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THE INVESTMENT CASE FOR SCHOOL HEALTH AND NUTRITION

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Investment Paper**

Prepared by two initiatives of the School Meals
Coalition: the Research Consortium for School Health
& Nutrition and the Sustainable Financing Initiative

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Key Messages

1. School meals should be a central pillar in any programme for education recovery, and especially in building back from the COVID-19 pandemic, and in responding to the fundamental changes in economic conditions triggered by the war in Ukraine. Rising child poverty and malnutrition represent not just a real and present risk for the physical well-being of children, but also a threat to their prospects for learning.
2. There is overwhelming evidence that well-designed and effectively delivered school meal programmes, especially when combined with complementary school health programmes, have the potential to raise learning outcomes and strengthen equity.
3. Developing country governments increasingly recognise the wide-ranging benefits of school meal programmes in education - and this is reflected in their own investment efforts: more than 90% of support comes from domestic funding. This matters because national ownership is the key to effective policy interventions.
4. While developing country governments could - and should - do more to finance school meal programmes, slower growth and rising debt have limited the fiscal space available for investment in school meals and wider interventions. Aid donors could increase the reach of school meals through modest aid investments backed by the mobilisation of additional funding through the Multilateral Development Banks (MDBs).

Executive Summary

1. This is an invited memo prepared for the Spring 2022 Meeting of the Global Education Forum. It addresses 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. The memo is structured in two parts: the first explores the investment case for school meal programmes in low- and lower-middle income countries, and identifies the financing gaps; the second part explores the financing options and opportunities available to these countries in the current, financially constrained circumstances.
2. The context for this memo is defined by the COVID-19 pandemic and fundamental changes in economic conditions triggered by the war in Ukraine. Poverty and malnutrition, two of the greatest barriers to learning, have increased – and are set to increase further as inflation in food prices hits the poor. School closures during the pandemic intensified an already severe learning crisis as children were locked out of classrooms, with the greatest consequences for poor children who have least access to distance learning opportunities. This combination of learning setbacks and worsening child poverty threatens a perfect storm for education with further learning losses, rising inequality, and increased drop-out rates.
3. This paper argues that school meals, especially when combined with complementary school health interventions such as WASH, vision, deworming and behaviour change, are among the most effective (and potentially cost-effective) interventions available to governments seeking to transform education outcomes.

The Importance of Investing in the Learner

4. 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% of the wealth of high-income countries attributed to human capital compared to 40% in low-income countries.
5. Building human capital depends on high quality education as well as good health and nutrition. School-age children and adolescents – spanning ages five 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 during the same years in which they are in school. The school system represents an exceptionally cost-effective platform through which to deliver an essential integrated package of health and nutrition services – such as school meals, deworming, iron and folic acid supplementation, vision screening, among other interventions – to schoolchildren.
6. 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 with the strongest evidence of impact on equity and inclusion in education. The benefits are felt most acutely by vulnerable students and girls. In low- and lower-middle-income countries, about 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.
7. School meals are cost-effective and cost-beneficial because of the returns from substantial benefits 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 USD 9 in returns for every USD 1 invested. 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 the current threats to the food system and supply chain.
8. A renewed focus on the health and well-being of the learner has the potential to be transformative of education. Most of the "business as usual" education interventions do not result in measurable improvements in education outcomes -- e.g. over half the education interventions reviewed in a World Bank working paper³ and by the Global Education Evidence Advisory Panel⁴ show no effectiveness. This makes the case for

³ Angrist, Noam; Evans, David K.; Filmer, Deon; Glennerster, Rachel; Rogers, F. Halsey; Sabarwal, Shwetlena. 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; No. 9450. World Bank, Washington, DC. © World Bank.

<https://openknowledge.worldbank.org/handle/10986/34658> License: CC BY 3.0 IGO.

⁴ Global Education Evidence Advisory Panel. 2020. "Cost-Effective Approaches to Improve Global Learning"—in short, "Smart Buys". <https://www.worldbank.org/en/topic/teachingandlearning/publication/cost-effective-approaches-to-improve-global-learning>.

redirecting some traditional investments from ineffective “business as usual” approaches to demonstrably more effective approaches, such as school health and nutrition, which could be truly transformative.

Estimating the Costs of an Integrated Response

9. The school closures in response to the COVID-19 pandemic caused a global crisis in the education sector and saw 370 million children worldwide lose access to their daily school meal. In parallel, an additional 100 million people were pushed below the USD 1.90 poverty threshold in 2020, with the increase in poverty concentrated in the Africa region. These concurrent events highlighted the need to build-back education systems that can deliver health services which keep children safe. In response, over 60 countries have committed to the School Meals Coalition, established at the 2021 UN Food Systems Summit, with the specific goals of restoring national school meals to pre-pandemic coverage by 2023, and to reach another 73 million of the most in-need children, who had not previously been reached, by 2030. This estimate includes 40 million children in crisis or humanitarian settings, 29 million children in stable low- and lower-middle-income countries, and 4 million children in need of school feeding in middle-income countries.
10. This raises two questions for the education policy makers: 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.
11. Annual global investments in school feeding are estimated to be between USD 41 billion and USD 43 billion. The cost of covering 73 million children in need of school feeding is USD 4.7 billion, an average of USD 64 per child per year. Adding complementary school health interventions would cost an additional USD 620 million in middle-income countries and USD 510 million more in low-income countries. Giving an estimated cost of the integrated package of USD 5.8 billion annually, with around half that amount for low-income countries.

The Current Financing Situation

12. School meals financing targets are eminently affordable. External support for school feeding is targeted to low- and lower-middle income countries and decreases as countries transition to middle-income status. The lion’s share of the funding for school meal programmes is borne by national governments. Programmes in middle- and high-income countries are almost universally supported through domestic budgets, and 38% of programmes in low-income countries are self-reliant. Moreover, the proportion of costs of school meals relative to education budgets decreases rapidly as per capita income increases.
13. Using the currently available information on current levels of financing, this analysis assumes that aid and concessional finance amounting to around USD 2.5 billion per year will be required, with an additional USD 1 billion required on terms broadly aligned to World Bank loans. An additional USD 2.3 billion would be mobilised through domestic revenues or market-based external finance.

Financing Options and Opportunities

14. There is no one-size-fits-all model for increased school meals financing. Most countries have the potential to increase domestic finance for school meals programmes. However, for the poorest countries now facing severe fiscal constraints and reduced growth prospects, aid, debt relief, and concessional multilateral financing will need to figure more prominently if the targets advocated in this memo are to be achieved.
15. Rapid country assessments prepared as background for this memo illustrate both the gains made through political leadership and the constraints facing many countries. More and more developing countries are setting bold goals aimed at expanding the reach and quality of school meal programmes, while at the same time reducing dependence on donor finance. Bangladesh and Rwanda illustrate this trend. Several countries have sought to mobilise new and additional resources through innovative financing approaches that supplement general revenue mobilisation. Bolivia and Guatemala finance very large-scale programmes respectively through a hydro-carbon tax and VAT revenues. Benin has included school feeding as one of the priority areas that could be covered under a Sustainable Development Goals (SDG) bond issue. In other cases, countries are struggling to back targets with financial commitments. This is especially true for countries where unsustainable debt is limiting the fiscal space available to governments.
16. The country assessments also demonstrate the role of school feeding in supporting wider policies aimed at enhancing equity. Most countries currently limit nationally-financed school feeding programmes to public schools, which dominate education provision for the poorest children. In scaling up these programmes, they have prioritised areas characterised by high levels of malnutrition and poverty, and indicators for educational disadvantage. While many governments are rightly seeking to achieve universal school-feeding, an immediate progressive focus on the children and communities suffering the greatest deprivation is consistent with wider SDG commitments to ensure that no child is left behind.
17. It is evident from the country case studies and wider research that aid and other forms of development finance could play an expanded role. Fragmented and somewhat opaque reporting systems make it difficult to establish current levels of aid. Even so, several major bilateral donors and the European Union (EU) appear to provide modest or negligible support to school feeding programmes. The same is true of the MDBs, including the World Bank. Leveraging the balance sheets of the MDBs more effectively to finance school feeding could unlock significant returns for human capital development through: i) Aid and multilateral finance; ii) Debt financing and bond markets; iii) Taxes (hydrocarbon earmarked taxes including public 'bads'); and iv) Debt relief.

Main Conclusions

18. Well-designed and nutritious school meals programmes could help prevent the rising levels of learning poverty, while strengthening social protection systems and, through the creation of markets for smallholder producers, supporting the development of more self-reliant food systems.
19. Supporting governments to reach the 73 million most vulnerable primary schoolchildren with nutritious meals and other school health interventions is a priority. The need is spread across 60 countries, especially in Africa. Bridging this gap will require supporting governments to expand coverage in countries with existing school meals programmes and initiate new programmes where they are currently absent.

20. Governments should explore innovative financing options, alongside broader efforts to expand national revenue through general taxation. These options could include hydro-carbon and/or carbon taxes, windfall taxes, earmarked taxes, and taxation on 'public bads' - such as the sugar content of fizzy drinks – among wider measures. These taxes should be designed and implemented with a focus on achieving progressive outcomes.
21. The fiscal constraints facing many countries place a premium on efficient and equitable public spending. While governments should strive over time to achieve universal school meals coverage, children facing the highest levels of malnutrition, poverty and educational disadvantage should be first in line as programmes expand. It is therefore important that governments develop robust targeting criteria to address inequalities linked to wealth, gender, ethnicity and other markers of disadvantage.
22. External support for school feeding is a transitional and timebound requirement in national development. Development partners have an important role to play in supporting countries to maintain an investment in school feeding as they transition from lower-income to middle-income status.
23. Aid donors should commit to increasing aid for school meals programmes by around USD 1 billion (a mere 0.6% of current development assistance flows). The EU could act as a global champion by providing up to half of this amount, focussing on low-income countries and the 30 countries identified by the World Food Programme (WFP) as requiring USD 1.75 billion in additional finance.
24. MDBs are particularly well placed to attach 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 USD 750 million in concessional lending and an equivalent amount in non-concessional lending. Mechanisms such as the International Financing Facility for Education (IFFEd) could be explored to unlock MDB financing for both low-income and lower-middle-income countries.

Part 1. Towards an Investment Case for Scaling-up School Meals and Complementary School Health Programmes in Low and Lower-Middle Income Countries

Background

1. Healthy and well-nourished schoolchildren learn better. Healthy children also have better chances to thrive and fulfil their potential as adults. Ensuring that girls and boys stay in school and are able and ready to learn allows countries to develop their human capital and individuals to achieve their full potential in life. It strengthens community cohesion, stability and productivity, and helps make people and societies more resilient in a rapidly changing world.
2. Better child health and child learning means that all girls and boys receive adequate nourishment, while being protected against diseases. It means making sure there are no barriers to children's education, especially for girls, children living in fragile contexts and emergencies, children living in poor households and rural areas, and children living with disabilities. These investments in human capital development of children and young people are among the most effective and productive that countries can make in their own future. Several global initiatives are based on this set of principles.⁵
3. However, these investments are far from adequate. While low- and lower-middle income countries invest some USD 210 billion annually in providing basic education for their children⁶ (infrastructure, teachers, curriculum), they only invest between USD 1 billion and 6 billion in ensuring children are healthy enough to learn.⁷ While school health programmes receive a small share of the education budget, school-based health investments can be some of the highest-return educational investments. There is a growing consensus that there is a need to fix this mismatch; we need to invest in the well-being of the learner as well as the learning. Very simply: sick children cannot attend school and hungry children cannot learn.^{8,9}
4. These challenges have been greatly exacerbated by the COVID-19 pandemic. Whereas 390 million children were being fed daily in January 2020, by April 2020, 370 million of these children were no longer being reached by their national programmes, because the schools

⁵ Safe to Learn, Global Working Group to End School-Related Gender-Based Violence, Inter-Agency network for Education in Emergencies, The Alliance for Child Protection in Humanitarian Action, Child Protection Area of Responsibility/Global Protection Cluster, Stepping Up Effective School Health and Nutrition Interagency Group, Global Partnership for Education, amongst others.

⁶ International Commission on Financing Global Education Opportunity. The learning generation: investing in education for a changing world. New York: International Commission on Financing Global Education Opportunity, 2016.

⁷ Bundy, D.A.P., de Silva, N., Horton, S., Jamison, D.T., Schultz, L. and Patton, G.C., for the Disease Control Priorities-3 Child and Adolescent Health and Development Authors Group. 2017. Investment in child and adolescent health and development: key messages from Disease Control Priorities, 3rd Edition. In: The Lancet, Vol. 391, No. 10121. Available at: [https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(17\)32417-0.pdf](https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(17)32417-0.pdf)

⁸ Aurino, Elisabetta, Aulo Gelli, Clement Adamba, Isaac Osei-Akoto, and Harold Alderman. "Food for thought? Experimental evidence on the learning impacts of a large-scale school feeding program." *Journal of Human Resources* (2020): 1019-1051R1.

⁹ Chakraborty, Tanika, and Rajshri Jayaraman. "School feeding and learning achievement: Evidence from India's midday meal program." *Journal of Development Economics* 139 (2019): 249-265.

had been closed.¹⁰ In September 2021, countries participating in the UN Food Systems Summit resolved to create a School Meals Coalition, with the specific goals of restoring school meals and complementary school health programmes to pre-pandemic levels by 2023, and to reach another 73 million of the most in-need children who had not previously been reached by 2030.

5. This part is in two sections. The first explores the value of these interventions for national development, and the second estimates the cost of their implementation in low- and lower-middle-income countries worldwide. It seeks to show that, through a coalition of partners, the lives of millions of children can be improved, making this a substantive contribution to ending child hunger and poverty, ensuring that every child learns and thrives and achieving the SDGs by 2030.

I: The Importance of Investing in the Learner

1.1 Optimizing Education Outcomes

6. One of the significant achievements of the Millennium Development Goal era was to get more children in school than ever before. But challenges remain. Ensuring an inclusive and good quality education for all is at the heart of the 2030 agenda.
7. Currently, around 59 million primary school-aged children are out of school, of which half are in sub-Saharan Africa.¹¹ In low-income countries, approximately 40% of children do not complete primary education. Children in conflict-affected countries are more than twice as likely to be out of school, and girls in conflict-affected countries are 2.5 times more likely to be out of school than girls in stable contexts.¹² Only 63% of refugee children have access to primary education, compared with 91% globally and only 24% of refugee adolescents are in lower secondary school.¹³
8. For the poorest students, enrolling in school, attending regularly and learning are often made more difficult by illness, hunger and malnutrition. In low- and lower-middle-income countries, about 300 million schoolchildren have iron-deficiency anaemia, causing them to lose some six IQ points per child;¹⁴ and about 73 million primary schoolchildren in low-income countries go to school hungry.¹⁵ In Ecuador 32% of grade repetitions are attributable to undernutrition.¹⁶

¹⁰ World Food Programme. State of School Feeding Worldwide 2020. Rome (Italy): World Food Programme (WFP).

¹¹ UNESCO Institute for Statistics. 2019. Education and Literacy: Out-of-School Children and Youth. Available at: <http://uis.unesco.org/en/topic/out-school-children-and-youth>

¹² UNESCO. 2015. Humanitarian Aid for Education: Why it Matters and Why More is Needed. Education for All Global Monitoring Report, Policy Paper 21. p.2. Available at: <https://unesdoc.unesco.org/ark:/48223/pf0000233557>

¹³ UNHCR. 2019. *Stepping Up: Refugee Education in Crisis*. Available at: <https://www.unhcr.org/steppingup/>

¹⁴ Bundy, D.A.P., de Silva, N., Horton, S., Jamison, D.T. and Patton, G.C. 2018. *Re-Imagining School Feeding: A High-Return Investment in Human Capital and Local Economies*. Washington, DC, World Bank.

¹⁵ Drake, L., Fernandes, M., Chu, K., Lazrak, N., Singh, S., Ryckembusch, D., Burbano, C. and Bundy, D.A.P. Forthcoming. How Many Poor Children Globally Could Benefit from New Generation School Feeding Programmes, and What Would be the Cost? *Frontiers in Public Health* (forthcoming).

¹⁶ Economic Commission for Latin America and the Caribbean and WFP. 2017. *The Cost of the Double Burden of Malnutrition: Social and Economic Impact*. Available at: <https://www.wfp.org/publications/2017-cost-double-burden-malnutrition-social-and-economic-impact>

These conditions translate into the equivalent of between 200 million and 500 million schooldays lost because of ill health each year.¹⁷

9. Other barriers to education are associated with gender and social norms. In northern Africa and western Asia, there are 132 female adolescents out of lower secondary school for every 100 adolescent boys.¹⁸ Women and girls are more exposed to hunger and malnutrition; they represent 60% of all undernourished people in the world.¹⁹ When girls are out of school they are more vulnerable to forced marriage, early pregnancy and violence.²⁰ Ethnicity, language, ill health and disability can also be barriers to education in many countries.
10. There are clear synergies between education and health and nutrition investments and outcomes. Moving forward, efforts and resources must focus on both health and nutrition and education to achieve further gains in human capital development and progress towards the SDGs. Long-term goals in health and nutrition and food security are unattainable without an educated population, and children cannot learn if they suffer from the effects of poor health and nutrition.

1.2 Human Capital Development and the Importance of Investing in Children

11. Investing in human capital – the sum of a population’s health, skills, knowledge and experience – can strengthen a country’s competitiveness in a rapidly changing world. Human capital matters for people, economies and societies, and for global stability. And it matters over generations. Some 70% of the wealth of high-income countries is attributable to human capital, but this figure is often as low as 40% in low-income countries. Studies estimate that 10 to 30% of the differences in per capita income can be attributed to human capital.^{21,22}
12. Child health and learning is critical for boosting human capital development. A well-nourished, healthy and educated population is the foundation for growth and economic development.²³ Low-income countries in Africa account for 25 out of the 30 countries with the lowest Human Capital Index rankings.²⁴ For many of these countries, underinvestment in human capital leads

¹⁷ The International Commission on Financing Global Education Opportunity. 2016. *The Learning Generation. Investing in Education for a Changing World*. Available at: https://report.educationcommission.org/wp-content/uploads/2016/09/Learning_Generation_Full_Report.pdf

¹⁸ UNESCO Institute for Statistics. 2018. One in Five Children, Adolescents and Youth is Out of School. UIS Fact Sheet No. 48. Available at: <http://uis.unesco.org/sites/default/files/documents/fs48-one-five-children-adolescents-youth-out-school-2018-en.pdf>

¹⁹ FAO. 2018. *The State of Food Security and Nutrition in the World*. Available at: <http://www.fao.org/3/I9553EN/i9553en.pdf>

²⁰ Wodon, Quentin T.; Male, Chata; Nayihouba, Kolobadia Ada; Onagoruwa, Adenike Opeoluwa; Savadogo, Aboudrahyme; Yedan, Ali; Edmeades, Jeff; Kes, Aslihan; John, Neetu; Murithi, Lydia; Steinhaus, Mara; Petroni, Suzanne. Economic impacts of child marriage : global synthesis report (English). Economic Impacts of Child Marriage Washington, D.C. : World Bank Group. <http://documents.worldbank.org/curated/en/530891498511398503/Economic-impacts-of-child-marriage-global-synthesis-report>

²¹ Hsieh C.-T. and Klenow P.. (2010). "Development Account." *American Economic Journal: Macroeconomics* 2(1):207-23.

²² Angrist, Noam, Simeon Djankov, Pinelopi K. Goldberg, and Harry A. Patrinos. "Measuring human capital using global learning data." *Nature* 592, no. 7854 (2021): 403-408.

²³ Gatti, R.V., Kraay, A.C., Avitabile, C., Collin, M.E., Dsouza, R. and Dehnen, N.A.P. 2018. *The Human Capital Project (English)*. Washington, DC, World Bank Group. Available at: <http://documents.worldbank.org/curated/en/363661540826242921/The-Human-Capital-Project>

²⁴ World Bank. 2019. *Africa Human Capital Plan*. Available at: <http://pubdocs.worldbank.org/en/562231555089594602/HCP-Africa-Plan.pdf>

to a loss of economic potential ranging from 50 to 70% in the long term. The Human Capital Index score for Africa puts the region at 40% of its potential.²⁵ Gross domestic product (GDP) in Africa could be 2.5 times higher if the benchmarks for health and education were achieved.

13. While building human capital depends on high quality education, good health and nutrition are also required for children and adolescents to grow and to be able to participate and learn in school. Evidence suggests that school meals can improve both access to schooling as well as learning outcomes directly. These two outcomes can be captured in a unified metric – Learning-Adjusted Years of Schooling²⁶ – which is the education pillar of the World Bank Human Capital Index. When the health and nutrition of schoolchildren are improved, the rest of their lives are transformed. Children who are well nourished learn better, and as adults they earn more and are more productive. That transformation carries through to the next generation with the improved nutrition and health of their own children, contributing to break the intergenerational cycle of malnutrition and creating a long-term cycle of economic growth and progress.

1.3 Food Systems, Diets and Climate Change

14. The challenges facing the global food system are piling up. Recent decades have been characterized by rapid changes: increasing globalization; increasing inequality; consumption changes; increases in conflict, post-crisis and fragile contexts; exponential growth in energy use and new technology; urbanization and climate change.²⁷
15. Increases in climate variability are already having effects on agricultural systems and these will intensify in the future; rising carbon dioxide concentrations are being linked to decreases in micronutrient densities of some staple crops; and increasing frequency of floods, droughts and extreme heat are having serious repercussions for human well-being and health. Globally, agricultural production has fallen by 1–5% each decade for the past 30 years, with tropical regions the hardest hit.²⁸
16. Today, 3 billion people have low-quality diets.²⁹ In many countries the majority of the population simply cannot afford nutritious foods: in certain regions of Ghana, Madagascar, Mozambique and Pakistan, more than 70% of households cannot afford a nutritious diet.³⁰ In low- and lower-middle-income countries, over half of the young women and adolescent girls are not meeting their micronutrient needs.³¹ Finally, the prevalence rates of overweight and

²⁵ Lange G.-M., _Wodon_Q., and _Carey_K.._(2018). _“The_Changing_Wealth_of_Nations_2018:_Building a Sustainable Future.”_The World Bank.

²⁶ Filmer, Rodgers, Angrist, Sabarwal. Learning-Adjusted Years of Schooling (LAYS): Defining a new macro measure for education. *Economics of Education Review*. 2020, 77. <https://doi.org/10.1016/j.econedurev.2020.101971>

²⁷ CCAFS. Forthcoming. Food Transform XI. Levers to Transform Food Systems under Climate Change (in progress). Wageningen, the Netherlands, CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).

²⁸ Loboguerrero, A., Birch, J., Thornton, P., Meza, L., Sunga, I., Bong, B.B., Rabbinge, R., Reddy, M., Dinesh, D., Korner, J., Martinez-Baron, D., Millan, A., Hansen, J., Huyer, S. and Campbell, B. 2018. *Feeding the World in a Changing Climate: An Adaptation Roadmap for Agriculture*. Rotterdam, Global Center on Adaptation and Washington, DC, World Resources Institute. Available at: https://cdn.gca.org/assets/2018-10/18_WP_GCA_Agriculture_1001_Oct5.pdf

²⁹ Haddad, L., Hawkes, C., Waage, J., Webb, P., Godfray, C. and Toulmin, C. 2016. *Food Systems and Diets: Facing the Challenges of the 21st Century*. London, Global Panel on Agriculture and Food Systems for Nutrition.

³⁰ *Global Nutrition Report 2018*. Available at: <https://globalnutritionreport.org/reports/global-nutrition-report-2018/>

³¹ Haddad, L., Hawkes, C., Waage, J., Webb, P., Godfray, C. and Toulmin, C. 2016. *Food Systems and Diets: Facing the Challenges of the 21st Century*. London, Global Panel on Agriculture and Food Systems for Nutrition.

obesity are increasing in every region and most rapidly in low- and lower-middle-income countries.³²

17. In 2014, the Global Panel on Agriculture and Food Systems for Nutrition released its technical brief: *How Can Agriculture and Food System Policies Improve Nutrition?*³³ In it, the Panel recommends the implementation of policies across the food system to reduce undernutrition and growing overweight, obesity and other diet-related non-communicable diseases. Some of the policy recommendations are: making better use of existing public food distribution programmes such as school feeding programmes, ensuring that they are agriculture-supportive and nutrition-sensitive;³⁴ integrating nutrition education into all available national services reaching consumers; expanding agriculture-supportive targeted social protection programmes; and improving the diets of adolescent girls and adult women as a priority.
18. Today's food systems are too focused on food quantity and not enough on quality.³⁵ They are not helping consumers to make healthy and affordable food choices consistent with optimal nutrition outcomes. The multiple forms of malnutrition will not diminish unless policymakers and private sector business leaders work together to reshape food systems in ways that will advance the goal of healthier and sustainable diets for all.

1.4 The First 8,000 Days

19. The 3rd edition of the World Bank publication *Disease Control Priorities (DCP3)*,³⁶ supported by the Bill & Melinda Gates Foundation, confirms the importance of investing in the first 1,000 days, the critical window from conception to two years of age, but also highlights the neglect of investment during the next 7,000 days (or up to age 21). The findings of volume 8, entitled *Child and Adolescent Health and Development*,³⁷ have led to the realization that there is a need to move towards a new 8,000-day paradigm.
20. Just as babies are not merely small people – they need special and different types of care from the rest of us – so growing children and adolescents are not merely short adults; they, too, have critical phases of development that need specific interventions. Attention is required in three phases: the middle childhood growth and consolidation phase (5–9 years), when infection and malnutrition constrain growth, and mortality is higher than previously recognized; the adolescent growth spurt (10–14 years), when substantial physical and

³² The Global Syndemic of Obesity, Undernutrition, and Climate Change: The Lancet Commission report. *Lancet*. 2019 Feb 23;393(10173):791-846. doi: 10.1016/S0140-6736(18)32822-8.

³³ Global Panel on Agriculture and Food Systems for Nutrition. 2014. *Summary Brief: How can Agriculture and Food System Policies Improve Nutrition?* Available at: https://www.panita.or.tz/wp-content/uploads/2014/04/panita_international_9.pdf

³⁴ In 2015, the Global Panel on Agriculture and Food Systems for Nutrition published a policy brief entitled *Healthy Meals in Schools: Policy Innovations Linking Agriculture, Food Systems and Nutrition*. The Panel found that “evidence from around the world on locally-sourced school meals reveals a multiple-win opportunity for policymakers with important benefits for school achievement, employment and national economic growth” (Global Panel on Agriculture and Food Systems for Nutrition. 2015. *Healthy Meals in Schools: Policy Innovations Linking Agriculture, Food Systems and Nutrition*. Policy Brief No. 3. London, Global Panel on Agriculture and Food Systems for Nutrition. Available at: <https://www.glopan.org/wp-content/uploads/2019/06/HealthyMealsBrief.pdf>).

³⁵ Wallinga D. Today's Food System: How Healthy Is It? *J Hunger Environ Nutr*. 2009, 4(3-4): 251-281.

³⁶ www.dcp-3.org

³⁷ Bundy, D.A.P., de Silva, N., Horton, S., Jamison, D.T. and Patton, G.C. 2017. *Child and Adolescent Health and Development* (with a Foreword by Gordon Brown). Volume 8. In D.T. Jamison, R. Nugent, H. Gelband, S. Horton, P. Jha, R. Laxminarayan and C. Mock, eds. *Disease Control Priorities* (3rd edition). Washington, DC, World Bank.

emotional changes require good diet and health; and the adolescent phase of growth and consolidation (ages 15 to early 20s), when new responses are needed to support brain maturation, intense social engagement and emotional control.

21. The DCP3 publications call for research and action on child health and development to evolve from a narrow emphasis on the first 1,000 days to holistic concern over the first 8,000 days; from an age-siloed approach to an approach that embraces the needs across the life cycle.
22. A USAID report entitled "Maximising Human Capital by Aligning Investments in Health and Education"³⁸ joined the increasing calls for better alignment of investments in health and education, especially by investing in school health and school feeding programmes during school age and adolescence.
23. The role of schools in investing in children was emphasized by the United Nations Standing Committee on Nutrition in 2017, in a statement entitled Schools as a System to Improve Nutrition.³⁹ A publication prepared by the World Bank and the Global Partnership for Education entitled "Optimizing Education Outcomes: High-Return Investments in School Health for Increased Participation and Learning"⁴⁰ took this a step further. The report emphasizes the need to fix the almost complete mismatch between investments in the health of children, currently almost all focused on children under 5 years of age, and investment in education, mostly between 5 and 21 years of age.

II: Estimating the Costs of an Integrated Response

2.1 Schools as a Platform for Delivery

24. Many of the health conditions that are most prevalent among disadvantaged students (malnutrition,⁴¹ intestinal worm infections,^{42, 43} uncorrected myopia,^{44, 45} among other conditions) have significant effects on education – causing absenteeism, leading to grade repetition or dropout, and adversely affecting student achievement – and yet are preventable and treatable.

³⁸ Schultz, L., Appleby, L. and Drake, L. 2018. Maximising Human Capital by Aligning Investments in Health and Education. Discussion Paper of the Health, Finance and Governance Project of the United States Agency for International Development. Washington, DC, USAID.

³⁹ Oenema, S., ed. 2017. *Schools as a System to Improve Nutrition*. Rome, United Nations System Standing Committee on Nutrition (UNSCN Secretariat).

⁴⁰ Bundy, D.A.P., de Silva, N., Horton, S., Jamison, D.T. and Patton, G.C. 2018. Optimizing Education Outcomes: High-Return Investments in School Health for Increased Participation and Learning. In D.T. Jamison, R. Nugent, H. Gelband, S. Horton, P. Jha, R. Laxminarayan and C. Mock, eds. *Disease Control Priorities* (3rd edition). Washington, DC, World Bank.

⁴¹ Bobonis, Gustavo J., Edward Miguel, and Charu Puri-Sharma. "Anemia and school participation." *Journal of Human resources* 41, no. 4 (2006): 692-721.

⁴² Baird, Sarah, Joan Hamory Hicks, Michael Kremer, and Edward Miguel. "Worms at work: Long-run impacts of a child health investment." *The quarterly journal of economics* 131, no. 4 (2016): 1637-1680.

⁴³ Miguel, Edward, and Michael Kremer. "Worms: identifying impacts on education and health in the presence of treatment externalities." *Econometrica* 72, no. 1 (2004): 159-217

⁴⁴ Ma, Xiaochen, Zhongqiang Zhou, Hongmei Yi, Xiaopeng Pang, Yaojiang Shi, Qianyun Chen, Mirjam E. Meltzer et al. "Effect of providing free glasses on children's educational outcomes in China: cluster randomized controlled trial." *Bmj* 349 (2014).

⁴⁵ Glewwe, Paul, Albert Park, and Meng Zhao. "A better vision for development: Eyeglasses and academic performance in rural primary schools in China." *Journal of Development Economics* 122 (2016): 170-182.

25. The school system represents an exceptionally cost-effective platform through which to deliver an essential integrated package of health and nutrition services to schoolchildren, as has been well documented in high-income countries.⁴⁶ The education system is particularly well situated to promote health among children and adolescents in poor communities that are hard to reach without effective health systems. There are typically more schools than health facilities in all income settings, and rural and poor areas are significantly more likely to have schools than health centres.⁴⁷
26. An integrated package of support through schools can also have specific benefits for girls. Some of the most common health conditions affecting education, such as hunger and malnutrition, are more prevalent in girls, and gender inequalities and exclusion can place girls at greater risk of ill health, neglect and hunger.⁴⁸ For example, women and girls are, for physiological reasons, more likely to experience higher rates of anaemia than are men and boys.⁴⁹ Evidence shows that where families undervalue education for girls, increasing other values of schooling, such as providing food or health services, has a disproportionately positive impact on their attendance and enrolment.⁵⁰
27. DCP3 Volume 8, “Child and Adolescent Health and Development”, proposes cost-efficient health and nutrition intervention packages, one delivered through schools and one focusing on later adolescence which, combined, provide phase-specific support across the life cycle, securing the gains of investment in the first 1,000 days, enabling substantial catch-up from early growth failure, and leveraging improved learning from concomitant education investments (see Figure 1).

Figure 1. Health and nutrition interventions that can be delivered during school years.

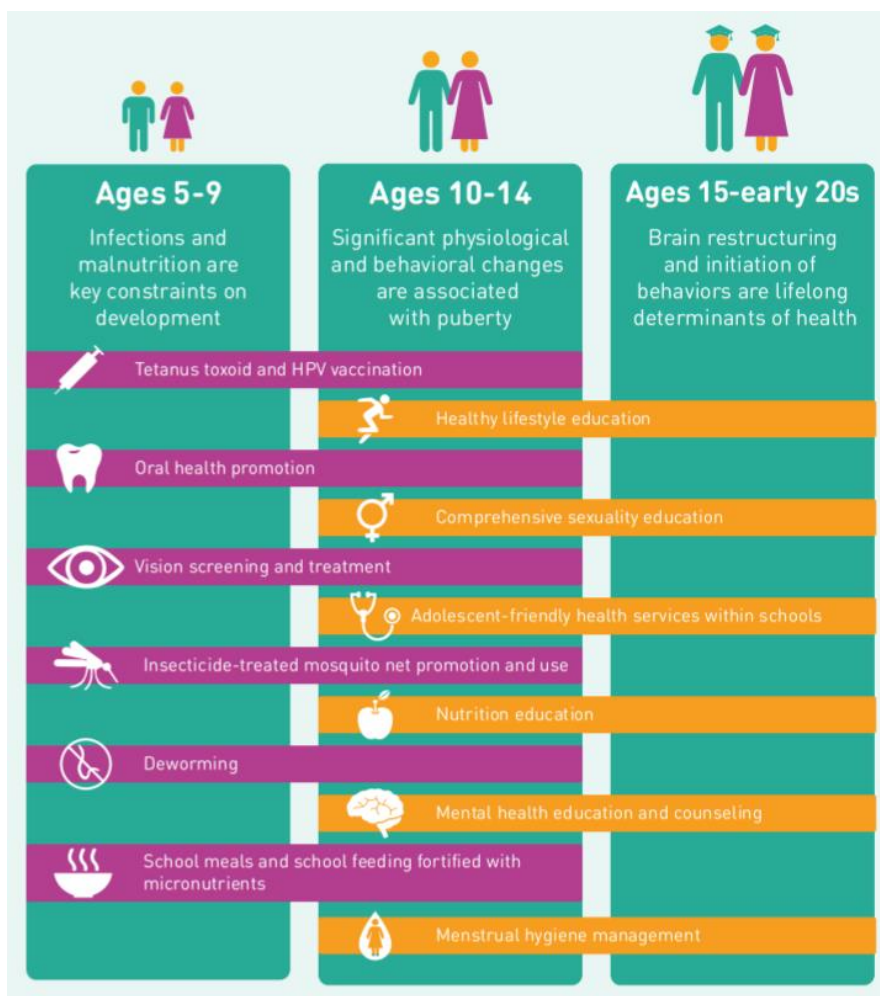
⁴⁶ Shackleton N, Jamal F, Viner R M, Dickson K, Patton G, Bonell C. 2016. “School-Based Interventions to Promote Adolescent Health: Systematic Review of Reviews.” *Journal of Adolescent Health* 58 (4): 382–96.

⁴⁷ Bundy, D.A.P., Schultz, L., Sarr, B., Banham L., Colenso, P. and Drake, L. 2018. The School as a Platform for Addressing Health in Middle Childhood and Adolescence. In D.A.P. Bundy, N. de Silva, S. Horton, D.T. Jamison and G.C. Patton, eds. *Disease Control Priorities* (3rd edition): Volume 8, *Child and Adolescent Health and Development*. Washington, DC, World Bank.

⁴⁸ Bundy, D.A.P. 2011. *Rethinking School Health: A Key Component of Education for All*. Directions in Development; Human Development. Washington, DC, World Bank.

⁴⁹ Bundy, D.A.P., Schultz, L., Sarr, B., Banham L., Colenso, P. and Drake, L. 2018. The School as a Platform for Addressing Health in Middle Childhood and Adolescence. In D.A.P. Bundy, N. de Silva, S. Horton, D.T. Jamison and G.C. Patton, eds. *Disease Control Priorities* (3rd edition): Volume 8, *Child and Adolescent Health and Development*. Washington, DC, World Bank.

⁵⁰ A meta-analysis of school meals programmes across 32 sub-Saharan countries showed on-site meals combined with take-home rations increased the enrolment of girls by 12% (Snilstveit et al., cited in Chapter 12 of Bundy et al. 2018. *Re-imagining School Feeding: A High-Return Investment in Human Capital and Local Economies*. *Disease Control Priorities* (3rd edition), Volume 8. Washington, DC, World Bank).



Source: Global Partnership of Education (GPE), based on *Disease Control Priorities* 3rd edition, Volume 8⁵¹

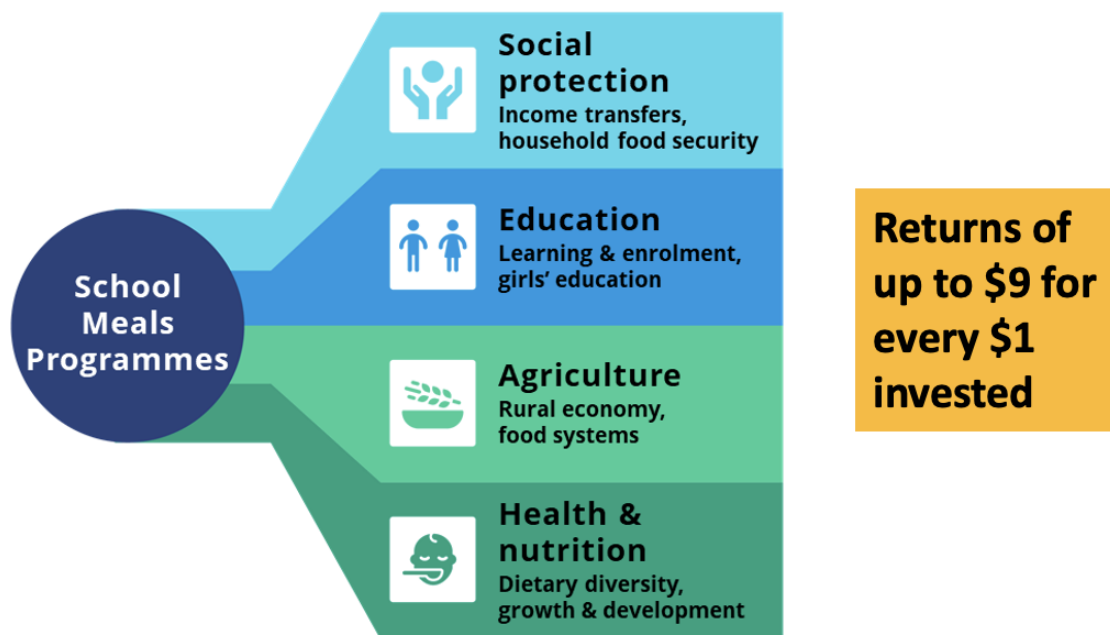
2.2 Why School Meals?

28. School feeding is the costliest element of the integrated package but is “cost-effective” because of the multiple large returns and benefits it can achieve.⁵² Figure 2 illustrates the multiple benefits procured, showing that the single intervention of school feeding can have consequences for at least four different sectors. These returns often operate across sectors and the effects are interconnected: for example, the returns to human capital development, through health, nutrition and education, and the returns to investment in the community, through social protection and local agriculture. For example, social protection, say via in-kind transfer of food, helps promote social stability, and a stable community enhances the effects on education outcomes and opportunities for employment. It is these multiple and potentially multiplicative benefits that make well-designed school feeding programmes a particularly worthwhile investment.

Figure 2. At least four major benefits and multisectoral returns of school feeding programmes

⁵¹ Available at: <https://www.globalpartnership.org/blog/school-based-health-programs-money-well-spent>

⁵² Bundy, D.A.P., de Silva, N., Horton, S., Jamison, D.T. and Patton, G.C. 2018. *Re-Imagining School Feeding: A High-Return Investment in Human Capital and Local Economies*. Washington, DC, World Bank.



Source: Adapted from Bundy et al. 2018⁵³ and Verguet et al. 2020⁵⁴

29. Initial cost-benefit analyses carried out across 18 countries by WFP, assessing both WFP and national school feeding programmes, found that every USD 1 invested in school meals programmes would yield an economic return of USD 3–10 from improved health, education and productivity.⁵⁵ Additionally, preliminary results of a cost-benefit desk analysis in 14 low- and middle-income countries pointed to an economic return of up to USD 9 for every USD 1 invested. This represents a substantial return on investment, comparable in magnitude to several of the best-buy intersectoral interventions highlighted by seminal cost-benefit analyses exercises such as those from the Copenhagen Consensus exercise.⁵⁶ This large scale of benefits reflects the returns on investment to multiple sectors: health and nutrition, and education – through human capital development; local economy – through local procurement and local employment (providing new farming jobs and wages); and social protection – through substantial in-kind transfer to households, especially the poorest. Other returns, for example to gender equality and peacebuilding, have yet to be estimated but are likely to make substantial additional contributions to the overall rate of return. Lastly, perhaps most importantly, the distributional and equity impact of those school feeding programmes is likely to be very progressive, disproportionately benefiting the poorest and those most in need.
30. In practice, school feeding has emerged as the main intervention for children in schools around which other elements, such as deworming or micronutrient supplementation, are

⁵³ Bundy, D.A.P., de Silva, N., Horton, S., Jamison, D.T. and Patton, G.C. 2018. *Re-Imagining School Feeding: A High-Return Investment in Human Capital and Local Economies*. Washington, DC, World Bank.

⁵⁴ Verguet S, Limasalle P, Chakrabarti A, Husain A, Burbano C, Drake L, Bundy DAP. 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. *Front Public Health*. 2020; 8:587046.

⁵⁵ WFP, 2017. Counting the Beans: The True Cost of a Plate of Food Around the World. Rome: World Food Programme. <https://www.wfp.org/publications/2017-counting-beans-true-cost-plate-food-around-world>

⁵⁶ Copenhagen Consensus Center: <https://www.copenhagenconsensus.com>

delivered. This is because it is the most widely implemented element of the integrated package.⁵⁷ Communities more often than not prioritize this over any other intervention in schools. This is true even for the poorer countries, and a recent assessment of school feeding coverage in low- and middle-income countries suggests that 305 million children – 47% of all the children enrolled – are now fed in school daily.⁵⁸

31. When linked to nutrition and education, well-designed, equitable school feeding programmes contribute to child development through increased years of schooling, better learning and improved nutrition. School feeding provides consistent positive effects on energy intake, micronutrient status, school enrolment and attendance of children.⁵⁹ The effects are particularly strong for girls. School feeding programmes have demonstrated effects on reducing anaemia in primary school-aged children and adolescent girls.⁶⁰ As illustrated by the Finnish national core curriculum, in addition to providing nutrition, the meal time also contributes towards education by raising awareness of the importance of healthy diets and nutrition in food-related education.⁶¹
32. In its 2016 report, the International Commission on Financing Global Education Opportunity, chaired by Gordon Brown, identified 13 non-teaching interventions as “highly effective practices to increase access and learning outcomes”; these included three health programmes: school feeding, malaria prevention and micronutrient intervention.⁶² A recent United Nations agency review of evidence finds that school feeding is among the two interventions with the strongest evidence of impact on equity and inclusion in education (the other one being conditional cash transfers).⁶³
33. School feeding is one of the most common safety nets, providing the daily support and stability that vulnerable families and children need, and was shown to be one of the first social protection solutions that poor countries turned to during the social shocks of the 2008 financial crisis.⁶⁴ Particularly when integrated into national social protection systems, school feeding can contribute to prevent and protect people against poverty, vulnerability, and social exclusion throughout their life cycles. Associating school feeding with other social assistance programmes, such as scholarships, unconditional transfers and public works, provides opportunities to address the multidimensional social and economic vulnerabilities faced by children and their families and helps to reinforce the impact of these programmes.⁶⁵

⁵⁷ World Food Programme. State of School Feeding Worldwide 2020. Rome (Italy): World Food Programme (WFP).

⁵⁸ Drake LJ, Lazrak N, Fernandes M, Chu K, Singh S, Ryckembusch D, Nourozi S, Bundy DAP, Burbano C. 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*. 2020 Dec 2;8:530176.

⁵⁹ Jomaa, L.H., McDonnell, E. and Probart, C. 2011. School Feeding Programs in Developing Countries: Impacts on Children’s Health and Educational Outcomes. *Nutrition Review* 69: 83–98.

⁶⁰ Adelman, S., Gilligan, D.O., Konde-Lule, J. and Alderman, H. 2019. School Feeding Reduces Anemia Prevalence in Adolescent Girls and Other Vulnerable Household Members in a Cluster Randomized Controlled Trial in Uganda. *The Journal of Nutrition*, Volume 149, Issue 4, April 2019, Pages 659–666, <https://doi.org/10.1093/jn/nxy305>.

⁶¹ Pellikka, K., Manninen, M., Taivalmaa, S. 2019: School Meals for All. School feeding: investment in effective learning – Case Finland. Ministry for Foreign Affairs of Finland and Finnish National Agency for Education

⁶² International Commission on Financing Global Education Opportunity. 2016. *The Learning Generation: Investing in Education for a Changing World*. New York, International Commission on Financing Global Education Opportunity.

⁶³ Mundy, K. and Proulx, K. 2019. *Making Evaluation Work for the Achievement of SDG 4 Target 5: Equality and Inclusion in Education*. UNESCO, NORAD, World Bank Group, UNICEF.

⁶⁴ Bundy, D.A.P., Burbano, C., Grosh, M., Gelli, A., Jukes, M. and Drake, L. 2009. *Re-thinking School Feeding: Social Safety Nets, Child Development, and the Education Sector*. Directions in Human Development. Washington, DC, World Bank Group.

⁶⁵ “Update of Safety Nets Policy: The Role of Food Assistance in Social Protection” (WFP/EB.A/2012/5-A).

34. Finally, well-designed 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.⁶⁶ Local procurement creates employment opportunities for women smallholder farmers or jobs in the school canteens for women and improves the livelihoods of the communities near the schools; therefore contributing to women’s economic empowerment and decision making.⁶⁷

2.3 Unfinished Business

35. It is difficult to find a country that is not attempting to provide school health services at some level, although the coverage is often limited.⁶⁸ However, currently there is no comprehensive database with information of the scale and types of interventions provided in schools. The World Health Organization (WHO) estimates that 450 million schoolchildren – more than half of the target population – are dewormed annually through school-based programmes in nearly all lower-middle-income countries,^{69,70} although these largely public efforts are variable in quality and coverage.

36. Detailed information on the coverage of school feeding programmes is available thanks to 15 years of WFP research and documentation in this area. More work is needed from the research community and partners to estimate the coverage and the coverage gaps of the other elements of the school health and nutrition package.

37. Recent analysis shows that today nearly half the world’s primary schoolchildren in low- and middle-income countries (305 million) will sit down to eat a meal at school.⁷¹ India now feeds 90 million children; Brazil and China both 40 million, South Africa 9 million and Nigeria 10 million. Despite this progress, there are still some significant challenges. While coverage of school feeding programmes is adequate in high- and upper-middle-income countries, it is

⁶⁶ WFP, FAO, IFAD, NEPAD, GCNF and PCD. 2018. *Home-Grown School Feeding Resource Framework*. Technical Document. Rome. Available at: <https://www.wfp.org/publications/home-grown-school-feeding-resource-framework>. The resource framework defines Home-Grown School Feeding as follows: HGSF constitutes a school feeding model that is designed to provide children in schools with safe, diverse and nutritious food, sourced locally from smallholders. “Sourced locally from smallholders” means that HGSF programmes: (1) maximize benefits for smallholder farmers by linking schools to local food production; (2) strengthen the capacities of smallholder farmers and communities to produce food; and (3) contribute to rural transformation.

⁶⁷ WFP, FAO, IFAD, NEPAD, GCNF and PCD. 2018. *Home-Grown School Feeding Resource Framework*. Technical Document. Rome. Available at: <https://www.wfp.org/content/home-grown-school-feeding-resource-framework>

⁶⁸ Sarr, B., McMahon, B., Peel, F., Fernandes, M., Bundy, D.A.P. Banham, L., Gillespie, A., Tang, K.C., Tembon, A. and Drake, L. 2017. The Evolution of School Health and Nutrition in the Education Sector 2000–2015. *Frontiers in Public Health*. <https://doi.org/10.3389/fpubh.2016.00271>.

⁶⁹ Bundy, D.A.P., Appleby, L., Bradley, M., Croke, K., Hollingsworth, D., Pullan, R., Turner, H.C., and de Silva, N. . 2017. Mass Deworming Programs in Middle Childhood and Adolescence. In D.A.P. Bundy, N. de Silva, S. Horton, D.T. Jamison and G.C. Patton, eds. *Child and Adolescent Health and Development. Disease Control Priorities* (3rd edition), Volume 8. Washington, DC, World Bank.

⁷⁰ WHO PCT Databank, <https://www.who.int/teams/control-of-neglected-tropical-diseases/preventive-chemotherapy/pct-databank>

⁷¹ WFP has spent more than 15 years studying the school feeding landscape worldwide. The most recent and comprehensive database of school feeding coverage was presented in 2013 in a WFP publication called *State of School Feeding Worldwide*. Thanks to these and other efforts by partners, data on school feeding is highly reliable, making it one of the areas of school health and nutrition that has been better studied and quantified in terms of coverage, costs and implementation approach (Drake, L., Fernandes, M., Chu, K., Lazrak, N., Singh, S., Ryckembusch, D., Burbano, C. and Bundy, D.A.P. Forthcoming. How Many Poor Children Globally Could Benefit from New Generation School Feeding Programmes, and What Would be the Cost? *Frontiers in Public Health* (forthcoming)).

unacceptably low in low-income countries (reaching only 20% of school-aged children)⁷² (Figure 3).

Figure 3. Estimated coverage rate of school-age children receiving school meals, by country income group category.

Income category	Income range (WB definition, 2020 \$)	Coverage rate (mean)	Coverage rate (max)	Coverage rate (min)
Low-income	GNI per capita < \$1,025	21%	99% (Burkina Faso)	<1% (Tanzania)
Lower middle-income	\$1,026 < GNI p.c. < \$3,995	45%	99% (Timor-Leste)	<1% (Indonesia)
Upper middle-income	\$3,996 < GNI p.c. < \$12,375	58%	99% (Brazil)	<1% (Iran)
High-income	GNI p.c. > \$12,376	85%	99% (several)	<1% (Australia)

Source: Adapted from World Food Programme 2020.

38. Of the 663 million primary schoolchildren enrolled in school, 338 million live where the coverage of school meals is inadequate (below 80%). Of these, 251 million children live in countries where there are significant nutrition challenges, including 20% stunting prevalence in children younger than 5 and anaemia among women. Of the 251 million children living in countries with poor nutrition, 73 million live in extreme poverty (with less than USD 1.90 per day, Purchasing Power Parity) in 60 countries and 84% of them live in Africa; 15% live in Asia and 1% in Latin America.⁷³
39. Supporting governments to reach these 73 million primary schoolchildren in 60 countries with nutritious meals and other school health interventions is a priority, and clearly a focus on Africa is needed. The WFP estimates that the 73 million primary schoolchildren in need of meals at schools includes 40 million children in crisis or humanitarian settings, 29 million children in stable low- and lower-middle income countries, and four million children in middle-income countries.⁷⁴ Bridging this gap will require supporting governments to expand coverage in countries with existing school feeding programmes and initiate school feeding programmes in countries that lack those.

2.4 How Much Would it Cost to Scale Up?

40. The vast majority of school feeding programmes around the world are operated by national governments, with over 90% of the cost of school meal programmes coming from domestic, national government budgets (Figure 4). Annual global investments in school feeding are estimated to be between USD 41 billion and USD 43 billion. Programmes in middle- and high-

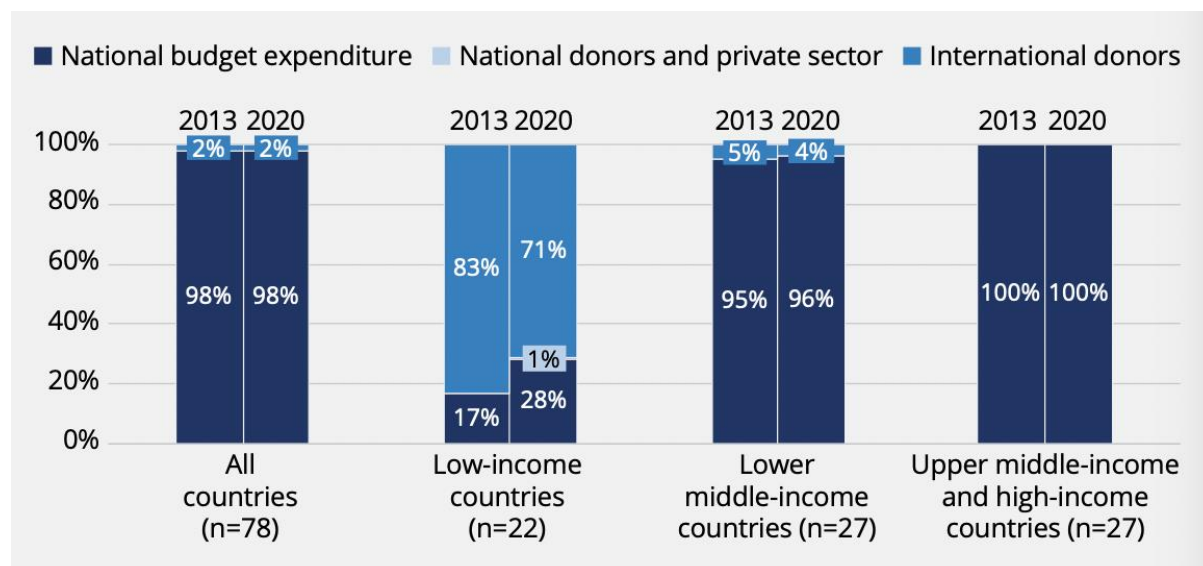
⁷² World Food Programme. State of School Feeding Worldwide 2020. Rome (Italy): World Food Programme (WFP).

⁷³ Drake LJ, Lazrak N, Fernandes M, et al. 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* 2020;8:530176.

⁷⁴ World Food Programme. WFP School Feeding Strategy 2020 – 2030. 2020. Rome.

income countries are almost universally supported through domestic funds. Programmes in low-income countries have become much more self-reliant, with the share of domestic funding increasing from 17 to 38% between 2013 and 2020, which is almost double their level of funding relative to international donors over the same period.

Figure 4. Breakdown of aggregate school feeding expenditure, by source of funding in 2013 and in 2020.

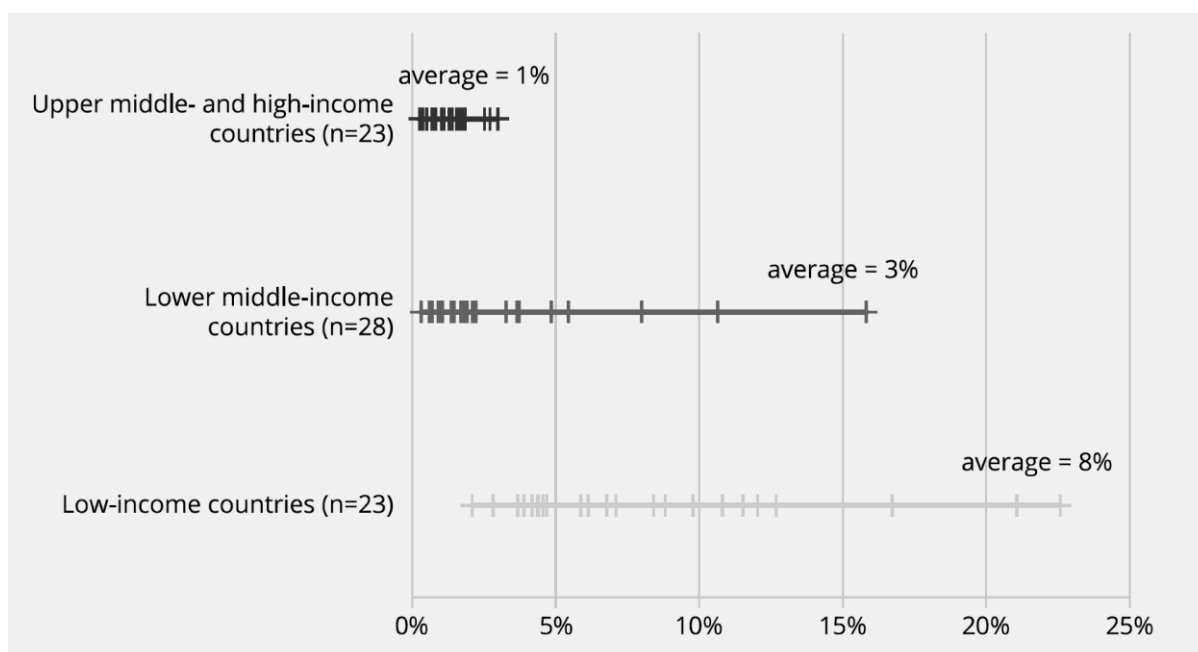


Source: World Food Programme State of School Feeding 2020.

41. As GDP increases, the per capita cost of primary school education increases greatly while there remains a stable investment in food. Stated another way, the annual costs per child of school feeding programmes represents a smaller proportion of GDP as income rises (Figure 5). As countries transition from lower- to middle-income status, governments take over the management and funding of programmes, suggesting that external support for school feeding is a transitional and timebound requirement in national development.⁷⁵ As such, development partners have an important role to play in supporting countries to maintain an investment in school feeding as they transition from lower-income to middle-income status.

Figure 5. Cost of school feeding as a share of GDP, 2020

⁷⁵ Bundy, D., Burbano, C., Gelli, A., Risley, C., Neeser, K. (2011). On the transition to sustainability: An analysis of the costs of school feeding compared with the costs of primary education. Food and Nutrition Bulletin, 32(3): 201-5.



Source: World Food Programme, 2021.

42. As mentioned above, there are 73 million primary schoolchildren most in need of school feeding programmes,⁷⁶ based on the inadequacy of current provision, the prevalence of indicators of poor nutrition, and the relative lack of financing for the countries to implement the programmes themselves. The majority (66%) of these children live in low-income countries, but there is also a substantial minority who live in pockets of poverty in middle-income countries. The cost of feeding these children in need was calculated based on benchmark costs for low- and middle-income countries (see Table 1).

Table 1. School feeding and school health costs for the 73 million primary school-aged children in extreme poverty without access to national school feeding programmes in low- and middle-income countries, USD, 2008.

	Countries	Enrolled children in need (million)	Cost of school feeding, per child per year (USD) ⁷⁷	School feeding budget (USD millions)	Additional school health budget (USD millions)	Total integrated package of support (USD millions)
Middle-income countries	32	26	82	2 130	620	2 750
Low-income countries	28	47	54	2 540	510	3 050
Total	60	73	–	4 670	1 130	5 800

⁷⁶ Ibid.

⁷⁷ Costs of school feeding include costs associated with food procurement, transportation and storage, and monitoring of implementation. They were drawn from a sample of 74 low-, middle- and high-income countries. These estimates are standardized for several parameters to support cross-country comparability, including the number of kilocalories in the ration and the number of days school feeding was provided. Source: Drake, L., Fernandes, M., Aurino, E., Kiamba, J., Giyose, B., Burbano, C., Alderman, H., Mai, L., Mitchell, A., and Gelli, A. 2018. School Feeding Programs in Middle Childhood and Adolescence. In D.A.P. Bundy, N. de Silva, S. Horton, D.T. Jamison and G.C. Patton, eds. *Re-Imagining School Feeding: A High-Return Investment in Human Capital and Local Economies*. Washington, DC, World Bank.

43. Table 1 shows that the cost of covering 73 million children in need of school feeding is USD 4.7 billion, an average of USD 64 per child per year. Benchmark costs of school feeding are taken from DCP3, Volume 8.⁷⁸
44. Adding the other interventions of the school health package for children aged 5–14 years in Table 1 would cost about 29% more, or USD 620 million, in middle-income countries and 20% more, or USD 510 million, in low-income countries.⁷⁹
45. The total cost of the integrated package would therefore be USD 5.8 billion annually, with around half that amount for low-income countries alone. Middle-income countries have resources, often substantial resources, that could help close this gap, as illustrated by the 44 countries that have transitioned from dependence on external funds to self-reliance on domestic funds.
46. Current investment in basic education is USD 210 billion per year, much of which is from the public sector and is intended to provide pre-primary, primary and secondary education in low- and lower-middle income countries free at the point of delivery, although some countries still charge fees for education.⁸⁰ The International Commission on Financing Global Education Opportunity calls for governments to increase domestic public expenditures to support universal provision of primary education in low- and lower-middle-income countries by 2030. This requires an increase from 4 to 6% of GDP, which is equivalent to an annual growth rate in public education spending of 7% over a 15-year period.⁸¹
47. In contrast to these public expenditures for education, the incremental cost of the integrated school health and nutrition package, including school feeding, is 3% of GDP only.

Conclusions

48. Investments in schooling should be matched with investments in the learner, if global learning objectives are to be achieved. It is estimated that low- and lower-middle income countries invest some USD 210 billion annually in providing basic education for their children⁸² (infrastructure, teachers, curriculum), while they only invest between USD 1 and 6 billion in ensuring children are healthy enough to learn.⁸³ While school health programmes receive a

⁷⁸ Drake L., Fernandes M., Aurino E., Kiamba J., Giyose B., Burbano C., et al. "School Feeding Programms in Middle Childhood and Adolescence." In: Bundy D.A.P., de Silva N., Horton S., Jamison D.T., and Patton G.C., eds. *Disease Control Priorities*, Third Edition. 8. Washington DC: World Bank; 2017.

⁷⁹ Fernandes M. and Aurino E.. (2017). "Identifying an Essential Package for School-age Child Health: Economic Analysis." In: Bundy D.A.P., de Silva N., Horton S., Jamison D.T., and Patton G.C., eds. *Disease Control Priorities*, Third Edition. 8. Washington DC: World Bank.

⁸⁰ These estimates are from The International Commission on Financing Global Education Opportunity. 2016. *The Learning Generation: Investing in Education for a Changing World*, p. 37. Available at: https://report.educationcommission.org/wp-content/uploads/2016/09/Learning_Generation_Full_Report.pdf. They estimate current public sector spending on basic (primary-level) education in low- and lower-middle-income countries.

⁸¹ Bundy, D.A.P., de Silva, N., Horton, S., Jamison, D.T. and Patton, G.C. 2018. *Re-Imagining School Feeding: A High-Return Investment in Human Capital and Local Economies*. Washington, DC, World Bank.

⁸² International Commission on Financing Global Education Opportunity. *The learning generation: investing in education for a changing world*. New York: International Commission on Financing Global Education Opportunity, 2016.

⁸³ Bundy, D.A.P., de Silva, N., Horton, S., Jamison, D.T., Schultz, L. and Patton, G.C., for the Disease Control Priorities-3 Child and Adolescent Health and Development Authors Group. 2017. Investment in child and adolescent health and development: key messages from Disease Control Priorities, 3rd Edition. In: *The Lancet*, Vol. 391, No. 10121. Available at: [https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(17\)32417-0.pdf](https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(17)32417-0.pdf)

small share of the education budget (around 2%), health investments can provide some of the highest-return educational investments.

49. Prior to the COVID-19 pandemic, almost one in every two schoolchildren was provided with a daily meal at school; in more than 90% of countries this was accompanied by complementary health and nutrition services, including deworming, vaccination and micronutrient supplements.
50. More than 90% of the costs of the school meals and complementary services were met from domestic funds. In low-income countries this proportion was less than 30%, while in middle-income and high-income countries almost the whole cost was covered by national domestic finances. In September 2021, at the UN Food Systems summit, member states (now numbering 69 countries) committed to restore school meal programmes to pre-pandemic levels.
51. A second goal announced by the School Meals Coalition was that 73 million of the most vulnerable children from 60 countries, who had not been reached even before the COVID-19 pandemic, should be provided with school meals and complementary school health services by 2030.
52. The cost of supporting these additional 73 million children is estimated at USD 5 billion for school meals, and USD 6 billion if complementary school health services are also delivered.

Part 2. Financing Modalities for School Meal Programmes

Background

1. The School Meals Coalition has targeted reaching an additional 73 million children with high quality school meals. Costs are estimated at USD 5.8 billion for 60 low- and lower-middle income (LMIC) countries.
2. Different countries have different current and prospective school meal financing profiles. Broadly, aid accounts for a large (if shrinking) share of financing in low-income countries. At the other end of the spectrum, domestic resources dominate financing in LMICs and middle-income countries. For ball-park purposes we assume aid and (International Development Association (IDA) terms) concessional finance amounting to around USD 2.5 billion will be required, with an additional USD 1 billion required on terms broadly aligned to International Bank for Reconstruction and Development (IBRD) loans. An additional USD 2.3 billion would be mobilised through domestic revenues or market-based external finance.
3. This part focusses on the new and additional resources that might be secured through international financing mechanisms, supplemented to domestic innovations, and is complemented by information gathered through six commissioned country case studies on national financing and budget arrangements.
4. To state the obvious, there is no one-size-fits-all model for increased school meals financing. For the poorest countries now facing severe fiscal constraints and reduced growth prospects, international aid and concessional finance will remain critical. Countries able to access international debt finance markets on sustainable terms may have broader financing options, notably through SDG bonds and social impact bonds. However, rising real interest rates are likely to emerge as a limiting factor. Debt relief may offer opportunities for some countries – and there is scope for earmarked taxes, including levies on ‘public bads’.
5. Measured on a scale of simple financial arithmetic, the school meals financing targets are eminently affordable. The headline number of USD 5.8 billion per annum is in the small change department of aid, multilateral finance and (even more so) sovereign bond financing. The cost-benefit case for investment is supported by compelling evidence. However, financing gaps and cost-benefit numbers are not a sufficient lever for shifting the political choices made by governments operating in a rapidly shrinking political space, and aid donors facing competing claims on scarce resources.
6. While not the subject of this chapter, winning the political argument for school meals is arguably more important than winning the affordability argument. In that context, the School Meals Coalition needs to link the cost-benefit and financing evidence to a compelling narrative. Context is critical. There is no precedent for the reversals in learning triggered by school closures during COVID-19. Child poverty and malnutrition were rising before the Ukraine crisis – and rising food prices are set to produce another spike. Children returning to under-funded school systems carrying the disadvantages that will come with increased poverty and hunger creates perfect storm conditions for devastating reversals

in the condition of children. School meals represent an affordable and practical response, and a potential focal point for the urgent action that is required.

I: The Current Financing Situation

1.1 The Financing Targets

7. The benefits of school feeding programmes are well-established. Beyond the immediate alleviation of hunger, they include increased returns in the form of higher wages and increased productivity associated with improved learning outcomes in education, and health and nutritional gains. Wider benefits include social protection transfers and the growth of agricultural economies. Best estimates⁸⁴ put overall benefit-to-cost returns at USD 7-35. Modelling across 14 countries estimated that returns to education dominate the flow of benefits.
8. As discussed in Part 1, the estimated costs⁸⁵ for expanding coverage to reach an additional 73 million children across 60 low- and middle-income countries, with an increment for wider health-related investments is estimated at USD 5 billion for school meals, and USD 6 billion if complementary school health services are also delivered (cross-reference Part 1, Table 1 for more detail).
9. Data constraints make it difficult to compare the School Meals Coalition targets with current levels of financing. Overall spending on school meals programmes across 85 countries surveyed by the Global Child Nutrition Foundation (GCNF) was estimated at USD 45 billion. The WFP's State of School Feeding report documents the actual reported cost for 92 countries at USD 27-29 billion, and overall investment for 155 countries at USD 41-43 billion. Simple back-of-the-envelope calculations suggest the additional USD 5.8 billion in spending could imply an increase of around 12 per cent over current levels.
10. Spending profiles vary enormously. School meal financing in middle-income countries is almost entirely funded through domestic revenues. The same is true for LMICs. In low-income countries the share of spending financed through national revenue has increased over the years, but donors accounted for 71% of estimated spending in 2020. Averages inevitably obscure large variations. The GCNF survey reports government spending at less than 1% of overall investment in school meals for a large group of countries in sub-Saharan Africa, while the domestic revenue share for the region was reported at 40%.
11. This backdrop is relevant for the School Meals Coalition target. Most middle-income countries and many LMICs are in a position to mobilise additional revenue to finance a targeted expansion, perhaps supplemented by external multilateral or debt-based finance. However, low-income countries are likely to require a significant grant aid and concessional finance contribution. For ball-park purposes we assume that low-income countries and LMICs will require additional aid and concessional finance of around USD 2.5 billion, with an additional USD 1 billion required on terms broadly aligned to IBRD loans. An additional USD 2.3 billion would be mobilised through domestic revenues.

⁸⁴ Verguet, S. *et al.* (2020), 'The Broader Economic Value of School Feeding Programs in Low- and Middle-Income Countries: Estimating the Multi-Sectoral Returns to Public Health, Human Capital, Social Protection, and the Local Economy', *Frontiers in Public Health* 8. Doi: <https://doi.org/10.3389/fpubh.2020.587046>

⁸⁵ Drake Lesley J. *et al.* 'Establishing Global School Feeding Program Targets: How Many Poor Children Globally Should Be Prioritized, and What Would Be the Cost of Implementation?', *Frontiers in Public Health* 8. Doi: <https://doi.org/10.3389/fpubh.2020.530176>

12. This chapter provides a brief overview of some of the options that may be available, recognizing that the COVID-19 pandemic and the Russian invasion of Ukraine have dramatically changed the context for dialogue on school feeding. Reduced economic growth, lower revenue projections and increased external debt have increased the need for school meals, while reducing the fiscal space available to many governments. Food prices are now set to surge in the wake of the Ukraine crisis.
13. Trends in poverty and malnutrition point in a worrying direction. An additional 100 million people⁸⁶ were pushed below the USD 1.90 poverty threshold in 2020. Most of the increase in poverty is concentrated in low-income countries and sub-Saharan Africa, where poverty is set to rise in 2021. Demography dictates that much of the increase in poverty will occur among children. Malnutrition also increased⁸⁷ during the pandemic, from already high (and rising) levels, including among children⁸⁸. Recently, the FAO's food inflation index has reached record levels, and the rising cost of basic staples is likely to exacerbate poverty and malnutrition during 2022.
14. This backdrop has important consequences for education. Millions of children are now returning to school carrying the disadvantages that will come with increased household poverty and malnutrition, both of which are strongly associated with reduced learning outcomes and elevated risk of drop-out. Estimates from the World Bank suggest that 'learning poverty' levels in poorer developing countries could rise from 53% to 70%.
15. Well-designed and nutritious school meals programmes could play a role in preventing that outcome, while strengthening social protection systems and, through the creation of markets for smallholder producers, supporting the development of more self-reliant food systems. Put differently, the twin crises of COVID-19 and the war in Ukraine may have placed a premium on the development of responses including a school meals component.
16. Financing programmes geared towards the reaching an additional 73 million children in 60 countries⁸⁹ are likely to prove challenging. Reduced fiscal space is not an abstract concept. Fiscal retrenchment is already placing pressure on education⁹⁰ and other social sector budgets⁹¹. For countries with external debt problems (around half of IDA-eligible countries) that pressure is likely to intensify with rising global interest rates, supply chain disruption, and lower-than-projected revenue collection. While some countries – notably energy exporters – are likely to secure windfall gains, most face downside scenarios.

⁸⁶ Poverty and Inequality Platform, The World Bank (2022). Available at: <https://pip.worldbank.org/home>

⁸⁷ Food and Agriculture Organisation of the United Nations (2021) *UN report: Pandemic year marked by spike in world hunger*. Available at: <https://www.fao.org/news/story/en/item/1415595/icode/>

⁸⁸ Osendarp, S., Akuoku, J.K., Black, R.E. et al. (2021) The COVID-19 crisis will exacerbate maternal and child undernutrition and child mortality in low- and middle-income countries. *NatureFood* 2, pp. 476–484. Doi: <https://doi.org/10.1038/s43016-021-00319-4>

⁸⁹ Drake Lesley J. et al. 'Establishing Global School Feeding Program Targets: How Many Poor Children Globally Should Be Prioritized, and What Would Be the Cost of Implementation?', *Frontiers in Public Health* 8. Doi: <https://doi.org/10.3389/fpubh.2020.530176>

⁹⁰ UNESCO (2021) *COVID-19: Two-thirds of poorer countries are cutting their education budgets at a time when they can least afford to*. Available at: <https://en.unesco.org/news/covid-19-two-thirds-poorer-countries-are-cutting-their-education-budgets-time-when-they-can>

⁹¹ UNICEF Office of Research – Innocenti (2022). *COVID-19 and Shrinking Finance for Social Spending*. Innocenti Policy Brief series, Brief 2022-01, Shortfalls in Social Spending in Low- and Middle-income Countries, Florence, Italy. Available at: <https://www.unicef-irc.org/publications/pdf/COVID-19-and-Shrinking-Finance-for-Social-Spending.pdf>

17. It is useful to place the school meal financing estimates in a wider context. Several costing exercises have attempted to capture the impact of COVID-19 on SDG financing gaps. UNESCO estimates that the financing gap for the education goals has increased by USD 52 billion annually and is now at USD 200 billion. Post COVID-19 (but pre-Ukraine crisis) research by UNICEF⁹² has attempted to capture the wider financing gaps for social sector budgets with a particular relevance for children in low- and lower-middle-income countries. Using international benchmarks for the share of GDP and budgets allocated to education, health and social protection, the study estimates that an additional 6% of GDP will be required.
18. From a school meals perspective, this type of research can be read in two ways. It illustrates both the relatively modest levels of spending needed to achieve very significant benefits, and the competing demands – and trade-offs – facing governments.
19. Global targets, such as reaching an additional 73 million children with school meals, help identify indicative parameters for financing. They can provide a steer for governments and donors. Ultimately, however, national policies must be built on well-defined national goals underpinned by credible and predictable revenue streams.
20. The opportunities and constraints facing individual countries vary enormously. Low-income countries have an average tax-to-GDP ratio of 14%. While many countries have demonstrated the scope for increasing revenue collection, economic downturns do not provide a propitious environment. This suggests that aid, debt relief and concessional multilateral financing should figure prominently in school meal financing options. Middle-income countries may face broader options, including recourse to debt finance. There may also be opportunities for innovative finance, including through taxation on ‘public bads’, the private sector and philanthropy.

I.2. Preliminary Evidence from Country Studies

21. Several rapid assessment background studies were commissioned to inform this memo.⁹³ These studies looked at financing provisions for school meal programmes, including overall levels of funding and the profile of revenue mobilisation. More detailed summaries of the findings will be provided in due course. At this stage we highlight some of the themes that may prove relevant to governments and donors seeking to mobilise resources for school feeding programmes. Annex 1 provides a preliminary overview.
22. Across the countries reviewed in the case studies, governments are developing policy and planning frameworks. These frameworks recognise the critical importance of school feeding programmes in shaping learning outcomes in education, while at the same time contributing to wider national nutrition strategies, safety nets and health sector goals. The expansion of home-grown food supply has opened up new opportunities with the potential to contribute to the transformation of food systems, both through the creation of demand for smallholder agriculture and through the provision of healthy meals. Beyond

⁹² UNICEF Office of Research – Innocenti (2022). COVID-19 and Shrinking Finance for Social Spending. Innocenti Policy Brief series, Brief 2022-01, Shortfalls in Social Spending in Low- and Middle-income Countries, Florence, Italy. Available at: <https://www.unicef-irc.org/publications/pdf/COVID-19-and-Shrinking-Finance-for-Social-Spending.pdf>

⁹³ The countries are: Bangladesh, Benin, Bolivia, Guatemala, Rwanda, Senegal and Tanzania.

the immediate benefits, we note that the development of strong linkages to local agriculture has the potential to support the development of broader coalitions for school meal provision.

23. Once established, large scale, nutritious school feeding programmes can play a broader role in development. During the COVID-19 pandemic mothers of school children mobilised in Bolivia to ensure that meals provision continued during school closure. In Guatemala, a well-established programme was able to respond flexibly to school closures by working through local communities. There are parallels here with the role of parents and civil society in supporting school meals provision in the UK and the US during pandemic lockdowns.
24. Overall levels of financing vary widely across countries, reflecting different cost structures and levels of provision. In some countries there appears to be a gap between budget allocations and stated targets. In others there are discrepancies between planned and actual expenditure. It is clearly critical for sustainability that national goals are underpinned by financing allocations across a medium-term financial planning period.
25. Providing effective school feeding programmes requires current and capital spending beyond immediate provision. Delivering high quality nutritional meals on an efficient and equitable basis is about more than food content. Schools (or the communities serving them) need to have kitchens, access to clean water and storage capacity. In short, infrastructure matters – and school infrastructure is often poor, especially in areas characterised by high levels of poverty. For this reason it is important to ensure that school meals financing is considered in the context of the overall financing envelope for education.
26. Most countries are seeking to expand financing and reduce donor dependence through general revenue. There has been an extraordinary effort to transition from pilot programmes dominated by donor aid to nationally financed programmes. One example is Bangladesh, which has increased the share of school meals financing covered by the national budget from just over one-half in 2015 to three-quarters. This is illustrative of the broader pattern identified in Part 1, with low-income countries seeking to transition to more self-reliant programme financing and reduced dependence of donor funding. At the same time, aid remains an important element in the overall financing of many countries, accounting for over 90% of provision in Senegal in 2020, for example.
27. Several countries have used earmarked revenues to fund school meals. In Bolivia around 70% of the financing for school meals is provided through a hydro-carbon tax, supplemented by local municipality revenues. Guatemala finances its entire programme from earmarked VAT taxes (amounting to less than 1% of total VAT receipts). While tax bases expand as average income levels rise and low-income countries have more restricted options, there may be scope for expanding earmarked taxes. As noted below, some countries could secure windfall gains from rising prices for energy – and windfall taxation linked to school meals may be an option. In considering earmarked taxes governments obviously need to avoid regressive levies that weigh disproportionately on the poor.
28. Identifying overall aid financing levels is often difficult at the national level. Most of the country studies confirm the importance of well-designed pilot programmes in building

knowledge, capacity and government buy-in for more ambitious national programmes. The WFP has played an important role in this context. The US McGovern-Dole programme, which delivers in-kind contributions, is probably the single largest source of bilateral aid finance – and it figures prominently in most of the country surveys. However, it is difficult to escape the conclusion that overall donor financing is fragmented, limited and – in some cases – poorly coordinated. Multilateral finance does not figure prominently, though the Global Partnership for Education stepped up support for school meals during the pandemic in Senegal.

29. School meal programmes can help to deliver on the SDG commitment to ‘leave no-one behind’. Evidence from the country assessment points to school-feeding as a potentially powerful driver of equity. Most countries restrict provision to public schools, which represent the main vehicle for delivering education for the poorest children. In some cases – as in Bangladesh, Benin, and Senegal – governments have used deprivation indicators on malnutrition, poverty and education to target specific districts for scaling-up programmes. There are compelling grounds for establishing universal school meals provision as a national policy goal to advance education. At the same time an immediate focus on the children and communities with the greatest need is justified both by considerations of equity and fairness, but also on efficiency grounds: some of the highest returns to investment in school meals will be achieved among children carrying the greatest deprivation.

1.3 Aid and Multilateral Finance

30. It is difficult to establish current levels of aid and multilateral finance for school feeding. Current data reporting systems are partial, fragmented and inconsistent, making it difficult to establish current levels of finance and, by extension, identifying the scope for additional support. However, there is clearly scope for an increased effort.
31. Lending through the multilateral system (comprising the World Bank and its regional counterparts) is around USD 90-100 billion annually. The figure reflects what are very conservative approaches to lending⁹⁴ based on the protection of ‘Triple A’ ratings⁹⁵, an unwillingness to leverage ‘callable capital’, and very limited recourse to guarantee financing (as recently deployed by the World Bank for Ukraine). In ‘normal’ times these policies are an unhelpful constraint. But these are not normal times – especially for education and child nutrition.
32. Recognising the threats facing children and the unprecedented scale of the crisis in education, the MDBs could be encouraged to act in a coordinated fashion to issue bonds geared towards financing activities explicitly targeting children, including school meals.
33. As the largest MDB, the World Bank, could set a standard. Where necessary lending through the IBRD could be supported by guarantees, along the lines proposed under the

⁹⁴ Humphrey, C. (2020) ‘All hands on deck: how to scale up multilateral financing to face the Covid-19 crisis’, *ODI briefing/policy papers*. Available at: <https://odi.org/en/publications/all-hands-on-deck-how-to-scale-up-multilateral-financing-to-face-the-covid-19-crisis/>

⁹⁵ Settimo, R. (2017) Towards a More Efficient Use of Multilateral Development Banks’ Capital. Bank of Italy Occasional Paper No. 393, Available at SSRN: <https://ssrn.com/abstract=3056276> or <http://dx.doi.org/10.2139/ssrn.3056276>

IFFEd. For illustrative purposes, in Q4 2021 the World Bank placed a USD 10 billion of bonds at yields of 1-1.5%, partly focussed on climate. Since 2018, IDA has also issued bonds. The recent record replenishment has expanded IDA's financial envelope, with USD 93 billion allocated for 2022-2025 (70% earmarked for Africa). With a combination of leadership from the World Bank and demand from African governments, school meal programmes could secure additional IDA financing as part of the World Bank's response to the deteriorating nutrition and education crisis.

34. The Africa Development Bank appears to operate a very limited portfolio on school meals but has established the development of smallholder agriculture as a priority. This could potentially open the door to more ambitious dialogue on the development of home-grown school feeding initiatives.
35. The Global Partnership for Education (GPE) is the largest global fund solely dedicated to transforming education in lower-income countries, A multi-stakeholder partnership, GPE aims to mobilize coordinated action and financing to enable change that can transform education systems, through inclusive mechanisms such as local education groups (LEGs) and government-led multi-stakeholder bodies: Ministries of Health are part of the LEG in several countries, and most countries include at least one of WHO, UNFPA or WFP. Many GPE partner countries include school health and nutrition in their education sector plans and in 2016-2020, USD 48 million was allocated by GPE to health and nutrition in schools.⁹⁶
36. For many of the poorest countries and fragile states, increased aid will be a condition for the expansion of school feeding. The WFP has set a target of USD 1.75 billion annually to support a scale-up in 30 countries affected by fragility and limited capacity. On an assumption that IDA and other concessional MDB facilities could mobilise USD 750 million, bilateral aid donors would need to provide an additional USD 1 billion – around 0.6% of current official development assistance.
37. Despite the competing demands on flat and potentially declining aid budgets, a concerted effort by a small group of donors could bring this figure within reach. However, that effort is unlikely to yield results without high level political leadership and effective coordination. For comparative purposes, the largest bilateral donor – the United States – currently provides around USD 248 million annually to school meals programmes.

⁹⁶ GPE funds are supporting a nationwide program for school-aged girls, including refugees, to receive free menstrual pads and safe access to water and sanitation facilities in Kenya, and building on an existing WFP programme in Niger to extend school feeding to areas suffering from food shortages, natural disasters and conflict. In Ethiopia and Cambodia, GPE has helped build capacity to design comprehensive strategies linking WASH, health, nutrition and education. GPE has also been active at the global level to bring together partners and highlight the importance of nutrition in schools. Adolescent girls' health and wellbeing in school is a particularly important area for GPE, and has been the subject of proactive and sustained advocacy campaigns. In 2018, together with Disease Control Priorities and the World Bank, GPE published the report [Optimizing Education Outcomes](#), which proposes a high-return package of school health investments. GPE also funded the [School Health Integrated Programming \(SHIP\)](#) initiative (2014-2018) which strengthened collaboration between ministries of health and education in Cambodia, Ethiopia, Ghana and Senegal, increasing the awareness, capacity and the operational and technical resources to include school health and nutrition in education sector plans. In 2020, GPE created a funding window for countries to mitigate both the immediate and long-term impacts of the COVID-19 pandemic on education, giving planning grants to 87 countries and over [USD 467 million in accelerated grants to 66 countries](#). This includes USD 47 million for hygiene programs, USD 12 million for psychosocial support, and USD 9 million for nutrition. GPE support was used to ensure schools were safe to return to, with improved sanitation and hygiene. In several countries, GPE grants funded distribution of food to vulnerable students while schools are closed, or development of school feeding programmes in the recovery phase, in order to encourage children to return to school.

II: Financing Options and Opportunities

2.1 Debt-Financing – Bond Markets

38. Recent years have seen a rapid expansion in financing through sovereign bond markets linking to the SDGs and – more broadly – Environmental, Social and Governance (ESG) financing. This is a large and growing global market⁹⁷ overwhelmingly dominated by Europe, with around USD 650 billion issued in 2021. However, a growing number of developing countries are issuing assorted green, social, and SDG bonds⁹⁸ with the express purpose of financing projects and programmes with a defined purpose. Reporting, tracking and impact evaluation standards are set by the International Capital Market Association (ICMA) and other agencies. These standards – such as the Social Bond Principles⁹⁹ – provide a reference point for credit rating agencies, who are required to verify conformity.
39. Could SDG bonds fill part of the financing gap for school meals and wider initiatives aimed at improving the condition of children in low- and lower middle-income countries?
40. The answer to that question is partly contingent on market conditions facing individual countries, including debt sustainability. As in other areas, issues of fungibility, ‘SDG washing’, and transparency also loom large.
41. Since the onset of the pandemic several developing countries have issued SDG bonds. Mexico’s USD 750 million Eurobond, issued in September 2021, was the first to make an explicit SDG link. Indonesia followed one month later. Building on the country’s earlier experience in issuing climate-related green bonds, the government issued a USD 580 million SDG bond. An earlier USD 4 billion issue from Peru was linked to COVID-19 financing.
42. Several low-income countries have entered SDG and/or social bond markets. Uzbekistan issued USD 835 million in SDG bonds over two tranches in 2021. In July 2021 Benin issued Africa’s first SDG bond – for USD 500 million. A planned USD 2 billion social bond issued from Ghana has yet to materialise, partly because of debt concerns. However, Ghana’s USD 3 billion pre-COVID-19 Eurobond issue was a landmark for Africa because of its time horizon (one tranche was 20 years). While debt sustainability is an obvious concern (see Table 2 below), several Debt Service Suspension Initiative (DSSI) eligible countries have entered bond markets; one of them – Côte d’Ivoire – having participated in debt suspension arrangements.

Table 2. Sovereign debt and SDG or ‘social bond’ issues – illustrative cases

Country	Amount	Coupon	Repayment period	Areas covered	Explicit reference to
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⁹⁷ Lester, A. (2021) ‘Sustainable Bonds Insight 2021’, *Environmental Finance*. Available at: <https://www.environmental-finance.com/assets/files/research/sustainable-bonds-insight-2021.pdf>

⁹⁸ International Capital Market Association (ICMA) Group (2020) *Green, Social and Sustainability Bonds: A High-Level Mapping to the Sustainable Development Goals*. Available at: <https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/June-2020/Mapping-SDGs-to-Green-Social-and-Sustainability-Bonds-2020-June-2020-090620.pdf>

⁹⁹ International Capital Market Association (ICMA) Group (2021) *Social Bond Principles (SBP)*. Available at: <https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/social-bond-principles-sbp/>

					school feeding
Benin ¹⁰⁰	\$500m	4.9	12 years	12 eligible categories (including agriculture, health, and nutrition)	
Cote d'Ivoire ¹⁰¹	\$850m	4.8 – 6.6		Not an SDG bond	
Ghana ¹⁰²	\$3bn \$525m \$1.2bn \$1bn \$500m	0 7.7 8.6 8.8	6 4 7 12 20	Not an SDG bond	
Indonesia ¹⁰³	\$584m	1.3	12 years	Most SDGs. Strong green/climate focus, but includes nutrition goals: <i>Nutrition intervention programmes and supporting sustainable food production can decrease rates of undernourishment and improve health outcomes</i>	
Kenya ¹⁰⁴	\$1bn	6.3	11	Not an SDG bond	
Mexico ¹⁰⁵	\$750m \$1.2bn	1.35 2.25	7 years 15 years	37 Eligible budget areas and 11 SDGs ¹⁰⁶	X

¹⁰⁰ de Bassompierre, L. and Yinka Ibukun, Y. (2021) *Benin Reaps Lowest Cost Yet With Africa's First Social Bond*. Available at: <https://www.bloomberg.com/news/articles/2021-07-16/benin-beats-ghana-to-issue-africa-s-first-social-bond-amid-boom>

¹⁰¹ Cleary Gottlieb (2021) *Côte d'Ivoire in €850 Million Eurobond Tap Issuance*. Available at: <https://www.clearygottlieb.com/news-and-insights/news-listing/cote-divoire-in-850-million-eurobond-tap-issuance>

¹⁰² Ministry of Finance, Republic of Ghana (2021) *Global Investors Demonstrate Strong support for Ghana's Fiscal Plans and Revitalization Strategy*. Available at: <https://mofep.gov.gh/press-release/2021-03-30/global-investors-demonstrate-strong-support-for-ghana-fiscal-plans-and-revitalization-strategy>

¹⁰³ Joint SDG Fund (2021) *The Indonesian SDG Bond: A Leap Towards Financing the SDGs*. Available at: <https://www.jointsdgfund.org/article/indonesian-sdg-bond-leap-towards-financing-sdgs>

¹⁰⁴ CBonds (2021) *New bond issue: Kenya issued international bonds (XS2354781614) with a 6.3% coupon maturing in 2034*. Available at: <https://cbonds.com/news/1395967/>

¹⁰⁵ Hacienda: Secretaria de Hacienda Y Credito Publico, Gobierno de Mexico (2021) *SDG Sovereign Bond Framework*. Available at: https://www.finanzaspublicas.hacienda.gob.mx/work/models/Finanzas_Publicas/docs/ori/Espanol/SDG/UMS-SDG_Sustainable_Bond_Framework.pdf

¹⁰⁶ Hacienda: Secretaria de Hacienda Y Credito Publico, Gobierno de Mexico (2021) *Mexico's SDG Bond: Allocation and Impact Report 2021*. Available at: https://www.finanzaspublicas.hacienda.gob.mx/work/models/Finanzas_Publicas/docs/ori/Espanol/SDG/Mexico_SDG_Bond_Allocation-Impact_Report_2021.pdf

Uzbekistan ¹⁰⁷ 108	\$635m \$235m	3.9 14	10 3	7 SDG (including education and health)	
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Source: Country bond issue documentation

43. The potential advantages of SDG/social sovereign-bond financing are obvious. This is a large – and growing – market. The finance provided comes with relatively low transaction costs relative to project-based aid and multilateral financing. Establishing a linkage to the SDGs can help focus resources on areas of disadvantage, with reporting systems offering a route to greater accountability.
44. Unfortunately the potential disadvantages are also well-known. Participation in Eurobond markets has contributed to the debt sustainability pressures operating on many poorer developing countries, with repayment obligations limiting the fiscal space available to governments. Borrowing at between 5-8% in hard currencies is a limited financing option for any low-income country, especially those with limited prospects for accelerated economic growth. Fungibility is an inherently complex issue, but there are grounds for concern. For example, Mexico appears to have used bond financing to cover areas of safety net spending that have been reduced. Finally, the criteria used to track and report on SDG bond finance allocations appears to be weak to the point of irrelevance in some cases, fuelling concerns over greenwashing.
45. All of this said, there is certainly a case for engaging with governments on SDG financing to ensure that education – including school meals – figures in planned expenditure. From an ESG investor perspective, a focus on children and education would appear to offer an investment opportunity with obvious reputational advantages.

2.2 Hydrocarbon Taxes

46. Countries with large non-renewable resource revenues may have significant untapped revenue sources for investment in education priorities, including school feeding. Exporters of oil, gas and some commodities are set to secure windfall gains, both through taxes on exports and – potentially – the sale of concessions. Converting these gains into investments in children could help break what is sometimes referred to as the resource curse that comes with large mineral deposits.
47. Resource funds are a vehicle for smoothing public spending managing present revenues in the interests of current and saving for future generations. Norway's sovereign wealth fund is often cited as a gold standard reference point, along with Botswana. However, the record in many other countries is either mixed or poor, with resource wealth siphoned away through corruption, tax evasion and unfair trade practices.

¹⁰⁷ Sustainabilitytics (2021) *Second Party Opinion: Republic of Uzbekistan SDG Bond Framework*. Available at: https://online.mf.uz/media/file_en/dmo/Republic_of_Uzbekistan_SDG_Bond_Framework_Second_Party_Opinion.pdf#:~:text=Uzbekistan%20has%20developed%20the%20Republic%20of%20Uzbekistan%20SDG,environmental%20and%20social%20sustainable%20development%20of%20the%20Country.

¹⁰⁸ Bankers Without Boundaries (2021) *BwB partners with UNDP to issue first SDG bond for Uzbekistan*. Available at: <https://www.bwbuk.org/post/bwb-partners-with-undp-to-issue-first-sdg-bond-for-uzbekistan#:~:text=The%20Uzbek%20Ministry%20of%20Finance,The%20initial%20coupon%20is%2014%25>

48. According to the World Bank¹⁰⁹ mineral resource extraction plays a dominant role in the economies of 81 countries that account for a quarter of global GDP, half of the world's population and nearly 70% of those living in extreme poverty. There is a large degree of overlap between the poorer developing countries with low levels of school feeding and those with large extractive revenues.
49. There is a very large literature on approaches to extractive resource revenues. The perils of the resource curse and the problems of managing volatile revenue flows through sovereign wealth funds are well known. However, several developing countries have been able to finance dramatic expansions of the social budgets through taxation of extractive industries. Bolivia's hydrocarbon tax¹¹⁰ is a case in point. Revenue from the tax has helped finance the national school feeding programme.
50. Public financing options will depend in part of the specific resources involved and prospective revenue flows. For some countries windfall taxes may be an option to be explored. The impact of the Ukraine crisis on oil and (some) mineral prices is a case in point. In others, future revenue streams may create an enabling environment for governments and donors to initiate school meal programmes that could become fully financed through national budgets over time. For example, projections for Mozambique¹¹¹ point to government revenues of USD 35-64 billion from liquified natural gas investments, but revenue streams will not increase until 2030. Annual revenues for Tanzania could reach USD 2.9 billion annually¹¹², or USD 24 per capita. Senegal¹¹³ is another country with significant prospective revenue flows.
51. The very large revenues associated with extractive industry exports provide a tempting advocacy target for school meals financing. This is clearly an area with great potential to be explored on a country-by-country basis, perhaps partnering with initiatives such as the Extractive Industries Transparency Initiative. The case for allocating carbon-based fuel export revenues to activities centred on children has an intuitive appeal at many levels, and has a resonance with broader narratives on a just transition and the well-being of future generations. In some countries there may well be a case for engagement not just with governments but with oil, gas and metals investors too.
52. To state the obvious, however, revenue allocation decisions are more likely to be informed by political economy factors than cost-benefit analysis alone. State companies in petroleum and gas are adept at skewing revenues to investment in the sector (and powerful private interests). Moreover, there is no shortage of lobbies arguing for revenue diversion.

¹⁰⁹ The World Bank (2021) *Extractive Industries: Overview*. Available at:

<https://www.worldbank.org/en/topic/extractiveindustries/overview#1>

¹¹⁰ International Labour Office (ILO) Social Protection Department (2016) 'Financing social protection through taxation of natural resources: Bolivia', *Social Protection in Action: Building Social Protection Floors, Country Note Series*. Available from: <https://www.social-protection.org/gimi/RessourcePDF.action?ressource.ressourceId=53854>

¹¹¹ República de Moçambique, Ministério da Economia E Finanças (2018) *Projected government revenues from gas projects*. Available at: <https://s3.documentcloud.org/documents/6983420/Republic-of-Mozambique-Government-Revenues-From.pdf>

¹¹² Scurfield, T. and Mihalyi, D. (2019) *Managing Expectations About Tanzania's Uncertain Gas Revenues*. Available at: <https://resourcegovernance.org/analysis-tools/publications/managing-expectations-tanzania-gas-revenues>

¹¹³ Davis, W. and Mihalyi, D. (2021) *Opportunities and Challenges for Senegal in Oil and Gas Production: Lessons Learned from Other New Producers*. Available at: <https://resourcegovernance.org/analysis-tools/publications/opportunities-challenges-senegal-oil-gas-lessons-new-producers>

2.3 Earmarked Taxes – and Taxing ‘Public Bads’

53. Financing school meals through earmarked taxes could potentially unlock resources. Such taxes are not a magic wand solution, especially in low-income countries with a limited revenue base. That said, earmarked taxes help make the case for increased investment in areas that cut across traditional political divides.
54. There is nothing new¹¹⁴ or particularly innovative about earmarked taxes. Many rich country governments use such taxes to fund key services (national insurance in the UK is an example). Countries like Bolivia, Mongolia¹¹⁵, and Zambia have used gas and mining taxes to fund social programmes. Gabon has used a VAT on mobile communications to fund health programmes. Ghana and the Philippines have used national insurance¹¹⁶ to fund universal health coverage initiatives. Brazil has used dedicated taxes to fund social protection and nutrition programmes. India^{117 118} has used the earmarking of revenues from levies across various tax bases to fund primary education.
55. Linking tax to wider policies aimed at discouraging ‘public bads’ and financing public goods can build constituencies for change. Tobacco taxation is a case in point. Vietnam^{119,120} is one of many countries that has used tobacco tax to finance anti-smoking programmes. The Philippines’ offshore gambling tax¹²¹ earmarks 80% of revenue – projected at USD 570 for 2022 - for universal health care and related initiatives, and 20% for wider SDG funding. Revenue from the tax represents around ten times current spending on the national school feeding programme¹²², which is not currently earmarked as a destination for the revenue.
56. Taxes on sugar-sweetened beverages (SSBs) provides an obvious bridge from a ‘public bad’ to the public good of school feeding. SSBs are a major contributor to problems of obesity and overweight, which are in turn risk factors for diabetes and other conditions in

¹¹⁴ Durán-Valverde, F., Pacheco-Jiménez, J., Muzaffar, T., Elizondo-Barboza, H. (2020) *Financing gaps in social protection: Global estimates and strategies for developing countries in light of the COVID-19 crisis and beyond*, ILO Working Paper (Geneva, ILO).

¹¹⁵ International Labour Office (ILO) Social Protection Department (2016) ‘Financing social protection through taxation of natural resources: Mongolia’, *Social Protection in Action: Building Social Protection Floors, Country Note Series*. Available from: <https://www.social-protection.org/gimi/RessourcePDF.action?ressource.ressourceid=53856>

¹¹⁶ Lagomarsino, G., Garabrant, A., Adyas, A., Muga, R. and Otoo, N. (2012) ‘Moving towards universal health coverage: health insurance reforms in nine developing countries in Africa and Asia’, *The Lancet*, Vol. 380 (issue 9845) p33-943, doi: [https://doi.org/10.1016/S0140-6736\(12\)61147-7](https://doi.org/10.1016/S0140-6736(12)61147-7). Available at: [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(12\)61147-7/references](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(12)61147-7/references)

¹¹⁷ Kotha, A. P., and Talekar, P. (2021) ‘Earmarked taxes: an Indian case study’, *eJournal of Tax Research*, vol. 19, no. 1, pp. 97-120. Available at: <https://www.unsw.edu.au/business/sites/default/files/documents/97-Earmarked-taxes.pdf>

¹¹⁸ National Institute of Public Finance and Policy (2018) *Cess Collection and Spending: A Brief Review of the Basis of Union Budget 2018-2019*. Available at: <https://www.nipfp.org.in/blog/2018/02/21/cess-collection-and-spending-brief-review-basis-union-budget-2018-19/>

¹¹⁹ Fuchs, A., Márquez, P. V., Dutta, S., Icaza, F. G. (2019) *Is Tobacco Taxation Regressive? Evidence On Public Health, Domestic Resource Mobilization, And Equity Improvements*, World Bank Policy Note. Available at: <https://documents1.worldbank.org/curated/en/893811554737147697/pdf/Is-Tobacco-Taxation-Regressive-Evidence-on-Public-Health-Domestic-Resource-Mobilization-and-Equity-Improvements.pdf>

¹²⁰ Thu, L. T., Tuyet, T. T., Nguyet Tu, T. T., and Trang Nhung, N. T. (2021). Impact of tobacco tax increase in 2016 and 2019 in retail prices in Vietnam. *Tobacco Induced Diseases*, 19(1), A55. <https://doi.org/10.18332/tid/140868>

¹²¹ Senate of the Philippines: 18th Congress (2021) *Pia: POGO Tax Law to generate much-needed funds for healthcare, SDGs*. Available at: https://legacy.senate.gov.ph/press_release/2021/0926_cayetano2.asp

¹²² Philippine News Agency (2021) *Congress allots P7.8 billion to help feed 3.6M kids*. Available at: <https://www.pna.gov.ph/articles/1158362>

adolescence and adulthood. Sugar-based taxation¹²³ has the potential to achieve multiple goals, including reducing demand, correcting for market failures in knowledge and information, and financing the costs of treating health conditions associated with SSBs. Over 40 countries¹²⁴ now have some form of SSB tax in place.

57. The argument that taxes on SSBs are inherently regressive is not well-founded. Research in South Africa¹²⁵ modelled the distributional impact of a 10% tax on SSBs in South Africa on both the cost and benefit sides of the equation. Apart from government revenues of USD 465 million per annum, government cost savings through subsidised health care amounted to USD 145 million. The poorest two quintiles bore the smallest share of the tax burden.
58. In making the case for taxes on SSBs it is important not to exaggerate the revenue raising potential. Performance on this front has been mixed, with actual revenues often falling well below projections. That said, SSBs in low-income countries, many of which do not have such taxes in place, could play an important role in financing school meal programmes. This is an area in which additional research looking at revenue potential versus school meal financing costs would be helpful.

2.4 Debt Relief

59. Even before COVID-19, debt pressures were intensifying across a large group of developing countries. The pandemic has intensified those pressures, with reduced growth cutting revenues and governments taking on more debt. Over half of IDA-eligible countries qualifying for the DSSI, are now assessed as being at high risk of debt distress, or in debt distress. Many middle-income countries are also dealing with serious debt pressures.
60. From a budgetary perspective, debt impacts financing prospects for school meals through several channels. In 2020 and again in 2021, low- and lower-middle-income countries allocated around USD 45 billion in debt service payments. Those payments crowd-out spending in key areas. On average, 14% of government revenue¹²⁶ is directed to debt servicing in DSSI countries, though in many countries the share is far higher. In 2020 around 43 DSSI-eligible countries were spending more on debt servicing than on public health¹²⁷. Viewed through the other end of the telescope, these debt service payments could help to finance key public investments – including school meals – if they were released through debt relief. This is broadly what happened under the Heavily Indebted Poor Countries (HIPC) initiative.
61. Current debt relief frameworks are not designed to achieve comparable outcomes. The DSSI offers what it says on the tin: a suspension of payments with no net present value

¹²³ World Bank (2020) *Taxes on Sugar-Sweetened Beverages: International Evidence and Experiences*. Available at: <https://openknowledge.worldbank.org/bitstream/handle/10986/33969/Support-for-Sugary-Drinks-Taxes-Taxes-on-Sugar-Sweetened-Beverages-Summary-of-International-Evidence-and-Experiences.pdf?sequence=6>

¹²⁴ Ibid.

¹²⁵ : Saxena A., Stacey N., Puech PDR, et al. (2019) 'The distributional impact of taxing sugar-sweetened beverages: findings from an extended cost-effectiveness analysis in South Africa'. *BMJ Global Health* 2019; 4:e001317. Doi: 10.1136/bmjgh-2018-001317

¹²⁶ Hung, T. (2022) *The G20's unfinished business: Don't let debt do us part*. Available at: <https://www.atlanticcouncil.org/blogs/new-atlanticist/the-g20s-unfinished-business-dont-let-debt-do-us-part/>

¹²⁷ Watkins, K. (2020) *Delivering debt relief for the poorest*. Available at: <https://www.imf.org/external/pubs/ft/fandd/2020/08/debt-relief-for-the-poorest-kevin-watkins.htm>

reduction. Debt profiles add another layer of complexity. The HIPC initiative effectively reduced the claims of two groups of creditors: the Paris Club of bilateral creditors and multilateral financial institutions. The entry of China and expansion of lending through private creditors in the form of sovereign bond purchases, bank loans and commodity credits has shifted the locus of debt servicing. Between one-third and one-half of debt servicing now flows to China, bond holders and commercial creditors uncovered by multilateral debt reduction frameworks.

62. Efforts to develop and implement a Common Framework covering all creditors have yet to bear fruit, although three countries - Ethiopia, Zambia, and Chad - applied for treatment over a year ago.
63. Simple public finance arithmetic points to debt relief as a potentially important vehicle for school meals financing. Debt servicing due this year from DSSI countries is around USD 30 billion¹²⁸ against the estimated USD 5 billion required for delivering school meals to an additional 73 million children. If creditors agreed to reduce their claims and if the savings were redirected to school meals, there would be a marked expansion of the overall financing envelope.
64. Unfortunately, these are big 'ifs'. The G20 dialogue on a Common Framework is going nowhere fast. Even if a Framework is agreed there is no guarantee countries will use it. Several countries with a potentially strong case for entering the DSSI have not done so because of concerns over the response of bond markets and credit rating agencies.
65. None of the above means that there is no case for further exploring debt relief options. As global interest rates rise and rising prices for food and oil bite, it appears inevitable that concerns over disorderly defaults will rise. The International Monetary Fund (IMF) and/or World Bank could potentially make programme financing contingent on commercial providing debt restructuring. This happened in 2021 in Ecuador¹²⁹. There could be a case for focussing on countries - such as Zambia, Ethiopia, Malawi, Mozambique, Cameroon, Chad and Sri Lanka - where extreme debt distress makes restructuring more likely.
66. If debt relief is viewed as a potential source of new and additional financing, the School Meals Coalition will have to take a decision on its approach. One option is to advocate for debt swap arrangements under which debt service is directed into local currency investment in other areas. While not without merits, most of these arrangements come with high transaction costs and deliver modest savings.
67. The more ambitious approach would be to make school meals part of a broader offer through which unsustainable – and unpayable – debts are converted into investments in children through programmes which include school meals. This potential could be explored through detailed country case studies and engagement with governments.

2.5 Private Sector Participation

68. Identifying channels for mobilising the additional finance needed to achieve the School Meals Coalition targets is relatively straightforward. Viewed globally, the USD 5.8 billion goal is modest in relation to current and potential development finance flows. However, if

¹²⁸ World Bank (2022) *Global Economic Prospects*. Washington, DC: World Bank. doi: 10.1596/978-1-4648-1758-8.

¹²⁹ World Bank (2022) *International Debt Statistics 2022*. Washington, DC: World Bank. doi:10.1596/978-1-4648-1800-4.

the aim is to leverage development finance to secure additional domestic resources, the private sector could play a dynamic role both domestically and internationally.

69. At an international level, the WFP is part of the coalition behind the Zero Hunger pledge¹³⁰ – a multistakeholder platform aimed at promoting an end to hunger. Over 40 companies have now signed the pledge and committed USD 390 million across 47 countries. The 10 priority areas do not currently include school meals, which would appear to be a missed opportunity.
70. The private sector is already involved in school meals provision in many countries, both in overall financing and product delivery. Unfortunately there is no consolidated data on financial contributions, but the impression derived from a scan of country cases is that private sector involvement is fragmented and limited. There is scope for changing this picture through greater engagement with food companies, agri-business and the private sector more broadly.
71. One useful reference point may be Brazil's national programme targeting zero hunger in the country's poorest 1,000 municipalities. This included a public-private partnership supported through the World Bank's International Finance Corporation (IFC)¹³¹. The IFC funded the development of a database linking private investors to local government programmes. There may be scope for something comparable in relation to school meals, perhaps linking key investors to schools in areas marked by high levels of malnutrition.
72. Impact investment¹³² may be another under-utilised source of finance. The rapid growth of ESG markets illustrates a concern among some investors to link capital to social purpose. Impact investment is a distinctive form of ESG financing through which private investors provide upfront financing, that governments or other funders repay (with returns) if the programme delivers results. There has been a rapid growth in impact bond investments, including in education. While the market is limited (the Brookings Institution tracker¹³³ reports total up-front capital investment through impact bonds at USD 468 million) and heavily dominated by rich countries and a few emerging markets, there is potential for growth. Given the strong evidence on outcomes associated with school meals, there may be scope for deeper engagement with potential impact investors.

Conclusions

73. There is an overwhelming public investment case for extending the reach and improving the quality of school meal programmes. At a time when already poor learning outcomes are set to deteriorate and disparities widen in the wake of pandemic-related school closures, school meals have a demonstrated benefit in supporting concentration and learning. With household poverty intensifying, millions of children now returning to school face the risk of being pulled into labour markets or, especially in the case of girls, pushed

¹³⁰ International Institute for Sustainable Development (2021) The Zero Hunger Private Sector Pledge. Available at: <https://www.iisd.org/projects/zero-hunger-private-sector-pledge>

¹³¹ International Finance Corporation (2003) *IFC Launches Framework for Private Sector Participation in Alleviating Hunger and Poverty in Brazil - A bridge between private companies and the 1,000 poorest municipalities*. Available from: <https://pressroom.ifc.org/all/pages/PressDetail.aspx?ID=20419>

¹³² Global Impact Investment Network (2022) *Research*. Available at: <https://thegiin.org/research>

¹³³ Global Economy and Development at Brookings (2022) *Global Impact Bonds Database Snapshot*. Available at: https://www.brookings.edu/wp-content/uploads/2019/01/Impact-Bonds-Snapshot_Mar-2022.pdf

into early marriage. Here too school meals have a demonstrated track-record in reducing drop-out rates, especially among the poorest children. For governments seeking to get more out of their investment in education, school meals have the potential to generate powerful multiplier effects. The cost-benefit evidence presented in the first part of this report tells its own powerful story about the potential returns on offer – and about the opportunity costs of failure to invest. Yet the fact remains that school feeding programmes are under intense pressure as governments struggle to cope with lower-than-expected revenues, debt pressures and mounting demands triggered by reversals across many SDG priority areas.

74. This section has looked at some of the financing options that might be available to governments. From a public finance perspective, the most secure and sustainable source of financing for school meal programmes is general government revenue. It is encouraging to see so many of the poorest countries working to increase domestic financing. This speaks volumes about national leadership. By the same token, current levels of finance are insufficient to meet the goals set by the School Meals Coalition. Some countries have turned to innovative financing arrangements, earmarking specific taxes to finance school meals. While it is important to ensure that these taxes are progressive in design and implementation, there is scope for earmarking through taxes that tap into windfall gain, hydro-carbon exports and levies on 'public-bads', including the sugar content of drinks.
75. International support could also play a more dynamic role. While it is difficult to establish current levels of aid, the limited presence of major bilateral donors is striking. So is the muted role of the World Bank and regional development banks, both in their concessional (IDA-terms) loans and grants, and in their non-concessional lending. More effective leveraging of the balance sheets of the MDBs and a degree of prioritisation could cover much of the funding gap identified in this memo.
76. For some countries there may be wider opportunities. Debt relief, including debt swap arrangements, could help convert unpayable liabilities into investments in human capital, including through school meals. We would invite the IMF-World Bank and G20 to explore this option. The emergence of social bond and SDG bond financing could provide a channel linking school meals financing to fast growing sovereign debt markets. This option comes with an obvious caveat. As debt pressures mount, governments need to ensure that the interest rates incurred in bond markets are consistent with debt sustainability.
77. It is evident from the analysis in this memo that there is no one-size-fits-all solution. Different countries face different constraints and opportunities. For illustrative purposes, Annex 2 summarises plausible options for a group of countries. More country-level research is required to consider the scope for new and additional school meals financing.
78. Beyond the financing case for school meals it is worth reiterating that progress will remain contingent on political leadership, the development of coalitions for change, narratives that engage the public, and – above all – programmes that deliver results. Throughout history school meals have figured on the agendas of movements for social justice. The case for school meals has the potential to cut across political divides, uniting people behind a shared concern for the well-being of children, the expansion of opportunity and the development of education. Today, as the world seeks to rebuild from a pandemic that has

triggered unprecedented reversals in nutrition, education and child poverty, the case for school meals is more urgent, and more compelling, than ever.

Annexes

Annex 1. Financing Provisions for School Meal Programmes from Five Countries

	Level of financing/ (per capita daily)	Current coverage	Target coverage	Levels covered	Source of govt finance	Household contribution	Government/donor share	Major donors	Corporate & Philanthropic
Bangladesh	\$580 million (\$0.70)	3 million (10%)	21 million by 2023 (universal)	Primary	General revenue	NA	75/25	WFP	
Benin	\$20 million (\$0.12)	650,000 (51%)	Universal (no date)	Primary	General revenue	\$0.50 per month	NA	WB, IDB, China, Japan, N'lands, Germany, US	Choithrams Foundation, MOOV Africa, MTN
Bolivia	\$112 million (\$0.27)	2.5million (98%)	Universal	Primary & Secondary	71% tax on hydrocarbons 16% municipal taxes & royalties	NA	Government		
Guatemala	\$160 million (\$0.60-0.90)	3 million	Universal	Pre-school & Primary	VAT 100%	NA	Government		
Rwanda	\$5 million (\$0.20- 0.40)	Near universal	Universal	Pre-school Primary Secondary	General revenue	40%	95/5	US	Via WFP
Senegal	\$10 million (\$0.30)	128,000	1.3 million by 2026	Pre-school Primary	General revenue	15% planned	20/80	WFP, GPE, US, AFD, Canada	Sococim, Eiffage, Auchan

Annex 2. Illustrative Checklist for Financing Options

Country	Humanitarian aid	Bilateral aid	Concessional (IDA)	Multilateral (IBRD terms)	Debt restructuring	Sovereign bonds	Extractive taxes
Cameroon		X	X		X		X
Cote d'Ivoire		X		X		X	
Ghana		X	X			X	
Indonesia				X		X	
Kenya		X	X				
Liberia		X	X				X
Mozambique		X	X		X		X
Morocco				X		X	
Philippines				X		X	
Senegal		X	X		X		
Somalia	X		X				
Tanzania		X	X				X
Tunisia				X		X	
Yemen	X	X					
Zambia		X			X		

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