planet is a core aim of The Rockefeller Foundation's Good Food Strategy. One way we seek to achieve this is by leveraging the power of procurement to support food systems that are more nourishing, equitable, regenerative and resilient for all people, starting with the most vulnerable. By working with farmers, teachers, students, parents, cooks and others to ensure that school meals are serving 'good food' where possible, we can increase the impact of school meals on communities, countries and the world.

WFP has partnered with The Rockefeller Foundation to scale up consumption of more nutritious diets such as fortified wholegrain flour for school-age children through leveraging school feeding procurement as an enabler for better nutrition outcomes. WFP Burundi began a pilot project of fortified whole maize flour for consumption in school feeding programmes in the country with private sector partners. In 2023, WFP will refine the products and launch the flour for consumption for at least 60,000 pupils.
The Government of Burundi and WFP's commitment is to provide fortified whole maize flour to at least 50 percent of children in the national school feeding programme by 2024.

Food for Education, supported by The Rockefeller Foundation, McKinsey and Capwell Industries, designed a porridge school feeding programme for the Murang'a County Government in Kenya. The project tested different models of implementation and different porridge flours with 20,500 children in over 300 schools. The fortified whole maize flour was the most affordable and best option for scaling the project, with some adjustments. The pilot has been a success and the Murang'a County Government will be scaling up the programme to feed 41,000 Early Childhood Development learners in 2023.

In 2021, The Rockefeller Foundation worked with WFP and the Government of Rwanda to make school meals more nutritious without spending more money by switching from milled flour to fortified wholegrain flour. This collaboration is part of the "Power of Procurement for Nutrition" initiative which seeks to develop healthy diets by exploring opportunities to improve nutrition through the meals and menus provided by institutional procurement channels, such as school feeding. The initial investment in encouraging procurement and consumption of fortified wholegrain maize

meal flour represented an opportunity for nutrition and health gains in Rwanda. As a starting point, wholegrain fortified maize meal is a promising investment. It makes the highly nutritious and fibre-rich brand and germ available for human consumption by school-age children. This fortified wholegrain product addresses the need for affordable nutritious food to serve some of the most vulnerable populations, while maximizing the nutritional value per cost unit.

From August to December 2021, a pilot was carried out in 18 WFP-supported schools reaching 13,765 primary students (49 percent female and 51 percent male), where WFP shifted from providing the regular refined fortified maize flour to a new fortified wholegrain maize flour, purchased from a local miller. The pilot also involved a social and behaviour change communication campaign, focusing on the nutritional benefits of wholegrain products. The pilot's endline survey showed that 73 percent of students in the pilot understood that wholegrain fortified flour was healthier than refined, compared to 32 percent of students not in the pilot. By the end of the pilot, 97 percent of students preferred wholegrain fortified flour over refined flour, compared to 29 percent at the beginning.

The ultimate vision is to scale up this model for use in Rwanda's National School Feeding Programme. Based on the success of the pilot, from May 2022, WFP will work with 49 schools in the southern province, the goal being that all 117,000 children served by WFP in the country will be enjoying fortified wholegrain ugali in their meals, and work is under way with the Ministry of Education and other stakeholders to extend this and other menu improvements to all Rwandan schoolchildren.

The multi-year partnership between WFP and The Rockefeller Foundation in Rwanda now supports the development of cost-neutral and nutritious menus for the National School Feeding Programme. This includes value-chain assessments of animal-sourced and biofortified foods; procurement system reviews for school feeding; and capacity building of school feeding stakeholders.

In the United States, The Rockefeller Foundation began working with schools in 2019 to create more nourishing, equitable and sustainable school

nutrition programmes. We support the school nutrition directors who run meal programmes, and their partners, who work tirelessly to provide healthy meals to tens of millions of children who depend on them each day. This includes supporting their efforts to redirect more than US$8 billion in annual food purchasing to support local farmers, good jobs and sustainable production practices. The Rockefeller Foundation continues to call for policies that make healthy school meals free for all children, where many of our grantees have been at the forefront of advocacy efforts to implement these policies at state and federal levels.

The Rockefeller Foundation is proud to continue its work to incorporate more 'good food' into school meals in the United States and abroad. Working with WFP, the foundation is supporting the School Meals Coalition to generate the necessary evidence, metrics and tools to understand where countries currently are and help to get them to where they aspire to be. This includes refining the concept of school-driven food system transformation – an evolution of home-grown school feeding that aims to change not just foods but knowledge and behaviour as well, intentionally leveraging inter-generational knowledge and attitude flows; directly engaging local adult populations; and building on existing community institutions to gradually change the entire ecosystem. This deliberate linking of classrooms with households, communities and markets shows exciting potential as a grassroots-centric way of shifting food systems to be good for both people and the planet.

Contributed by: The Rockefeller Foundation

Box 3.4

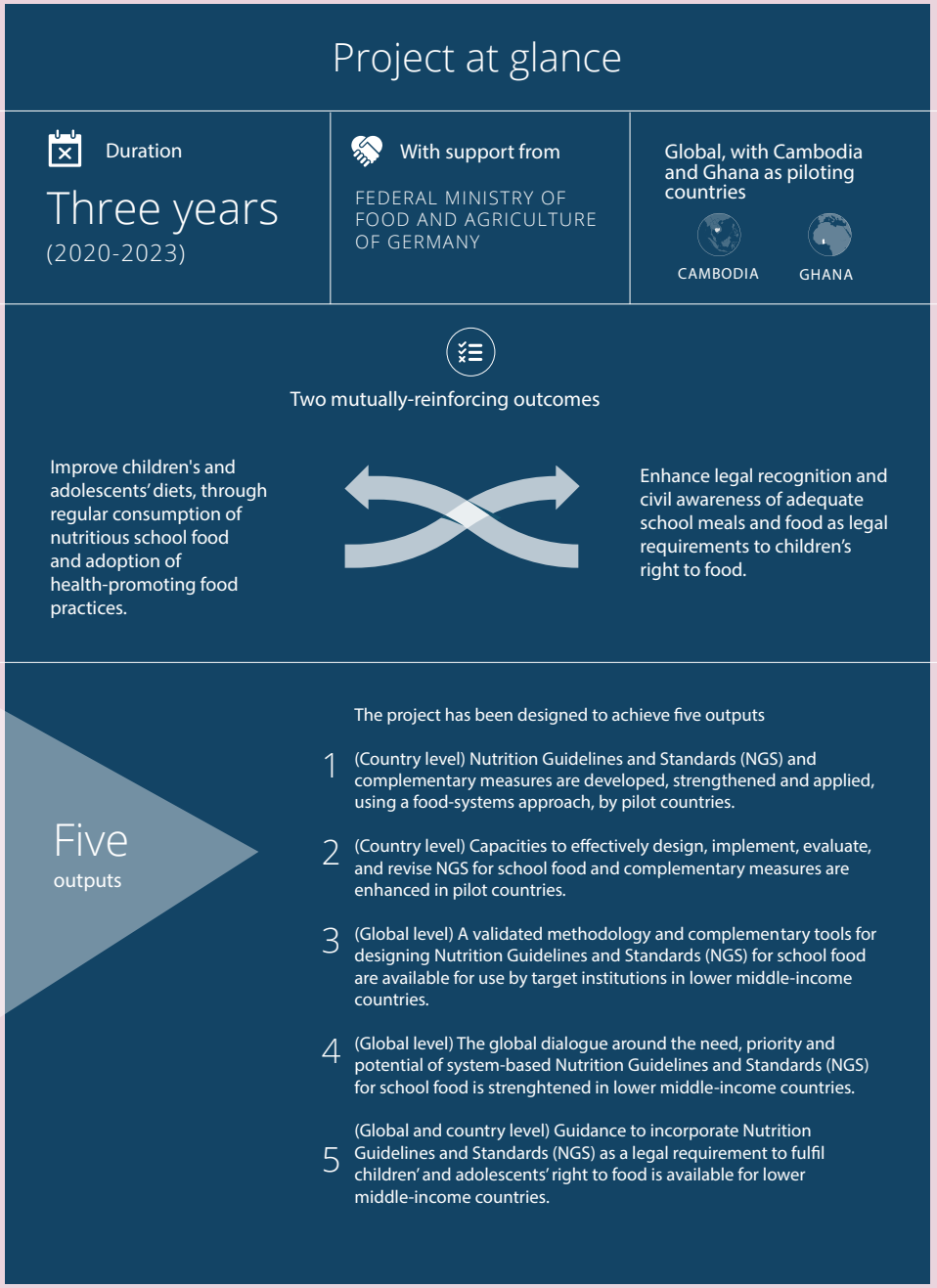
A new global methodology for setting school meal nutrition guidelines and standards

FAO and WFP, supported financially by the German Federal Ministry of Food and Agriculture, are currently implementing a three-year project that will produce a new methodology to aid government stakeholders and institutions in developing and implementing nutrition guidelines and standards for more nutritious school meals for children of all ages.

Nutrition guidelines and standards are rules, principles and recommendations designed to improve the nutritional quality, quantity and adequacy of foods and meals in schools. These standards go beyond setting nutrient-based targets, and require specific processes to be effective, including the collection and analysis of individual food consumption data; understanding the value chain and procurement possibilities; and acknowledgement of regional and local consumption patterns, among others.

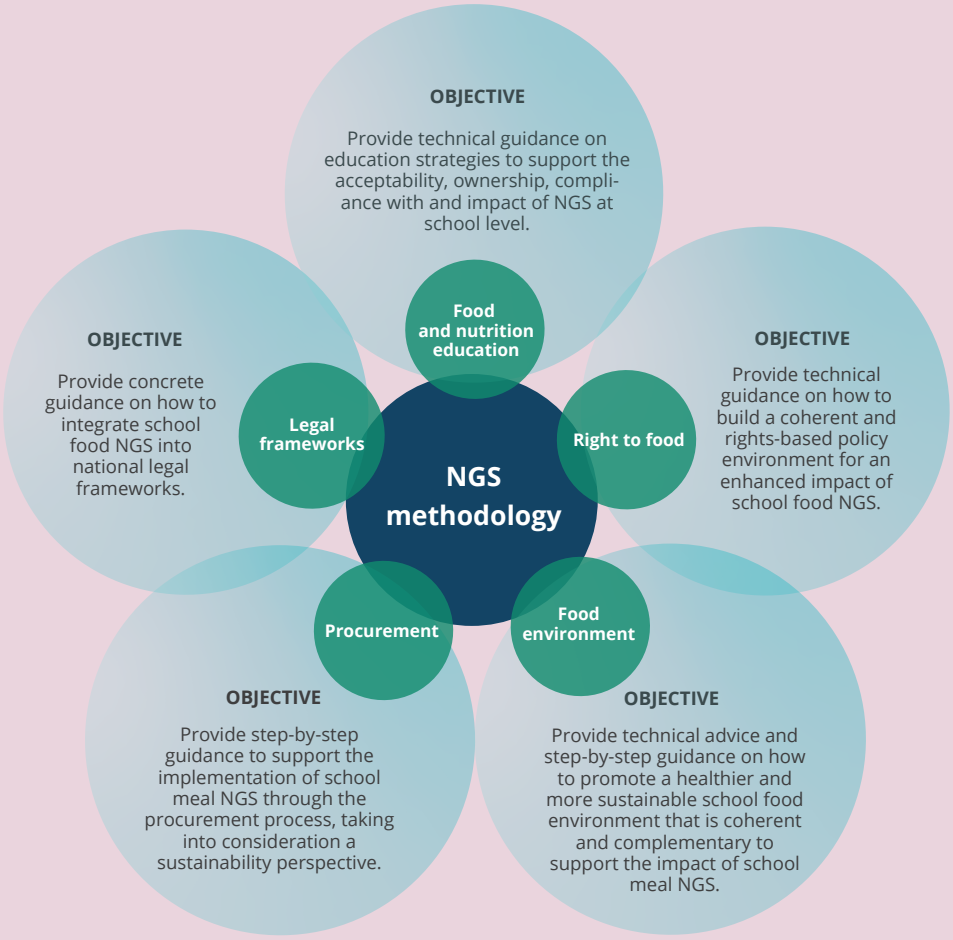
Nutrition guidelines and standards have the potential to support the right to food of often vulnerable groups. However, the necessary processes are resource-intensive, require technical capacities and involve the coordination of different sectors. Despite their relevance, many low and middle-income countries currently have no nutrition standards (or have some criteria that need revision) to guide the composition of the food and meals that are provided on a daily basis to students. To date, there are no clear processes to develop effective nutrition guidelines and standards, and no internationally recognized methodology to do so. This project has been designed to address these gaps.

Figure 3.3
Main characteristics of the joint FAO and WFP project



The project is also developing a number of manuals to support implementation of the nutrition guidelines and standards and their integration within national policy and legal frameworks. The set of manuals are illustrated below:

Set of manuals that will accompany the global school meal nutrition guidelines and standards.



The methodology and guidance package will be tested in two countries, Cambodia and Ghana, to gather direct feedback on their usefulness. Both will then be adjusted and finalized through regional and global workshops. A consultative group with representatives of key UN and international agencies has been set up to provide their expertise and perspectives to ensure that the approach is comprehensive and coherent.

As of July 2022, inception meetings have been held in both countries, where stakeholder mappings, adaptations of the activities and workplan, and revision of project country targets were carried out. The meetings were critical for engaging the multiple ministries and institutions that are needed for school meal nutrition guidelines and standards to be set and implemented with a food systems approach.

Furthermore, a series of assessments are being conducted in both countries to inform the setting of standards, and most importantly to set a baseline for piloting such standards to improve school meals. This will be undertaken by collecting individual food consumption data in a sample of schoolchildren in selected provinces in both countries. The baseline is set to be completed by December 2022.

Another key deliverable of the project is the recently launched School Food Global Hub, which hosts up-to-date information about school food and nutrition programmes, policies and legislation around the world. The hub also offers a space for schoolchildren and adolescents to make their voices heard and contribute to the discussion on school food.

The project is well aligned with the commitment of support that the five UN agencies (FAO, WFP, WHO, UNESCO and UNICEF) have made to the global School Meals Coalition and its aim to ensure that, by 2030, every child receives a daily, healthy meal in school.

More information about the project can be found at: *https://www.fao.org/in-action/school-nutrition-standards-for-safeguarding-children-right-to-food/en/*

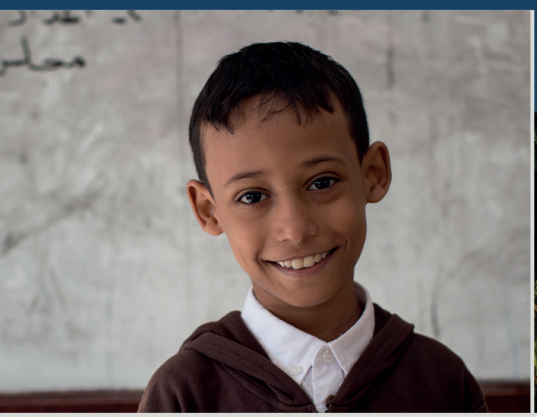
School Food Global Hub: *https://www.fao.org/platforms/school-food/en*

Contributed by: Food and Agriculture Organization of the United Nations and World Food Programme

WFP/Gregory Barrow

Chapter 4

The global and strategic role of WFP in school health and nutrition



Over the past four years, WFP has significantly increased its involvement and role in global school feeding programmes, as highlighted in its 2020 strategy "A Chance for Every School Child". The strategy included a review of existing evidence, lessons learned and best practices, and extensive consultations with internal and external partners. The overall objective of WFP's strategy was to mobilize governments and partners to significantly scale up and improve school meal programmes, as a direct and practical response to many of the challenges impeding achievement of the SDGs.

A decade of advancement in this area came to a virtual halt when the COVID-19 crisis struck two months after the strategy's introduction. With the closure of schools in April 2020, WFP estimated that 370 million children were missing out on school meals. Reacting to the crisis, WFP quickly mobilized to reorganize its programmes to support schoolchildren as they were learning at home. WFP strengthened and expanded its partnerships with significant stakeholders, while adjusting its strategy to the demands of the time. These efforts were reported in the 2020 edition of this publication.

Despite its negative consequences, the COVID-19 crisis galvanized the world and accelerated progress on an advocacy agenda that would otherwise have taken at least five years to complete. In 2021, a group of countries, mobilized and supported by WFP, established the School Meals Coalition at the UN Food Systems Summit in New York. This partnership, currently comprising 76 countries and 83 stakeholders, resolved to ensure that, by 2030, every child has the opportunity to receive a healthy, nutritious daily meal in school (see Chapter 2).

One of the most important outcomes of WFP's ten-year strategy is the School Meals Coalition, which stands out for its creative approach to multilateral collaboration. Taking a systems and multisector approach, the School Meals Coalition is a network of networks, with governments rather than the UN system as its centre. It is an evolving community that shares good practices and optimizes cooperation to help countries support an upscaling strategy. As the Coalition secretariat, WFP has an enabling function.

In 2022, WFP's Strategic Plan 2022–2025 was approved by the Executive Board. School health and nutrition, and school meals were recognized as the organization's flagship programme. The Executive Board's decision to strengthen global leadership in this critical area of child development consolidated the efforts that had been made since 2018.

Currently, WFP has three roles in the global school meals agenda:

1. Supporting governments with their school meal programmes:

WFP provides policy support, technical assistance, evidence and know-how to help upper-middle, lower-middle and low-income governments establish or strengthen the sustainability of their school feeding programmes. WFP's technical and policy support has indirectly influenced the quality of life, access to education and nutritional status of 106 million schoolchildren in 77 countries.

2. Providing operational support to countries:

When necessary, WFP provides school meals to vulnerable children in support of national objectives. In 2021, WFP provided school meals to 15.5 million children in 57 countries, with approximately 72 percent of the coverage in Sub-Saharan Africa and the Middle East (see Map 4.1).

3. Establishing, coordinating and maintaining three global public goods:

- *The School Meals Coalition:* As the secretariat of the Coalition, WFP supports countries of all income levels to share experiences, access financing and improve their approaches, supported by a global network of partner organizations. WFP helps all Coalition partners to coordinate action and connect to the initiatives, which it helped to incubate and launch.
- *The State of School Feeding Worldwide:* This publication, which is issued every two years, provides quantitative and qualitative global information on school feeding. The publication also monitors the progress of the School Meals Coalition and achievements towards its goals of improving school health and nutrition.
- *The Global School Meals Database:* WFP is establishing a global database of school meals indicators that will be available to all countries and partners, to track annual progress.

This chapter presents information on how the COVID-19 pandemic impacted WFP's school feeding portfolio under roles 1 and 2 above, and the main results achieved by WFP during this time. It also presents progress on key areas that were identified in a Strategic Evaluation of WFP's portfolio (see Box 4.1), published in 2021, which has, among other things, helped to strengthen the organization's capacity to provide support to the School Meals Coalition (role 3 - for progress see Chapter 2).

Box 4.1

Key findings from WFP strategic evaluation

The findings of a Strategic Evaluation of WFP's contribution to school feeding initiatives in relation to achievement of the SDGs were presented by the WFP Office of Evaluation in 2021. The following is a summary of some of the salient points.

WFP's School Feeding Policy (2013) along with the School Feeding Strategy 2020-2030 remain relevant to Agenda 2030 and WFP's Strategic Plan (2017-2021)**.** This is demonstrated by global evidence on the contribution of school feeding to a range of SDGs, and by the role of school feeding as part of a school health and nutrition package delivered through schools. Moreover, data on global coverage of school feeding reinforce the idea of a gradual shift to supporting nationally owned programmes to maximize results. This approach is central to the new WFP school feeding strategy and was already envisaged in the 2013 policy. Recommendations for further improvement include generating strategic guidance on school feeding in humanitarian contexts and strengthening WFP's capacity to support the transition to full national ownership of school feeding programmes.

School feeding effects on school attendance were confirmed by the Strategic Evaluation,[11] suggesting that the value transfer implied by school feeding is significant relative to household income in the contexts where WFP operates. Correspondingly, the role of school feeding as a safety net is increasingly being recognized, especially during the emergency response to COVID-19 when WFP was able to rapidly adapt and work with partners to provide a safety net through take-home rations.

The evaluation found widespread evidence of positive school feeding effects on enrolment, including positive gender and equity effects. Recommendations to amplify the results of school feeding include ensuring approaches that promote gender transformation and equity are incorporated into both school feeding programmes and the broader school health and nutrition agenda. Based on the evaluation's recommendations, WFP is taking a number of strategic actions on resource mobilization and workforce planning to ensure that as an organization, WFP can continue to deliver transformative results for schoolchildren and their families.

[11] *https://www.wfp.org/publications/strategic-evaluation-contribution-school-feeding-activities-achievement-sustainable*

WFP/Rein Skullerud

4.1 WFP's contribution to the expansion and strengthening of national school meal programmes

This section explores whether and to what extent WFP's policy and technical support efforts are having an effect on the scale and quality of national school meal programmes in countries where WFP is operationally active. It also explores how programmes in low and lower middle-income countries are being progressively institutionalized, with WFP support. We do this by comparing the changes between the figures presented in the *State of School Feeding Worldwide 2020*[12] and the latest figures available, focusing on countries with WFP support.

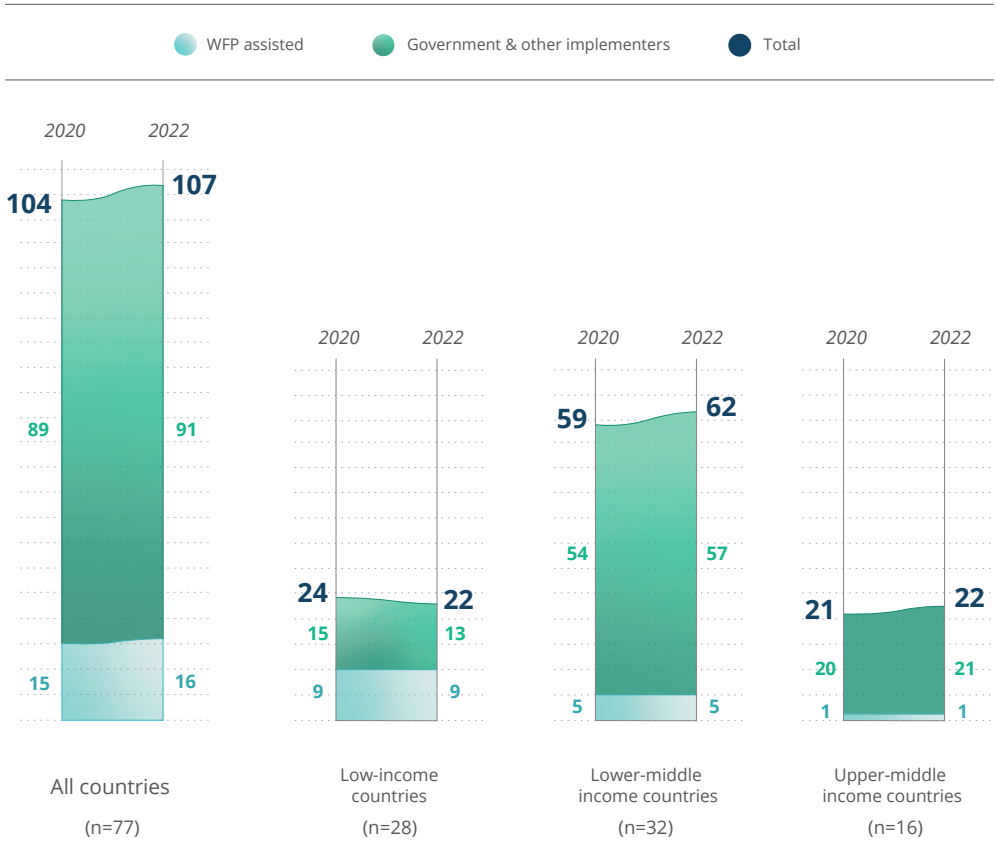
The number of children receiving school meals in WFP-supported countries was 103 million in 2020 and 106 million in 2022 (see Figure 4.1 below).
These data suggest that where governments and WFP have worked together over the last two years since the start of the pandemic, they have been largely successful in restoring access to programmes. This is in contrast to the general results described in Chapter 1, where it is observed that low-income countries in particular are struggling to reach the numbers of children covered prior to the pandemic. This suggests that WFP support has been particularly important to recovery in low-resource settings and requires continuing strong focus in low and lower middle-income countries which are seeking to build back their programmes.

As first reported in *State of School Feeding Worldwide 2020*, the vast majority of children receiving meals are supported by governments through national programmes, while WFP supports a smaller but important caseload of harder-to-reach children. During this two-year period, the number of schoolchildren reached by WFP has remained relatively stable, while government coverage has slightly increased, again signalling a positive trend towards the sustainability of programmes.

[12] *https://www.wfp.org/publications/state-school-feeding-worldwide-2020*

Figure 4.1
Number of children reached by school feeding programmes in countries supported by WFP

Legend: *The number of children receiving school meals in countries supported by WFP in 2020 is roughly equal to the number in 2022. Joint action by governments and WFP has helped programmes recover to pre-pandemic levels, even in low-income countries where recovery is often least effective. This suggests that WFP should sustain a focus on low and lower middle-income countries.*



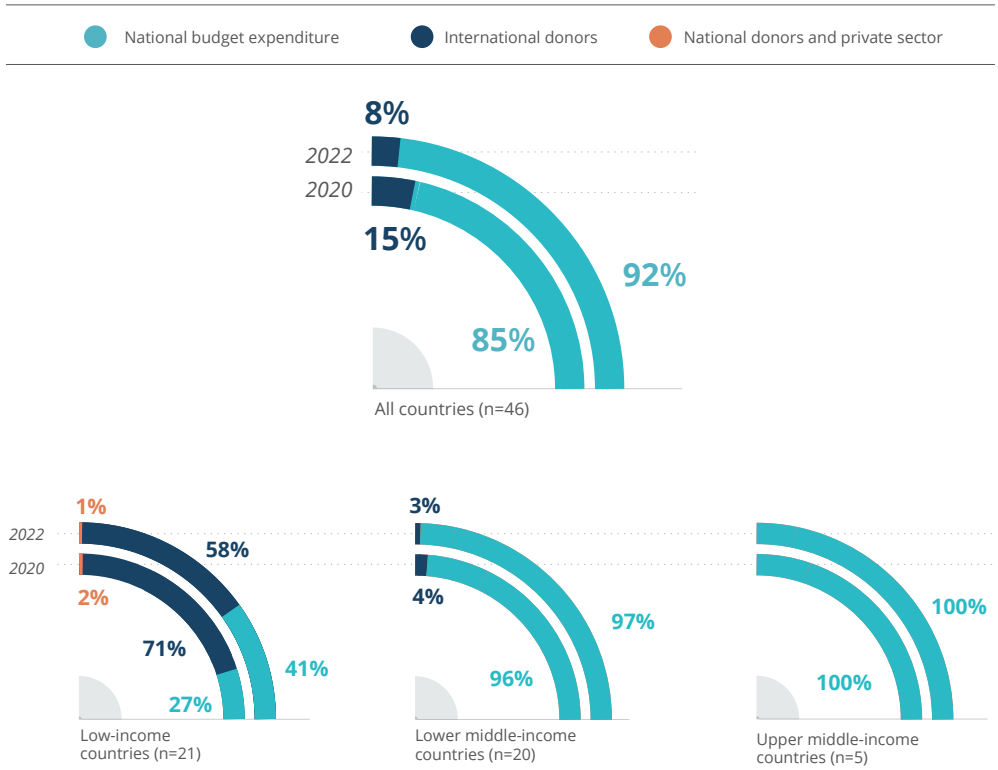
Over the past two years, government investment in school feeding in WFP-supported countries has increased across all country income categories. This broadly confirms the observation from the 2020 edition of this report that there is a general and increasing trend towards self-reliance in most countries, with a global movement towards domestic financing (i.e. 85 percent in 2020 and 92 percent in 2022) (see Figure 4.2).

The share of domestic funding for school feeding programmes in low-income countries supported by WFP has increased significantly in the last two years, from 27 percent in 2020 to 41 percent in 2022. This mirrors the general trend, described in Chapter 1, for low-income countries to have increased the proportion of domestic funding from pre-pandemic levels: rising from 30 percent in 2020 to 45 percent today (see Chapter 1). Disappointingly, external donors have not followed suit: external official development assistance has fallen from 69 percent in 2020 to 55 percent today. Despite the challenge of an increasingly tight fiscal space, external donors have reduced their commitment, leaving governments to pay an increasingly large share of the cost of these programmes.

Figure 4.2

Change in funding sources in countries supported by WFP

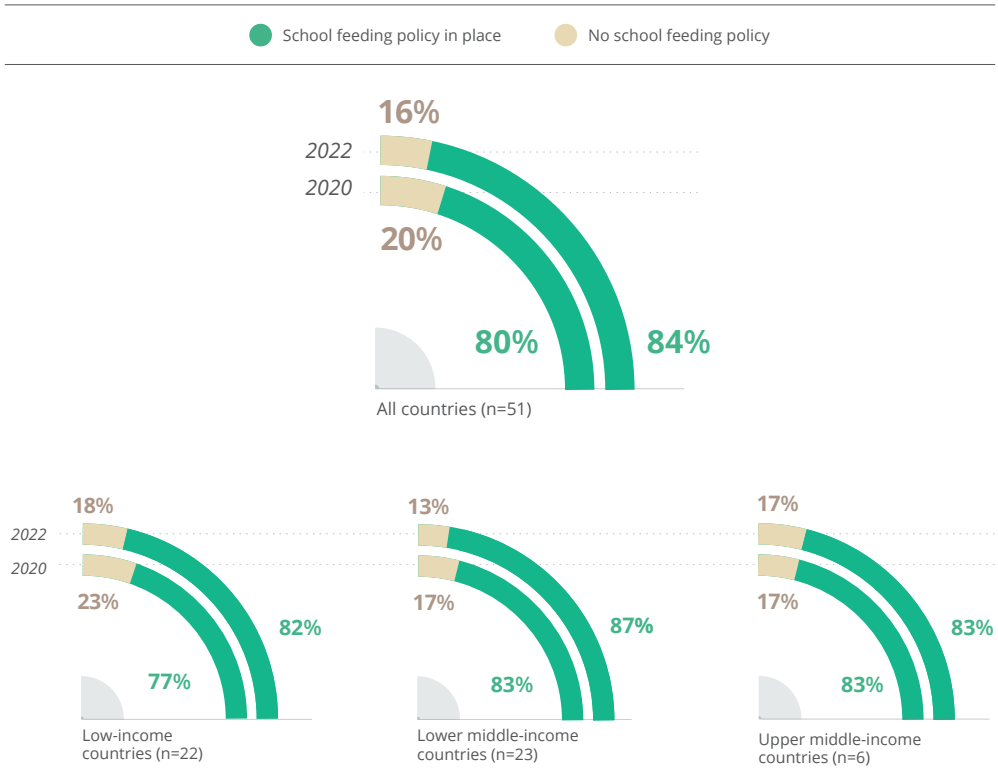
Legend: *The share of domestic funding for school feeding programmes in low-income countries supported by WFP has increased significantly in the last two years. Lower-middle and upper middle-income countries continue to maintain increased levels of domestic funding as they transition from WFP support to government-led programmes.*



Between 2013 and 2022, 32 WFP-supported countries reported that they have school feeding policies, laws or strategies in place – a 64 percent increase since 2013 - signalling a significant trend towards institutionalization of school meal programmes. Between 2020 and 2022, six more countries have approved national policies, as shown in Figure 4.3 below. As of 2022, 84 percent of countries that WFP supports have a policy framework on school feeding.

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 (see country examples below).

Figure 4.3
Change in policy frameworks in countries supported by WFP
Legend: *Between 2020 and 2022, all income categories of countries supported by WFP adopted a school feeding policy. Most of these countries received technical assistance and capacity strengthening support.*



Sierra Leone's National School Feeding Policy[13]

Sierra Leone's School Feeding Policy was endorsed in May 2021 by the Minister of Basic and Senior Secondary Education, David Moinina Sengeh. The policy was developed to reflect the Government of Sierra Leone's increased focus on food security and nutrition, and its commitment to the National Home-Grown School Feeding Programme. Through this policy, Sierra Leone aims to follow the trend of governments taking responsibility for their school feeding programmes and transition from donor-supported projects to nationally owned and financed programmes linked with local food production and procurement. WFP provided technical and financial support to the Government to develop and validate the School Feeding Policy, including a pilot project on home-grown school feeding across 17 schools in September 2021, that was recently scaled up to 55 schools between October and December 2022 across three districts. This has helped to enhance multisectoral engagement and the capacity of cooperating partners. The policy emphasizes the Government's commitment to manage and finance school feeding, with donors and partners providing technical guidance on policy, planning, implementation, capacity development and resource mobilization. The policy highlights Sierra Leone's understanding of the multiple potential benefits of school feeding as a social safety net for vulnerable children, families and communities, and the need for multisectoral collaboration to achieve desired results.

[13] *https://mbsse.gov.sl/wp-content/uploads/2021/05/National-School-Feeding-Policy_May2021.pdf*

Togo's School Feeding Bill[14,15]

In June 2020, the National Assembly of Togo unanimously approved the National School Feeding Bill. The bill is the result of a long process initiated in 2014, when a delegation from the Government of Togo conducted a study visit to the Government of Brazil, organized by WFP's Centre of Excellence. During the visit, the Government of Togo learned about the Brazilian home-grown school feeding experience and the visit was followed by several missions facilitated by WFP to support the development of a National School Feeding Policy. In 2016, Togo held a national forum on school feeding, supported by WFP, including national stakeholders and representatives from other countries – Brazil, Benin, Burundi, Côte d'Ivoire, Niger and Senegal – to discuss initial iterations of the bill. This was followed by several workshops and consultations that brought together ministries, traditional leaders, civil society representatives and WFP. The Council of Ministers then approved the bill in 2019, before it was finally approved by the National Assembly in June 2020. In May 2021, WFP signed a strategic Memorandum of Understanding with the Ministry of Agriculture, Livestock and Rural Development regarding the government-owned school feeding programme and promotion of sustainable food systems. In June 2021, the Prime Minister announced the Government's plan to increase school feeding coverage from 6 percent to 25 percent by the end of 2025 and requested WFP's assistance for the development and promotion of an integrated school feeding model based on local food production. Another Memorandum of Understanding is currently being finalized with the Ministry of Grassroots Development on the regulatory and operational assistance that WFP will provide in 2022 for the development and implementation of a national home-grown school feeding programme.

Through a concerted, participatory and iterative approach, with the involvement of all stakeholders at central, regional and local levels, three successive assessments of national capacities in school feeding were carried out through SABER tools (*Systems Approach for Better Education Results*/systems approach for better educational outcomes) in 2012, 2016 and Healthy-SABER in 2022.

[14] *https://centrodeexcelencia.org.br/wp-content/uploads/2020/07/CaseTogo.pdf*
[15] *https://www.fao.org/right-to-food/news/news-detail/en/c/1304858/*

Jordan's National Strategy for School Feeding 2021–2025[16]

In July 2022, the Ministry of Education in Jordan launched the *National Strategy for School Feeding 2021-2025.* The strategy is led and coordinated by the Ministry of Education, with support from and consultations with the Ministry of Health, the Ministry of Planning and International Cooperation, the Ministry of Agriculture, the Ministry of Social Development, the National Aid Fund, the Royal Health Awareness Society and WFP.

The objectives of the National School Feeding Strategy include improving the nutritional status of school-age children, as well as ensuring improved educational outcomes, and improving students' knowledge and skills to make healthy food choices throughout their lives. The National School Feeding Strategy recognizes school feeding as a social safety net that provides educational, health and economic benefits for schoolchildren and communities in the most vulnerable areas. The strategy also recognizes the importance of investing in both "learning" and the "learner".

The strategy outlines desired results, specific activities and key performance indicators with clear timelines and cost estimations. It was established by the Government to harness partnerships and coordinate the roles of several actors around school health and nutrition. Key elements for the activities envisioned by the strategy include improving quality and service delivery; enhancing targeting for the most vulnerable children; increasing nutrition awareness; and utilizing non-governmental and community-based services to create sustainable socioeconomic opportunities linked to school feeding. WFP will also continue to work with the Ministry of Education to design new school meals models in line with the strategy and has seconded staff to both the Ministry of Education and the National Aid Fund (the main social protection arm of the Government).

The programme has recently adopted a healthy school meal approach, consisting of locally sourced pastry, fruit and vegetables for 90,000 students from kindergarten to sixth grade in more than 300 schools within six governorates in Jordan on a daily basis. The programme has strong impact on the local economy as the whole supply chain is localized. The pastries are prepared in local bakeries, while the fruits and vegetables are produced by local smallholder farmers with the ability to trace the source as local partners provide this service.

[16] *https://www.jordantimes.com/news/local/education-ministry-wfp-launch-national-strategy-school-feeding*

Ingredients are distributed to healthy kitchens established within community-based organizations and 300 women from local communities have been formally recruited to work on packing the meals and sending them to schools after receiving required training on food handling, safety and hygiene. All kitchen workers are trained and registered under social security. Furthermore, 295 smallholder farmers were recruited to work on providing the large quantities of fruits and vegetables required.

Zambia's National Home-Grown School Meals Strategy 2020–2024[17]

The Ministry of Education in Zambia launched the National Home-Grown School Meals Strategy 2020–2024 in July 2020. The strategy, endorsed by the Minister of Education, outlines Zambia's vision of the National School Meal Programme as a key safety net for students in pre and primary schools. The strategy recognizes the potential of school meals in reducing poverty and malnutrition through establishing connections with local procurement and sourcing. The Ministry of Education led the formulation of the strategy in collaboration with other actors, including other ministries, provinces, districts, development partners, civil society actors, schools, community leaders and with technical support from WFP. WFP also supported the development of a decentralized procurement strategy, including a financing framework to complement the strategy. The vision of the strategy is for a school meal programme that enhances human development and contributes to reducing poverty and vulnerability with the goal of contributing to improved nourishment, health and learning outcomes of learners and increased socioeconomic empowerment of local communities by 2024. The strategy has multiple objectives for the National School Meal Programme, including the improvement of enrolment, attendance, retention and progression of learners; increasing the awareness, production and consumption of nutritious, diverse and safe food among learners; promoting market participation of smallholder farmers with quality and diversified food products; and strengthening the implementation and sustainability of the programme.

[17] *https://zambianeye.com/national-home-grown-meals-strategy-for-schools-launched/*

El-Salvador's Healthy and Sustainable School Feeding Strategy[18]

The Government of El Salvador officially launched the Healthy and Sustainable School Feeding Strategy in February 2021 through a collaboration between the Ministry of Education, Science and Technology, the Office of the First Lady and the Cabinet, with technical assistance from FAO. The objectives of the strategy include the promotion of permanent delivery of healthy and nutritious school snacks to students in the public education system, while facilitating the local procurement of foods; strengthening nutrition and food education and mainstreaming it in the national curriculum; contributing to the formulation of a law on Healthy and Sustainable School Food; and finally improving family economies.

WFP supported implementation of the strategy through capacity building to improve programme monitoring processes, including the update of the Programa de Alimentación y Salud Escolar (School Food and Health Programme) results framework; capacity building actions in nutrition; citizen participation and knowledge management; and a supply chain gap analysis.

Ecuador's School Meals Law[19]

Ecuador passed the Organic Law on School Meals in April 2020. WFP and FAO supported preparation of the first versions of the Regulations of the Organic Law on School Feeding for its approval at the inter-institutional committee at the end of 2020. WFP's technical assistance on the National School Food Programme (Programa de Alimentación Escolar) showcased that school food can contribute to more than just education-related objectives. The purpose of this law is to guarantee the right to food and nutrition for school-age children and adolescents in the National Education System in a sustainable manner so they can enjoy a dignified, healthy and active life. The law tackles issues including food safety and quality; control of food distributed in educational institutions; promotes healthy diets for children; outlines preferences for local procurement from certain communities; and ensures that food and beverages distributed in schools comply with national nutritional and health guidelines.

[18] *https://www.mined.gob.sv/2020/12/09/gobierno-de-el-salvador-lanza-estrategia-de-alimentacion-escolar-saludable-y-sostenible/*
[19] *https://www.fao.org/faolex/results/details/en/c/LEX-FAOC194674/*

4.2 WFP's operational support to countries

Every year, in over 70 countries, WFP provides school meals, snacks or take-home rations to schoolchildren and their families, and supports national governments with technical assistance. This section provides information on WFP's operational support to countries.

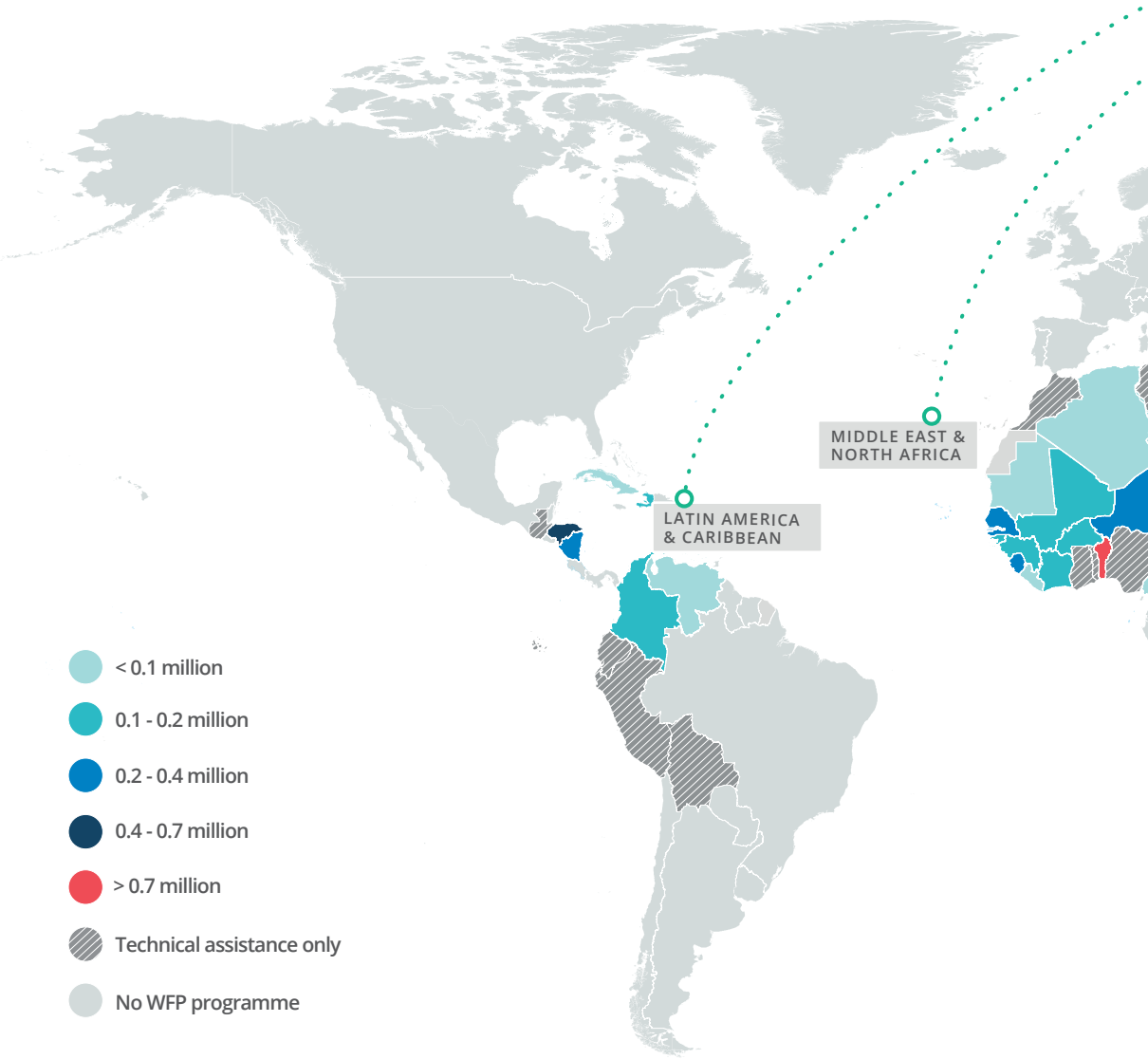
In 2020, WFP reached 15 million children in 59 countries with school feeding, a drop of about 13 percent compared to 2019 caseloads which were published in the 2020 edition of this publication. This was mostly due to the challenges of supporting these programmes during the school closures caused by the COVID-19 pandemic. Despite enormous logistical challenges, WFP reached more than 7 million schoolchildren with take-home rations in the form of food or cash as alternatives to on-site meals, to protect children from going hungry amid school closures.

One year after the onset of the crisis, in 2021, schools started to reopen in some countries, but pandemic-related challenges and school closures continued. In 2021, WFP reached 15.5 million children in 57 countries, of which 4 million children were reached in 21 countries with alternative take-home rations during school closures. See Box 4.2 below for a summary of WFP's school feeding activities in 2021 and Map 4.1 which illustrates the evolution of WFP school feeding beneficiaries between 2013 and 2021 (by WFP Regional Bureau).

WFP/Arete/Arlette Bashizi

Map 4.1

Overview of WFP school feeding programmes around the world in 2021



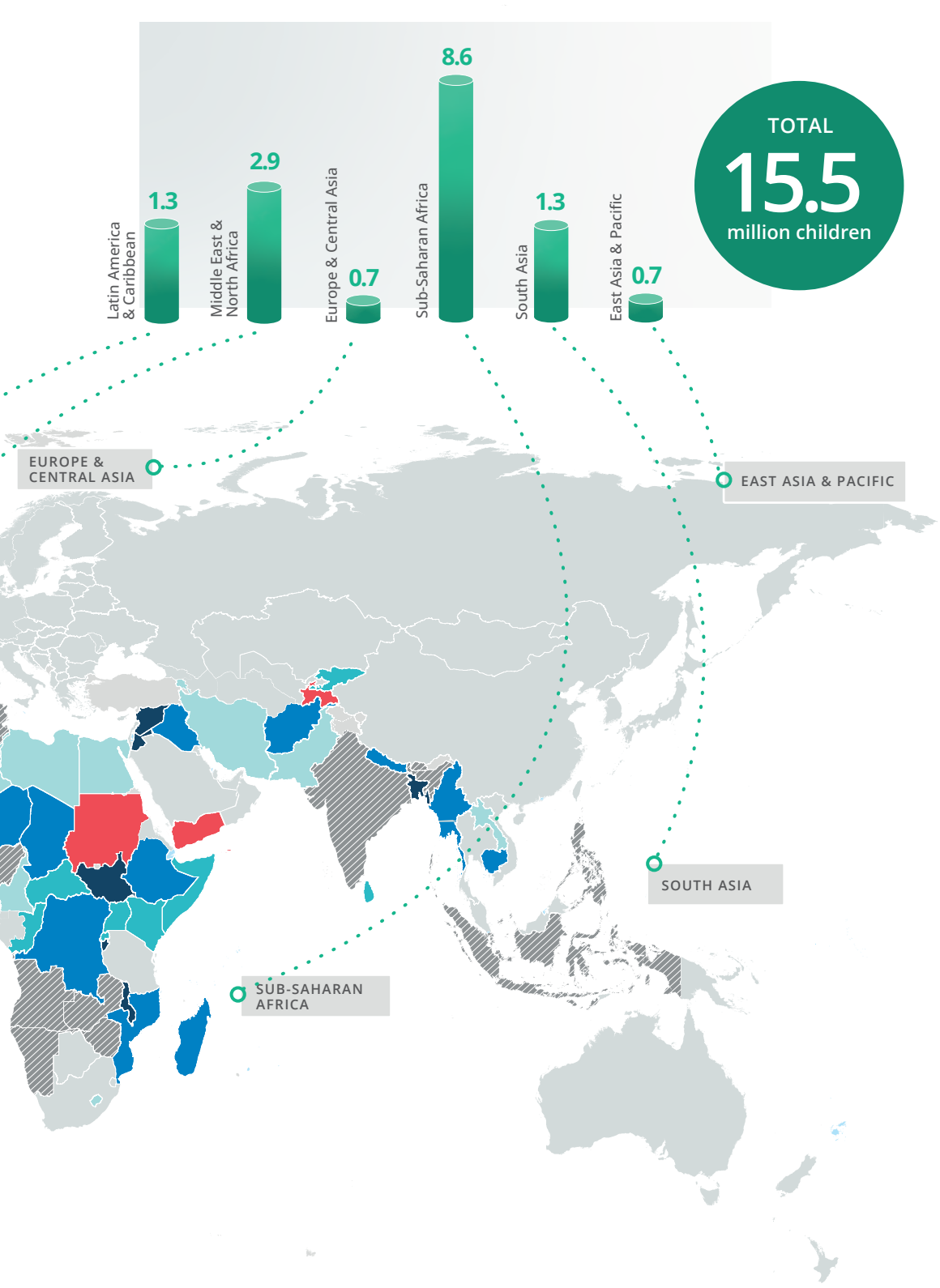
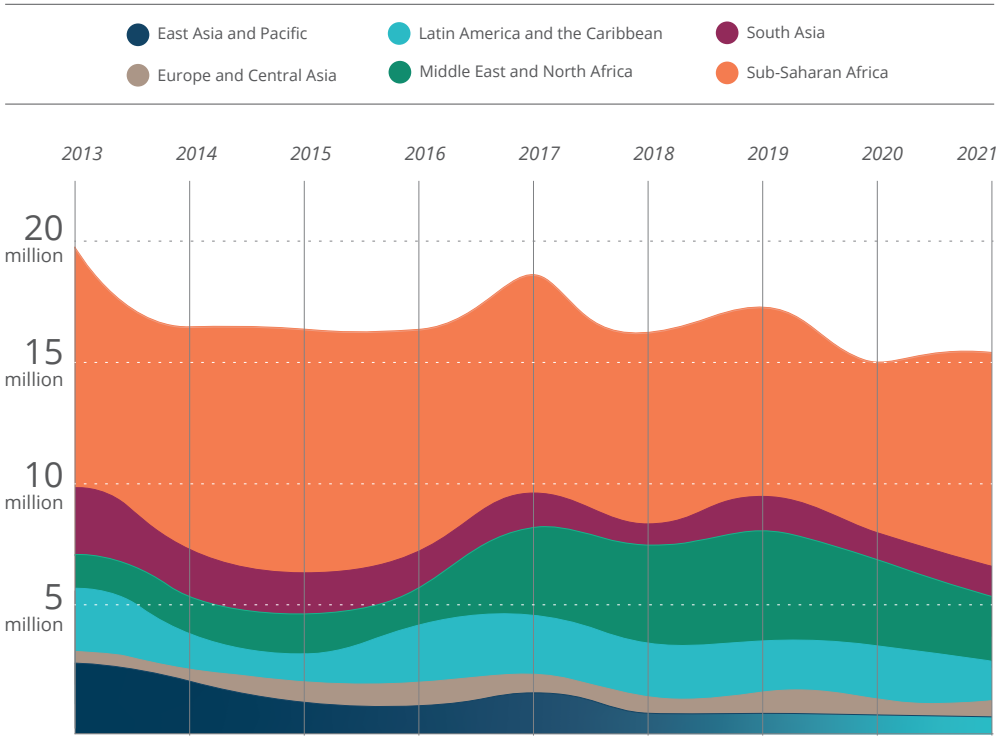

TOTAL
15.5
million children
Latin America & Caribbean
1.3
Middle East & North Africa
2.9
Europe & Central Asia
0.7
Sub-Saharan Africa
8.6
South Asia
1.3
East Asia & Pacific
0.7
EUROPE & CENTRAL ASIA
EAST ASIA & PACIFIC
SOUTH ASIA
SUB-SAHARAN AFRICA

Figure 4.4

Evolution of WFP school feeding beneficiaries between 2013 and 2021 (by WFP Regional Bureau)



* WFP school feeding programmes reached 15.5 million children in 2021; as in 2019, the largest share of which was in Sub-Saharan Africa (55 percent).

WFP/Arete/Nick Sells

Box 4.2

Summary of WFP's school feeding activities in 2021

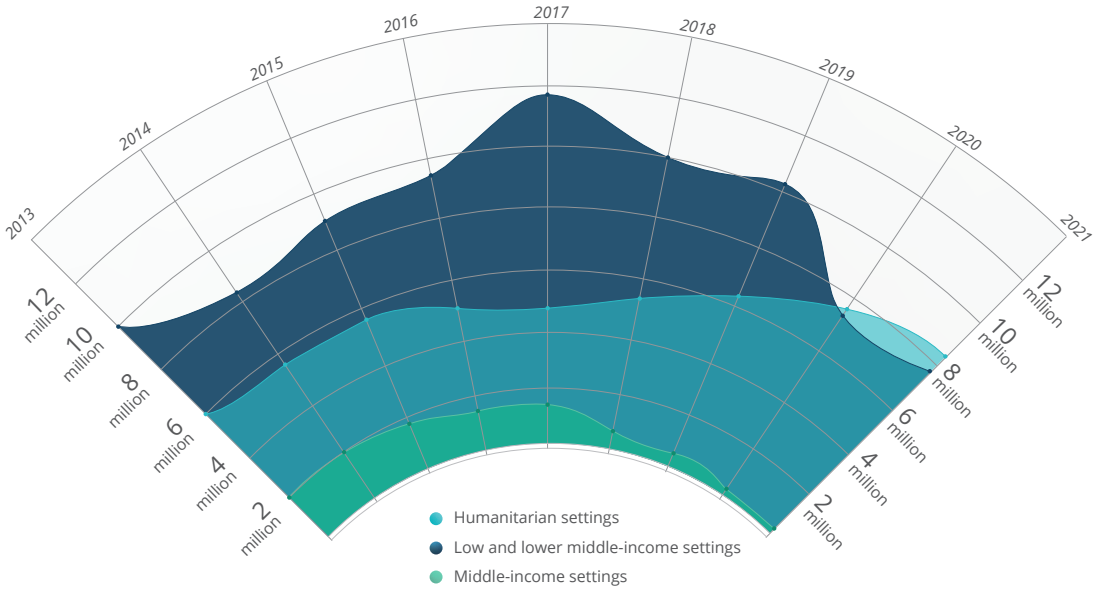
- WFP provided school meals or snacks to 15.5 children, of which 49 percent were girls, in more than 66,000 schools.
- Number of schoolchildren receiving assistance by WFP region:
  - Asia & Pacific (WFP Regional Bureau Bangkok): 1.9 million
  - North Africa, Middle East, Central Asia and Eastern Europe (WFP Regional Bureau Cairo): 5.5 million
  - West & Central Africa (WFP Regional Bureau Dakar): 2.3 million
  - East Africa (WFP Regional Bureau Nairobi): 1.3 million
  - Southern Africa (WFP Regional Bureau Johannesburg): 1.7 million
  - Latin America & Caribbean (WFP Regional Bureau for Panama): 1.3 million
- In 2021, WFP implemented or supported school feeding programmes in 78 countries (5 with direct implementation, 22 with technical assistance only and 51 with a mixture of direct implementation and technical assistance)
- WFP supported the establishment and strengthening of home-grown school feeding programmes in 39 countries.
- Take-home rations in the form of food or cash transfers reached 880,340 children.
- Approximately 6 million children received school feeding in emergency contexts.

As outlined in WFP's school feeding strategy (WFP, 2020b), WFP is working with governments and partners (see Box 4.3), and taking a context-specific approach to ensure that all vulnerable schoolchildren in the world have access to school meals. Three contexts are used to identify countries and guide WFP's role and targets:

- In crises or humanitarian settings, WFP plans to scale up operational support, and increase the number of schoolchildren assisted.
- In stable low-income and lower middle-income countries, WFP will support transition strategies and the scale-up of national programmes, and progressively decrease the number of schoolchildren assisted.
- In middle-income countries, WFP will support the consolidation and strengthening of national programmes, and eventually focus solely on technical assistance.

Despite challenges related to the COVID-19 pandemic, funding constraints and security or access issues, WFP has made progress on its strategy over the past two years. The organization has achieved this by increasing the number of children reached in humanitarian settings and advancing the transition to national programmes in more stable contexts, where its beneficiary caseloads have progressively decreased as expected because they are now being supported by governments through national efforts (see Figure 4.5).

Figure 4.5
WFP's school feeding coverage by country context (2013–2021)
Legend: *WFP has made progress on its school feeding strategy over the past two years by increasing the number of children reached in humanitarian settings and advancing transition to national programmes in more stable contexts. Especially since 2017, WFP has consistently increased coverage in fragile settings, and plans to continue scaling up its coverage in the future.*



WFP has consistently scaled up operations in humanitarian or fragile settings in recent years, from 5.1 million schoolchildren reached in 2017 to 8.5 million in 2021. In 2021, WFP scaled up operations in 16 countries in humanitarian settings, including in Afghanistan, South Sudan and Haiti, and began operations in Venezuela. Further scale-up is expected in future years, as WFP continues to implement its strategy.

In low and lower middle-income contexts, WFP's coverage has been decreasing since 2017, especially as WFP advances transition strategies in some countries, such as Armenia, Uganda and Lao People's Democratic Republic. However, should external shocks and crises affect a country's capacity to deliver or scale up its national school feeding programmes, WFP may increase its coverage and support.

In middle-income countries, WFP has consistently scaled down its operations, from 1.6 million schoolchildren reached in nine countries in 2017, to 270,000 children reached in five countries in 2021. In countries such as Bhutan and Djibouti, WFP has fully handed over the school meal programme to the government, and WFP aims to successfully handover programmes in other middle-income countries in upcoming years.

WFP/Arete/Therese Di Campo

Box 4.3

World Vision in Central African Republic

After prolonged periods of violent conflict, Central African Republic (CAR) is second to last on the UN's Human Development Index, and has some of the lowest rates of literacy and highest levels of child hunger and malnutrition in the world. Due to high levels of insecurity associated with ongoing conflict, many schools have remained closed in more than a third of CAR's prefectures (districts).

In 2019, school meals coverage in CAR was approximately 30 percent, covering both fragile and stable settings (WFP, 2020d).

World Vision has partnered with WFP in CAR since 2014, when it began implementing an emergency school meal programme as part of a broader integrated food assistance programme in six prefectures experiencing high levels of violent conflict.

The objectives of the emergency school feeding interventions were to increase school enrolment, attendance and retention rates, especially for girls, in areas of CAR marked by conflict, fragility and violence. Each school day, World Vision provided a healthy, nutritious meal to 24,000 students to help the most vulnerable children access nutritious food, keep them in school and reduce the risk of child labour. To support the Government's national priorities on education and economic development, in 2021 there was a strategic shift from emergency school meal programmes towards more systems strengthening approaches. For school meals, this has meant pivoting to a home-grown school meals approach.

World Vision is supporting CAR's smallholder farmers to increase their production, as well as mobilizing community members to support the school meal programmes which benefit their children. Managers of schools where World Vision provides hot meals have informally confirmed that primary schools have seen an increase in the retention rate of pupils and a decrease in the dropout rate of girls.

4.3 Tracking WFP's results

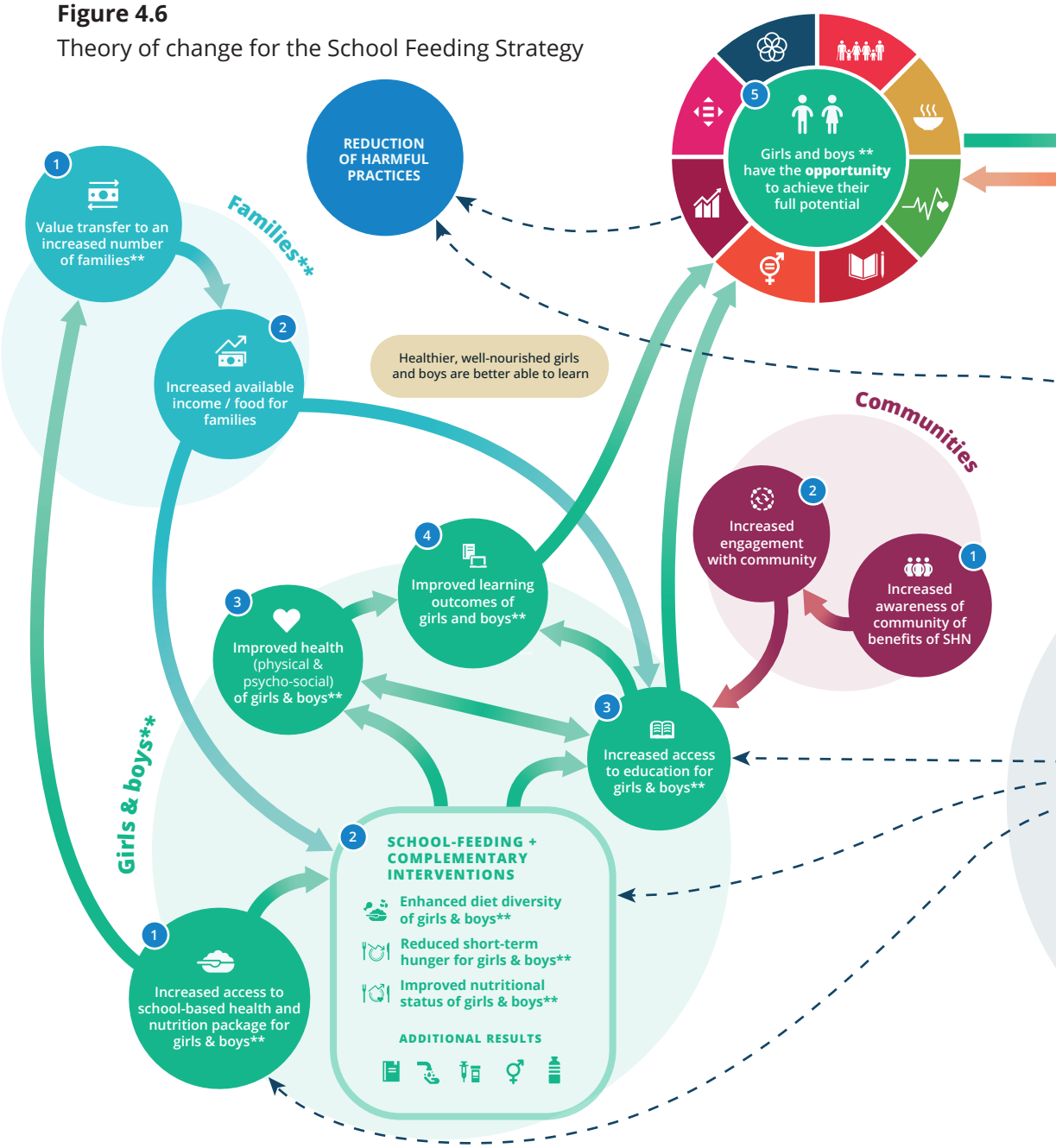
4.3.1 Strengthening school feeding monitoring, evaluation and learning through a new theory of change

A theory of change for WFP's 2020–2030 school feeding strategy was developed in 2020, outlining the intended results and changes in the lives of beneficiaries. WFP is taking a results-based approach to closely track yearly progress against these intended outcomes for each target group and impact pathway, namely girls and boys, their families, actors in the local value chain, and governments. Progress is measured through quantitative and qualitative indicators under each result, alongside evaluations, reviews and other learning exercises.

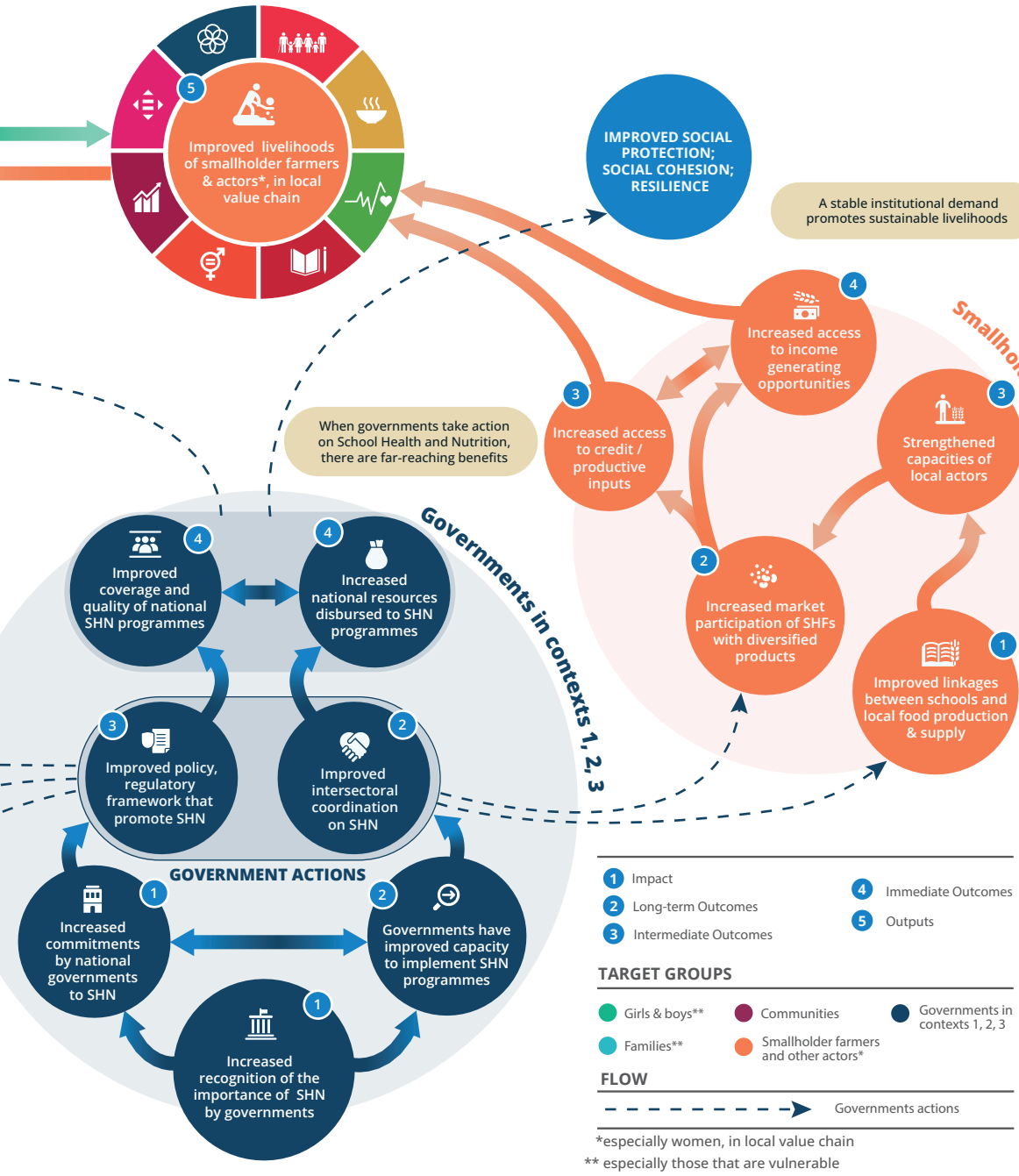
The theory of change (see Figure 4.6 below) provides an overarching model of change for WFP's interventions related to school health and nutrition to reach the goals of the School Feeding Strategy. It was designed to capture the most significant results or milestones in every context where WFP works. WFP will use the theory of change to capture how change happens; inform strategic guidance for programmatic decision making; highlight where there are evidence gaps; fuel feedback loops; and generate learning. This theory of change is also inherently flexible and adaptable, recognizing that change is rarely linear and, as such, it is designed not to be prescriptive, and can be tailored to inform programmatic planning and decision making at community, national or regional levels. The theory of change is built on WFP's comparative advantage in school feeding, along with its innate ability to influence and act as a catalyst in different contexts.

The theory of change is pitched at a global rather than a country-level model. This was a deliberate decision. WFP delivers school feeding in varied contexts, with each programme facing its own unique challenges and circumstances. It would be extremely difficult to combine the diverse pathways of change in crisis settings, where conditions are so specific to each context; or to capture the intricacies of pathways in development interventions; or to articulate the varied and nuanced approaches to successfully transition to national ownership or to support, through the provision of technical assistance, national programme delivery. However, while the pathways of change may differ depending on the context, the ultimate vision of success remains the same, that all girls and boys, especially those that are vulnerable, should have the opportunity to achieve their full potential.

Figure 4.6
Theory of change for the School Feeding Strategy



The theory of change is organized by WFP's target groups, rather than activities, to ensure utility and maximum flexibility for country offices, and to ensure that results produced by both direct delivery and capacity strengthening modalities can be captured.

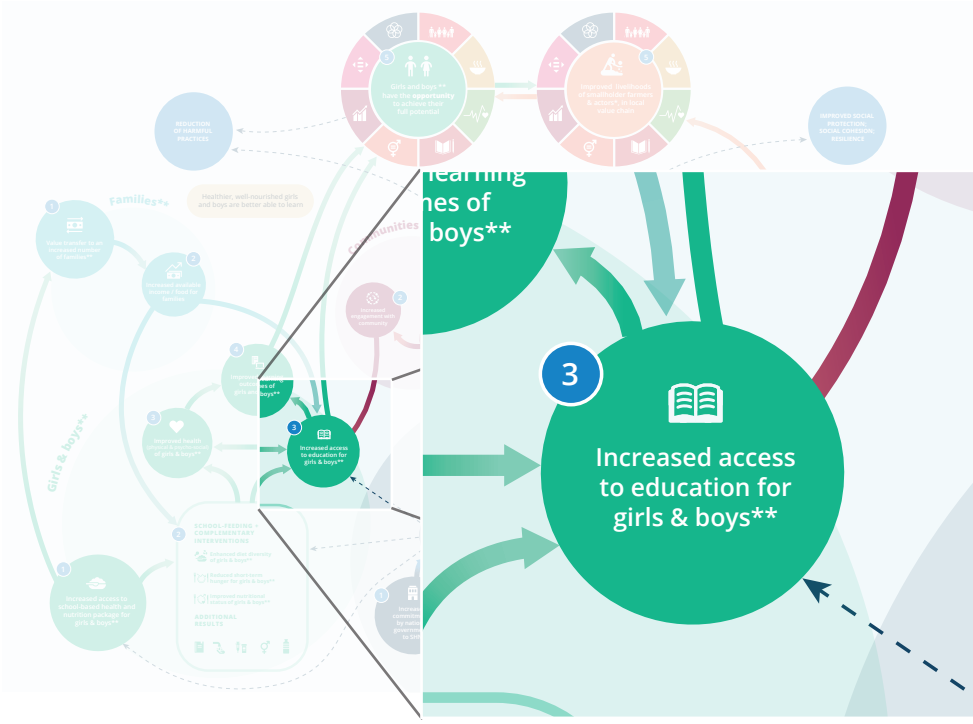


WFP expanded the number of indicators to measure school feeding programmes' outcome-level results to generate more robust data and evidence. New data and evidence collected and analysed in upcoming years will inform progress on the strategy and will contribute to fill evidence gaps and improve WFP's programme quality. Under areas with a stronger evidence base, WFP will continue to track progress and inform decision making.

4.3.2 Tracking results related to education

While collecting new data to fill existing evidence gaps will take a few years, WFP has already been analysing and documenting the impacts of its school feeding programmes, particularly for schoolchildren and their access to education. This section will focus on WFP's findings and results on the impact of school feeding on access to education for girls and boys, especially those that are vulnerable. Upcoming iterations of this publication will explore results under other areas in the theory of change. (see Figure 4.7 below).

Figure 4.7
Tracking WFP results with a focus on access to education
Legend: *A theory of change for WFP's 2020–2030 School Feeding Strategy was developed in 2020, outlining the intended results and changes in the lives of WFP's beneficiaries. The 2022 edition of this publication will focus on available data for one particular result area: increased access to education for girls and boys, especially those that are vulnerable. Upcoming iterations of this publication will explore results under other areas of the theory of change.*



Access to education is one of the key intended outcomes of school feeding, as it is one of the main enablers of improved learning, and therefore the development of human capital. WFP tracks progress under access to education through outcome-level indicators and programme evaluations.

WFP collects and analyses yearly data on three main education indicators to measure the impact of school feeding on access to education: retention,[20] enrolment[21] and attendance rates.[22] WFP country offices establish context-specific baseline values and yearly targets, as well as targets for the duration of their country strategic plans.[23] For example, in a community where data indicates that less than 50 percent of girls in primary school complete the school year, WFP may distribute additional monthly take-home rations for girls and their families to increase retention rates to a target of 75 percent or higher.

Evidence shows that WFP has made considerable gains in access to education through school feeding. However, the global 2020 disruption to education caused by school closures amid the COVID-19 pandemic also negatively impacted past gains. Although strong progress is seen in many countries, and notably in fragile or humanitarian contexts, when analysing yearly enrolment, attendance and retention rates in WFP-assisted schools from 2019 to 2021, the negative impacts of COVID-19 are evident, especially in the 2020-2021 period.

[20] Retention rate: the share of students enrolled at the beginning of the school year, in WFP-assisted schools, who completed the school year, by either passing to the next grade, repeating the present grade, or graduating from school.

[21] Enrolment rate: annual percentage change of enrolment in WFP-assisted schools. Enrolment = number of girls and boys registered in WFP-assisted schools.

[22] Attendance rate: average annual percentage of students attending school in WFP-assisted schools over students enrolled.

[23] School closures amid COVID-19 impacted the ability of country offices to collect data on outcome indicators in 2020 and 2021.

In 2019, all countries reporting on attendance and retention rates showed that WFP school feeding programmes contributed strongly[24] to increasing – or maintaining[25]– the number of children attending school and completing the school year. By contrast, in 2021, less than 60 percent of countries showed strong progress in retention and attendance rates, suggesting that less children completed the school year or attended school regularly (see Figure 4.8).

Despite the clearly devastating effects of the pandemic, data also shows that supporting schoolchildren during school closures mitigated the risk of them dropping out of school. In 2021, 55 percent of countries still showed strong progress in retention rates. One example is Chad, which showed strong progress against targets in all three indicators in 2021 (retention, attendance and enrolment rates), and where alternative take-home rations were distributed during the pandemic to prevent children from dropping out of school.

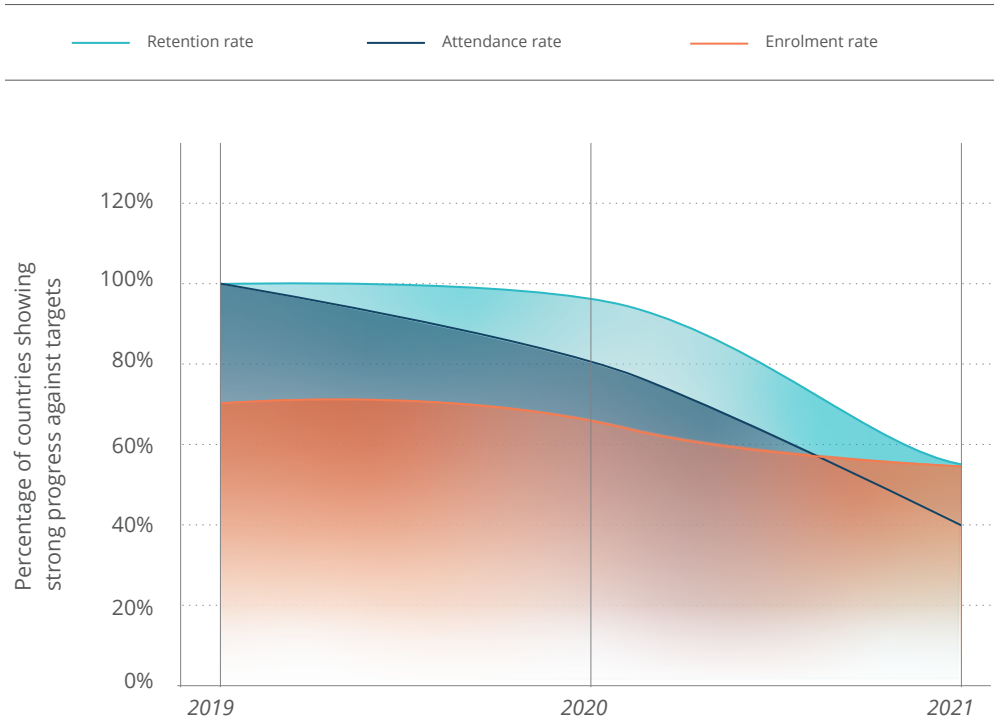

WFP/Tayra Pinzón

[24] Strong progress against target in WFP means that the actual change from baseline to yearly follow-up value over the expected change for an indicator is at 80 percent or higher.
[25] Note: Targets are context-specific, therefore in some countries, yearly targets for education indicators can be similar to baseline values if the objective of the programme is to maintain, or if the situation requires more years to start yielding to increases.

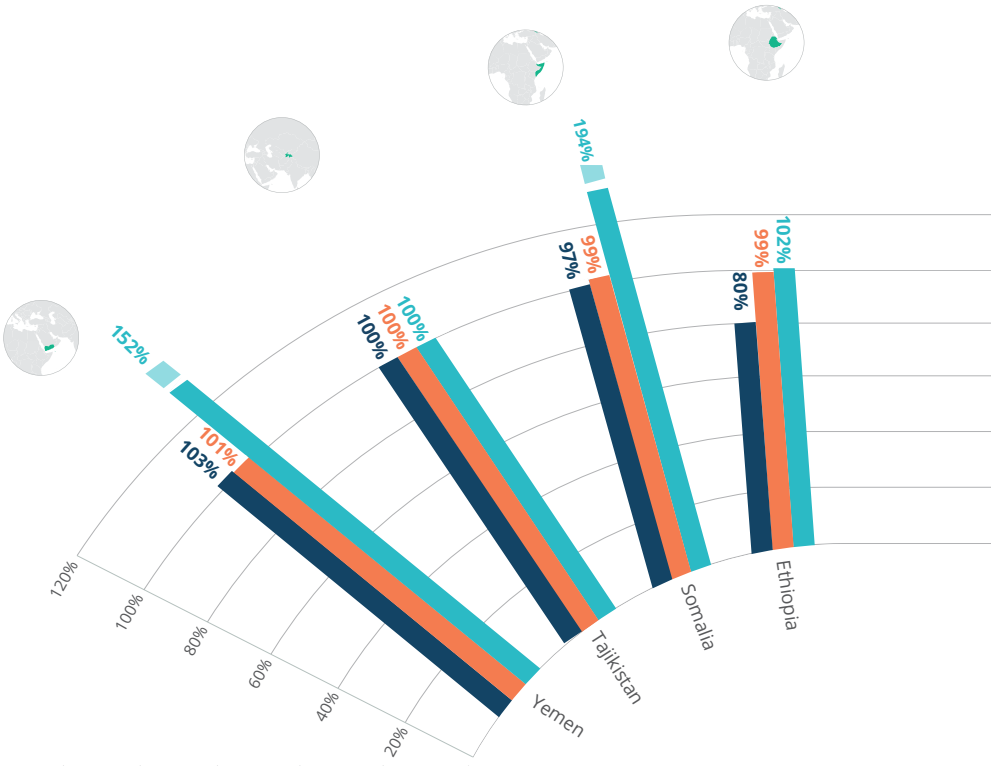
Figure 4.8

Yearly progress against targets for key education indicators (2019-2021)

Legend: *In 2019, all reporting countries showed strong progress against targets for retention and attendance rates, while that percentage decreased to 60 percent by 2021, showing the devastating effects of COVID-19. However, data also show that WFP's response amid school closures also enabled more than half of reporting countries to show strong progress despite the challenges faced during the pandemic, and helped children stay in school. While all countries reporting on retention rates in 2019 made strong progress against targets, 55 percent reported strong progress in 2021. This shows the negative impacts of school closures during COVID-19, but also highlights that despite the global education disruption, school feeding continues to be a strong incentive to keep children in schools.*



Despite data collection challenges during school closures amid the COVID-19 pandemic, we have data from nine countries that continuously reported outcome values for retention rates in 2019, 2020 and 2021.[26] Encouraging results were noted, indicating that the number of children completing the school year in these countries increased or varied only slightly[27] from 2019 to 2021, a great achievement considering the significant disruption caused by the COVID-19 pandemic (see Figure 4.9). Notably, alternative take-home rations were distributed in all nine countries during school closures in 2020. In addition, more than half of these countries (five of nine) are in humanitarian or fragile settings, which highlights the importance of school meals in emergencies.



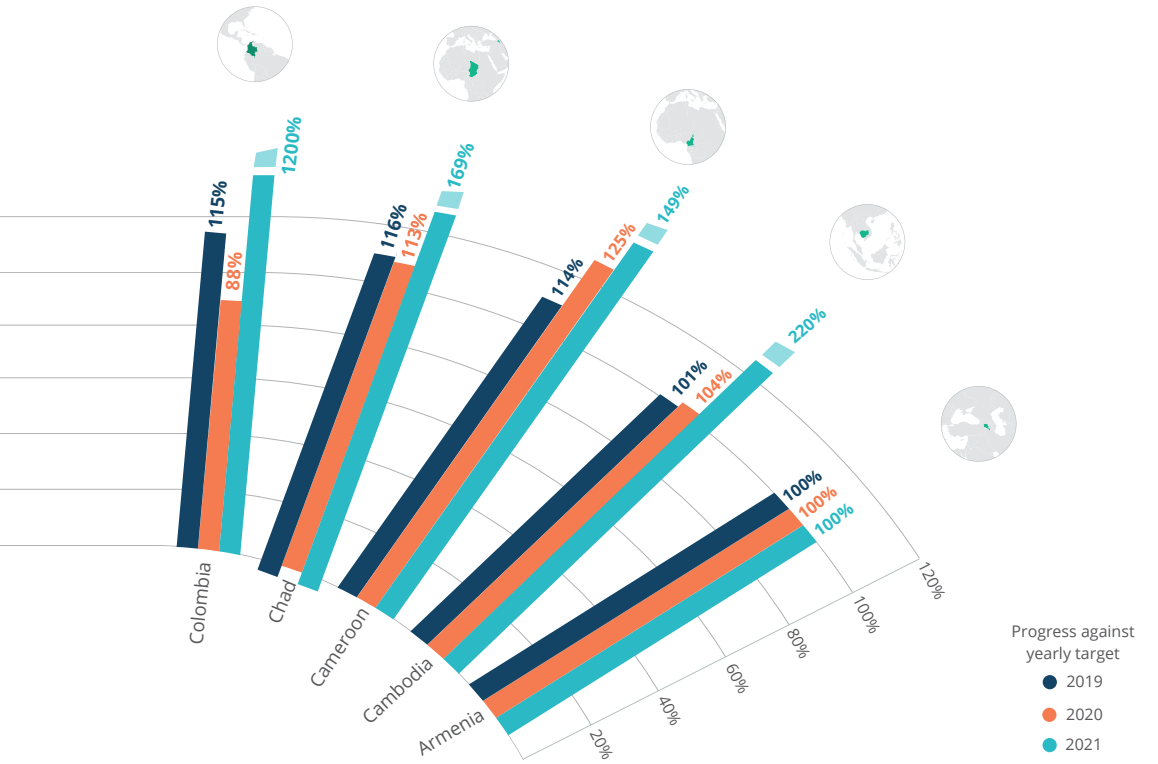
While further evaluations or formal assessments are needed to establish clear linkages between alternative rations and consistent/increased retention rates, these results suggest that WFP school feeding programmes contributed to keeping children in schools amid a major disruption of education. However, discouraging results in other countries indicate that scale-up efforts are required to recover the gains made prior to the COVID-19 pandemic.

[26] Countries showing increased or consistent achievement against retention rates from 2019 to 2021: Armenia, Cambodia, Cameroon, Chad, Colombia, Ethiopia, Somalia, Tajikistan, Yemen.
[27] Note: Targets and achievement data vary country by country and by year. As such, high-level global analysis is indicative.

Figure 4.9

Countries showing strong progress against targets for retention rates between 2019 and 2021

Legend: *School closures due to the COVID-19 pandemic also impacted countries' ability to collect outcome data. The nine countries listed on this graph showed strong progress against targets from 2019 to 2021, a great achievement considering the significant disruption caused by the pandemic. Alternative take-home rations were distributed in all nine countries during school closures amid the pandemic in 2020, which suggests that WFP's response and efforts to keep school feeding programmes running helped to keep children in school in these countries.*



Note: Progress against target in WFP is a measure of the actual change (increase or decrease) from baseline towards a yearly target/expected value of an indicator. In the above chart, particular countries' actual retention rate results were considerably higher than expected targets, resulting in values greater than 100 percent.

Evaluations have also contributed to the collection of evidence on the positive impact of school feeding on access to education. Multiple evaluation reports assessing periods prior to 2020 indicate that school feeding positively impacted enrolment, attendance and retention rates. Five of those WFP evaluations[28] have found a statistically significant impact on retention rates. For example, an impact evaluation in Bangladesh (2001–2009) found that drop-out rates among girls in the southern coast were reduced to 49 percent in 2010, compared with 63 percent in control schools.

There is also developing evidence on the impacts of school feeding on learning outcomes for children, and several evaluations[29] have shown that school feeding promotes attentiveness in class. Crucially, the majority of the evidence supporting the linkage between school feeding and improved learning outcomes is found in programmes that deliver school feeding alongside complementary interventions, which supports the foundational approach of WFP's School Feeding Strategy.

WFP also continues to partner with key implementing agencies to provide a comprehensive package of support to schoolchildren. In 2021, more than 127,000 beneficiaries, predominantly schoolchildren and adolescent girls, were supported through the Government of Canada-funded Breaking Barriers to Girls' Education project in Chad and Niger with a joint UNICEF, UNFPA and WFP package to increase access to education for girls. The integrated package includes school feeding and complementary health and nutrition services, such as grants and scholarships for adolescent girls, sanitation services, menstrual hygiene management activities, gender-based violence prevention, community social and behaviour change communication, and government capacity strengthening. Moving forward, WFP will continue to track results and changes in the lives of beneficiaries through the theory of change and the metrics of success that have been identified, namely quantitative and qualitative indicators, evaluations, case studies and learning exercises.

[28] Cambodia (2000 – 2010), Indonesia (2012 – 2015), Cambodia (2017, 2019), Lebanon (2015 – 2019) , Bangladesh (2001 – 2009), Evaluation Synthesis 2012.

[29] Kenya Impact Evaluation (1999 – 2008), Bangladesh (2015 – 2017), Bangladesh (2017 – 2020), Cambodia (2017 – 2019), Kenya (2014 – 2016), Cambodia (2013 – 2016), Eswatini (2010 – 2018), Guinea-Bissau (2016 – 2019), Democratic Republic of the Congo (2015 – 2019), Ethiopia (2013 – 2017), Indonesia (2012 – 2015), Lao (2016 – 2019), Malawi (2016 – 2018), Malawi (2013 – 2015)

WFP/Hussam Al Saleh

4.4 A commitment to innovation

School Meal Planner – PLUS Tool

Menu creation determines not only the costs of the school meal, but also the quality and nutritional value of the meal, and the economic impact of the programme on the local economy. Traditional menu creation often relies on manual processes that struggle to balance all these elements and may take up to several weeks to complete.

The School Menu Planner (SMP) PLUS tool is an easy-to-use, online menu creation platform that uses artificial intelligence to create cost-efficient, nutritious and local menus, all in just a few minutes. SMP PLUS is accessible online and completely free for all governments and partners. After a short online training course of between two and four hours, users can exploit all of its capabilities.

SMP PLUS builds on earlier solutions and is a product of the collaboration between WFP, the Partnership for Child Development/Imperial College London, the African Union Development Agency (AUDA-NEPAD), FAO, the WFP Innovation Accelerator, Stop Hunger Foundation and the Norwegian Agency for Development Cooperation (NORAD). Through the collaboration with AUDA-NEPAD, there are plans to expand the use of SMP PLUS to support menu optimization for home-grown school feeding programmes in Africa.

Several countries including Armenia, Bhutan, Dominican Republic, Mozambique, Nigeria and Sri Lanka have been trained on the use of the tool and have implemented menus designed through SMP Plus. In these countries, SMP menus are being consumed by 2.95 million children every school feeding day.

Some examples of the usage of SMP PLUS to date include:

- Improved dietary diversity in Sri Lanka: In 2021, the National School Feeding Programme in Sri Lanka covered 1.08 million children in 7,926 schools and 100 education zones. Children consumed menus designed and costed in 2017 at US$0.08 per child per meal. With soaring inflation rates and the deep budgetary crisis, suppliers were no longer able to supply meals at this price, threatening the continuity of the school meal programme. In 2022, the Government of Sri Lanka was introduced to SMP PLUS and was able to adjust school menus to increase dietary diversity and include four additional ingredients that are readily and relatively cheaply available in the school vicinity.

With the use of SMP PLUS, the Government is now able to continuously estimate the real cost of school meals considering constantly fluctuating inflation rates. Furthermore, the Ministry of Education used SMP PLUS calculations to successfully advocate with the Cabinet of Ministers to double the budget for each meal from US$0.08 to US$0.16[30] with effect from August 2022.

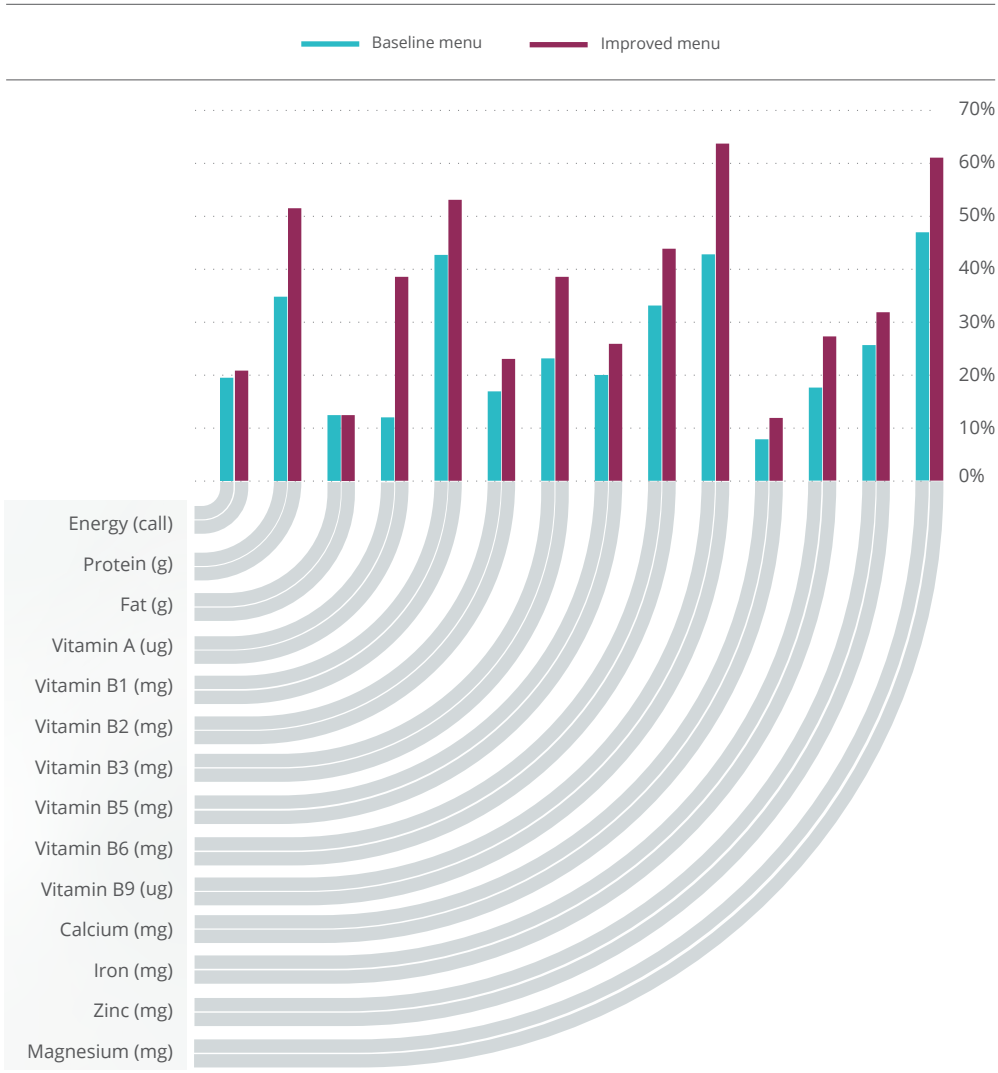
- Increased procurement from smallholder farmers in Bhutan: Since 2019, Bhutan has progressively scaled up the use of SMP PLUS across its districts. SMP PLUS helped schools in the five districts to quantify their monthly requirements for vegetables, fruits and animal products in schools. This created advance demand to farmers for up to a year, helping local farmers in production planning and schools' procurement planning. The SMP PLUS roll-out in the districts of Haa, Trongsa, Tsirang, Wangduephodrang and Zhemgang contributed to increasing the amount of smallholder farmer-procured food from 36 percent in 2019 to 64 percent in 2021. SMP PLUS has allowed approximately 2,000 farmers (60 percent of which are women) to be linked to schools and allowed 14,200 children in 87 schools to consume more nutritious school meals.[31]

  SMP PLUS and other food system interventions have benefitted 2,855 farmers, including members of organized farmer groups. The farmers supplied home-grown nutritious foods worth US$1.49 million to 96 schools, three hospitals and local markets in six districts. More than 80 percent of the targeted farmers supplied agriculture products through WFP linking farmers to markets/schools. WFP supported the Government in the promotion of healthy diets and improved the quality of school meals provided to 98,500 schoolchildren in 2022. SMP PLUS will be rolled out to two more districts in January 2023.

- More nutritious school meals in Mozambique: Using SMP PLUS, the Government of Mozambique was able to create a more nutritious menu that improves the nutritional value of the school meal. The new menu included an increase of proteins by 19 percent, along with significant increases in vitamins and minerals as shown in Figure 4.10.

[30] Cabinet Memorandum on the Provision of a Nutritious Meal for School Children No: ED/ACT/22/13
[31] World Food Programme (2021). Bhutan Annual Country Report. *Link*

Figure 4.10
Menu improvement in Mozambique



- Menu design management: While the Government of the Dominican Republic runs an established National School Feeding Programme, it had been challenged by the lengthy processes required to update, adjust and manage school menus. After being introduced to SMP PLUS, the Government reported an 86 percent decrease in the time required for menu planners to adjust menus and conduct nutritional calculations. The Government is also designing menus according to the nutritional needs of schoolchildren, thus contributing to the achievement of the programme's nutritional objectives.

WFP School Connect
Real-time monitoring of school feeding operations.

Quality data is essential for WFP country offices to monitor the status and performance of school feeding programmes and ensure they deliver the intended results. Quality data also enables technical teams to plan food deliveries accurately and in a timely manner; design new programmes according to context and needs; identify problems, such as low attendance or enrolment rates of girls; and address issues reliably through evidence-based decision making.

As a result, WFP developed a digital platform **-** School Connect **-** to address the challenges posed by paper-based monitoring to data quality and timelines of school feeding operations. The platform enhances decision making based on quality monitoring data and ensures effective implementation of school feeding programmes through improved data timeliness and accuracy, and by making monitoring data accessible to schools.

Teachers directly enter and transfer data on student enrolment, dropouts, daily attendance and all food movements in the School Connect web application. The platform's design focused on needs in field contexts, ensuring an intuitive user interface and access even during temporary internet outages. A fully integrated dashboard visualizes all collected data in near real-time and helps programme teams to take data-driven decisions.

WFP Burundi has pioneered School Connect and scaled up the solution to its entire school feeding operation, covering more than 650 schools. WFP Niger piloted the platform in 2020/21 across four regions and is currently expanding School Connect to the whole school feeding operation in the Zinder region, covering 440 schools. Additional countries, including Haiti, Guinea-Bissau and Ethiopia, will start their School Connect pilots in 2022. Globally, as a basis for better programme implementation, WFP will continue to further scale up School Connect in its school feeding operations, shifting its reporting from paper-based records to fully digitized processes that allow for real-time monitoring.

School Connect was awarded the WFP Innovation Award 2019 and is supported by the WFP Innovation Accelerator. Further information can be found here: *https://innovation.wfp.org/project/schoolconnect*

WFP/Sayed Asif Mahmud

4.5 The way forward

Over the next two years, WFP will advocate globally, and work in partnership to guarantee a proper school health and nutrition response for children in schools and to address any related gaps. In many cases, WFP may not be the lead agency in tackling specific challenges, but by working with other agencies to highlight school health and nutrition issues and by convening different actors, the organization will help find solutions to the challenges identified. WFP will do this by leveraging its six decades of experience supporting school health and nutrition; 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 will work on the following priorities:

1. Ensuring sufficient capacity to support the School Meals Coalition, including supporting each of the member countries, the initiatives and the partners involved.
2. Strengthening WFP's ability to demonstrate results and track progress: roll-out of the theory of change presented in this report will happen in 2023 and the development of new indicators to strengthen overall monitoring and evaluation will be a priority.
3. Consolidating the Data and Monitoring Initiative and establishing the global school feeding database.
4. Strengthening key partnerships to position school meals in the global agenda, including connecting with efforts to create more sustainable food systems and fight climate change. WFP will work with France as it hosts the Ministerial Meeting of the School Meals Coalition in 2023; the United Arab Emirates for COP 28; the African Union for a variety of regional and subregional events; and UN agencies and leading NGOs.
5. Strengthening WFP's ability to continue supporting governments with their programmes and transitioning towards self-reliance, including the production of guidance on food systems, smallholder farmer access to markets, girls' education, nutrition and fortification. WFP will also increase the capacity of its workforce to provide the right type of technical assistance to governments.


El estudio es el
éxito del futuro

SPECIAL REPORT

School feeding in the context of a holistic approach to adolescent well-being

Report contributed by Partnership for Maternal, Newborn & Child Health

Good nutrition is very important for the immediate well-being of adolescents; their long-term well-being; and for the well-being of any children they may have in the future. Policies and programmes should also be designed with and for adolescents within the context of family, peers, school, community, local environment and the wider societal setting. Schools are uniquely positioned to improve adolescent nutrition and well-being through school feeding programmes as part of an integrated nutrition and health package, especially if these programmes are linked to other initiatives, both within the health and nutrition domain, and more broadly in other areas of well-being:

- **Domain 1:** Good health and optimum nutrition extends beyond the absence of disease and malnutrition to feeling well and having the capacity to cope vigorously with daily tasks and maintain essential functions in the face of adversity. School feeding programmes are an essential component of a truly integrated healthy and health promoting education system that contributes to achieving adolescent well-being.
- **Domain 2:** Connectedness, the development of positive values and being provided with opportunities to make a valued contribution are essential building blocks for adolescent well-being. School feeding programmes contribute to adolescents staying in school and can provide opportunities for them to be involved in decision making about the food that is provided and in having their opinions taken seriously. School feeding programmes can provide positive messaging about nutrition and active living, and can contribute to affirmative action against bullying, stigmatization and discrimination.
- **Domain 3:** The safety and supportive environment domain is underpinned by seven sub-domains, namely: emotional and physical safety, material conditions, equity, equality, non-discrimination, privacy and responsiveness. School feeding programmes can make an important contribution to adolescents' safety and to them having a supportive environment.

- **Domain 4:** The 'Learning, competence, education, skills and employability' domain is underpinned by six sub-domains (learning, education, resources, skills, employability and confidence). School feeding programmes can contribute to this domain of adolescent well-being by supporting the student's ability and motivation for learning. For poor families, school feeding incentivizes adolescents to stay in school and their parents not to remove them from school. School feeding programmes and nutrition education linked to these programmes can provide opportunities for adolescents to develop the resources, life and decision making skills, and competencies to select nutritious food and prepare it in a hygienic and appetizing way. The programmes also support nutrition education. School feeding programmes can be linked to other technical, vocational, business or creative skills. By linking a school feeding programme to students learning to prepare food themselves and/or helping to choose menus, adolescents can be given the opportunity to develop their self-confidence and the feeling that they can do things well.
- **Domain 5:** Agency and resilience includes five sub-domains (agency, identity, purpose, resilience and fulfilment). School feeding programmes can make an important contribution to an adolescent´s agency and resilience. For example, school feeding programmes are proven to generate a high return on investment in human capital, especially the earning power of women.

SR.1 Introduction

Good nutrition is very important for the immediate well-being of adolescents; their long-term well-being; and for the well-being of any children they may have in the future. However, the global prevalence of malnutrition, with its triple burden of undernutrition, micronutrient deficiencies and overweight and obesity, is increasing at alarming levels among adolescents aged 10–19 years (UNICEF, 2019). Interventions to reduce these multiple risks need to start early in a child´s life and be continued through their adolescence. Increasingly throughout the world, the great majority of children and adolescents between the ages of 5 and at least 15 years attend school. The absolute and relative burdens children and adolescents face from each of these three kinds of malnutrition differ markedly by country, income group, geographical region and the wealth of the individual and their family (WHO, 2022).
The basic determinants of malnutrition include:

- an individual and their family´s access to resources and material, human, social and natural capital, including land and wealth;

- structural factors including the social market, legal and political systems, and long-term demographic, economic and environmental trends (e.g. costs and availability); and

- prevailing ideas, beliefs and ideologies within a given society (Harris & Nisbett, 2020).

WFP/Andy Higgins

Climate change and conflict are among the most important factors leading to food system failures and malnutrition crises around the world (Brown et al., 2021). Furthermore, social determinants of adolescent malnutrition have shifted based on economic development, urbanization and the globalization of food chains, which have increased the accessibility of highly processed food. In addition, insufficient physical activity, poor quality sleep and increased calorie intake have increased adolescents' vulnerability to obesity (Chaput & Dutil, 2016). By providing equal access to at least one nutritious meal per school day to all schoolchildren, and by linking school feeding programmes to the promotion of a healthy diet and physical activity, school feeding programmes have the potential to mitigate the growing epidemic of overweight and obesity in children and adolescents. This is in addition to ensuring that children and adolescents who do not receive enough to eat at home receive at least one nutritious meal five days a week.

Malnutrition severely restricts adolescents' well-being by reducing their ability to thrive and reach their full potential (Christian & Smith, 2018). In 2020, the United Nations (UN) H6+ Technical Working Group for Adolescent Health and Well-being launched an Adolescent Well-being Initiative, coordinated by the Partnership for Maternal, Newborn and Child Health. In response to its Call to Action for Adolescents (Partnership for Maternal Newborn and Child Health, 2020), the working group defined adolescent well-being as the adolescent "having the support, confidence, and resources to thrive in contexts of secure and healthy relationships, realizing their full potential and rights" and identified five critical domains of adolescent well-being (Figure SR.1) (Ross et al., 2020). The five domains include adolescent health and nutrition; the adolescent´s connectedness, positive values and contribution to society; safety and having a supportive environment; learning, competence, education, skills and employability; and agency and resilience. The initiative's conceptual framework stresses the multidimensional and intersectional nature of an adolescent´s life and that the domains which contribute to their well-being are inextricably interconnected. Interestingly, adolescents themselves report that well-being is a multidimensional concept that encompasses the totality of their experience (UN Major Group for Children and Youth, 2021).

Figure S.R 1

Adolescent well-being definition and conceptual framework

Source: Partnership for Maternal, Newborn & Child Health based on (Ross et al., 2020)[32]

To be effective, programmes must be intentionally designed to ensure the interconnectedness of both protective and risk factors for adolescent nutrition across all five domains of well-being are included, while applying a gender, equity and rights perspective (Baltag, 2022a). Policies and programmes should also be designed with and for adolescents within the context of family, peers, school, community, local environment and the wider societal setting (Figure S.R.1) (Clark et al., 2021; Partnership for Maternal Newborn and Child Health, 2021; Ross et al., 2020). Schools are uniquely positioned to improve adolescent nutrition and well-being through school feeding programmes as part of an integrated nutrition and health package, especially if these programmes are linked to other initiatives, both within the health and nutrition domain, and more broadly in other areas of well-being.

[32] https://pmnch.who.int/images/librariesprovider9/illustration/adolescents-health-ecological-framework---color.png?sfvrsn=fcf49ae_5 (Accessed 24 May 2022)

It has been estimated that school feeding programmes, if well designed and implemented, can have a very good return on investment, yielding returns of up to US$9 for every US$1 invested. School feeding programmes also create value across multiple sectors, including: education, health and nutrition, social protection and local agriculture (WFP, 2020d). Therefore, these programmes merit adequate funding to ensure quality meals are provided within a hygienic and attractive environment and form part of a comprehensive school nutrition programme. This requires dedicated funding for competent, trained staff (e.g. cooks); high-quality, nutritious ingredients; and adequate cooking and food storage facilities. Continuous support and supervision in schools is required not only to ensure the quality of the meals and appropriate hygienic conditions (WHO, 2017, 2018a) but also to ensure that aspects of eating culture and behaviour are considered, as these elements influence future eating patterns (Amahmid et al., 2020; Vio et al., 2020).


WFP/Arete/Fredrik Lerneryd

SR.2 How school feeding can contribute to adolescent well-being

School feeding programmes can, and should, contribute to each of the five domains of adolescent well-being (see Figure S.R1). Benefit–cost analysis have shown that school feeding programmes can yield impressive returns, with efficiently run programmes yielding an average of US$9 dollars in benefits for every US$1 dollar invested. This is achieved by improving outcomes related to education, health and nutrition, social protection and local agriculture (e.g. through the purchasing of locally-produced ingredients for school meals) (WFP, 2020d). Shaping behaviours in adolescence can achieve significant gains across the rest of the individual's lifetime, and into subsequent generations. By providing at least one healthy, nutritious meal to all students each school day, school feeding programmes can also help to address social inequalities (e.g. gender, income, or between adolescents with and without chronic diseases such as HIV or tuberculosis).

In the remainder of the report, we will discuss why school meals are important to all five critical, interconnecting domains that influence adolescent well-being.

Domain 1: Good health and optimum nutrition

Good health and optimum nutrition extend beyond the absence of disease and malnutrition to feeling well and having the capacity to cope vigorously with daily tasks and maintain essential functions in the face of adversity (Baltag, 2022a). Adolescent health and nutrition are increasingly linked to social and structural determinants, including climate change, globalization, urbanization, and technical and digital developments that drive changing lifestyles. For this reason, effective health responses are often multilevel and have multiple components, with coordination necessary across sectors. Good health and optimum nutrition includes three sub-domains (Baltag et al., 2022):

I. physical health and capacities;
II. mental health and capacities; and
III. optimal nutrition status and diet.

To guide and ensure comprehensive efforts, for many years WHO and UNESCO have promoted the Health Promoting Schools model and recently published Global Standards for Health Promoting Schools to provide a clear framework to guide education systems in realizing the vision of Making Every School a Health Promoting School (WHO and UNESCO, 2021). A school that achieves all eight standards is called a "Health Promoting School" (Brown et al., 2021; Levinson J, 2019; WHO, 2018a, 2019, 2021a). Health Promoting Schools have been recognized as a strategic vehicle to promote positive development and healthy behaviours such as healthy diets, physical activity, recreation and play, and to reduce tobacco use and bullying (Pulimeno et al., 2020; WHO, 2021a).

To truly integrate health and health promotion, education systems must take a whole-school approach to health promotion (i.e. by involving all parts of the school in working together from senior leaders, teachers and all school staff, to parents, carers and the wider community). This approach should be integrated in all aspects of school life: school policies, the physical and social environment, formal and informal curriculum, links with parents and school community, and access to school health services. School feeding programmes are an essential component of Health Promoting Schools and contribute to achieving adolescent well-being. Depending on the context, this can include using schools as a platform to deliver health and nutrition interventions, including school feeding; micronutrient supplementation; screening, advice and counselling for malnutrition; provision of vaccination, sexual and reproductive health services; mental health support; and menstrual health provisions, among others (UNESCO et al., 2020). Several research studies have demonstrated the potential cost-effectiveness of such interventions (Aurino, 2018; WHO, 2020).

School feeding programmes should extend beyond the provision of a culturally acceptable, adequate, diversified, balanced and healthy diet to ensure food is served in a healthy environment with the provision of safe drinking water. Staff should support students in practicing good hand hygiene, e.g. washing hands with soap before each meal and if they use the toilet during a meal (WHO, 2018a). School feeding programmes should also be linked to health education related to what constitutes a healthy, nutritious diet; the promotion of low sugar and salt intake (WHO, 2021a); opportunities for adequate physical activity; and screening, counselling and support for students who suffer from anaemia or who are underweight or overweight.

Domain 2: Connectedness, positive values and contribution to society

Connectedness, the development of positive values and being provided with opportunities to make a valued contribution are essential building blocks for adolescent well-being (Blum, 2021; Ross et al., 2020).
This domain has six sub-domains:

I. Connectedness: The adolescent is part of positive social and cultural networks and has positive, meaningful relationships with others, including family, peers and where relevant teachers, and/or employers; and

II. Feeling valued: The adolescent is valued and respected by others and accepted as part of the community.

III. Attitudes: The adolescent is responsible, caring and has respect for others. The adolescent has a sense of ethics, integrity and morality.

IV. Interpersonal skills: The adolescent has empathy, friendship skills and sensitivity.

V. Activity: The adolescent is socially, culturally and civically active.

VI. Change and development: The adolescent is equipped to contribute to change and development in their own lives and/or in their communities (Blum, 2021).

School feeding programmes contribute to this domain of adolescent well-being through:

- Connectedness: School feeding programmes contribute to children staying longer in schools (Dembele, 2014). Social integration (i.e. feeling a sense of belonging, involvement, support or connectedness) is an important factor in children staying at school (Rasco et al., 2020). Adolescents' relationship with their peers as well as others (e.g. teachers, parents) is a significant source of social and emotional support that can protect them from psychological distress during this vulnerable life stage (Anju et al., 2020; Camara et al., 2017; Harounan et al., 2009).

- Feeling valued: School feeding programmes can provide opportunities for adolescents to be involved in decision making about the food that is provided and in having their opinions taken seriously, commensurate with their evolving capacities and stage of development.

- Attitudes, interpersonal skills and activity: School feeding programmes can provide positive messaging about nutrition and active living. They can also contribute to affirmative action against bullying, stigmatization and discrimination (WHO, 2020) by teaching about non-discrimination related to religious and social constraints on the eating of specific foods or issues related to body shape or size. Adolescents may even be able to influence nutrition at home based on what they learn at school.

- Change and development: School staff can serve as role models to encourage healthy eating and a healthy lifestyle. This can help ensure adolescents feel empowered to take responsibility for their own health. They are therefore equipped to contribute to change and development in their own lives and/or in their communities.

Domain 3: Safety and a supportive environment

The safety and supportive environment domain is underpinned by seven sub-domains (Engel, 2021):

I. Safety: emotional and physical safety.

II. Material conditions in the physical environment are met.

III. Equity: treated fairly and have an equal chance in life.

IV. Equality: equal distribution of power, resources, rights and opportunities for all.

V. Non-discrimination.

VI. Privacy.

VII. Responsive: enriching the opportunities available to the adolescent.

School feeding programmes can make an important contribution to adolescents' safety and a supportive environment:

- Safety: School meals should be provided in a supervised and safe place, with protection from the elements.

- Material conditions: School feeding programmes should ensure that every adolescent has access to food and safe drinking water.

- Equity: A supportive legal framework and education policies to ensure school feeding programmes are critical to achieving equity. School feeding programmes can help ensure equitable access to valid and relevant nutrition education, as well as a nutritious school meal and, where needed, referral to high-quality nutrition services. Achieving equity ensures that the most vulnerable, who rely most on the food provided at school, are reached. School meals not only provide nutrition to students, they also provide a strong incentive for parents to send their children to school.

In contexts where girls' education is not valued as highly as boys', school feeding programmes particularly increase girls' enrolment in education and retention rates. School meals contribute to an environment where girls avoid early marriage and pregnancy and go on to higher education; where jobs and local entrepreneurialism are created; and where well-being becomes the norm.

- Equality: Integrated health and nutrition programmes can promote positive social norms, including gender norms, to ensure equal rights and opportunities for all adolescents (WFP, 2020c). School meals not only provide nutrition to students, they also provide a strong incentive for parents to send their sons and daughters to school, increasing girls' enrolment in education and retention rates (WFP, 2017a). Existing evidence suggests that enabling girls to complete their secondary education protects them against HIV and improves many other health and development outcomes. Evidence from Botswana suggests that girls who stayed in secondary school had half the risk of HIV infection (De Neve et al., 2015). In addition, there is growing evidence that even in conflict settings, school feeding programmes can enhance enrolment and reduce inappropriate labour, especially for girls, and can contribute to peace and social cohesion (WFP, 2020d).

- Non-discrimination: Integrated health and nutrition programmes can ensure that adolescents are free to practice their personal, cultural and spiritual beliefs related to food and drink and express their identity in a non-discriminatory environment. Adolescents should also be able to access objective, factual information about nutrition and services, without being exposed to judgmental attitudes (e.g. related to body image).

- Responsive environment: Integrated health and nutrition programmes can offer access to a wide range of safe and stimulating opportunities for leisure or personal development (e.g. school gardening, physical activity, nutrition education).

Domain 4: Learning, competence, education, skills and employability

The 'Learning, competence, education, skills and employability' domain is underpinned by six sub-domains (Beadle, 2021; Ross et al., 2020);

I. Learning: Adolescents have the commitment to, and motivation for, continual learning.

II. Education.

III. Resources, life skills and competencies: Adolescents have the necessary cognitive, social, creative and emotional resources, life and decision making skills and competencies to thrive, including knowing their rights and how to claim them, and how to plan and make choices.

IV. Skills: Acquisition of technical, vocational, business and creative skills to be able to take advantage of current or future economic, cultural and social opportunities.

V. Employability.

VI. Confidence that they can do things well.

School feeding programmes can contribute to adolescent well-being in this area in the following ways:

- Learning: Hunger blights a person´s ability to concentrate and to learn and blunts their enthusiasm for knowledge. School feeding programmes can therefore support an adolescent's ability and motivation for learning (Maijo, 2018).

- Education: For poor families, school feeding incentivizes adolescents to stay in school and their parents not to remove them from school (WFP, 2017a). As mentioned above, school feeding programmes can, and should, be linked to nutrition education (Norris et al., 2022; Thompson et al., 2020).

- Resources, life skills and competencies: School feeding programmes and nutrition education linked to them can provide opportunities for adolescents to develop the resources, life and decision making skills, and competencies to select nutritious food and prepare it in a hygienic and appetizing way.

- Skills: School feeding programmes can be linked to other technical, vocational, business or creative skills (Bundy, de Silva, et al., 2018). In addition to nutritional literacy, an integrated nutrition and health programme, including school meals, can contribute to improving skills in dietetics and cooking for both boys and girls. Other skills which can be developed also include – mathematics (e.g. weighing out ingredients); biology (e.g. the food composition of various plant and animal products); physics (e.g. boiling, freezing); expression (e.g. feelings about food and mealtimes); and creative arts (e.g. drawing foods) (Bundy, de Silva, et al., 2018; WHO, 2019).

- Employability: A well-nourished, healthy and educated population is the foundation for a society´s growth and economic development (WFP, 2020d).

- Confidence: By linking a school feeding programme to students preparing food themselves and/or helping to choose menus, adolescents are given the opportunity to develop their self-confidence and the feeling that they can do things well, even among students who do not excel academically.

Domain 5: Agency and resilience

Agency and resilience includes five sub-domains:

I. Agency: Adolescents have self-esteem; a sense of agency and of being empowered to make meaningful choices; are able to influence their social, political and material environment; and have the capacity for self-expression and self-direction appropriate to their evolving capacities and stage of development.

II. Identity: Adolescents feel comfortable in their own self and with their identity(s), including their physical, cultural, social, sexual and gender identity.

III. Purpose: Adolescents have a sense of purpose, desire to succeed and optimism about the future.

IV. Resilience: Adolescents are equipped to handle adversities both now and in the future, in a way that is appropriate to their evolving capacities and stage of development.

V. Fulfilment: Adolescents feel that they are fulfilling their potential now and that they will be able to do so in the future (Ross et al., 2020; Vidyarthi, 2021).

School feeding programmes can make an important contribution to an adolescent´s agency and resilience. For example, school feeding programmes are proven to generate a high return on investment in human capital, especially the earning power of women (Bundy, Silva, et al., 2018).

Innovative approaches have been reported where school feeding programmes have been combined with cash transfers (Dominique, 2017). School feeding programmes can strengthen an adolescent's ability to develop self-esteem and agency to choose and prepare nutritious foods, especially if the programme is linked to dietary education, and if students are given the opportunity to participate in choosing menus or even in designing and preparing nutritious meals. Similar to any programme involving adolescents, it is critical that adolescents themselves are meaningfully engaged in all aspects of the programme, including in its design, monitoring and evaluation.

SR.3 How evidence-based school feeding interventions can make an impact on adolescent well-being

The five domains of adolescent well-being are interlinked and influence each other. As has been demonstrated in the previous section, adolescents' nutrition affects their overall health, connectedness, safety, etc. For example, nutrition literacy linked to a school feeding programme is part of good education and is a determinant of good health, which in turn is a determinant of good academic achievement (Beadle, 2021).

Schools are a cost-effective platform for providing simple, safe and effective interventions to foster adolescent well-being (Bundy, de Silva, et al., 2018). Many of the health conditions related to poor nutrition are most prevalent among poor students, particularly among adolescent girls. Such health conditions have important effects on education – causing absenteeism, leading to grade repetition or dropout, and adversely affecting student achievement –and yet are preventable or treatable. Taking a 'whole-school' approach (encompassing policies; governance and leadership; partnerships with the community; the school curriculum; its physical, social and emotional environment; and school health services (Goldberg et al., 2019; WHO, 2021a)) to the promotion of child and adolescent health and well-being is therefore strongly encouraged (Jourdan et al., 2021). School feeding programmes can be at the centre of this, linking the five domains of adolescent well-being. Scotland has demonstrated commitment to this by placing health and well-being at the centre of its education policy (Beadle, 2021). India has also achieved significant results with school feeding programmes contributing to multiple domains of adolescent well-being.

Case Study S.R 1

Health and well-being at the Centre of Education – Scotland

In 2004, the Scottish Government introduced 'A Curriculum for Excellence' with health and well-being at its centre. In its policy, the government emphasized the essential role of schools in ensuring a student's acquisition of the skills required for healthy and happy lives. In this respect, students are expected to benefit from educational opportunities, irrespective of their background or financial circumstances. The government made a range of resources available to ensure that students feel happy, safe, included and respected in their learning environment. Within the policy, health and well-being is divided into six areas: different aspects of well-being; planning for choices and changes; physical education and physical activity/sport; food and health; substance misuse; and relationships, sexual health and parenthood. The policy oversees a range of interventions in schools, from mental health support to school meals and specific well-being curricula.

For example, every secondary school is expected to offer counselling services, and in terms of classroom interventions, students are provided with Personal and Social Education, which aims to equip students with the knowledge and understanding, skills, capabilities and attributes required for mental, emotional, social and physical well-being both at the present time and in the future. In addition, the government provides students (Grades 1–3) with free school meals; offers school clothing grants; and assists students with Education Maintenance Allowances, where needed (Fernandes, 2018; Horrell, 2012).

Case Study S.R 2

The Mid-Day Meal Scheme in India

India has greatly expanded access to primary education since independence; however, the prevalence of underweight and stunting remains very high in Indian adolescents (Bhargava et al., 2020).

With the aim of enhancing school enrolment, retention, attendance and simultaneously improving the nutritional status of children and adolescents, the Government of India launched a national programme of Nutritional Support to Primary Education (NP-NSPE) popularly known as the Mid-Day Meal Scheme in 1995. In collaboration with the Akshaya Patra Foundation (a not-for-profit organization), as of 2017, a mid-day meal has been served to over 1.6 million children in 13,839 schools across 12 states in India (The Akshaya Patra Foundation, 2022).

In order to feed such a huge number of children and adolescents, Akshaya Patra depends on a combination of centralized and decentralized kitchen units. An innovative delivery system with specially designed vehicles ensures that fresh food reaches schools on time. Despite the huge number of meals to be prepared each school day, the programme places great importance on hygiene and cleanliness in each of the Akshaya Patra kitchens. A mixed methods evaluation reported that teachers observed a positive impact on school attendance, including among the most marginalized groups of children and adolescents; better attention span; and overall improved nutritional status. Monitoring has shown that clean and hygienic conditions were maintained and the programme created greater awareness of sanitation practices, such as handwashing (The Akshaya Patra Foundation, 2017).

Although no data had been collected to ensure that programme schools were similar to non-programme schools before the programme was implemented, a comparison of the anthropometric status of students showed that the BMI of a substantially and significantly higher proportion of both girls and boys was within the normal range in schools that participated in the Mid-Day Meal Scheme compared to other schools (The Akshaya Patra Foundation, 2017). Furthermore, students in participating schools performed better in annual examinations. Evaluations also concluded that the programme had successfully improved adolescent well-being through improved socialization across castes and in educational enrolment and attendance (The Akshaya Patra Foundation, 2022).

In addition to school feeding programmes, schools can help students to develop both cognitive skills and socioemotional skills, as well as providing knowledge (Montgomery & Knerr, 2018; Thompson et al., 2020). Schools can also offer a safe learning environment where all students feel included, and are provided with comprehensive life skills and sexuality education (CSE) (Beadle, 2021), and services for a range of health conditions, including anxiety and depression, behavioural disorders, diabetes, overweight, obesity and undernutrition (Levinson J, 2019; Scottish Government, 2021; WHO, 2019, 2021b).

The COVID-19 pandemic has left the world at a critical juncture where financing decisions will have a tremendous impact on countries' economic recovery, future resilience and potential.

If future generations are to reach their full human potential, school health and nutrition programmes must be at the heart of the agenda (Bundy, Silva, et al., 2018). The education system is particularly well situated to promote health among children and adolescents in poor communities which lack effective health systems who otherwise might not receive health interventions. Schools are typically more common than health facilities in all income settings, and rural and poor areas are significantly more likely to have schools than health centres (Bundy, 2017). Therefore, schools can reach an unprecedented number of children and adolescents and play a key role in national development efforts by improving child and adolescent health and nutrition as well as providing education. Because schools are at the heart of all communities, we have an opportunity to use schools as a sustainable, scalable option for integrated health and nutrition (Bundy, 2017).

As the world learns to live with COVID-19 and recover, restoring school feeding programmes is an urgent priority. In January 2020, WFP launched its strategy, `A Chance for Every School Child,' in support of school health and nutrition for schoolchildren and adolescents (WFP, 2020b). The strategy aims to ensure that, alongside helping countries to maintain care and support for out-of-school children, governments, partners and WFP staff use school health and nutrition programmes as a key incentive for families to send their children and adolescents back to school, and to build schools back better. Governments have joined forces with development agencies, donors, academia, the private sector, UN agencies and civil society organizations to build the School Meals Coalition – a government-led initiative launched during the Food Systems Summit in September 2021. At the time of publication, 76 countries had committed to ensure that by 2030 every child and adolescent in school has the opportunity to receive a daily healthy, nutritious meal.

It is important that adolescent leadership and participation is institutionalized and actively supported during the design, implementation, monitoring and evaluation of adolescent health programmes (Partnership for Maternal Newborn and Child Health, 2018, 2022; WHO, 2017). Building adolescents' agency and resilience, and removing barriers to youth participation, such as lack of access to and control of financial and other resources, or unfavourable social and institutional norms, will also be essential (UN Major Group for Children and Youth, 2021). This links to building safe policy environments, resilient health and social systems, and strong safety nets (Kaplan et al., 1996; Luthar et al., 2000; WHO, 2018b).

WFP/Cassandra Prena

WFP/Srawan Shrestha

SR. Conclusion

The impact of school feeding programmes can go far beyond the provision of a plate of food. These programmes have an important role to play in fostering all five domains of adolescent well-being, and can provide an extremely good return on investment (Lee et al., 2016). They can also make an important contribution to countries' achievement of several of the SDGs – namely SDG 1: No Poverty; SDG 2: Zero Hunger; SDG 3 – Good Health and Well-Being; SDG 4: Quality Education; SDG 5 – Gender Equality; and SDG 8: Decent Work and Economic Growth, with linkages to many others (WFP, 2020b).

Looking to the future, the Global Forum for Adolescents in September–October 2023 will be the world's largest-ever gathering on adolescent health and well-being. The event will seek to drive accountability for pledges made at the SDG Summit at the UN General Assembly in New York in September 2023, as well as lend pace and urgency to securing financial commitments for adolescent well-being at the G20 Summit in November 2023. This forum will provide an opportunity for quality school feeding programmes to be scaled up to ensure that the goal of the School Meals Coalition is met and every in-school child and adolescent receives a healthy, nutritious meal every school day.


HAUMA
SCHOOL

Conclusions

The previous edition of this publication provided both 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. Most of the previous edition was written under the related lockdowns, and we sent the text for publication as the COVID-19 pandemic built towards what we now think of as its climax, although then there was no obvious end in sight.

To conclude the previous publication, we tried to predict what might happen and what needed to be done. We highlighted five priority actions for school meal programmes, starting with the top priority of safely reopening schools, then focusing on four important ways to improve the quality and cost effectiveness of national school feeding programmes when and if the threat of COVID-19 had passed.

Today, thankfully, we are in a different world. Not only are there clear signs that the threat of COVID-19 is ebbing in most countries, but with the creation of the School Meals Coalition there are new global goods, based on the Coalition and its initiatives, which have stimulated a new global multilateralism and momentum that is driving national support for the well-being of schoolchildren and adolescents, while at the same time supporting more sustainable diets and food systems.

In the following section, we revisit the priority actions which were suggested in 2020 and explore the extent to which they were met. Looking to the future, we also suggest how the new landscape offers the chance to respond to today's priorities.

1. Reopen schools and rebuild support

The 2020 report identified the number one priority as follows:
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 creation of the School Meals Coalition now claiming 76 states as committed members, has proved to be a crucial contributor to this response. As described in Chapter 2, 15 heads of state came together at the UN Food Systems summit in October 2021 and restated this priority action as their number one goal: "Restore or improve national school meal programmes to 400 million children by 2023".

From the latest surveys reported in Chapter 1, it seems that the number of children now reached by school meal programmes is 418 million, exceeding the target. This suggests that the first goal has been met, and was achieved a year earlier than anticipated.

While some countries have regained or exceeded their coverage in 2022, it is also apparent that others are being left behind. There is also a continuing threat that schools may again be closed.

The restated action point for 2023 is:
Ensure schools remain open and that school meals coverage is sustained or expanded.

2. Reaching the most in need

The 2020 report noted that:
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?

The School Meals Coalition highlighted this issue in its second goal: Reach the 73 million most vulnerable children who were not reached previously, by 2030. This goal remains unfulfilled: the significant number of children who were not being reached by any programme before the COVID-19 pandemic are still not being reached today. WFP estimated that 73 million of the most vulnerable schoolchildren across 60 countries (Drake et al., 2020) were being systematically excluded, and it seems probable that this number is greater today.

While more than 90 percent of the cost of school meal programmes is being met from domestic funds, the most vulnerable children are in countries with the least fiscal space and which are least able to provide this support. We note in Chapter 1 that the proportion of domestic support from low-income countries has risen from 30 percent to 45 percent, an exceptional increase given the other challenges these countries face. Yet at the same time, they have experienced an absolute fall in external assistance.

Clearly external funds are required to help low-income countries take the first step in the journey towards self-reliance, or to help other countries transition from reliance on external support. The crucial global good here is the creation of the Sustainable Financing Initiative which, with the support of the Global Education Commission, is a major contribution towards filling this gap. Efforts will need to go beyond current financing options, for example, an expanded role from new-generation partners; 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.

The restated action point for 2023 is:
Support the Sustainable Financing Initiative in helping low-income countries to identify novel and effective ways of funding national school feeding programmes, and in helping all countries transition to self-reliance.

3. Learn from other countries

The 2020 report noted:
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?

The 2022 report has gone a long way to include high-income countries and private practice in its analysis (38 high-income countries in 2020 against 48 high-income countries in 2022) but not far enough. In 2022, the Research Consortium for School Health and Nutrition established a global "good examples" community of practice, co-chaired by Finland and France with the aim of using a common tool to describe all national school meal programmes. This library of case studies is intended as a global good, and a source of independent evidence.

At the same time, it was recognized that monitoring and evaluation of school meal programmes was constrained by an important market failure: there is no global database on school meal programmes; and no reliable single source of data that allows comparison across countries. As explained in Chapter 2, in 2022, WFP offered to create and sustain a global database (the Data and Monitoring Initiative) and to share the results through a regular reporting mechanism (the *State of School Feeding Worldwide* reports). Alongside the country case studies, this provides an important global good for parliamentarians and policymakers to access when seeking to strengthen their national programmes.

The restated action point for 2023 is:
Strengthen the availability of mission-critical data on school meal programmes through the following global goods: the Data and Monitoring Initiative, the *State of School Feeding Worldwide* reports and the "good examples" community of practice from the Research Consortium for School Health and Nutrition.

4. Strengthen home-grown school feeding

The 2020 report noted:
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?

Probably half of the world's free or subsidized school meals use nationally sourced food. This helps create and support local jobs, especially for women; maintains shorter supply chains; and makes local farmers' markets more predictable and stable. School meals also increase access to fresh local produce and help establish life-long dietary preferences for fresh, locally available foods, and are responsive to issues around climate change, community resilience, food sovereignty and culture.

Many countries have made home-grown school feeding a goal but need the skills and information to make smart choices to enhance efficiency. As described in Chapter 2, to assist countries in making these choices, the Research Consortium for School Health and Nutrition has established global communities of practice across the following areas:

- Impact and Evidence – what are the most effective programme designs?
- Analytics and Metrics – what are the most cost-effective ways of implementing these programmes?
- Diet and Food Systems – how can agriculture contribute to, and benefit from, school meal programmes?

There is a need to better understand the constraints faced by low-income countries, and provide guidance on how to scale up home-grown school feeding efforts as key elements of their national programmes.

The restated action point for 2023 is:
Support the connection between school meals, food systems and climate change. Prioritize national government access to independent evidence on the costs, benefit and effectiveness of different home-grown school feeding programme designs, as well as on climate change and food sovereignty.

5. Strengthen the safety net

The 2020 report noted:
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?

When the 2008 financial crisis led to food shortages, many countries used school meal programmes to expand coverage to more families by feeding more children and, over time, by providing meals during school vacations. This created what the World Bank identified as the most extensive safety net in the world. The paradox of the school closures in response to the COVID-19 pandemic is that the closures effectively removed this safety net.

We understand that clearly in retrospect. The question now is whether countries should respond differently to future threats of this kind, and whether there is a supporting role for other, non-school based interventions such as cash transfers.

The restated action point for 2023 is:
Explore the role of school meal programmes as the world's most extensive safety net and ensure that they are part of the response to the food and climate crises.

References

Adelman, S., Gilligan, D. O., Konde-Lule, J., & Alderman, H. (2019). School Feeding Reduces Anemia Prevalence in Adolescent Girls and Other Vulnerable Household Members in a Cluster Randomized Controlled Trial in Uganda. Journal of Nutrition, 149(4), 659-666. *https://doi.org/10.1093/jn/nxy305*

African Union. (2018). Sustainable School Feeding. Addis Ababa, African Union Available at: *https://au.int/sites/default/files/documents/36100-doc-sustainable_school_feeding_1.pdf*

Alderman, H. a., & Bundy, D. (2011). School Feeding Programs and Development: Are We Framing the Question Correctly? World Bank Research Observer, 27(2), 204-221. *https://doi.org/10.1093/wbro/lkr005*

Amahmid, O., El Guamri, Y., Rakibi, Y., Yazidi, M., Razoki, B., Kaid Rassou, K., El Boukaoui, S., Izerg, O., & Belghyti, D. (2020). Nutrition education in school curriculum: impact on adolescents' attitudes and dietary behaviours. International Journal of Health Promotion and Education, 58(5), 242-258. *https://doi.org/10.1080/14635240.2019.1685399*

Andrew, H., John, S., & Shirley, G. (2012). Health and Wellbeing: A Policy Context for Physical Education in Scotland. Sport, Education and Society 17(2). Available at: *https://www.tandfonline.com/doi/abs/10.1080/13573322.2011.607948*

Angrist, N., Djankov, S., Goldberg, P. K., & Patrinos, H. A. (2021). Measuring human capital using global learning data. Nature, 592(7854), 403-408. *https://doi.org/10.1038/s41586-021-03323-7*

Angrist, N., Evans, D. K., Filmer, D., Glennerster, R., Rogers, F. H., & Sabarwal, S. (2020). How to Improve Education Outcomes Most Efficiently? A Comparison of 150 Interventions Using the New Learning-Adjusted Years of Schooling Metric. . Policy Research Working Paper, 9450. Available at: *https://openknowledge.worldbank.org/handle/10986/34658*

Anju, P., Bishnu, G., & Gopal Prasad, K. (2020). Perceived social support and pyschological wellbeing among Nepalese adolescents: the mediating role of self-esteem. BMC Psychol, 8(1), 43. *https://doi.org/10.1186/s40359-020-00409-1*

Aurino, E., Gelli, A., Adamba, C., Osei-Akoto, I., & Alderman, H. (2020). Food for thought? Experimental evidence on the learning impacts of a large-scale school feeding programme. Journal of Human Resources, 1019-10515R10511. Available at: *https://ebrary.ifpri.org/utils/getfile/collection/p15738coll2/id/133027/filename/133239.pdf*

Aurino, E., Tranchant, J., Diallo, A., & Gelli, A. (2018). School Feeding or General Food Distribution? Quasi-Experimental Evidence on the Educational Impacts of Emergency Food Assistance during Conflict in Mali. Innocenti Working Papers(2018-04). Available at: *https://www.unicef-irc.org/publications/956-school-feeding-or-general-food-distribution-quasi-experimental-evidence-on-the-educational.html*

Azevedo, J. P., Goldemberg, D., Montoya, S., Nayar, R., Halsey, R., Saavedra, J., & Brian William, S. (2021). Will Every Child Be Able to Read by 2030? Why Eliminating Learning Poverty Will Be Harder Than You Think, and What to Do About It. World Bank Policy Research Working Paper 9588. Available at: *https://gaml.uis.unesco.org/wp-content/uploads/sites/2/2021/03/Azevedo-et-al-2021_Will-Every-Child-Be-Able-to-Read-by-2030.pdf*

Baltag, V. (2022a). Adolescent Well-being Background Technical Paper: Good health and optimum nutrition in adolescence. Available at: *https://pmnch.who.int/resources/tools-and-toolkits/adolescent-papers*

Baltag, V., Sidaner, E., Bundy, D., Guthold, R., Nwachukwu, C., Engesveen, K., Sharma, D., Engelhardt, K., & Patton, G. (2022). Realising the potential of schools to improve adolescent nutrition. Bmj, 379, e067678. *https://doi.org/10.1136/bmj-2021-067678*

Beadle, S. (2021). Adolescent Well-being Background Technical Paper: Investing in adolescent well -being through education, learning, competence, skills and employability. Adolescent Well-being Framework Background Paper. PMNCH.

Beltrame, D., Borelli, T., Oliveira, C., Coradin, L., & Hunter, D. (2021). Bioversity for food and nutrition: promoting food security and nutrition through institutional markets in Brazil. In Luana F.J. Swensson, Danny Hunter, Sergio Schneider, & Florence Tartanac (Eds.), Public Food Procurement for Sustainable Food Systems and Healthy Diets (Vol. 2). FAO and Alliance of Bioversity International and CIAT, and Universidade Federal do Rio Grande do Sul−Editora da UFRGS. Available at: *https://www.fao.org/3/cb7969en/cb7969en.pdf*

Bhargava, M., Bhargava, A., Ghate, S. D., & Rao, R. S. P. (2020). Nutritional status of Indian adolescents (15-19 years) from National Family Health Surveys 3 and 4: Revised estimates using WHO 2007 Growth reference. PLoS One, 15(6), e0234570. *https://doi.org/10.1371/journal.pone.0234570*

Blum, R. (2021). Adolescent Well-being Technical Background Paper: Connectedness, Positive Values and Contributions to Society: three building blocks of PMNCH.

Brown, M. E., Grace, K., Billing, T., & Backer, D. (2021). Considering climate and conflict conditions together to improve interventions that prevent child acute malnutrition. Lancet Planetary Health, 5(9), e654-e658. *https://doi.org/https://doi.org/10.1016/S2542-5196(21)00197-2*

Bundy, D. (2017). Child and Adolescent Health and Development (3 ed., Vol. 8). Washington D.C, World Bank. Available at: *https://www.ncbi.nlm.nih.gov/books/NBK525240/pdf/Bookshelf_NBK525240.pdf*

Bundy, D., Burbano, C., Grosh, M., Gelli, A., Jukes, M., & Drake, L. (2009). Re-thinking School Feeding: Social Safety Nets, Child Development, and the Education Sector. . Washington D.C, World Bank.
Available at: *https://docs.wfp.org/api/documents/WFP-0000020650/download/*

Bundy, D., de Silva, N., Horton, S., Patton, G. C., Schultz, L., Jamison, D. T., Disease Control Priorities, C., Adolescent, H., & Development Authors, G. (2018). Investment in child and adolescent health and development: key messages from Disease Control Priorities, 3rd Edition. Lancet, 391(10121), 687-699. *https://doi.org/10.1016/S0140-6736(17)32417-0*

Bundy, D., Silva, N. d., Horton, S., Jamison, D. T., & Patton, G. C. (2018). Re-imagining School Feeding: A High-Return Investment in Human Capital and Local Economies (Donald A. P. Bundy, Nilanthi de Silva, Susan Horton, Dean T. Jamison, & George C. Patton, Eds. Vol. 8). International Bank for Reconstruction and Development / The World Bank.
Available at: *https://docs.wfp.org/api/documents/WFP-0000116138/download/*

Camara, M., Bacigalupe, G., & Padilla, P. (2017).
The role of social support in adolescents: are you helping me or stressing me out? International Journal of Adolescence and Youth, 22(2), 123-136. *https://doi.org/10.1080/02673843.2013.875480*

Chaput, J. P., & Dutil, C. (2016). Lack of sleep as a contributor to obesity in adolescents: impacts on eating and activity behaviors. Int J Behav Nutr Phys Act, 13(1), 103. *https://doi.org/10.1186/s12966-016-0428-0*

Christian, P., & Smith, E. R. (2018). Adolescent Undernutrition: Global Burden, Physiology, and Nutritional Risks. Ann Nutr Metab, 72(4), 316-328. *https://doi.org/10.1159/000488865*

Clark, H., Ghebreyesus, T. A., Albrectsen, A.-B., Alcocer, J., Alden, E., Azoulay, A., Billingsley, S., Blum, R. W., Bhushan, R., Byanyima, W., Carazo Zeledon, R. A., Erulkar, A., Fagan, L., Fatusi, A., Fore, H. H., Germann, S., Gould, K., Imbago, D., Kahn, J., . . . Mohan, A. (2021). Adolescents Wellbeing: Uniting for adolescents in COVID-19 and beyond. Bmj, 372, n719. *https://doi.org/10.1136/bmj.n719*

Clarke, S. E., Rouhani, S., Diarra, S., Saye, R., Bamadio, M., Jones, R., Traore, D., Traore, K., Jukes, M. C., Thuilliez, J., Brooker, S., Roschnik, N., & Sacko, M. (2017). Impact of a malaria intervention package in schools on Plasmodium infection, anaemia and cognitive function in schoolchildren in Mali: a pragmatic cluster-randomised trial. BMJ Global Health, 2(2), e000182. *https://doi.org/10.1136/bmjgh-2016-000182*

Cohee, L. M., Opondo, C., Clarke, S. E., Halliday, K. E., Cano, J., Shipper, A. G., Barger-Kamate, B., Djimde, A., Diarra, S., Dokras, A., Kamya, M. R., Lutumba, P., Ly, A. B., Nankabirwa, J. I., Njagi, J. K., Maiga, H., Maiteki-Sebuguzi, C., Matangila, J., Okello, G., . . . Chico, R. M. (2021). Preventive malaria treatment among school-aged children in sub-Saharan Africa: a systematic review and meta-analyses. Lancet Glob Health, 8(12), e1499-e1511. *https://doi.org/10.1016/s2214-109x(20)30325-9*

De Neve, J. W., Fink, G., Subramanian, S. V., Moyo, S., & Bor, J. (2015). Length of secondary schooling and risk of HIV infection in Botswana: evidence from a natural experiment. Lancet Glob Health, 3(8), e470-e477. *https://doi.org/10.1016/s2214-109x(15)00087-x*

Dembele, K. (2014). Ministry of Education. Rapport d'Evaluation Des Capacites Nationales en Alimentation Scolaire A Partir De La Methodologie

Dominique, M. (2017). School meals+cash transfers=better nutrition and more local jobs. Rome (Italy), World Food Programme. Available at: *https://www.wfp.org/stories/school-meals-cash-transfers-better-nutrition-and-more-local-jobs*

Drake, L., Cousin, E., & Kim, J. Y. (2016). Global School Feeding Sourcebook: Lessons from 14 Countries. Imperial College Press. *https://openknowledge.worldbank.org/handle/10986/24418*

Drake, L. J., Lazrak, N., Fernandes, M., Chu, K., Singh, S., Ryckembusch, D., Nourozi, S., Bundy, D. A. P., & Burbano, C. (2020). Establishing Global School Feeding Program Targets: How Many Poor Children Globally Should Be Prioritized, and What Would Be the Cost of Implementation? Front Public Health, 8, 530176. *https://doi.org/10.3389/fpubh.2020.530176*

Engel, D. e. (2021). Adolescent Well-being Background Technical Paper: Safety and a Supportive Environment- essential conditions for adolescent well-being. PMNCH.

FAO and WFP. (2018). Home-Grown School Feeding. Resource Framework. Technical Document. *http://www.fao.org/3/ca0957en/CA0957EN.pdf*

FAO, A. o. B. I. a. C. (2021). Indigenous Peoples' food systems: Insights on sustainability and resilience in the front line of climate change. *https://doi.org/https://doi.org/10.4060/cb5131en*

Fernandes, M., Aurino, E., ."Identifying an Essential Package for School-Age Child Health: Economic Analysis". In: Disease Control Priorities (third edition): Volume 8, Child and Adolescent Health and Development, edited by D. Bundy, N. de Silva, S. Horton, D. T. Jamison, G. Patton. Washington, DC: World Bank.

Filmer, D., Rogers, H., Angrist, N., & Sabarwal, S. (2020). Learning-adjusted years of schooling (LAYS): Defining a new macro measure of education. Economics of Education Review, 77, 101971. *https://doi.org/10.1016/j.econedurev.2020.101971*

Gelli, A., Aurino, E., Folson, G., Arhinful, D., Adamba, C., Osei-Akoto, I., Masset, E., Watkins, K., Fernandes, M., Drake, L., & Alderman, H. (2019). A School Meals Program Implemented at Scale in Ghana Increases Height-for-Age during Midchildhood in Girls and in Children from Poor Households: A Cluster Randomized Trial. J Nutr, 149(8), 1434-1442. *https://doi.org/10.1093/jn/nxz079*

Gelli, A., & Daryanani, R. (2013). Are school feeding programs in low-income settings sustainable? Insights on the costs of school feeding compared with investments in primary education. Food Nutr Bull, 34(3), 310-317. *https://doi.org/10.1177/156482651303400303*

Global Child Nutrition Foundation. (2022). School Meal Programmes Around the World: Results from the 2021 Global Survey of School Meal Programmes Available at: *https://gcnf.org/wp-content/uploads/2022/09/School-Meal-Programs-Around-the-World_-Results-from-the-2021-Global-Survey-of-School-Meal-Programs%C2%A9.pdf*

Goldberg, J. M., Sklad, M., Elfrink, T. R., Schreurs, K. M. G., Bohlmeijer, E. T., & Clarke, A. M. (2019). Effectiveness of interventions adopting a whole school approach to enhancing social and emotional development: a meta-analysis. European Journal of Psychology of Education, 34(4), 755-782. *https://doi.org/10.1007/s10212-018-0406-9*

Grosh, M. E., Carlo, D. N., Emil, T., & Azedine, O. (2008). For Protection and Promotion: The Design and Implementation of Effective Safety Nets. Washington DC, World Bank.
Available at: *https://elibrary.worldbank.org/doi/abs/10.1596/978-0-8213-7581-5*

Hamory, J., Miguel, E., Walker, M., Kremer, M., & Baird, S. (2021). Twenty-year economic impacts of deworming. Proceedings of the National Academy of Sciences, 118(14), e2023185118. *https://doi.org/doi:10.1073/pnas.2023185118*

Harounan, K., Damien, d. W., & Harold, A. (2009). Educational And Health Impacts Of Two School Feeding Schemes: Evidence From A Randomized Trial In Rural Burkina Faso. World Bank Impact Evaluation Series, 30(4976). *https://doi.org/10.1596/1813-9450-4976*

Harris, J., & Nisbett, N. (2020). The Basic Determinants of Malnutrition: Resources, Structures, Ideas and Power. Int J Health Policy Manag, 12(10), 817-827. Available at: *https://pubmed.ncbi.nlm.nih.gov/33590741/*

HLPE. (2017). HLPE Report #12 - Nutrition and Food Systems. Available at: *https://www.unscn.org/en/resource-center/global-trends-and-emerging-issues?idnews=1745*

Horrell, A. J. (2012). Health and Wellbeing: A Policy Context for Physical Education in Scotland. Sport, Education and Society. 17(2).

Hunter, D., R.A.M;, L., & B.D;, M. (2022). Next-generation school feeding: Nourishing our children while building climate-resilience. . United Nations Nutrition Journal 1, 158-163.

Ishida, H. (2018). The History, Current Status, and Future Directions of the School Lunch Program in Japan. The Japanese Journal of Nutrition and Dietetics, 76(S2-S11). Available at; *https://www.jstage.jst.go.jp/article/eiyogakuzashi/76/Supplement/76_S2/_article*

Jamison, D. T., Gelband, H., Horton, S., Jha, P., Laxminarayan, R., Mock, C. N., & Nugent, R. (2017). Disease Control Priorities (Third Edition ed., Vol. Volume 9. Improving Health and Reducing Poverty). Washington, DC: World Bank. *http://hdl.handle.net/10986/28877*

Jourdan, D., Gray, N. J., Barry, M. M., Caffe, S., Cornu, C., Diagne, F., El Hage, F., Farmer, M. Y., Slade, S., Marmot, M., & Sawyer, S. M. (2021). Supporting every school to become a foundation for healthy lives. Lancet Child Adolesc Health, 5(4), 295-303. *https://doi.org/10.1016/s2352-4642(20)30316-3*

Kaplan, C., Turner, S., Norman, E., & Stillson, K. (1996). Promoting Resilience Strategies: A Modified Consultation Model. Children & Schools, 18, 158-168.

Kazianga, H., de Walque, D., & Alderman, H. (2012). Educational and Child Labour Impacts of Two Food-for-Education Schemes: Evidence from a Randomised Trial in Rural Burkina Faso. Journal of African Economies, 21, 723-760. *https://doi.org/10.1093/jae/ejs010*

Kraay, A. (2019). The World Bank Human Capital Index : A Guide. Available at: *https://openknowledge.worldbank.org/handle/10986/34343*

Kristjansson, E. A., Robinson, V., Petticrew, M., MacDonald, B., Krasevec, J., Janzen, L., Greenhalgh, T., Wells, G., MacGowan, J., Farmer, A., Shea, B. J., Mayhew, A., & Tugwell, P. (2007). School feeding for improving the physical and psychosocial health of disadvantaged elementary school children. Cochrane Database Syst Rev(1), CD004676. *https://doi.org/10.1002/14651858.CD004676.pub2*

Kruk, M. E., Lewis, T. P., Arsenault, C., Bhutta, Z. A., Irimu, G., Jeong, J., Lassi, Z. S., Sawyer, S. M., Vaivada, T., Waiswa, P., & Yousafzai, A. K. (2022). Improving health and social systems for all children in LMICs: structural innovations to deliver high-quality services. Lancet, 399(10337), 1830-1844. *https://doi.org/10.1016/s0140-6736(21)02532-0*

Lee, B. X., Kjaerulf, F., Turner, S., Cohen, L., Donnelly, P. D., Muggah, R., Davis, R., Realini, A., Kieselbach, B., MacGregor, L. S., Waller, I., Gordon, R., Moloney-Kitts, M., Lee, G., & Gilligan, J. (2016). Transforming Our World: Implementing the 2030 Agenda Through Sustainable Development Goal Indicators. J Public Health Policy, 37 Suppl 1, 13-31. *https://doi.org/10.1057/s41271-016-0002-7*

Levinson J, K. K. (2019). Investigating the effectiveness of school health services delivered by a health provider: A systematic review of systematic reviews. . 14(6).

Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: a critical evaluation and guidelines for future work. Child Dev, 71(3), 543-562. *https://doi.org/10.1111/1467-8624.00164*

Maijo, S. N. (2018). Impact of School Feeding Programme on Learners' Academic Performance in Mlunduzi Ward, Tanzania [Impact; school feeding programme; learners; academic performance; Tanzania]. 5(3), 6. *https://doi.org/10.33687/educ.005.03.2667*

Mathanga, D. P., Halliday, K. E., Jawati, M., Verney, A., Bauleni, A., Sande, J., Ali, D., Jones, R., Witek-McManus, S., Roschnik, N., & Brooker, S. J. (2015). The High Burden of Malaria in Primary School Children in Southern Malawi. Am J Trop Med Hyg, 93(4), 779-789. *https://doi.org/10.4269/ajtmh.14-0618*

Miguel, E., & Kremer, M. (2004). Worms: Identifying Impacts on Education and Health in the Presence of Treatment Externalities. Econometrica, 72, 159-217. Available at: *https://cega.berkeley.edu/assets/cega_research_projects/1/Identifying-Impacts-on-Education-and-Health-in-the-Presence-of-Treatment-Externalities.pdf*

Montgomery, P., & Knerr, W. (2018). Review of the evidence on sexuality education: report to inform the update of the UNESCO International technical guidance on sexuality education. P. UNESCO. Available at: *https://healtheducationresources.unesco.org/library/documents/review-evidence-sexuality-education-report-inform-update-unesco-international*

Muñoz, A., Villadiego;, L., Castro;, N., Jordana;, I., Bedmar;, J., & Argudo;, N. (2018). Los Comedores Escolares en España: Del diagnóstico a las propuestas de mejora. Available at: *https://www.carrodecombate.com/download/informe-comedores-escolares-2018/*

Nankabirwa, J., Brooker, S. J., Clarke, S. E., Fernando, D., Gitonga, C. W., Schellenberg, D., & Greenwood, B. (2014). Malaria in school-age children in Africa: an increasingly important challenge. Trop Med Int Health, 19(11), 1294-1309. *https://doi.org/10.1111/tmi.12374*

République Française/Assemblée Nationale (2015). Rapport n° 2616 de Mme Gilda Hobert. Paris, Assemblée Nationale. Retrieved from *http://www2.assemblee-nationale.fr/documents/notice/14/rapports/r2616/(index)/rapports*

Norris, S. A., Frongillo, E. A., Black, M. M., Dong, Y., Fall, C., Lampl, M., Liese, A. D., Naguib, M., Prentice, A., Rochat, T., Stephensen, C. B., Tinago, C. B., Ward, K. A., Wrottesley, S. V., & Patton, G. C. (2022). Nutrition in adolescent growth and development. The Lancet, 399(10320), 172-184. *https://doi.org/https://doi.org/10.1016/S0140-6736(21)01590-7*

Partnership for Maternal Newborn and Child Health. (2018). Global consensus statement: Meaningful adolescent and youth engagement. Available at: *https://pmnch.who.int/resources/publications/m/item/global-consensus-statement-on-meaningful-adolescent-and-youth-engagement*

Partnership for Maternal Newborn and Child Health. (2020). Call to Action for Adolescents: the time is now. PMNCH. Available at *https://pmnch.who.int/news-and-events/news/item/22-10-2019-a-call-to-action-for-adolescents-the-time-is-now*

Partnership for Maternal Newborn and Child Health. (2021). Adolescent Well-being: Background Papers for Multi-stakeholder Consultations.

Partnership for Maternal Newborn and Child Health. (2022). Multistakeholder Consultations on Programming to Promote Adolescent Well-Being. Available at: *https://pmnch.who.int/resources/publications/m/item/multistakeholder-consultations-on-programming-to-promote-adolescent-well-being*

Pinchoff, J., Chaponda, M., Shields, T. M., Sichivula, J., Muleba, M., Mulenga, M., Kobayashi, T., Curriero, F. C., & Moss, W. J. (2016). Individual and Household Level Risk Factors Associated with Malaria in Nchelenge District, a Region with Perennial Transmission: A Serial Cross-Sectional Study from 2012 to 2015. PLoS One, 11(6), e0156717. *https://doi.org/10.1371/journal.pone.0156717*

Pulimeno, M., Piscitelli, P., Colazzo, S., Colao, A., & Miani, A. (2020). School as ideal setting to promote health and wellbeing among young people. Health Promot Perspect, 10(4), 316-324. *https://doi.org/10.34172/hpp.2020.50*

Rasco, D., Day, S. L., & Denton, K. J. (2020). Student Retention: Fostering Peer Relationships Through a Brief Experimental Intervention. Journal of College Student Retention: Research, Theory & Practice, 0(0), 1521025120972962. *https://doi.org/10.1177/1521025120972962*

Republic of Rwanda/Ministry of Education. (2018). 2018 Education Statistics. [online] Retrieved from *https://www.statistics.gov.rw/publication/2018-education-statistics-report*

Ross, D. A., Hinton, R., Melles-Brewer, M., Engel, D., Zeck, W., Fagan, L., Herat, J., Phaladi, G., Imbago-Jácome, D., Anyona, P., Sanchez, A., Damji, N., Terki, F., Baltag, V., Patton, G., Silverman, A., Fogstad, H., Banerjee, A., & Mohan, A. (2020). Adolescent Well-Being: A Definition and Conceptual Framework. Journal of Adolescent Health, 67(4), 472-476.

Scottish Government. (2021). Health and well-being in schools. Retrieved from *https://www.gov.scot/policies/schools/wellbeing-in-schools/*

Singh, S. (2021). Home-grown school feeding: promoting the diversification of local production systems through nutrition-sensitive demand for neglected and underutilized species. In Public food procurement for sustainable food systems and healthy diets. FAO.

Singh, S., & Conway, G. R. (2021). Home-Grown School Feeding: Enabling Healthy and Sustainable Food Systems. Centre for Environmental Policy.

The Akshaya Patra Foundation. (2017). Impact Assessment and a Satisfaction Survey: The Akshaya Patra Foundation Mid-Day Meal Programme Available at: *https://tapf.org.uk/includes/assets/pdf/ac-nielsent-2010.pdf*

The Akshaya Patra Foundation. (2022). The Akshaya Patra Foundation: Birth of TAPF. Retrieved 9th June 2022 from *https://www.akshayapatra.org/*

Thompson, D., Leis, M., Davies, N., & Viner, R. (2020). Building Healthy Societies: A framework for integrating Health and Health Promotion into Education. Available at: *https://www.wish.org.qa/reports/building-healthy-societies-a-framework-for-integrating-health-and-health-promotion-into-education/*

UK National Statistics/Department for Education. (2019). Schools, Pupils and their Characteristics: Table 4b. Retrieved from *https://www.gov.uk/government/statistics/schools-pupils-and-their-characteristics-january-2019*

UN Major Group for Children and Youth. (2021). Digital Youth Consultations: Adolescent Wellbeing Framework Background Paper. Available at: *https://pmnch.who.int/resources/tools-and-toolkits/adolescent-papers*

UNESCO, FAO, GPE, UNICEF, UNSCN, World Bank Group, & WHO, W. (2020). Stepping up effective school health and nutrition: A partnership for healthy learners and brighter futures. Available at: *https://www.unicef.org/media/94001/file/Partnership-for-Stepping-up-effective-SHN.pdf.pdf*

UNICEF. (2019). The State of the World's Children 2019. Children, Food and Nutrition: Growing well in a changing world. UNICEF, New York. Available at: *https://www.unicef.org/reports/state-of-worlds-children-2019*

Valencia, V., Wittman, H., & Blesh, J. (2019). Structuring Markets for Resilient Farming Systems. Agronomy for Sustainable Development, 39(2), 25. *https://doi.org/10.1007/s13593-019-0572-4*

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 Public Health, 8, 587046. *https://doi.org/10.3389/fpubh.2020.587046*

Vidyarthi, A. (2021). Adolescent Wellbeing Background Paper youth consultation Available at: *https://pmnch.who.int/resources/tools-and-toolkits/adolescent-papers*

Vio, F., Olaya, M., Yañez, M., & Montenegro, E. (2020). Adolescents' perception of dietary behaviour in a public school in Chile: a focus groups study. BMC Public Health, 20(1), 803. *https://doi.org/10.1186/s12889-020-08908-x*

Watkins, K. (2022). School Meal Programmes and the Education Crisis: A finanacial Lanscape Analysis Available at: *https://educationcommission.org/updates/school-meals-programmes-and-the-education-crisis/*

Were, V., Buff, A. M., Desai, M., Kariuki, S., Samuels, A., Ter Kuile, F. O., Phillips-Howard, P. A., Patrick Kachur, S., & Niessen, L. (2018). Socioeconomic health inequality in malaria indicators in rural western Kenya: evidence from a household malaria survey on burden and care-seeking behaviour. Malar J, 17(1), 166. *https://doi.org/10.1186/s12936-018-2319-0*

WFP. (2013). State of School Feeding Worldwide 2013. Rome (Italy), World Food Programme Available at: *https://www.wfp.org/publications/state-school-feeding-worldwide-2013*

WFP. (2017a). Empowering girls through school meals in Mali. Rome (Italy), World Food Programme. Available at: *https://medium.com/world-food-programme-insight/empowering-girls-through-school-meals-in-mali-1ff29b876de6*

WFP. (2017b). Smart school meals - Nutrition-sensitive national programmes in Latin America and the Caribbean. Retrieved 3rd October 2022 from *https://www.wfp.org/publications/smart-school-meals-nutrition-sensitive-national-programmes-latin-america-and-caribbean*

WFP. (2020a). Annual Country Reports 2020. World Food Programme Retrieved 3rd October 2022 from *https://www.wfp.org/annual-country-reports-2020*

WFP. (2020b). A Chance for every Schoolchild - WFP School Feeding Strategy 2020-2030. Available at: *https://www.wfp.org/publications/chance-every-schoolchild-wfp-school-feeding-strategy-2020-2030*

WFP. (2020c). The Cost of Hunger in Africa: the Social and Economic Impact of Child Undernutrition in Sudan. Available at: *https://reliefweb.int/report/sudan/cost-hunger-social-and-economic-impact-child-undernutrition-sudan*

WFP. (2020d). State of School Feeding Worldwide 2020. Rome (Italy). World Food Programme. Available at: *https://www.wfp.org/publications/state-school-feeding-worldwide-2020*

WFP. (2022). Global Monitoring of School Meals During COVID-19 School Closures. *https://cdn.wfp.org/2020/school-feeding-map/index.html*

WHO. (2017). Global Accelerated Action for the Health of Adolescents (AA-HA!): Guidance to support country implementation. Available at: *https://www.who.int/publications/i/item/9789241512343*

WHO. (2018a). Guideline: implementing effective actions for improving adolescent nutrition. Geneva: World Health Organization. Available at: *https://apps.who.int/iris/handle/10665/260297*

WHO. (2018b). Health 2020 priority area four: creating supportive environments and resilient communities: a compendium of inspirational examples. Available at: *https://apps.who.int/iris/handle/10665/342209*

WHO. (2019). Essential nutrition actions: mainstreaming nutrition through the life-course. Geneva: World Health Organization.
Available at: *https://www.who.int/publications/i/item/9789241515856*

WHO. (2020). Guidelines on mental health promotive and preventive interventions for adolescents: helping adolescents thrive. . Geneva: World Health Organization. Available at: *https://www.who.int/publications/i/item/9789240011854*

WHO. (2021a). Making every school a health-promoting school-Implementation guidance. Available at: *https://www.who.int/publications/i/item/9789240025073*

WHO. (2021b). WHO guideline on school health services.
Available at: *https://www.who.int/publications/i/item/9789240029392*

WHO. (2022). Maternal, Newborn Child and Adolescent Health and Well-being. WHO. Retrieved 9 June 2022 from *https://www.who.int/health-topics/maternal-health#tab=tab_1*

WHO and FAO. (2006). Guidelines on food fortification with micronutrients (Lindsay Allen, Bruno de Benoist, & O. D. a. R. Hurrell, Eds.). WHO Library. *who.int/publications/i/item/9241594012*

WHO and UNESCO. (2021). Global Standards and Indicators for Health Promoting Schools. Available at: *https://www.who.int/publications/i/item/global-standards-for-health-promoting-schools*

World Bank. (2018). The State of Social Safety Nets Washington, DC: World Bank. © World Bank. *https://openknowledge.worldbank.org/handle/10986/29115*

World Bank. (2020). Cost-Effective Approaches to Improve Global Learning: What Does Recent Evidence Tell Us Are "Smart Buys" for Improving Learning in Low and Middle Income Countries?
Available at: *https://www.worldbank.org/en/topic/teachingandlearning/publication/cost-effective-approaches-to-improve-global-learning*

Yapi, R. B., Hürlimann, E., Houngbedji, C. A., Ndri, P. B., Silué, K. D., Soro, G., Kouamé, F. N., Vounatsou, P., Fürst, T., N'Goran, E. K., Utzinger, J., & Raso, G. (2014). Infection and co-infection with helminths and plasmodium among school children in Côte d'Ivoire: Results from a national cross-sectional survey. PLoS Negl Trop Dis, 8(6), e2913. *https://doi.org/10.1371/journal.pntd.0002913*

Acronyms

ACR	Annual Country Report
ASEAN	Association of Southeast Asian Nations
AU	African Union
AUDA	African Union Development Agency
AUSFF	African Union Sustainable School Feeding
BRICS	Brazil, Russia, India, China and South Africa
CDC	Centres for Disease Control and Prevention
CESA	Continental Education Strategy for Africa
CGIAR	Consultative Group for International Agricultural Research
CIAT	International Center for Tropical Agriculture
COE	Centre of Excellence
COVID-19	Coronavirus Disease 2019
ECOWAS	Economic Community of West African States
ECW	Education Cannot Wait
FAO	Food and Agriculture Organization
FRESH	Focusing Resources on Effective School Health
GAMA	Global Action for the Measurement of Adolescent Health
GCNF	Global Child Nutrition Foundation
GDP	Gross Domestic Product
GEC	Global Education Cluster
GEEAP	Global Education Evidence Advisory Panel
GFD	General Food Distribution
GPE	Global Partnership for Education
HGSF	Home-grown School Feeding
HIV / AIDS	Human Immunodeficiency Virus / Acquired Immune Deficiency Syndrome
IFAD	International Fund for Agricultural Development
IFFED	International Financing Facility for Education
IFI	International Financial Institutions
IFPRI	International Food Policy Research Institute
IMF	International Monetary Fund
LAC	Latin America and the Caribbean
LAYS	Learning-Adjusted Years of Schooling
NEPAD	New Partnership for Africa's Development
NGO	Non-governmental Organization
NGS	Nutrition Guidelines and Standards
NICHD/NIH	National Institute of Child Health and Human Development
NORAD	Norwegian Agency for Development Cooperation
OECD	Organisation for Economic Co-operation and Development

ODA	Official Development Assistance
PCD	Partnership for Child Development
PMNCH	Partnership for Maternal, Newborn & Child Health
SABER	Systems Approach for Better Education Results
SADC	South Africa Development Community
SDG	Sustainable Development Goal
SHN	School Health and Nutrition
SIFI	Social and Industrial Foodservice Institute
SISCA	Secretaría de la Integracion Social Centroamericana
SMC	School Meals Coalition
SMP	School Menu Planner
SOFI	State of Food Security and Nutrition in the World (Name of Report)
SSA	Sub-Saharan Africa
SSFW	State of School Feeding Worldwide
SSM	Smart School Meals
SSSN	State of Social Safety Nets
TTF	Teacher Taskforce
UAE	United Arab Emirates
UK	United Kingdom
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNESCO UIS	UNESCO Institute for Statistics
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
USA	United States of America
USAID	United Stated Agency for International Development
USDA	United States Department of Agriculture
USDA/FAS	USDA-Foreign Agriculture Service
USSR	Union of Soviet and Socialist Republics
VAT	Value Added Tax
WASH	Water, Sanitation and Hygiene
WFP	World Food Programme
WHO	World Health Organization

Glossary

ADOLESCENCE Adolescence is the phase of life between childhood and adulthood, from ages 10 to 19. As a period of life characterized by important physical, psychological, and social changes - with specific health and developmental needs - adolescence carries new risks, but also provides unique opportunities. Investments in adolescents today will have broad implications not only for their own lives but also for family members and broader communities alike. The adolescents of today will be the parents, the teachers and the policymakers of tomorrow.

BENEFICIARIES Those who receive the benefits of a particular social programme. For this publication, it refers to primary and secondary school-age children between 5-19 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 the 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 (International Monetary Fund, World Bank, AfDB, AsDB, EBRD, IADB...); other multilateral agencies (e.g. IsDB, EIB, OFID, AIIB...); multistakeholder partnership global pooled funds (GPE, ECW...); international non-governmental organizations (Plan International, Save the Children International, Demo International, Care International, Relief International, Dubai Cares...); international civil society organizations (Partnership for Child Development, International Food Policy Research Institute, the Millennium Villages Project, GCNF...); and civil society at the local level.

DEWORMING A treatment to control the 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) to increase their resilience to shocks; and (3) in some cases, to 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 that is 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, these 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 MEALS COALITION An emerging initiative of governments and a wide range of partners to drive actions that can urgently re-establish, improve and scale up food and education systems, support pandemic recovery and drive actions to achieve the Sustainable Development Goals (SDGs).

SOCIAL PROTECTION A set of policies and programmes aimed at preventing or protecting all people against poverty, vulnerability and social exclusion throughout their life-course, with particular emphasis on vulnerable groups.

SCHOOL HEALTH AND NUTRITION Health and nutrition programming designed for school-age children, as well as 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).

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 WFP School-Based Programmes (SBP) service 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 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 Centre of Excellence in the second half of 2022 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 – a rapid review of 37 already-approved plans for 58 countries and territories. Reports of regional school feeding workshops held in 2017-2018.
- The external audit of WFP School Feeding (2016).
- Forty-one evaluations (school feeding, portfolio, operation and impact evaluations).
- 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 the Centre of Excellence 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 2018/9 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. 2019. School Feeding in Ghana - Investment Case - Cost Benefit Analysis Report Available at: *https://docs.wfp.org/api/documents/WFP-0000108072/download*

WFP. 2019. Cost-benefit analysis of WFP Benin School feeding programme. Available at: *https://docs.wfp.org/api/documents/WFP-0000114270/download/*

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

Bremner M, & Defeyter G. 2022. England School Food Case Study (Working Paper) *https://www.docdroid.net/1xZC6hQ/england-school-food-case-study-final-pdf*

Brennan M, Jones J, & McKendrick., J. 2022. Scotland School Food Case Study (Working Paper) *https://www.docdroid.net/u8cS5tj/scotland-school-food-case-studyfinal-pdf*

Brophy S, & Woolley K. 2022. Wales School Food Case Study (Working Paper) *https://www.docdroid.net/tczTEHE/wales-school-food-case-study-final-pdf*

Furey, S., & Woodside, J. 2022. Northern Ireland School Food Case Study (Working Paper) *https://www.docdroid.net/SdlqeKC/n-ireland-school-food-case-study-final-pdf*

Research Consortium for School Health and Nutrition and World Food Programme. 2022. UK School Food Case Study for School Health and Nutrition to the Ministers of the School Meals Coalition. Available at *https://www.docdroid.net/i5Revy1/a5-final-school-meals-case-study-four-pager-1485-21cm-6-3-pdf*

Research Consortium for School Health and Nutrition. 2022. A Statement by the Research Consortium for School Health and Nutrition to the Ministers of the School Meals Coalition. Available at *https://www.docdroid.net/frHRATI/statement-researchconsortium-september-2022-1-pdf#page=4*

Baltag, V., Sidaner, E., Bundy, D., Guthold, R., Nwachukwu, C., Engesveen, K.,Sharma, D., Engelhardt, K. & Patton, G. 2022. Realising the potential of schools to improve adolescent nutrition. BMJ 379: e067678. *https://doi.org/10.1136/bmj-2021-067678*

Gray, N.J., Desmond, N.A., Ganapathee, D.S., Beadle, S. & Bundy, D.A. 2022. Breaking down silos between health and education to improve adolescent wellbeing. BMJ, 379: e067683. *https://doi.org/10.1136/bmj-2021-067683*

Watkins, K. 2022. School Meals Programmes and the Education Crisis. Available at: *https://educationcommission.org/updates/school-meals-programmes-and-the-education-crisis/*

Mendonce, S. 2022. The School Meal Coalition We Need. *https://alliancebioversityciat.org/stories/school-meal-coalition-we-need*

Nourishing Schools Foundation. 2022. NSF Discusses the Best Practices for Midday Meals During the International School Meals Coalition Week. *https://ians.in/prwiredetail/nsf-discusses-the-best-practices-for-midday-meals-during-the-international-school-meals-coalition-we/B-81218.html*

Karutu, C., Schultz, L., Campbell, S.J., Waltz, J., Kamara, K., Gouvras, A., Yotebieng, K., Rollinson, D. & Bundy, D.A.P. 2022. A coordinated response to the needs of the learner: How deworming and school meals together will contribute to the global recovery from the COVID-19 pandemic. Front. Trop. Dis., 3: 998276. *https://doi.org/10.3389/fitd.2022.998276*

UNESCO; World Food Programme; United Nations Children's Fund. 2022. Ready to learn and thrive: school health and nutrition around the world; highlights. Available at: *https://unesdoc.unesco.org/ark:/48223/pf0000381965*

Kristjansson, E., Osman, M., Dignam, M., Labelle, P.R., Magwood, O., Huerta Galicia, A., Cooke-Hughes, P., Wells, G.A., Krasevec, J., Enns, A., Nepton, A., Janzen, L., Shea, B., Liberato, S.C., Garner, J.A. & Welch, V. 2022. School feeding programs for improving the physical and psychological health of school children experiencing socioeconomic disadvantage (Protocol). Cochrane Database of Systematic Reviews 2022, Issue 8. Art. No.: CD014794. *https://doi.org/10.1002/14651858.CD014794*

Bundy, D.A.P., Schultz, L., Verguet, S., Angrist, N. & Watkins, K. 2022 The Investment Case for School Health & Nutrition: Memo #4. Available at: *https://www.docdroid.net/GJLq1sN/the-investment-case-for-school-health-andnutrition-7-april-2022-*

Borkowski, Artur; Ortiz Correa, Javier Santiago; Bundy, Donald A. P.; Burbano, Carmen; Hayashi, Chika; Lloyd-Evans, Edward; Neitzel, Jutta; Reuge, Nicolas 2021. COVID-19: Missing More Than a Classroom. The impact of school closures on children's nutrition, Innocenti Working Papers, no. 2021-01, UNICEF Office of Research - Innocenti, Florence

Global Financing Facility. 2021. Sustaining Adolescent Health Service Delivery during Prolonged School Closures: Considerations in Light of COVID-19. Available at: *https://www.globalfinancingfacility.org/sites/gff_new/files/SUSTAINING-ADOLESCENT-HEALTH-SERVICE-DELIVERY-DURING-PROLONGED-SCHOOL-CLOSURES-CONSIDERATIONS-IN-LIGHT-OF-COVID-19_0.pdf*

WFP. 2020. State of School Feeding Worldwide 2020. Rome, World Food Programme. Available at: *https://www.wfp.org/publications/state-school-feeding-worldwide-2020*

Cohee, L.M., Halliday, K.E., Gelli, A., Mwenyango, I., Lavadenz, F., Burbano, C., Drake, L. and Bundy, D.A.P. 2020. The Role of Health in Education and Human Capital: Why an Integrated Approach to School Health Could Make a Difference in the Futures of Schoolchildren in Low-Income Countries. Am. J. Trop. Med. Hyg., 104(2): 424-428. *https://doi.org/10.4269/ajtmh.20-0779*

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 he Multi-Sectoral Returns to Public Health, Human Capital, Social Protection, and the Local Economy. Front Public Health, 8, 587046. *https://doi.org/10.3389/fpubh.2020.587046*

Drake, L. J., Lazrak, N., Fernandes, M., Chu, K., Singh, S., Ryckembusch, D., Nourozi, S., Bundy, D. A. P., & Burbano, C. 2020. Establishing Global School Feeding Program Targets: How Many Poor Children Globally Should Be Prioritized, and What Would Be the Cost of Implementation? Front Public Health, 8, 530176. *https://doi.org/10.3389/fpubh.2020.530176*

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. 2018. 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*

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/*

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 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. 2019. The school feeding programme in Bangladesh – A Case Study.
Available at: *https://docs.wfp.org/api/documents/WFP-0000112387/download/*
WFP. 2018. The impact of school feeding in Bangladesh.
Available at: *https://docs.wfp.org/api/documents/WFP-0000105838/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. 2022. Eastern Africa - 2021 Regional Achievements & Outlook.
Available at: *https://docs.wfp.org/api/documents/WFP-0000139504/download/*
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
Methodology and Sources used for estimating children receiving school feeding, coverage and investment

A2.1 Sources

Similar to *State of School Feeding Worldwide 2020* (WFP, 2020d), 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 data for the 2022 edition were mainly drawn from two main sources:
   - The USDA-sponsored GCNF Global School Feeding Survey, published in 2021 (125 countries) (Global Child Nutrition Foundation (GCNF), 2022). 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 most recent survey in 2021 and 2019 is provided, in part, by USDA under agreement number FX18TA-10960G002.
   - WFP's 2019 Annual Country Reports, published in 2020 (72 countries) (WFP, 2020a)

When data were not available from the sources above, data were drawn from sources employed in *State of School Feeding Worldwide 2020* (WFP, 2020d). These secondary sources include reports, publications and case studies. As in 2020, 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 ***The State of Social Safety Nets 2018*** (World Bank, 2018) (90 countries)
2. The African Union's ***Sustainable School Feeding Report*** (African Union, 2018), (33 countries).
3. WFP's ***Smart School Meals – Nutrition-sensitive national programmes in Latin America and the Caribbean*** (WFP, 2017b) , 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/Department for Education, 2019)
   - Rwanda (Republic of Rwanda/Ministry of Education, 2018)
   - Russia (Communication from the Social & Industrial Foodservice Institute, 2020 in (WFP, 2020d)

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:

- If more than one source cites data for the same country, the most recent data point was used, based on the reference year.
- 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.

Finally, in 18 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 A2.1 illustrates the number of countries from each source used in this publication.

Figure A2.1
Breakdown of countries by data source

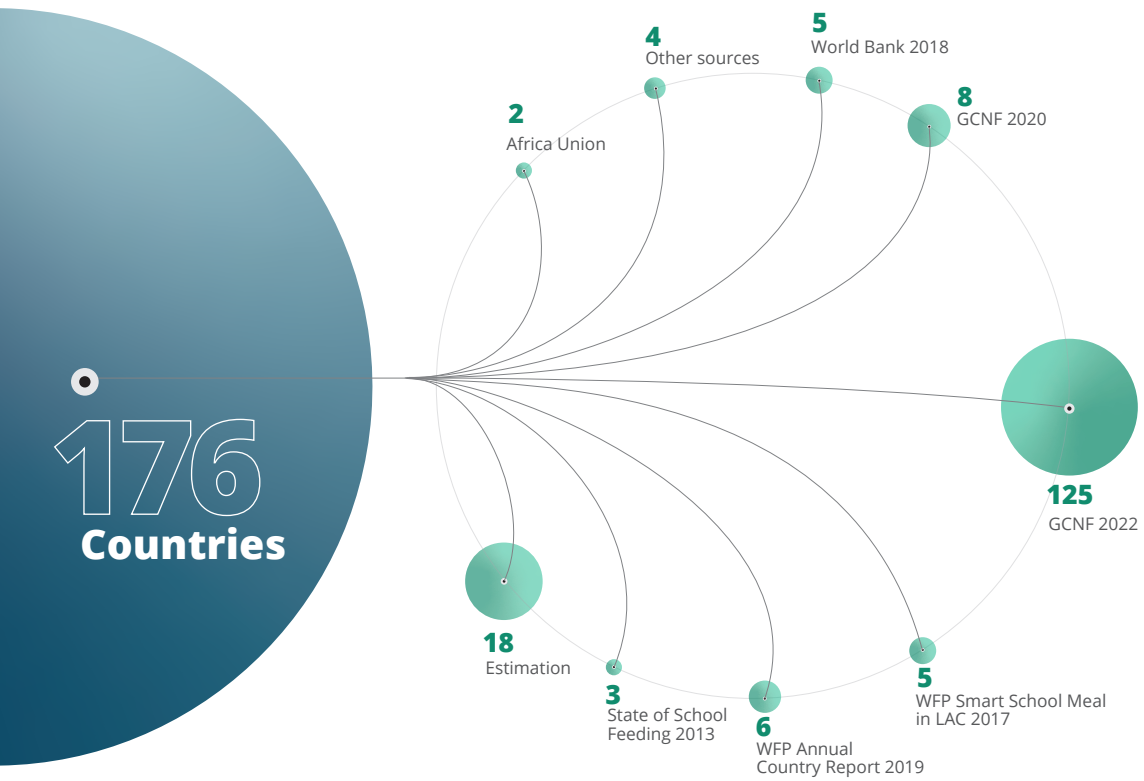
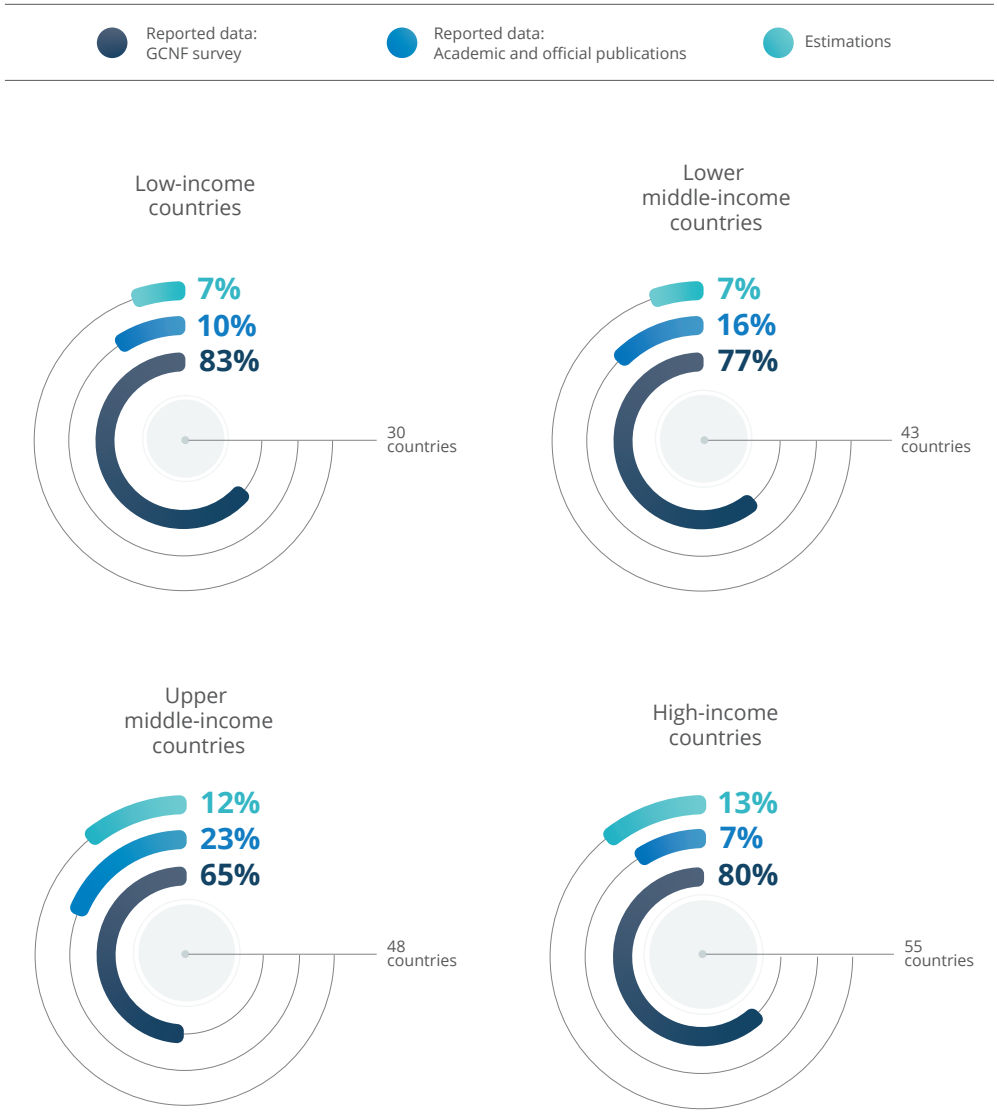


Figure A2.2

Breakdown of sample by source and income level (N=176)



*Data from India was collected by GCNF during its 2021 survey and do not match with data provided in the Mid-Day Programme page referring to 118 million schoolchildren fed in India (*https://www.akshayapatra.org/our-reach*). According to GCNF data from India were gathered through the following sources: For the India survey, all the data were collated from the *mdm.nic.in* website (now *pmposhan.education.gov.in*) between 22 February to 6 March 2022. The pdf of the PAB Appraisal Note for the year 2021-2022 for all states and Union territories was downloaded and the numbers were collated. Only for Telangana state was the PAB Appraisal Note in Microsoft PowerPoint. These are at *https://pmposhan.education.gov.in/#*. The "Number of children who availed the MDM during the school year 2020-2021" is specified under the Basic Information section, point 2 (iii) of the PAB files. GCNF collated and tabulated student numbers (disaggregated by school level) from this file and got to the final estimate of 106 million. Possible explanations for the discrepancy in numbers are the following: the "NCLP", that is the "National Child Labour Project", a project that includes vocational training centres that serve a mid-day meal was not included in the government count. Also, the pre-school numbers for South Asia/East Asia/Pacific do not include children served through India's large Integrated Child Development Scheme (ICDS), a programme that provides nutritional and other health and developmental services for children under six years of age and their mothers. Similarly, the GCNF survey may not have captured other (day care or community-based) programmes benefiting pre-school children but not considered to be school-based feeding programmes.

Table A2.1

Sources used for school feeding data

Source	Symbol	Number of countries used in this report	Country names
African Union, Sustainable School Feeding in the African Union	AUSSF	2	Angola United Republic of Tanzania
USDA-sponsored, GCNF Global School Feeding Survey 2019	GCNF 2019	8	Colombia, Comoros, Egypt, Fiji Indonesia, Nauru, Republic of Moldova. Viet Nam
USDA-sponsored, GCNF Global School Feeding Survey 2021	GCNF 2021	125	Andorra, Antigua and Barbuda, Argentina, Armenia, Australia, Austria, Bahamas, Bangladesh, Barbados, Belgium, Belize, Benin, Bhutan, Bosnia and Herzegovina, Botswana, Brazil, Brunei, Darussalam, Bulgaria, Burkina Faso, Burundi, Cabo Verde, Cambodia, Cameroon, Central African Republic, Chad, Chile, China, Congo, Croatia, Cyprus, Czechia, Côte d'Ivoire, Democratic Republic of the Congo, Ecuador, El Salvador, Estonia, Ethiopia, Finland, France, Gambia, Ghana, Greece, Grenada, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Hungary, Iceland, India, Iraq, Ireland, Israel, Italy, Jamaica, Kazakhstan, Kenya, Kiribati, Kuwait, Kyrgyzstan, Lao People's Democratic Republic, Latvia, Lesotho, Liberia, Libya, Lithuania, Luxembourg, Madagascar, Malawi, Malaysia, Mali, Malta, Mauritania, Mexico, Monaco, Mongolia, Mozambique, Namibia, Nepal, Netherlands, New Zealand, Niger, Nigeria, North Macedonia, Palau, Panama, Peru, Philippines, Poland, Portugal, Romania, Saint Lucia, Saint Vincent and the Grenadines, San Marino, Sao Tome and Principe, Senegal, Serbia, Sierra Leone, Slovakia, Slovenia, Somalia, South Africa, South Sudan, Spain, Sri Lanka, St. Kitts and Nevis, Sudan, Sweden, Switzerland, Syrian Arab Republic, Tajikistan, Thailand, Timor-Leste, Togo, Trinidad and Tobago, Tunisia, Uganda, United Arab Emirates, United States of America, Uruguay, Zambia, Zimbabwe, eSwatini,

World Bank, State of Social Safety Nets 2018	SSSN	5	Costa Rica, Mauritius, Morocco State of Palestine, Turkey
State of School Feeding Worldwide 2013	SSFW	3	Canada, China Hong Kong SAR Iran (Islamic Republic of)
WFP, Smart School Meals 2017	SSM	5	Bolivia (Plurinational State of) Cuba Dominican Republic Nicaragua Paraguay
WFP, Annual Country Reports 2019	WFP ACR	6	Algeria Djibouti Jordan Lebanon Myanmar Yemen
Other sources: government reports, case studies and individual country publications	OS	4	Japan Russian Federation Rwanda United Kingdom
Estimations	Est	18	Afghanistan, Albania, Bahrain, Belarus, Bermuda, Dem. People's Republic of Korea, Dominica, Marshall Islands, Pakistan, Puerto Rico, Qatar, Saudi Arabia, Seychelles, Singapore, Tonga, Ukraine, Uzbekistan, Venezuela (Bolivarian Republic of),

A2.2 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. Table A2.2 Possible configurations of school feeding programmes for the purpose of calculating net total beneficiaries presented in this publication systematically specify the sample size available for each indicator.

Further, the data available do not allow us to accurately confirm how many meals per day or per week children received, nor the exact type of meal (i.e. a snack or a proper meal).

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.

As for *State of School Feeding Worldwide 2020* (WFP, 2020d), 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, in addition to data spanning almost a decade, the reference year for the numerator and denominator to compute coverage sometimes does not match (i.e. data could be available for the number of children fed in 2021, but the most recent data on the number of children enrolled in primary school for that country could date back to 2017).

A2.3 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 *State of School Feeding Worldwide 2020* (WFP, 2020d), 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 Table A2.1 of Annex II, 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. As for the 2020 edition, even in this report three possible configurations were found, as described in Table A2.2 below.

In a limited number of countries, 2020 estimates needed to be updated in light of new data reported and published after the publication of *State of School Feeding Worldwide 2020*. The only countries where data on existing policy on national school feeding had to be updated was for Nigeria, Senegal, South Sudan, Uruguay, Trinidad and Tobago, where *State of School Feeding Worldwide 2020* (WFP, 2020d) mistakenly reported there was an existing national school feeding policy.

Table A2.2

Possible configurations of school feeding programmes for the purpose of calculating net total beneficiaries

	Situation		Calculation of net total beneficiaries
1	The country has 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 more school feeding programmes	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 Program and the WFP School Feeding Program in Mali)		The number of beneficiaries add up: the net total corresponds to the sum of beneficiaries of the different programmes.

A2.4 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_i: 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 country x, the total number of school feeding beneficiaries $\sum P_{i,x}$ was divided by the total number of pupils $\sum B_{i,x}$

Box A2.1

Income classification of countries

This publication follows the classification of countries by income groups as defined in the *State of School Feeding Worldwide 2020* (WFP, 2020d), which adopts the World Bank definition and it is updated every year. The version used in this publication is the "2020 fiscal year" classification of countries, which is based on the 2020 gross national income (GNI) per capita (Atlas method) *https://datatopics.worldbank.org/world-development-indicators/the-world-by-income-and-region.html*, and calculated as follows:

Income category	GNI per capita thresholds
Low-income countries	US$1,034 or less
Lower middle-income countries	between US$1,035 and US$4,045
Upper middle-income countries	between US$4,046 and US$12,535
High-income countries	US$12,536 or more

The full list of countries included in each of these income groups is available on the World Bank's website *https://datatopics.worldbank.org/world-development-indicators/the-world-by-income-and-region.html* and reproduced in Annex III 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 2021 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.

PLEASE NOTE: According to the latest World Bank data ten countries have changed income level in 2021, they include:

1. *Haiti*: low to lower middle
2. *Moldova*: not included in our sample
3. *Tajikistan*: Low to lower middle
4. *Belize*: Upper middle to lower middle
5. *Indonesia*: Upper middle to lower middle
6. *Iran*: Upper middle to lower middle
7. *Mauritius*: not included in our sample
8. *Panama*: High to Upper middle
9. *Romania*: High to Upper middle
10. *Samoa*: not included in our sample

Of these ten countries, three are not included in our sample and one (Romania) is already listed in our database as Upper middle so no actual change.

A2.5 Estimations

Compared to *State of School Feeding Worldwide 2020* (WFP, 2020d), the number of countries for which an estimation of school meals beneficiaries was needed dropped from 36 to 18. For these remaining countries, the same estimations derived in 2020 were maintained and included in the analysis. In 2020, the number of children receiving school feeding and level of investment was estimated 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 A2.1 above). The percentages used to calculate these estimations are shown in Table A2.3 below.

Table A2.3

Coverage rates used for estimating beneficiaries

Income category	Coverage rate used for estimations
Low-income countries	18%
Lower middle-income countries	39%
Upper middle-income countries	48%
High-income countries	61%

The coverage in high-income countries was used for the estimations, but it 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):

$$B_{i(estimated)} = C_x \times P_i$$

P_i was obtained from the UNESCO Institute for Statistics. Of the 18 countries for which beneficiaries were estimated, 2 were low-income countries, 3 were lower middle-income, 6 were upper middle-income countries, and 7 were high-income countries.

Calculations for the global investment in school feeding are presented in Section 1.3 of the present publication and reproduced below (Table A2.4). 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 is presented in this present publication. Only countries with a school feeding programme were included in the investment estimation.

Table A2.4

Four estimates of the total yearly investment in school meals

Source	Number of countries	Number of children receiving school meals	Investment value	Estimated global investment (US$)
Actual reported cost only	100	314 million	Budget allocated	35 billion
	100	314 million	Average cost per income group	34 billion
Actual reported cost and estimations	176	418 million	Budget allocated for 100 countries which have data average cost per income group for remaining 76 countries	49 billion
	176	418 million	Average cost per income group	48 billion

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$35 billion**
Sample: **100 countries**

The first approach, which resulted in a figure of US$35 billion, is based on national budgets as reported in the GCNF Global School Feeding Survey (100 countries), the report on Sustainable School Feeding Across the African Union (African Union, 2018) (6 countries), the Smart School Meals report (WFP, 2017b) (7 countries), and the Global School Feeding Sourcebook (Drake et al., 2016) (2 countries).
According to this approach, the global investment $M_{(1)}$ is the sum of all reported national budgets (G_i) across these 100 countries for which data was available:

$$M_{(1)} = \sum_{i=1}^{80} G_i$$

(2) Estimated global investment: **US$34 billion**
Sample: **100 countries**

The second approach, which resulted in a figure of US$34 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 100 countries:

$$M_{(2)} = \sum_{x=1}^{4} \sum_{i=1}^{80} (AC_x \times B_i)$$

Bi 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 the one used in beneficiary and coverage calculations. Table A2.5 presents the average cost per income group as used for this calculation.

Table A2.5
Average cost per income group used for estimating global investment

Income category	Average cost used for estimations [32]
Low-income countries	US$41.83
Lower middle-income countries	US$42.06
Upper middle-income countries	US$112.04
High-income countries	US$328.99

[32] The average cost used for estimations is the average cost per child observed in each income group.

(3) Estimated global investment: **US$48 billion**
Sample: **176 countries**

The third approach, which resulted in a figure of US$48 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, based on reported or estimated beneficiaries. To the US$35 billion figure estimated using approach (1), it adds an estimation using approach (2) for an additional 76 countries which are known to have a national school feeding programme, and for which no reported budget data was 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$48 billion**
Sample: **176 countries**

The fourth approach, which resulted in a figure of US$48 billion, was calculated using approach (2), applied to the full sample of countries where beneficiary data was 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 176 countries. This calculation can be summarized by the equation below:

$$M_{(4)} = \sum_{x=1}^{4} \sum_{i=1}^{154} (AC_x \times B_i)$$

Annex III
Country-specific indicators of school feeding

			2020			2022	
Country	Income Level	Reference year	Number of children receiving school feeding (1,000s)	Source 2022	Estimated Coverage	Number of children receiving school feeding (1,000s)	Estimated Coverage
Afghanistan	L		1,341,812	est		1,341,812	
Albania	UM		99,041	est		99,041	
Algeria	UM	2019	39,632	WFP ACR	1	39,632	1
American Samoa	UM			NA		2,022	
Andorra	H	2021		GCNF2021		564	13
Angola	LM	2017	1,516,133	AUSSF	27	1,516,133	27
Antigua and Barbuda	H	2021	8,560	GCNF2021		6,861	68
Argentina	UM	2021	1,687,785	GCNF2021	36	2,098,464	44
Armenia	UM	2021	100,270	GCNF2021	65	102,430	66
Aruba	H			NA			
Australia	H	2021	4,800	GCNF2021	0	4,800	0
Austria	H	2021		GCNF2021		201,673	59
Azerbaijan	UM			NA			
Bahamas	H	2021		GCNF2021		3,785	12
Bahrain	H		96,300	est		96,300	
Bangladesh	LM	2021	2,544,920	GCNF2021	15	2,560,210	15
Barbados	H	2021	17,097	GCNF2021		22,500	117
Belarus	UM		247,949	est		247,949	
Belgium	H	2021		GCNF2021		187,407	23
Belize	UM	2021	29,426	GCNF2021		0	0
Benin	L	2021	460,063	GCNF2021	21	824,087	38
Bermuda	H		3,507	est		3,507	
Bhutan	LM	2021	17,137	GCNF2021	19	31,100	33
Bolivia (Plurinational State of)	LM	2015	2,383,408	SSM	100	2,383,408	171
Bosnia and Herzegovina	UM	2021	92,386	GCNF2021		0	0

Country	Income Level	Reference year	2020			2022	
			Number of children receiving school feeding (1,000s)	Source 2022	Estimated Coverage	Number of children receiving school feeding (1,000s)	Estimated Coverage
Botswana	UM	2021	358,854	GCNF2021	100	364,108	100
Brazil	UM	2021	23,000,000	GCNF2021	100	22,400,000	143
British Virgin Islands	H			NA			
Brunei Darussalam	H	2021		GCNF2021		28,943	73
Bulgaria	UM	2021	151,852	GCNF2021		238,305	93
Burkina Faso	L	2021	3,768,473	GCNF2021	100	3,485,600	108
Burundi	L	2021	613,452	GCNF2021	28	520,613	23
Cabo Verde	LM	2021	3,168	GCNF2021	5	70,521	113
Cambodia	LM	2021	281,385	GCNF2021	13	260,977	12
Cameroon	LM	2021	18,315	GCNF2021	0	189,711	4
Canada	H	2013	292,645	SSFW	12	292,645	12
Cayman Islands	H			NA			
Central African Republic	L	2021	241,957	GCNF2021	30	215,411	26
Chad	L	2021	138,078	GCNF2021	6	122,009	5
Channel Islands	H			NA			
Chile	H	2021	1,828,556	GCNF2021	100	1,828,556	118
China	UM	2021	40,000,000	GCNF2021	39	26,000,000	25
China, Hong Kong SAR	H	2013	243,984	SSFW	67	243,984	67
China, Macao SAR	H			NA			
China, Taiwan Province of China	H			NA			
Colombia	UM	2018	2,732,534	GCNF2019	63	2,732,534	65
Comoros	LM	2018	0	GCNF2019	0	0	0
Congo	LM	2021	141,961	GCNF2021		140,703	
Costa Rica	UM	2014	691,294	SSSN	100	691,294	140
Croatia	H	2021	151,514	GCNF2021	93	203,183	128
Cuba	UM	2015	827,070	SSM	100	827,070	109
Curaçao	H			NA			

Country	Income Level	Reference year	2020			2022	
			Number of children receiving school feeding (1,000s)	Source 2022	Estimated Coverage	Number of children receiving school feeding (1,000s)	Estimated Coverage
Cyprus	H	2021	7,642	GCNF2021	14	6,086	10
Czechia	H	2021	577,000	GCNF2021	100	837,870	144
Côte d'Ivoire	LM	2021	976,443	GCNF2021	25	1,024,401	25
Dem. People's Republic of Korea	L		318,168	est		318,168	
Democratic Republic of the Congo	L	2021	124,485	GCNF2021	1	165,000	1
Denmark	H			NA			
Djibouti	LM	2019	19,590	WFP ACR	29	19,590	28
Dominica	UM		4,245	est		4,245	
Dominican Republic	UM	2015	1,739,355	SSM	100	1,739,355	142
Ecuador	UM	2021	2,873,148	GCNF2021	100	1,582,714	84
Egypt	LM	2018	9,769,528	GCNF2019	77	9,769,528	73
El Salvador	LM	2021	1,300,000	GCNF2021	100	356,026	59
Equatorial Guinea	UM			NA			
Eritrea	L			NA			
Estonia	H	2021	72,402	GCNF2021		88,981	99
Ethiopia	L	2021	2,539,286	GCNF2021	16	1,676,452	8
Faroe Islands	H			NA			
Fiji	UM	2018	20,629	GCNF2019	19	20,629	18
Finland	H	2021	360,000	GCNF2021	99	373,800	101
France	H	2021	3,000,000	GCNF2021	70	3,263,500	76
French Polynesia	H			NA			
Gabon	UM			NA			
Gambia	L	2021	144,946	GCNF2021	41	182,862	47
Georgia	UM			NA			
Germany	H			NA			
Ghana	LM	2021	1,700,000	GCNF2021	39	2,517,087	55
Gibraltar	H			NA			
Greece	H	2021	3,110	GCNF2021	0	2,823	0

Country	Income Level	Reference year	2020			2022	
			Number of children receiving school feeding (1,000s)	Source 2022	Estimated Coverage	Number of children receiving school feeding (1,000s)	Estimated Coverage
Greenland	H			NA			
Grenada	UM	2021	7,051	GCNF2021	53	7,051	53
Guam	H			NA			
Guatemala	UM	2021	1,983,566	GCNF2021	84	2,039,855	87
Guinea	L	2021	374,885	GCNF2021		216,660	10
Guinea-Bissau	L	2021	178,083	GCNF2021		219,419	
Guyana	UM	2021	13,539	GCNF2021		57,417	
Haiti	L	2021	876,000	GCNF2021		857,350	
Honduras	LM	2021	900,000	GCNF2021	80	1,076,079	100
Hungary	H	2021	570,728	GCNF2021	100	560,983	154
Iceland	H	2021		GCNF2021		46,688	142
India	LM	2021	90,400,000	GCNF2021	63	67,500,000	55
Indonesia	LM	2018	100,136	GCNF2021	0	100,136	0
Iran (Islamic Republic of)	UM	2013	2,812	SSFW	0	2,812	0
Iraq	UM	2021	550,000	GCNF2021		350,000	
Ireland	H	2021	91,152	GCNF2021	16	146,796	26
Isle of Man	H			NA			
Israel	H	2021	775,557	GCNF2021		174,796	18
Italy	H	2021	2,454,385	GCNF2021		602,961	21
Jamaica	UM	2021	311,000	GCNF2021	100	71,816	33
Japan	H	2018	6,258,937	OS	96	6,258,937	96
Jordan	UM	2019	419,327	WFP ACR	37	419,327	37
Kazakhstan	UM	2021	1,333,375	GCNF2021	95	1,333,375	88
Kenya	LM	2021	1,754,000	GCNF2021	21	1,800,000	22
Kiribati	LM	2021		GCNF2021		0	0
Kosovo	UM			NA			
Kuwait	H	2021	236,744	GCNF2021		236,744	85
Kyrgyzstan	LM	2021	595,000	GCNF2021	100	66,443	12
Lao People's Democratic Republic	LM	2021	163,396	GCNF2021	21	156,543	21
Latvia	H	2021	102,751	GCNF2021		178,360	148

Country	Income Level	Reference year	2020 Number of children receiving school feeding (1,000s)	2020 Source 2022	2020 Estimated Coverage	2022 Number of children receiving school feeding (1,000s)	2022 Estimated Coverage
Lebanon	UM	2019	31,929	WFP ACR	6	31,929	6
Lesotho	LM	2021	330,171	GCNF2021	90	313,461	85
Liberia	L	2021	149,598	GCNF2021	24	167,122	26
Libya	UM	2021	20,754	GCNF2021		18,000	
Liechtenstein	H			NA			
Lithuania	H	2021	635,500	GCNF2021	100	150,011	127
Luxembourg	H	2021	31,671	GCNF2021		38,834	99
Madagascar	L	2021	563,103	GCNF2021	12	366,693	8
Malawi	Lo	2021	2,886,816	GCNF2021	65	2,777,588	60
Malaysia	UM	2021	500,000	GCNF2021	16	473,679	15
Maldives	UM			NA			
Mali	L	2021	471,110	GCNF2021	19	496,777	20
Malta	H	2021	21,291	GCNF2021		21,162	79
Marshall Islands	UM		4,603	est		4,603	
Mauritania	LM	2021	51,917	GCNF2021	8	172,905	26
Mauritius	UM	2011	75,000	SSSN	84	75,000	91
Mexico	UM	2021	6,357,712	GCNF2021	45	6,518,168	47
Micronesia (Fed. States of)	LM			NA			
Monaco	H	2021		GCNF2021		1,907	99
Mongolia	LM	2021	309,355	GCNF2021	99	371,480	114
Montenegro	UM			NA			
Morocco	LM	2014	1,267,109	SSSN	29	1,267,109	28
Mozambique	L	2021	200,302	GCNF2021	3	304,819	4
Myanmar	LM	2019	353,144	WFP ACR	7	353,144	7
Namibia	UM	2021	365,854	GCNF2021	75	330,115	67
Nauru	UM	2018	2,526	GCNF2021	100	2,526	171
Nepal	L	2021	483,600	GCNF2021	12	2,667,139	76
Netherlands	H	2021		GCNF2021		476,143	41
New Caledonia	H			NA			
New Zealand	H	2021		GCNF2021		42,000	11
Nicaragua	LM	2015	1,200,000	SSM		1,200,000	

			2020				2022
Country	Income Level	Reference year	Number of children receiving school feeding (1,000s)	Source 2022	Estimated Coverage	Number of children receiving school feeding (1,000s)	Estimated Coverage
Niger	L	2021	150,811	GCNF2021	5	453,385	17
Nigeria	LM	2021	9,829,603	GCNF2021	38	9,887,000	39
North Macedonia	UM	2021		GCNF2021		13,223	12
Northern Mariana Islands	H			NA			
Norway	H			NA			
Oman	H			NA			
Pakistan	LM		10,400,000	est		10,400,000	
Palau	H	2021	1,729	GCNF2021	100	1,712	112
Panama	H	2021	399,911	GCNF2021	95	308,272	71
Papua New Guinea	LM			NA			
Paraguay	UM	2015	1,085,942	SSM	100	1,085,942	157
Peru	UM	2021	2,398,480	GCNF2021	67	2,738,858	71
Philippines	LM	2021	2,299,766	GCNF2021	16	3,526,589	27
Poland	H	2021	730,000	GCNF2021	32	1,725,000	75
Portugal	H	2021	868,898	GCNF2021	100	303,810	50
Puerto Rico	H		192,425	est		192,425	
Qatar	H		130,152	est		130,152	
Republic of Korea	H			NA			
Republic of Moldova	LM	2018	137,200	GCNF2019	98	137,200	99
Romania	UM	2021		GCNF2021		891,693	96
Russian Federation	UM	2019	7,656,654	OS	100	7,418,932	104
Rwanda	L	2018	183,857	OS	7	183,857	7
Saint Lucia	UM	2021	6,574	GCNF2021	41	7,000	45
Saint Vincent and the Grenadines	UM	2021	7,650	GCNF2021		7,753	59
Samoa	UM			NA			
San Marino	H	2021		GCNF2021		1,559	97
Sao Tome and Principe	LM	2021	36,660	GCNF2021	99	37,111	100
Saudi Arabia	H		2,789,606	est		2,789,606	

Country	Income Level	Reference year	2020 Number of children receiving school feeding (1,000s)	2020 Source 2022	2020 Estimated Coverage	2022 Number of children receiving school feeding (1,000s)	2022 Estimated Coverage
Senegal	LM	2021	393,373	GCNF2021	18	393,373	17
Serbia	UM	2021	154,629	GCNF2021		154,629	60
Seychelles	H		7,829	est		7,829	
Sierra Leone	L	2021	836,000	GCNF2021	61	485,674	28
Singapore	H		198,433	est		198,433	
Sint Maarten (Dutch part)	H			NA			
Slovakia	H	2021	190,631	GCNF2021		355,263	153
Slovenia	H	2021	104,858	GCNF2021		167,228	126
Solomon Islands	LM			NA			
Somalia	L	2021	164,708	GCNF2021		164,708	
South Africa	UM	2021	6,071,170	GCNF2021	80	6,656,826	87
South Sudan	L	2021	460,413	GCNF2021	36	331,966	26
Spain	H	2021	862,028	GCNF2021	28	835,495	27
Sri Lanka	UM	2021	1,467,465	GCNF2021	84	1,052,563	62
St. Kitts and Nevis	H	2021	4,610	GCNF2021		3,056	56
St. Martin (French part)	H			NA			
State of Palestine	LM	2014	65,000	SSSN	13	65,000	13
Sudan	LM	2021	1,327,789	GCNF2021	27	1,890,277	39
Suriname	UM			NA			
Sweden	H	2021	1,180,947	GCNF2021	100	1,234,829	139
Switzerland	H	2021	66,000	GCNF2021	13	68,204	13
Syrian Arab Republic	L	2021	967,841	GCNF2021	63	651,728	42
Tajikistan	L	2021	416,899	GCNF2021	54	433,000	56
Thailand	UM	2021	4,081,643	GCNF2021	82	3,063,142	63
Timor-Leste	LM	2021	302,447	GCNF2021	100	302,447	146
Togo	L	2021	91,319	GCNF2021	6	128,915	8
Tonga	UM		9,844	est		9,844	
Trinidad and Tobago	H	2021	54,915	GCNF2021		22,800	17
Tunisia	LM	2021	260,000	GCNF2021	22	260,000	20

			2020				2022
Country	Income Level	Reference year	Number of children receiving school feeding (1,000s)	Source 2022	Estimated Coverage	Number of children receiving school feeding (1,000s)	Estimated Coverage
Turkey	UM	2013	6,182,368	SSSN	100	6,182,368	117
Turkmenistan	UM			NA			
Turks and Caicos Islands	H			NA			
Tuvalu	UM			NA			
Uganda	L	2021	3,005,800	GCNF2021	34	1,001,934	11
Ukraine	LM		762,256	est		762,256	
United Arab Emirates	H	2021	467,723	GCNF2021	85	81,731	18
United Kingdom	H	2017	803,733	OS	17	803,733	17
United Republic of Tanzania	L	2017	28,000	AUSSF	0	28,000	0
United States Virgin Islands	H			NA			
United States of America	H	2021	30,000,000	GCNF2021	100	16,100,000	65
Uruguay	H	2021	201,309	GCNF2021	66	201,866	69
Uzbekistan	LM		1,129,906	est		1,129,906	
Vanuatu	LM			NA			
Venezuela (Bolivarian Republic of)	UM		1,904,346	est		1,904,346	
Viet Nam	LM	2018	0	GCNF2019	0	0	0
Yemen	L	2019	680,000	WFP ACR	17	680,000	17
Zambia	LM	2021	1,032,250	GCNF2021	31	1,871,913	57
Zimbabwe	LM	2021	3,218,924	GCNF2021	100	1,830,779	64
eSwatini	LM	2021	243,283	GCNF2021	100	244,300	103

Internal Chapters' Cover photos

Executive Summary: Government of France/Minister of Agriculture/ Xavier Remongin France – WFP/Hebatallah Munassar/Yemen – WFP/Damilola Onafuwa/Nigeria – WFP/Nick Sells/ Cambodia – WFP/Cassandra Prena/Nicaragua

Introduction: WFP/Nick Sells/Cambodia – WFP/Alexis Masciarelli/ Haiti – WFP/Cassandra Prena/Nicaragua – WFP/Sayed Asif Mahmud/Bangladesh – WFP/Arlette Bashizi/Mali – WFP/Ahmed Altaf/Yemen – WFP/Michael Tewelde/Ethiopia – WFP/Kabanga Biti/Democratic Republic of the Congo

Chapter 1: WFP/Badre Bahaji/Malawi – WFP/Giulio D'Adamo/Madagascar – WFP/Hugh Rutherford/Uganda – Government of France-Ministry of Education/ France – WFP/Olga Niiazalieva/Kyrgyzstan – WFP/Antoine Vallas/Haiti

Chapter 3: WFP/Andy Higgins/Zambia – WFP/Mohammad Gamal/Egypt – Government of Finland/National Nutrition Council Finland – WFP/Sayed Asif Mahmud/Bangladesh – WFP/Giulio d'Adamo/Ecuador

Chapter 4: WFP/Nick Sells/Cambodia – WFP/Hebatallah Munassar/Yemen – WFP/ Cesaltino Ximenes/Timor-Leste – WFP/Sayed Asif Mahmud/Bangladesh –WFP/Esther Ouoba/Burkina Faso – WFP/Hebatallah Munassar/Yemen – WFP/Ana Buitron/Ecuador – WFP/Arlette Bashizi/Mali

SPECIAL REPORT: WFP/ Eulalia Berlanga/South Sudan – WFP/Nick Sells/Cambodia – WFP/ Jihad Al-Nahari /Yemen – WFP/Richard Mbouet/Senegal – Government of Finland/National Nutrition Council Finland – WFP/Badre Bahaji/ Malawi – WFP/Cassandra Prena/Nicaragua

Conclusions: WFP/Binai Lama/Buthan – WFP/Cassandra Prena/Nicaragua – WFP/Giulio d'Adamo/Guatemala – WFP/Sayed Asif Mahmud/Bangladesh – WFP/ Andy Higgins/Zambia

State of School Feeding Worldwide 2022

School meal programmes offer an opportunity to help secure the future of the world's children. With the COVID-19 pandemic, the world experienced for the first time in recorded history what it was like to have no schools anywhere. As the COVID-19 pandemic retreats, its consequences remain - education crisis, removal of the world's most extensive safety net for children and adolescents and their health and well-being - and a food crisis has emerged. Hunger is on the increase as food prices rise in response to inflation, energy costs, the impact of weather on farming and the conflict in Ukraine.

This publication by the United Nations World Food Programme (WFP) on the State of School Feeding Worldwide comes at an extraordinary moment in the history of human development when countries have pulled together in a School Meals Coalition, seeking to rebuild their school health and nutrition programmes, and are beginning to focus on more climate-smart, biodiverse and culturally appropriate food systems. The Coalition is changing the face of development with a new multilateral approach geared to support the next generation, paving the way towards a more sustainable, better future. This report explores where we are now, and where we are going as it seeks to build a new world of opportunity for our children and adolescents.

The third in a series of regular reports that WFP is committing to provide, the State of School Feeding Worldwide allows for the continuing overview of school meal programmes everywhere in the world, focusing on national programmes implemented by governments. Each report will be published following a similar format, using the best available data sources to describe the scale and coverage of programmes. The series will serve as the official reporting mechanism of the School Meals Coalition and will continue to provide a succinct summary of new advances in school meals, outcomes and the partnerships associated with school meal programmes. This is not a report on WFP activities but an overview of the work of all actors involved in support of school meal programmes worldwide.

The full publication is available online at **www.wfp.org**

WFP World Food Programme

Via Cesare Giulio Viola 68/70,
00148 Rome, Italy - T +39 06 65131
wfp.org

@WorldFoodProgramme
@WFP
@WorldFoodProgramme

9 789295 050129