



The impact of school feeding programmes

Nearly half the world's schoolchildren, some 310 million, in low- and middle-income countries eat a daily meal at school. India now feeds more than 100 million children; Brazil 48 million; China 44 million; South Africa and Nigeria each more than 9 million.

The last ten years have seen a growing global consensus that school feeding programmes generate a lasting impact that can shape the future of a nation. A landmark publication developed by WFP and the editorial team of Disease Control Priorities, and published by the World Bank - *Re-imagining School Feeding: A High-Return Investment in Human Capital and Local Economies* (Oct. 2018) - gives compelling evidence of the multiple benefits of investing in school feeding programmes.¹

School feeding is increasingly recognised as a major investment in both human capital and in local economies which has accelerated country-led demand. It is seen as playing an important role not only in emergency contexts but also in social stability, peace-building and national development. *Re-imagining School Feeding* calls for increased investment targeted at the ages of 5-21, where new evidence shows the maximum impact on developing human capital potential.²

School feeding goes far beyond the plate of food, producing high returns in the following critical areas: **education** and **gender equality, health** and **nutrition**; **social protection** and **local economies** and **agriculture**.

Education

- ◆ A study by Agence Française de Développement (AFD) and the World Bank in Sub-Saharan Africa, found school feeding to be an impactful intervention for boosting student learning; particularly in Bukina Faso, Kenya and Senegal.¹³
- ◆ School feeding programmes can help get children into school and help them stay there; studies have shown programmes can increase enrolment by an average of **9%**.¹⁴
- ◆ Fortified biscuits in Bangladesh have improved school enrollment by **14.2%** and reduced the probability of drop-outs by **7.5%**.¹⁵
- ◆ In Madagascar, attendance rates increased from **88%** to **98%** over two years after the introduction of take-home rations.¹⁶
- ◆ **45 studies** of school meals programmes around the world revealed that children receiving a school meal during the entire school year attend school **4-7 days more** than children who do not receive school meals.¹⁷
- ◆ A systematic review of **216 education programmes** in 52 low- and middle-income countries found that school feeding programmes are one of the few education interventions that show positive impact in both school participation (enrolment, attendance, completion) and learning (scores on cognitive, language and mathematics tests) - the standardised means differences are respectively +0.11, +0.10 and +0.09.¹⁸

Gender Equality

- ◆ A meta-analysis of school meals programmes across 32 sub-Saharan countries showed on-site meals combined with take-home rations (THRs) increased the enrolment of girls by **12%**.¹⁹
- ◆ In Madagascar, THRs have proven to reduce dropout rates, particularly for adolescent girls by **over 40%**.²⁰
- ◆ In Burkina Faso, THRs conditional on **90% attendance** rates, have consequently increased the enrollment of girls aged 6-12 by **6%**.²¹
- ◆ In Northern Uganda, school meals and THRs were found to reduce anaemia prevalence in girls ages 10-13 years **by 17% - 20%**.²²



- ◆ An evaluation of a pilot project of the adolescent girls' strategy in Niger, conducted in 2016, concluded an improved graduation rate of female students' education: from **32%** in the 2013-14 school year to **68%** in the 2014-2015 school year.²³
- ◆ There is also a strong correlation between higher levels of education and a reduction in child marriages: over **60%** of child brides in developing countries have no formal education. If all girls in sub-Saharan Africa and South and West Asia had secondary education, child marriage would fall by **64%**, from almost 2.9 million to just over 1 million.²⁴
- ◆ A recent World Bank report, launched in partnership with the Malala Fund, shows that if all girls completed secondary school, women and girls could add up to **\$30 trillion** to the global economy.²⁵
- ◆ Independent evaluations from 13 organizations found that school feeding has one of the strongest evidence of impact related to gender parity, equality and inclusion in education (SDG 4.5). The second one being cash transfers.²⁶

Health and Nutrition

- ◆ Evidence suggests that well-designed school feeding programmes can promote macronutrient and micronutrient adequacy in childrens' diets leading to enhanced nutrition and health, decreased morbidity, and increased learning capacities.²⁷
- ◆ A study in Burkina Faso revealed that the younger siblings of students receiving take-home rations from WFP showed significantly higher weight-for-age (+0.4 standard deviations) than in the control group.²⁸

- ◆ School meals or snacks are often fortified to provide extra micronutrients to children. A systematic review of 12 studies of school meal fortification in 11 countries showed that fortified school meals or snacks consistently **reduce anemia prevalence** and **improve micronutrient status** (in particular iron, vitamin A, iodine and folate).²⁹
- ◆ The Midday Meals Scheme in India, the largest school feeding programme in the world, eliminated daily protein deficiency and decreased calorie deficiency by **almost 30%** and daily iron deficiency by **nearly 10%** in the state of Andhra Pradesh.³⁰
- ◆ A study conducted in Ghana showed that energy, nutrient and micronutrient intake were significantly higher and more adequate among children participating in a school feeding programme. Also, compared to the control group, anemia prevalence was **10%** lower.³¹
- ◆ For the growing number of countries with a “double burden” of undernutrition and emerging obesity problems, well-designed school meals can help set children on the path towards healthier diets as dietary habits developed in childhood are likely to persist throughout adulthood.³²
- ◆ For more information, please refer to Chapters 3, 8 and 11 of *Re-Imagining School Feeding: A high-return investment in human capital and local economies*, Bundy et al., (2018) Disease Control Priorities 3, v. 8

Social Protection and Safety Nets

- ◆ School feeding programmes can reduce poverty by boosting income for households and communities. For families, the value of meals in school is equivalent to about **10%** of a household’s income. For families with several children, that can mean substantial savings.³³
- ◆ WFP’s *Healthy Kitchen* project in Jordan exemplifies livelihood creation through school feeding, employing local women who prepare and cook over **85,000 healthy school snacks**.
- ◆ Linking local production to local consumption creates a stable and predictable market for local farmers, especially smallholders; around **70%** of whom are women and often the mothers of the children who are being fed. This creates business opportunities for women. In Nigeria, **95,000 women** are employed as part of the national

school feeding programme.³⁴

Local Economies and Agriculture

- ◆ Buying local food creates stable markets, boosts local agriculture, impacts rural transformation and strengthens local food systems. In Brazil, for example, **30%** of all purchases for school feeding come from smallholder agriculture.³⁵ These farmers are often parents with schoolchildren, helping them break intergenerational cycles of hunger and poverty.
- ◆ In Ghana, preliminary findings from an impact evaluation showed a **33%** increase in agricultural sales and household income. A subsequent survey of 36 low- and middle-income countries (mostly in Sub-Saharan Africa) indicated that local purchase resulted in the inclusion of more diverse and fresh foods.³⁶
- ◆ Examples of large-scale HGSF can be seen in countries such as Nigeria, where 6 million locally-sourced eggs & 80 tonnes of fish are consumed by **9.2 million schoolchildren** across the nation every week.³⁷



References

1. D. Bundy, C. Burbano, M. Grosh, A. Gelli, M. Jukes, and L. Drake (2009): Rethinking School Feeding - Social Safety Nets, Child Development and the Education Sector. The International Bank for Reconstruction and Development / The World Bank
2. Agnew, H. (2018) 'Emmanuel Macron unveils French anti-poverty strategy', Financial Times, 13 September <https://www.ft.com/content/b71bb2ee-b767-11e8-b3ef-799c8613f4a1> Financial Times
3. "School Meals for All", School feeding: investment in effective learning – Case Finland, 2019
4. WFP (2013) State of School Feeding Worldwide. Available at: <https://www1.wfp.org/publications/state-school-feeding-worldwide-2013>
5. Drake, L., Fernandes, M., Chu, K., Lazrak, N., Singh, S., Ryckembusch, D., Burbano, C., Bundy, D. (2019) How many poor children globally could benefit from new generation school feeding programmes, and what would be the cost? *Frontiers in Public Health* (in process).
6. Jomaa, L.H., McDonnell, E., and Probart, C., School feeding programs in developing countries: impacts on children's health and educational outcomes. *Nutrition Review* 69: 83-98, 2011.
7. 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, 2016
8. Mundy, K., 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
9. Adelman, S., Gilligan, D.O., Konde-Lule, J., Alderman, H., 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
10. Remarks at World Food Programme Executive Board meeting in Rome, Italy, 18 June 2018
11. Remarks at the World Food Programme First Regular Session of the Executive Board, Italy, February 2018
12. For more information refer to the Nigeria NGHSP: www.nhgsfp.gov.ng/
13. Bashir et al. (2018) [Facing Forward: Schooling for Learning in Africa](#). Washington, DC: AFD & World Bank. p.127-133
14. Snilstveit et al. in Chapter 12, Bundy et al. (2018) Re-imagining School Feeding: A High-Return Investment in Human Capital and Local Economies, *Disease Control Priorities 3*, v. 8
15. Bundy et al. (2018) [Optimizing Education Outcomes: High-Return Investments in School Health for Increased Participation and Learning](#). *Disease Control Priorities*, Vol 1. World Bank Group.
16. Gelli (2015). School feeding and girls' enrollment: the effects of alternative implementation modalities in low-income settings in sub-Saharan Africa, *Frontiers in Public Health* 3(76)
17. Kristiansson et al. (2016). Costs, and cost-outcome of school feeding programmes and feeding programmes for young children. Evidence and recommendations. *International Journal of Educational Development* 48:79-83
18. Snilstveit et al. (2015) Interventions for Improving Learning Outcomes and Access to Education in Low- and Middle-Income Countries: A Systematic Review. *Systematic Review 24, International Initiative for Impact Evaluation* (3ie), in Bashir et al. (2018) [Facing Forward: Schooling for Learning in Africa](#). Washington, DC: World Bank.
19. Snilstveit et al. in Chapter 12, Bundy et al. (2018) Re-imagining School Feeding: A High-Return Investment in Human Capital and Local Economies, *Disease Control Priorities 3*, v. 8
20. WFP (2016). [School Meals and Education](#) Factsheet.
21. [Optimizing Education Outcomes: High-Return Investments in School Health for Increased Participation and Learning](#). *Disease Control Priorities*, Vol 1. World Bank Group.
22. Adelman et al. (2012) The Impact of Food for Education Programs on School Participation in Northern Uganda, *Economic Development and Cultural Change* 61 (1): 187–218.
23. WFP (2017) [Results and Lessons Learned from WFP's Efforts to Support Adolescent Girls in Niger](#)
24. UNESCO (2014). [Sustainable Development Begins with Education](#).
25. World Bank Group (2018) Missed Opportunities: The high cost of not educating girls www.worldbank.org/en/topic/education/publication/missed-opportunities-the-high-cost-of-not-educating-girls
26. UNESCO (2019): Making evaluation work for the achievement of SDG 4 Target 5: Equality and inclusion in education. IOS Evaluation Office. July 2019
27. Jomaa et al. (2011) School feeding programs in developing countries: impacts on children's health and educational outcomes. *Nutrition reviews*, 69(2), 83-98
28. Bundy et al. (2018) [Optimizing Education Outcomes: High-Return Investments in School Health for Increased Participation and Learning](#). *Disease Control Priorities*, Vol 1. World Bank Group.
29. Best et al. (2011) Can multi-micronutrient food fortification improve the micronutrient status, growth, health, and cognition of schoolchildren? A systematic review. *Nutrition Reviews* 69(4): 186-204
30. Afridi (2009) The Impact of School Meals on School Participation: Evidence from Rural India, *Journal of Development Studies* 47(11): 1636-56
31. Abi (2014). School feeding contributes to micronutrient adequacy of Ghanaian schoolchildren. *The British Journal of Nutrition* 112 (6): 1019–33
32. Dunn et al. (2000) Seven-Year Tracking of Dietary Factors in Young Adults: The CARDIA Study. *American Journal of Preventive Medicine* 18 (1): 38–45.
33. Bundy et al. (2009) [Re-thinking School Feeding: Social Safety Nets, Child Development, and the Education Sector](#), *Directions in Human Development*, World Bank Group, (1) xvi
34. For more information refer to the Nigeria NGHSP: www.nhgsfp.gov.ng/
35. Bundy et al. (2018) Re-imagining School Feeding: A High-Return Investment in Human Capital and Local Economies, *Disease Control Priorities 3*, v. 8. <http://dcp-3.org/schoolfeeding>
36. Aurino et al. (2016.) Ghana Home Grown School Feeding Programme. Impact Evaluation Report. Partnership for Child Development, London.
37. Government of Nigeria (2018) *Investing in Our People: A Brief on the National Social Investment Programmes in Nigeria*, p. 13. www.nhgsfp.gov.ng/