

School Meals in Crisis Settings

COSTS, TRADE-OFFS, AND DELIVERY CHOICES IN EDUCATION-IN-EMERGENCIES PROGRAMMES

 Biniam Bedasso and Radhika Nagesh

Abstract

School feeding is increasingly incorporated into education-in-emergencies (EiE) responses, yet systematic evidence on its cost, scale, and delivery remains scarce. This evidence gap matters as humanitarian and development financing tightens and EiE requirements are cut. Using data from 65 emergency education programmes implemented in 31 countries between 2018 and 2024, this paper examines the budget trade-offs involved in including school meals in emergency education responses and the factors associated with more efficient delivery. We estimate planned annualised school-meal costs, standardised to a nine-month school year, for 33 grants, and assess budget-coverage trade-offs in the 19 grants for which complete budget and beneficiary data are available. In these grants, school feeding accounted for roughly 31 percent of aggregate budgets while serving roughly 7 percent of aggregate beneficiaries. Because the non-feeding remainder of each grant comprises a heterogeneous bundle of interventions, these figures describe budget composition rather than relative value for money. They are therefore a necessary, though not sufficient, input into a critical portfolio review. Annualised costs per targeted child ranged from USD 4 to over USD 201, with a median of USD 35. Costs were higher on average in drought and multidimensional crises than in disease-outbreak settings. Per-child costs were also lower in larger programmes, although this scale advantage was more limited in complex emergencies. On-site hot meals dominated delivery, but the sample includes too few alternative modalities to compare cost-efficiency robustly. We conclude with policy lessons on making budget trade-offs explicit, calibrating costs to context, testing alternative modalities, investing in delivery platforms, and improving coordination across EiE financing instruments.

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Contents

I. Introduction	1
II. Global context and background literature	3
Programme context	3
Related literature	4
III. Data and methodology	5
Study design and scope	5
Data sources, extraction and harmonization	6
Computation of annualised cost per child	7
Comparative case studies	7
IV. Descriptive overview of emergency school meal programmes	8
Grant portfolio and implementing partners	8
Emergency contexts and complementary interventions	9
School meal modalities and delivery arrangements	9
Evidence on programme outputs and outcomes	10
V. Budget trade-offs in emergency education interventions involving school meals	10
VI. Analysis of cost patterns and programme scale	13
Variation in per-child costs across emergency contexts	13
Programme scale, cost efficiency, and implementation dynamics	16
VII. Case studies: design and operational features of selected programmes	20
Selection of case studies	20
Cross-cutting findings from the case studies	21
VIII. Conclusions, key takeaways, and policy lessons	22
References	25
Appendices	27

Figures

1. Map of countries of implementation	6
2. Budget–beneficiary trade-off and per-child allocations for school feeding within mixed EiE grants (n = 19)	12
3. Distribution of annualised cost of school feeding per targeted child in USD (n = 33)	14
4. Summary of annualised cost per targeted child, by type of emergency	15
5. Cost and scale by type of emergency	16
6. Cost and scale for grants excluding disease–outbreak emergencies	17
7. Cost and scale of school feeding programmes under alternative duration assumptions	18
8. Scale and cost dynamics over the course of implementation (programmes excluding COVID grants)	19

Tables

1. Programmes selected for the case studies	20
A1. Countries and implementing organizations in the grant dataset	27
A2. Sample and sub-samples	29
A3. Characteristics of grants in the trade-off sample vs the rest of the portfolio	29

I. Introduction

In emergencies and protracted crises, school feeding is often included in education responses to reduce hunger-related barriers to attendance, re-enrolment, and retention. The rationale rests on the plausible assumption that food insecurity can undermine children's ability to participate in schooling, while food provision can influence household decisions about school attendance. Emergency education responses typically also require infrastructure rehabilitation, teacher support, learning materials, psychosocial services, safety measures, and WASH support. School meals therefore sit within a wider package that needs to be implemented with increasingly limited resources. The central question is, therefore, not whether food matters for schoolchildren in crisis settings, but how school feeding is financed, delivered, and appraised when it competes for resources with other education-in-emergencies interventions inside the same grant envelope.

Coverage of school meals in low- and middle-income countries has expanded rapidly but unevenly. In stable settings, government-led programmes reach about 466 million children worldwide, expanding fastest in low-income countries but still lagging far behind higher-income coverage (WFP 2024). While more governments in stable contexts are funding school meal programmes from their national budgets, international aid continues to fill the gap in emergencies and areas with extreme deprivation or protracted crises. Because these interventions are often contingent, time-bound, and embedded in wider emergency grants, systematic evidence on emergency school meal interventions remains far more limited than for longer-term programmes in development contexts.

Global humanitarian funding has been declining in real terms, with education consistently receiving among the lowest shares of humanitarian appeals—2.6 percent of total humanitarian financing in 2019 (INEE 2020).¹ OECD preliminary figures show that ODA from DAC countries fell by 23.1 percent in real terms between 2024 and 2025, the sharpest annual drop on record (OECD 2026), while UNESCO projects that aid to education could fall by more than 25 percent by 2027 (UNESCO 2025). The 2025 humanitarian reset cut education funding requirements by 33 percent and target numbers by 43 percent, with some country contexts seeing reductions of up to 90 percent (Global Education Cluster 2025). In this environment, school feeding in emergencies can be subject to trade-offs and policy dilemmas that do not arise as acutely in stable settings. This is often linked to the potential displacement of education budgets away from teaching and learning materials and uncertainty about how school feeding compares in cost-effectiveness with alternatives such as household cash transfers or community-wide food assistance.

The central policy question pertains to how EiE funders and implementers may be able to make informed decisions on when, where, and through which delivery arrangements to include school feeding in integrated emergency education responses under tight resource constraints. We approach

1 One caveat here is that humanitarian appeals are only one of several channels financing education in crises, alongside development assistance and domestic budgets.

this broader question through three sub-questions: (i) What opportunity cost does school feeding create within a fixed education-in-emergencies grant envelope? (ii) How do budgeted per-child costs vary by emergency type, programme scale, and modality choice? (iii) What design, delivery, and financing arrangements appear to shape costs and scalability across programmes? As such, the paper aims to expand the limited comparative evidence base on school feeding in emergencies and to inform strategic and operational decisions by various stakeholders. The analysis is intended primarily for funders and grant makers who would need to appraise school feeding interventions within fixed EiE funding envelopes, and secondarily for implementing organisations that may benefit from better cost benchmarks for future programming decisions. However, it is not suitable to facilitate choices between school feeding and other interventions on effectiveness grounds. This is mainly because outcome data in programme documentation are too sparse to estimate cost-effectiveness.

The paper provides a descriptive analysis of the operational and economic characteristics of school meal interventions delivered within emergency education responses between 2018 and 2024. We focus on per-child costs, programme scale, and delivery mechanisms as indicators of affordability, operational feasibility, and portfolio trade-offs. In addition to cross-sectional analysis of cost and coverage patterns, we examine nine exemplar programmes qualitatively to identify the design and operational choices that may help explain observed differences in cost and scale. We collected programme-level data on education interventions in emergency or protracted crisis contexts that contain a school meal component and are funded through two of the major funders of such programmes globally, i.e., Education Cannot Wait (ECW) and the Global Partnership for Education (GPE). Our review covers grants approved or implemented between 2018 and 2024. We constructed a dataset of 65 grants implemented in 31 countries to analyse a wide range of programme characteristics of emergency school feeding interventions. We then conducted key informant interviews with focal points from implementing organisations representing the case study programmes.

The analysis shows that school feeding is, not surprisingly, the most resource-intensive component of the multi-intervention grants for education-in-emergencies. Across the 19 grants with complete budget and beneficiary data, it accounts for roughly 31 percent of aggregate budgets while serving roughly 7 percent of aggregate beneficiaries. Because the non-feeding portion of each grant includes a diverse mix of interventions, and beneficiary counts do not reflect the value or effectiveness of the benefits they provide, these figures should be interpreted as showing how funding is allocated rather than which interventions offer greater value. There is significant heterogeneity in budgeted cost and scale of emergency school feeding, with annualised costs ranging from USD 4.28 to over USD 201 per targeted child. Although per-child costs are generally lower in larger programmes in cross-sectional comparisons, the pattern appears weaker in complex emergencies, particularly armed conflict

and multidimensional crises, than in disease-outbreak settings. Centralised procurement systems appeared better able to buffer against price volatility and support rapid scaling, whereas local or “home-grown” models often encountered structural barriers in food-deficit areas or insecure environments. Finally, the evidence highlights a critical need for standardised cost reporting and outcome metrics, as current monitoring suffers from inconsistent data quality and limited transparency regarding the drivers of per-child costs.

The remainder of this paper is organised as follows. Section II provides the global context and background literature. Section III discusses data collection and methodology. Section IV presents a descriptive overview of the emergency school meal portfolio. Section V examines the budgetary trade-offs between school feeding and other education interventions when both are funded from the same grant envelope. Section VI analyses cost patterns and programme scale. Section VII synthesises qualitative evidence from nine country case studies to explore operational drivers of performance, and Section VIII concludes with strategic policy lessons for donors and implementing organisations.

II. Global context and background literature

Programme context

The most common objective of school feeding in emergency situations, as stated by implementing organisations, relates to education continuity. That means the provision of school meals is often framed as a means of restoring and sustaining school participation in conjunction with other emergency education interventions. Some programmes may also seek to improve nutrition outcomes as a secondary objective. However, the results frameworks and measurements of most emergency programmes focus on a smaller set of education outcomes, especially attendance, retention, and re-enrolment.

Education Cannot Wait (ECW) and the Global Partnership for Education (GPE) play a key role in the international financing architecture to support education across the humanitarian-development nexus in contexts affected by crisis. By implication, the two organisations also shape the financing space for school feeding in emergencies and protracted crises. ECW runs a dedicated funding platform for education-in-emergencies that often finances school meals as part of the demand-side interventions in integrated education response packages. While GPE is primarily tasked with financing system-oriented interventions, it also supports education-in-emergencies programmes where humanitarian needs exceed the response capacity of ECW and other humanitarian partners. GPE also supports education-in-emergencies programmes through the application of its Operational Framework for Effective Support in Fragile and Conflict-Affected Contexts.

The programmes funded by ECW and GPE are normally implemented by a diverse set of humanitarian and development organisations operating at international and local levels. While child- and education-focused organisations such as UNICEF and Save the Children are often the primary grant holders in charge of the broader integrated intervention package, the World Food Programme (WFP) is commonly sub-contracted by the primary grant holders to deliver the school feeding components. The chain of resource flows underscores that school feeding in emergency programmes is typically justified and financed through education sector instruments and delivered by humanitarian and child-focused organisations. These programmes also sit at the intersection of short-term crisis response and longer-term system recovery in protracted crisis settings. This hybrid identity of the programmes can sometimes make it difficult to clearly define objectives and measure operational performance. It also makes school feeding in emergencies particularly vulnerable to funding volatility.

Related literature

There is limited empirical evidence on the nature and impacts of emergency school feeding interventions partly because establishing credible counterfactuals is difficult given the volatility of most emergency situations and the ethical issues arising from creating control groups. However, a small body of studies provides indicative evidence on the impact of school meals in various types of emergencies. For instance, Aurino et al. (2019) find that school feeding increased enrolment and grade completion during a conflict in Mali. However, the effect was substantially weaker among children living closest to conflict events. In Kenya, Omwami et al. (2011) show that school feeding helped to mitigate declines in attendance that might have been caused by a widespread drought. Jamaluddine et al. (2022) studied school snack provision for refugee children in Lebanon and reported improvements in dietary diversity but mixed and generally limited effects on broader nutrition and education outcomes.

School feeding could have important spillovers related to protection and child labour reduction in emergency contexts. In this regard, Aurino et al. (2019) show that school feeding reduced work participation among girls in Mali, while general food distribution increased child labour among boys. In Liberia, Dago and Yogo (2022) find that school feeding reduced child labour for both sexes among war-displaced households. There are also studies contending that school feeding can serve broader child protection functions. By incentivising regular school attendance, school meal programmes can help keep children in supervised environments, reducing exposure to recruitment by armed groups, child marriage, and other harmful coping strategies (Burde et al. 2015; WFP 2020). These protection benefits, however, are contingent on schools themselves being safe and on the presence of safeguarding protocols such as teacher codes of conduct.

Despite these potential benefits and the prevalence of school feeding interventions in emergency programmes in practice, there is a dearth of evidence on cost-effectiveness. This reflects not only

limited causal estimates of impact but also fragmented and non-comparable cost data across humanitarian and development settings. In one of the few studies documenting cost evidence, Gelli et al. (2011) report lower average costs per child in emergency settings (USD 44.9) than in development contexts (USD 64.9). However, the distribution of costs in emergency settings is characterised by significant variation driven by the diversity of nutritional content and delivery modalities. A recent review of the cost of school meal programmes worldwide focused primarily on longer-term programmes in stable settings (Bedasso and Mendez Acosta 2025). However, its findings could provide a useful comparator for analysing costs in emergency contexts.

It is also important to situate the discussion on emergency school meals within the broader and more established literature on food assistance. Considering that the range of alternative modalities could include take-home rations, vouchers or cash, policy dialogues on school nutrition in emergencies could benefit from the long-standing debates over food aid, which cover such issues as procurement, market effects and targeting spillovers (see for example, Barrett and Maxwell 2005).

III. Data and methodology

Study design and scope

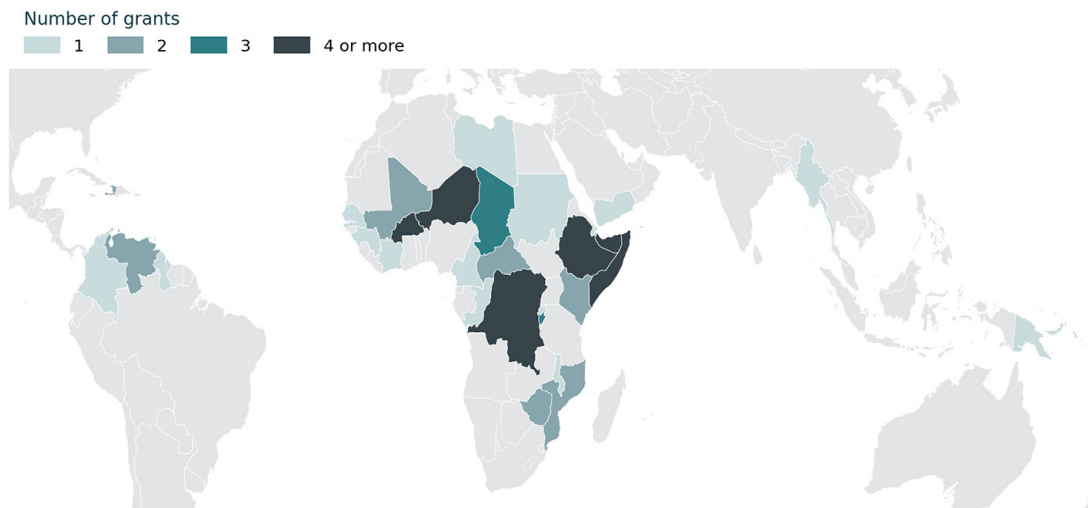
The study employs a descriptive, mixed-methods design to analyse the scale, delivery modalities, and cost characteristics of emergency school feeding programmes. We conducted the study in two phases.

Phase 1 consisted of a systematic review of programme documentation, complemented by structured qualitative inputs from programme staff. Phase 2 included a comparative case-study analysis of programmes selected based on the Phase 1 findings. Insights from the qualitative case studies were subsequently used to triangulate and refine relevant cross-sectional findings from Phase 1, enabling an integrated synthesis of quantitative and qualitative findings.

The portfolio review covers 65 grants with an explicit school feeding component, financed by ECW and GPE between 2018 and 2024, and implemented across 31 low- and middle-income countries affected by conflict, climate shocks, pandemics, or multidimensional crises (see Figure 1). A full list of countries and implementing organisations is included in Appendix 1. Because different aspects of the analysis require different combinations of data that might not be available for the entire sample of programmes, the effective sample varies across sections.² Appendix 2 provides a summary of the main analytical subsamples.

² Values are taken from grant documents and partner templates. Where they conflict, we use programme documents. For a small number of grants, sources disagree and could not be reconciled; we use the values reported by partners.

FIGURE 1. Map of countries of implementation



Data sources, extraction and harmonization

The primary data source consists of administrative and programme documents, including grant applications, progress and completion reports, monitoring reports, and where available, financial annexes and evaluation summaries. Grants were included if they met three criteria: first, they were implemented in an emergency or protracted crisis context; second, they were approved or implemented between 2018 and 2024; and third, they included school feeding activities such as on-site meals, snacks, or take-home rations.

An initial list of 74 grants was identified in collaboration with ECW and GPE staff. Of these, 65 grants were confirmed to include school feeding activities and included in our sample (the other 9 had no school feeding activities in the documents provided). Document availability varied across grants and implementing partners. Where key information (e.g., beneficiary numbers, feeding duration, or cost allocations) was missing or ambiguous, follow-up requests were channelled through grant holders to country-level implementers. Information from programme documents was systematically extracted into a structured database using a predefined coding template. Data were harmonised across grants into thematic modules covering:

- emergency context and type;
- school feeding modality and delivery mechanisms;
- targeted and actual beneficiaries;³
- duration and timing of feeding activities;

³ Available data do not systematically disaggregate beneficiaries by displacement status (e.g., host community, international refugee, or internally displaced), limiting the ability to assess whether costs and programme effectiveness differ across these population groups.

- types of complementary interventions; and
- budgeted costs attributable to school feeding.⁴

This modular structure enabled standardised comparisons across heterogeneous programme designs and reporting formats.

Computation of annualised cost per child

The principal quantitative indicator of interest is the annualised cost per targeted child.

This metric is designed to facilitate comparison across programmes that differ in scale, duration, and emergency context.

For each grant with available cost and beneficiary data, the annualised cost per child was calculated as:

$$\text{Annualised cost per child} = \frac{\text{Budgeted school feeding allocation}}{\text{Target number of children}} \times \frac{9}{\text{Months of schooling}}$$

where the final adjustment standardises costs to a nine-month school year, reflecting a typical academic calendar.

The following practical details and caveats are worth noting. First, budgeted rather than actual expenditure is used as the numerator since realised spending is rarely reported in programme documentation. Second, beneficiary counts are based primarily on targeted numbers, although actual beneficiary figures are used, where reported, for supplementary analysis. Third, when the duration of school feeding differed from the overall programme duration, the school meals timeframe explicitly stated in programme documents was used to calculate per-child costs. These choices mean that the estimates should be interpreted as budgeted annualised costs per targeted child, not observed expenditure per child served. Sensitivity to alternative assumptions, such as a different school meal duration or the use of actual beneficiary numbers, is explored in supplementary analysis.

Comparative case studies

Findings from the systematic desk review in Phase 1 are used to identify a shortlist of programmes for comparative case studies in Phase 2. Selection is guided by “influential outlier” criteria along three dimensions:

1. the cost–scale relationship,
2. evidence of scaling up or down during implementation, and
3. variation in feeding modality during implementation.

⁴ There is little information in the programme documents on whether there is any domestic government or philanthropic co-financing of school feeding in the interventions.

The primary data source for the case studies is key informant interviews (KIIs) conducted with in-country focal points in implementing organisations, including relevant sub-grantees, who were directly responsible for programme design and implementation. Interviews followed a structured guide covering a range of thematic areas such as intervention selection and targeting, modality choice, costing and financial planning, procurement and supply-chain management, operational adaptations during implementation, monitoring and accountability mechanisms, and sustainability or transition planning.

Evidence from the case studies is used to enrich interpretation of the descriptive patterns observed in Phase 1 and, where appropriate, to refine selected cross-sectional findings. The objective of the case studies is to provide additional analytical insights rather than to facilitate causal inference, with an emphasis on understanding operational mechanisms that may help explain observed variation in costs and scalability across emergency contexts.

IV. Descriptive overview of emergency school meal programmes

This section presents a general overview of the education-in-emergencies programmes covered in the desk review. The objective is to document patterns in programme coverage, implementation modalities, and operating contexts, and to identify salient sources of variation that inform the selection of exemplar programmes for comparative case studies.

Grant portfolio and implementing partners

The analytical sample comprises 65 grants with school feeding components: 32 funded by ECW and 33 by GPE. We have budget data of variable comprehensiveness for 42 grants, representing approximately USD 582 million in total programme funding. Data on specific allocations for school feeding activities are available for 38 of those grants, totalling USD 133.3 million. The average allocation for school meals is USD 3.2 million, while the median is USD 1.5 million.

ECW-funded and GPE-funded grants were implemented through partnerships with a range of organisations, most commonly UNICEF, WFP, Save the Children, and UNHCR. The World Bank and AFD feature as grant agents that channel and supervise funds. Case-study interviews highlighted that, in several grants, the school meals components were delivered through sub-granting arrangements with organisations such as WFP. These delivery modalities were not always clearly captured in existing programme documentation or reporting data. Documentation coverage varies across grants and partners, particularly for ECW-funded programmes, which has implications for the availability of detailed cost and operational data.

Emergency contexts and complementary interventions

Among grants that report contextual information (i.e., 44 grants), the types of emergencies span armed conflict, drought, flooding, disease outbreaks, and multidimensional crises. Approximately one-third of grants were created in response to COVID-19–related disruptions, predominantly in sub-Saharan Africa and managed by UNICEF, the World Bank, or AFD as grantees or grant agents. A fifth of the grants support emergencies induced by continuing armed conflicts such as programmes in Cameroon, Ethiopia, and Burkina Faso. Another one-third of the grants are set in the context of multidimensional crises such as the UNICEF-implemented grant in the Democratic Republic of the Congo that aims to support communities facing “recurrent armed conflicts, serious food insecurity, nutritional crises, population displacements, natural disasters and epidemics [such as Ebola]” (UNICEF 2020).

Most programmes are designed to be multi-sectoral, reflecting the complex needs associated with emergencies. In addition to school feeding, common complementary components include distance learning during school closures, hygiene and WASH interventions, teacher training, and school infrastructure support. While these complementarities might complicate attribution, they are integral to understanding the operational context in which school feeding is delivered.

School meal modalities and delivery arrangements

Information on the specific school feeding modality is available for 42 grants. The dominant modality is on-site school meals, implemented in 37 grants, typically involving one hot meal per school day. A small number of programmes provided two meals per day or combined a hot meal with a snack. Two grants (both in Ethiopia) used only high-energy biscuits, while take-home rations appeared in a minority of cases, typically as temporary substitutes during COVID-related school closures. The near-uniformity of delivery modality appears to be driven by institutional path-dependence, national policy defaults, community expectations, and nutrition considerations, rather than strong comparative evidence of what works best. But that also means the lack of actual diversity in modalities limits the evidence base and benchmarking of alternative modalities (high-energy biscuits, dry rations, cash, or vouchers) against hot meals on cost, coverage, or outcomes.

Where take-home rations or home-delivered meals were used, it was almost always as an adaptation mechanism rather than a planned alternative to hot meals. Such adaptations took place in a range of cases including Niger, Côte d’Ivoire, Venezuela, and the Gambia. These alternatives avoided the recurring costs of on-site preparation (kitchens, cooks, fuel, clean water, and daily logistics) and relied on infrastructure and social structures that remained largely intact through the pandemic. As such, they might be difficult to replicate in certain conflict and multidimensional crisis situations, where displacement, insecurity, damaged infrastructure, and collapsed local markets make routine handoffs to households and reliable local procurement much harder to sustain.

Evidence on programme outputs and outcomes

Reporting on outcomes beyond basic outputs is limited. Only two grants provide evaluation evidence that goes beyond descriptive reporting, and neither includes a control group or counterfactual.

Available evidence suggests improvements in attendance and learning outcomes in some contexts, but the data are insufficient to draw general conclusions regarding effectiveness.

Given these limitations, outcome evidence is not analysed across the larger set of programmes covered in the systematic desk review. Instead, the observed gaps in outcome measurement and the heterogeneity in monitoring practices directly informed the focus of the case studies, which explore implementation processes, decision-making, and operational constraints in greater depth through KIIs.

V. Budget trade-offs in emergency education interventions involving school meals

The preceding section documented that school feeding in this portfolio was not delivered as a stand-alone intervention because it was embedded in broader education-in-emergencies packages that included learning materials, teacher training, WASH infrastructure, psychosocial support, and school rehabilitation. Its financial share within those packages is often disproportionately large relative to the number of children it reaches. This section quantifies that asymmetry and its potential implications for how grant budgets translate into coverage of other education interventions.

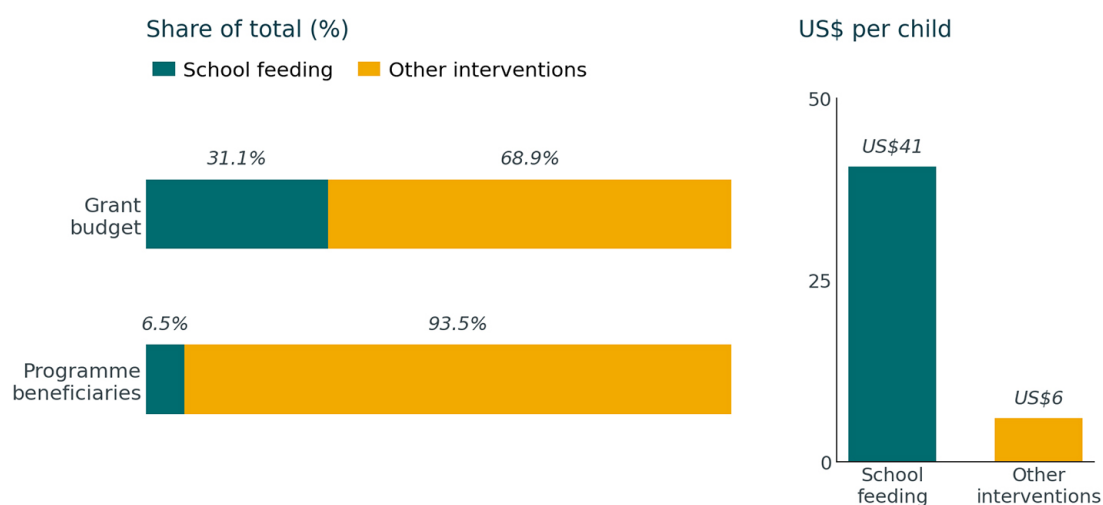
Across the 42 grants that report beneficiary targets, programmes in the portfolio collectively aimed to reach approximately 3.7 million children, with a median target of around 30,000 beneficiaries per grant. Where gender-disaggregated data are available, girls typically account for at least half of intended beneficiaries. In a few programmes, the school meals component covers all children targeted for other education interventions. In a large majority of programmes, school meals coverage is partial, ranging between 0.5 percent and 70 percent of total programme beneficiaries. This pattern suggests that school feeding is subject to additional targeting criteria on top of the basic eligibility rules used for the rest of the response, and that within the grant envelope it tends to be a more narrowly targeted intervention than, for example, infrastructure rehabilitation or system-wide learning support. Where both targeted and actual beneficiary numbers are reported, most programmes appear to have met or exceeded their initial targets, but reporting on actual coverage is inconsistent.

To analyse the budgetary trade-offs involved in EiE portfolios that include school meals, we focus on the grants for which the following four values are observed: total grant budget, total programme beneficiaries, school feeding budget, and school feeding beneficiaries. Nineteen grants meet these criteria, after excluding one case in which reported targets exceed total beneficiaries and two grants in which school feeding accounts for the entire grant budget. Five of the nineteen are grants in which school feeding reaches every reported beneficiary while the budget also funds non-feeding components; in the remaining fourteen, meals reach a subset of beneficiaries. In the nineteen-grant sample, school feeding accounts for 31.1 percent of the aggregate grant budget and 6.5 percent of aggregate programme beneficiaries. The budget-intensity ratio, which is the share of the budget allocated to school feeding divided by the share of beneficiaries it reaches, is therefore 4.8. The implied aggregate per-child allocation is USD 41 for school feeding, compared with USD 6 for non-feeding components (USD 5.58 in the fourteen grants where meals reach a subset of beneficiaries; USD 6.28 across all nineteen).

Because inclusion in the sample used for the trade-off analysis is determined by data availability, we test whether the nineteen grants differ systematically from the rest of the portfolio and whether our results might have been driven by selection. Across observable characteristics, including school feeding budget, target beneficiaries, total grant size, per-child cost, feeding duration, start year, the school feeding share of the grant budget, funder, and modality, the sample is statistically indistinguishable from the remaining grants (Appendix 3 reports the comparison). The exception is that COVID-era disease-outbreak grants are under-represented in the 19-grant sample, reflecting weaker reporting of total beneficiary numbers in COVID accelerated-funding grants. However, when we exclude COVID-related grants from both groups, the two sets of grants are even more statistically balanced.

The budget and beneficiary shares we report can be aggregated in two ways. A programme-level view averages each grant's own school feeding share of budget and beneficiaries, treating each programme as an equally weighted observation and describing the design of a typical grant. A portfolio-level view divides the sum of school feeding budgets by the sum of total grant budgets, and the sum of school feeding targets by the sum of total beneficiaries, weighting each grant by its actual financial and demographic footprint. We adopt a portfolio-level perspective because the research question fundamentally concerns opportunity costs within a finite EiE funding envelope, specifically how funders trade off spending and beneficiary reach across the portfolio of grants they allocate. A programme-level average, by contrast, would describe allocation choices at the grant level while obscuring the portfolio implications that motivate the analysis.

FIGURE 2. Budget–beneficiary trade-off and per-child allocations for school feeding within mixed EiE grants (n = 19)



Notes: Left panel shows aggregate shares for the nineteen grants with complete budget and beneficiary data. Right panel shows aggregate budgeted per-target-child allocations computed by dividing the relevant budget component by the relevant beneficiary count. Other-intervention beneficiaries are calculated as total beneficiaries minus school-feeding beneficiaries; five grants in which school feeding reaches all reported beneficiaries contribute budget but no beneficiaries to the non-feeding aggregate. The non-feeding per-child allocation shown (USD 6) is rounded from the value for the fourteen grants in which school feeding reaches only a subset of beneficiaries (USD 5.58); across all nineteen grants the corresponding figure is USD 6.28.

Assuming that a grant-maker is deciding how to allocate funding across different types of interventions within a portfolio, at the observed per-child allocations, every USD 1 million shifted from non-feeding interventions to school feeding would finance meals for roughly 24,000 children while potentially displacing non-feeding support for around 167,000 children. While this does not imply that the interventions are equivalent or interchangeable, it does suggest that the coverage trade-off is large enough to warrant explicit consideration during grant preparation.

It is worth emphasizing that this arithmetic should not be taken as evidence that school feeding is not worth the investment, nor does it support conclusions about relative effectiveness. The non-feeding remainder of each grant is a heterogeneous mix of interventions, including learning materials, teacher training, WASH infrastructure, psychosocial support, and system-level activities, and reported beneficiary counts do not capture the value of the benefit each child receives. A school meal addresses an essential human need in a way that a textbook cannot, and the attendance effects of feeding may amplify the impact of other educational inputs that might otherwise go unused by

absent or hungry children. What the analysis in this section establishes is that school feeding is typically one of the most resource-intensive components of the grants in which it is embedded. Within a fixed funding envelope, every dollar allocated to feeding may therefore entail a substantial reduction in the scale of other interventions that could potentially achieve similar objectives at a lower cost. In a funding environment where humanitarian organisations are being forced to cut their education requests by a third, this trade-off should be made explicit in grant design.

VI. Analysis of cost patterns and programme scale

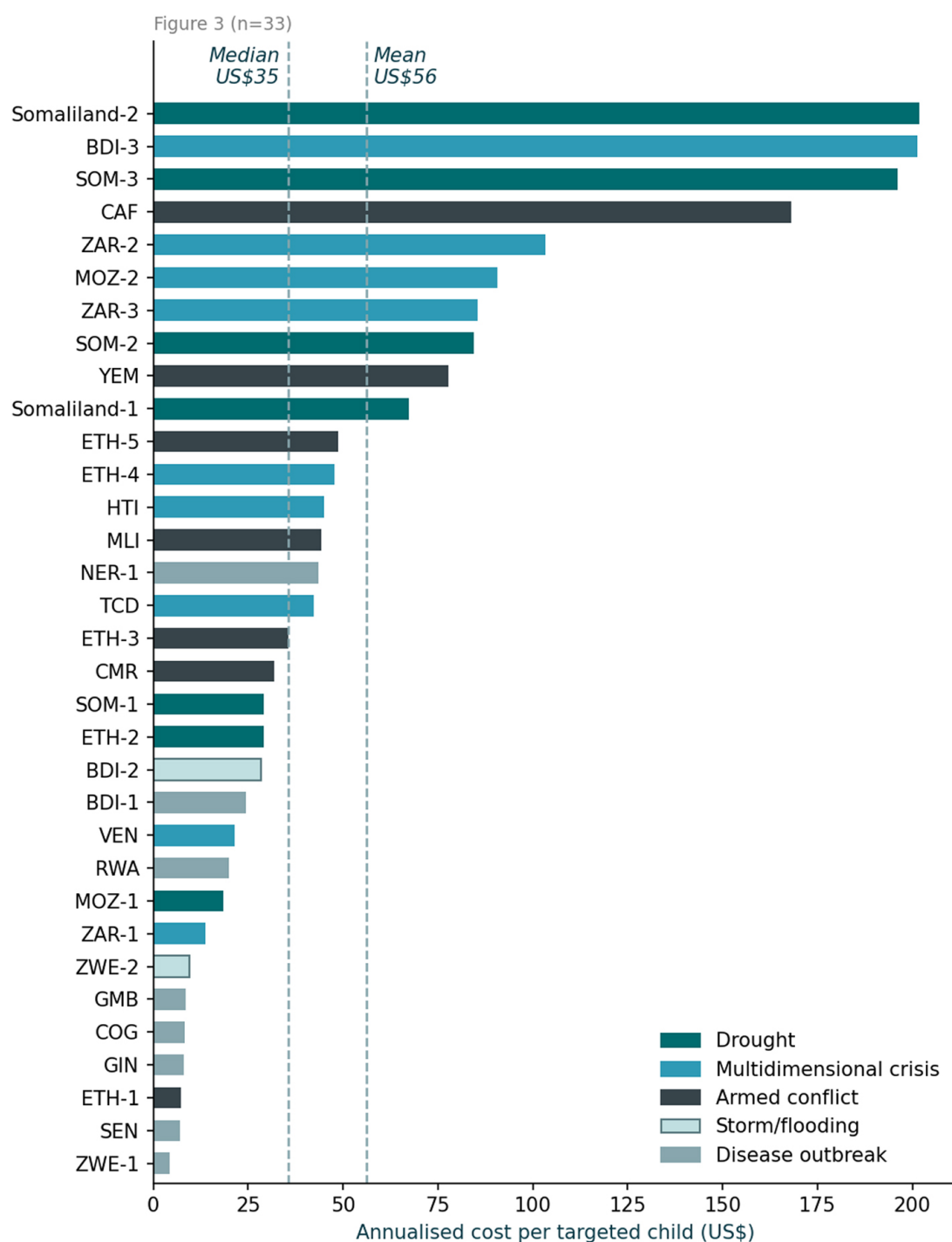
This section presents descriptive evidence on the cost and scale characteristics of school meal components embedded within education-in-emergencies programmes, based on the systematic desk review. The analysis documents variation in annualised cost per child, examines its association with programme scale and emergency context, and highlights patterns that motivated the selection of exemplar programmes for the comparative case studies. The results are descriptive and do not imply causal relationships or estimates of cost-effectiveness relative to alternative interventions.

Variation in per-child costs across emergency contexts

Sufficient data to compute annualised cost per targeted child (standardised to a nine-month school year) are available for 33 of the 65 grants. Across these programmes, costs range from USD 4.28⁵ to USD 201.2 per child, with a mean of USD 56 and a median of USD 35.5, indicating substantial heterogeneity in implementation environments and operating conditions. For donors, this range underscores that per-child cost benchmarks derived from stable-context school feeding programmes are unlikely to be reliable guides for budgeting in emergencies. Figure 3 illustrates the distribution of these costs. These costs are calculated using budgeted allocations and the target number of children to be reached by school feeding. As a result, realised costs and actual beneficiary numbers may differ from these estimates. We nonetheless use cost per targeted child as the primary cost indicator, as target data are available for 43 percent more programmes than actual coverage data. For the subset of programmes with both target and actual data, we later compare budgeted cost per targeted child with budgeted cost per actual child to assess differences arising during implementation.

5 This corresponds to grant ZWE-1 (UNICEF Zimbabwe COVID-19 grant), for which the school-feeding budget reported equals the full grant, so its per-child cost (USD 4.28) may include non-feeding spending and should be read as an upper bound.

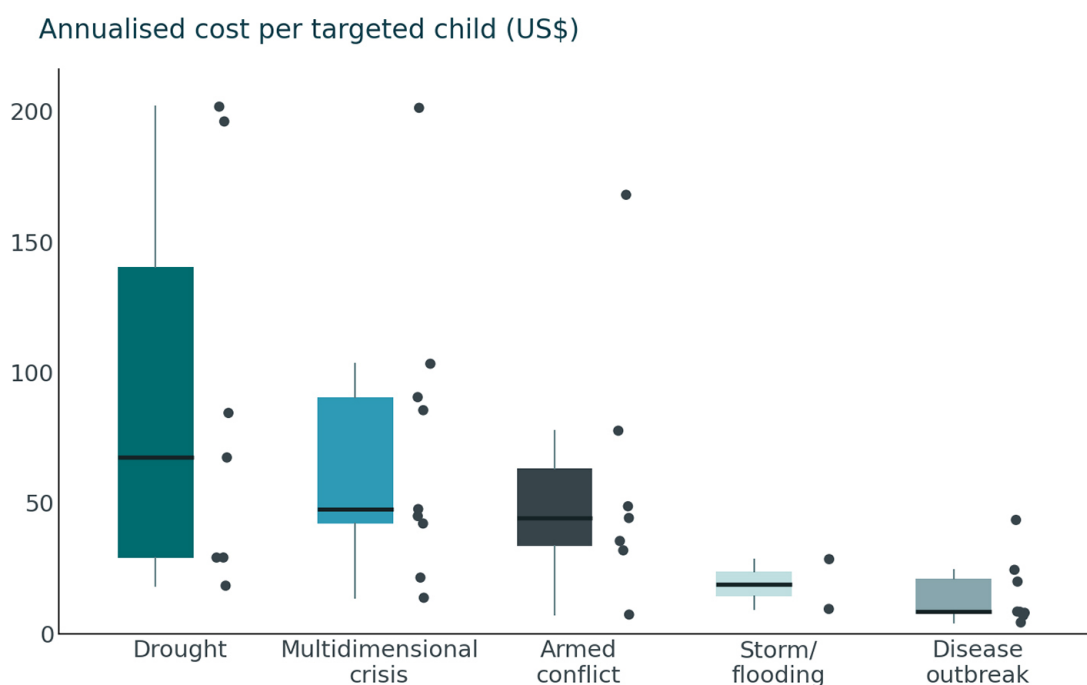
FIGURE 3. Distribution of annualised cost of school feeding per targeted child in USD (n = 33)



Notes: Programme codes represent the three-letter country code and a serial number where there is more than one grant for the country. Dashed lines indicate the mean and median of the distribution.

Emergency type is one visible source of variation in per-child costs. As shown in Figure 3, the lower end of the cost distribution is dominated by interventions responding to disease outbreaks, whereas the upper end is largely composed of interventions implemented in multidimensional crisis and drought settings. Figure 4 displays the cost distribution by emergency type.

FIGURE 4. Summary of annualised cost per targeted child, by type of emergency



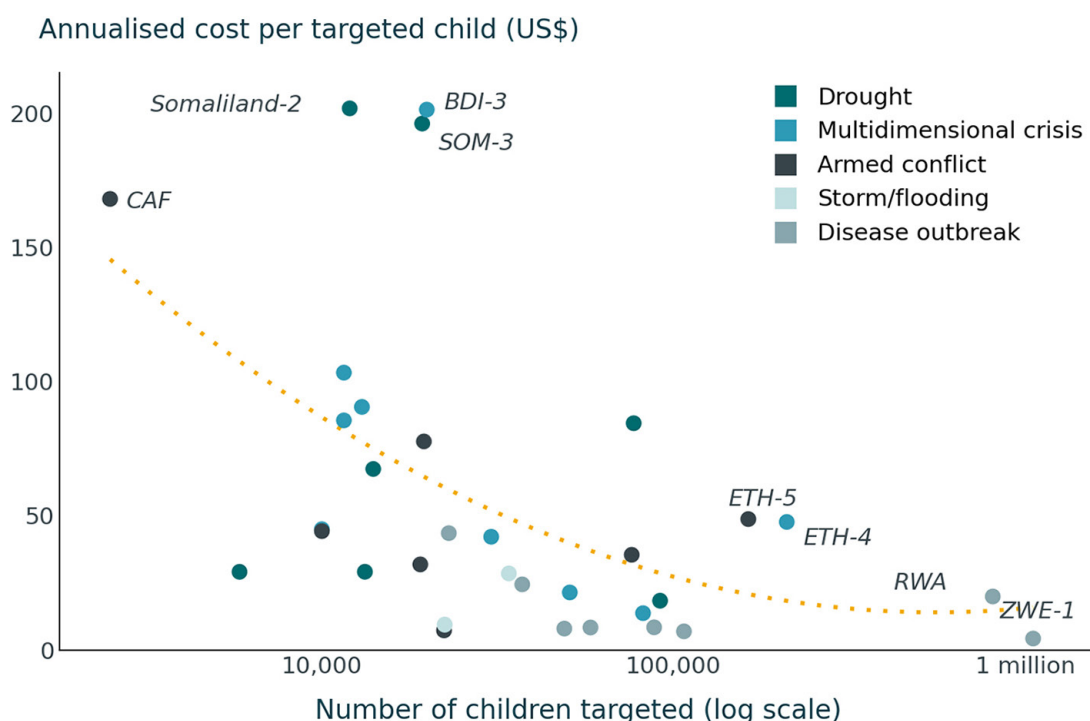
Drought-related interventions incur the highest average cost per child (USD 89.5), which is consistent with the likelihood that drought conditions raise food prices in domestic markets or necessitate reliance on international food imports. At the other end of the cost spectrum, programmes responding to disease outbreaks are the least expensive, with an average cost of USD 15.5 per child. Most interventions in this category were intended to mitigate the effects of the COVID-19 pandemic on education. The comparatively low average cost likely reflects the fact that these programmes were implemented in contexts that, while affected by school closures and service disruptions, generally did not experience the same degree of food supply shocks or logistical constraints observed in other types of emergencies.

Another potential source of exogenous variation in cost is the impact of the international food price increase caused by the Ukraine war. Of the grants analysed, only six with cost and beneficiary data were initiated after the war began, compared with 27 grants started beforehand. The average cost of school feeding per child is higher for interventions launched after 2022 (USD 77.0) than for those initiated earlier (USD 51.5). However, this difference is not statistically significant ($p = 0.34$), primarily due to substantial cost variation within both time periods.

Programme scale, cost efficiency, and implementation dynamics

Given that most emergency school feeding interventions are relatively small, a key policy question is whether programmes can reach sufficient scale to lower planned unit costs. Figure 5 shows the relationship between annualised cost per targeted child and the number of children targeted by each programme. The downward-sloping fitted line is consistent with lower per-child costs in larger programmes, but this cross-sectional pattern should not be interpreted causally. The two largest programmes in the sample—a UNICEF programme in Zimbabwe targeting 1,051,985 children and a World Bank–managed programme in Rwanda targeting 807,694 children—also operated through relatively established platforms, which may partly explain their lower unit costs.

FIGURE 5. Cost and scale by type of emergency



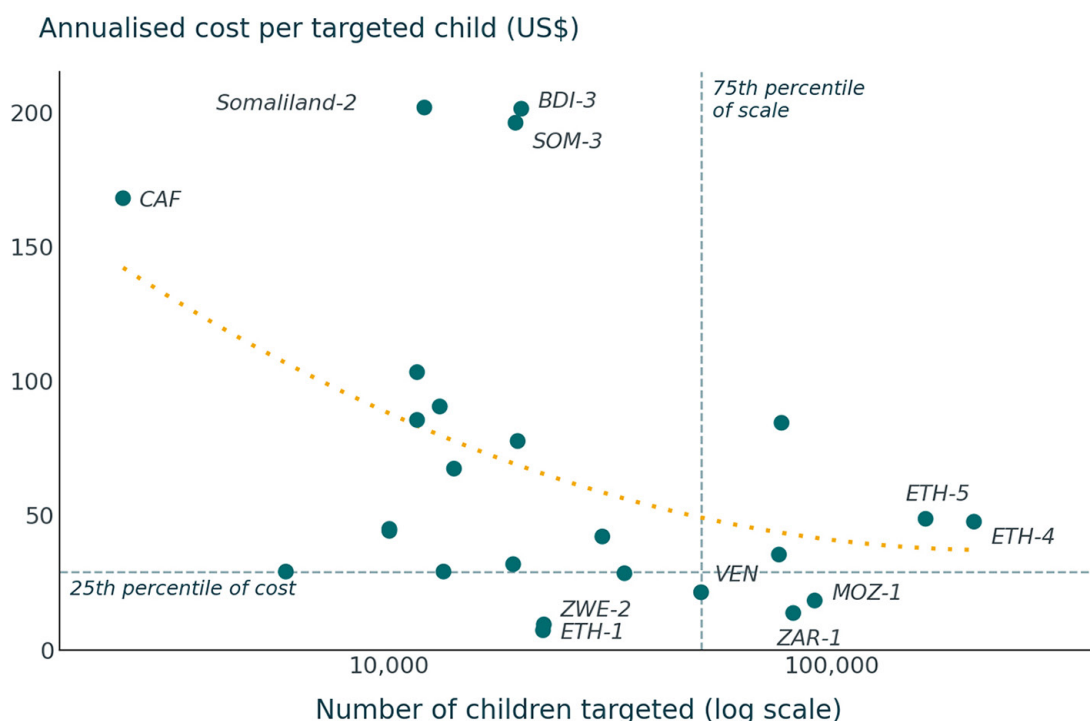
Notes: This figure includes data from 33 grants with available school feeding budgets and target beneficiary numbers. The horizontal axis (number of children) is on a log scale; labels show actual numbers of children. Per-child cost is in USD.

Of the 33 programmes with cost and beneficiary data, 19 report information on school feeding modality. Among these, 18 interventions provided on-site hot meals, while one programme in Ethiopia offered high-energy biscuits; one additional high-energy-biscuit programme was identified during the case-study phase. This indicates that much of the variation in per-child cost and scale observed in Figure 5 occurs among programmes using similar feeding modalities, suggesting that factors beyond broad modality choice, such as food type, operating context, procurement arrangements, implementation constraints, or delivery platforms, are likely to play an important role in driving cost differences. The lower unit costs observed in larger programmes

(e.g., Zimbabwe, Rwanda) may reflect not only scale in procurement but also other contributing factors such as the use of established national delivery platforms, lower transport costs per unit in more accessible settings, and more stable operating environments.

As discussed above, emergency context may also influence the scalability of school feeding interventions. Figure 5 disaggregates the cost-scale relationship by type of emergency. Programmes responding to disease outbreaks appear more readily scalable since all such grants lie on or below the fitted trend line. In contrast, the two largest non-disease-outbreak programmes in the sample, both implemented by Save the Children in Ethiopia and targeting 209,700 and 163,021 children, lie above the fitted line, indicating higher per-child costs relative to their scale.

FIGURE 6. Cost and scale for grants excluding disease-outbreak emergencies

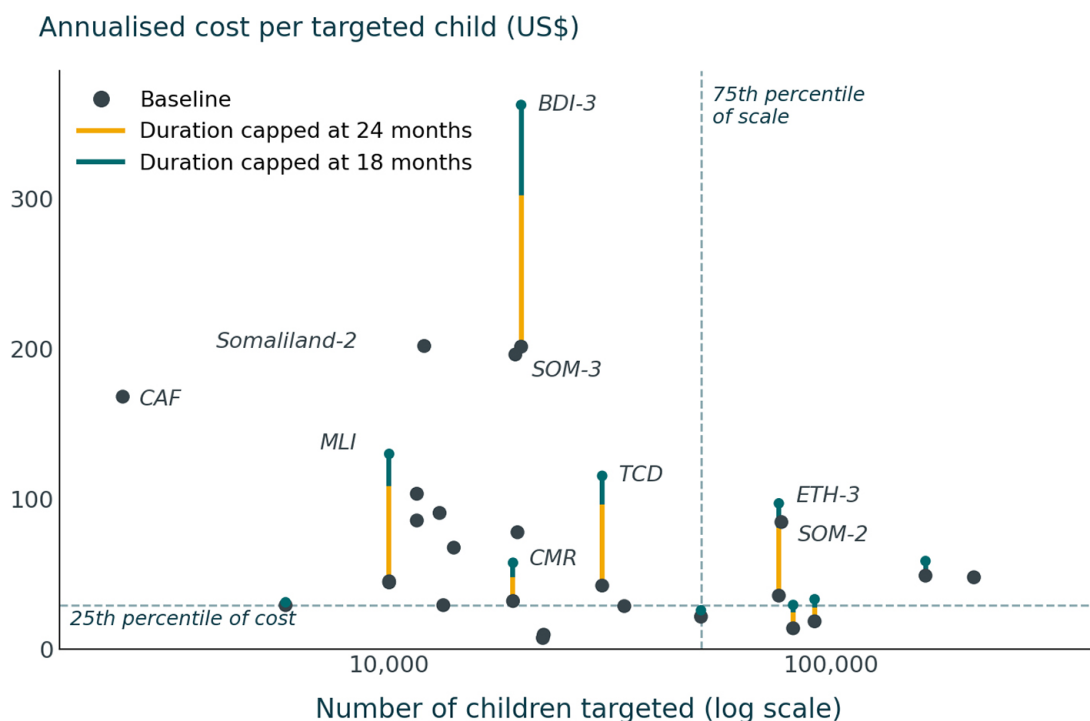


Notes: This figure includes data from 25 grants with available school feeding budgets and target beneficiary numbers, excluding COVID-era grants that were implemented during disease outbreaks. The horizontal axis (number of children) is on a log scale; labels show actual numbers of children. Per-child cost is given in USD.

Because most disease-outbreak programmes are linked to the COVID-19 pandemic, which is not a typical context for emergency education provision, the analysis is repeated excluding grants associated with disease outbreaks. As shown in Figure 6, per-child costs tend to decline with scale even when COVID-era grants are excluded. However, the fitted relationship is noticeably flatter, suggesting more limited scope for economies of scale in complex emergencies such as armed conflict and multidimensional crisis settings.

One challenge in calculating per-child costs of school feeding in these settings, where school meals are typically a subcomponent of broader education-in-emergencies programmes, is determining the actual duration of the school feeding intervention. For a small number of grants in our dataset, programme documents explicitly state that the duration of school feeding is shorter than the overall grant period. For most programmes, however, there is no such information, requiring the assumption that school feeding lasted for the full duration of the grant. This assumption is unlikely to hold for multi-year programmes, where school feeding often functions as a temporary, stopgap intervention during the acute phase of a crisis rather than throughout the full implementation period.⁶

FIGURE 7. Cost and scale of school feeding programmes under alternative duration assumptions



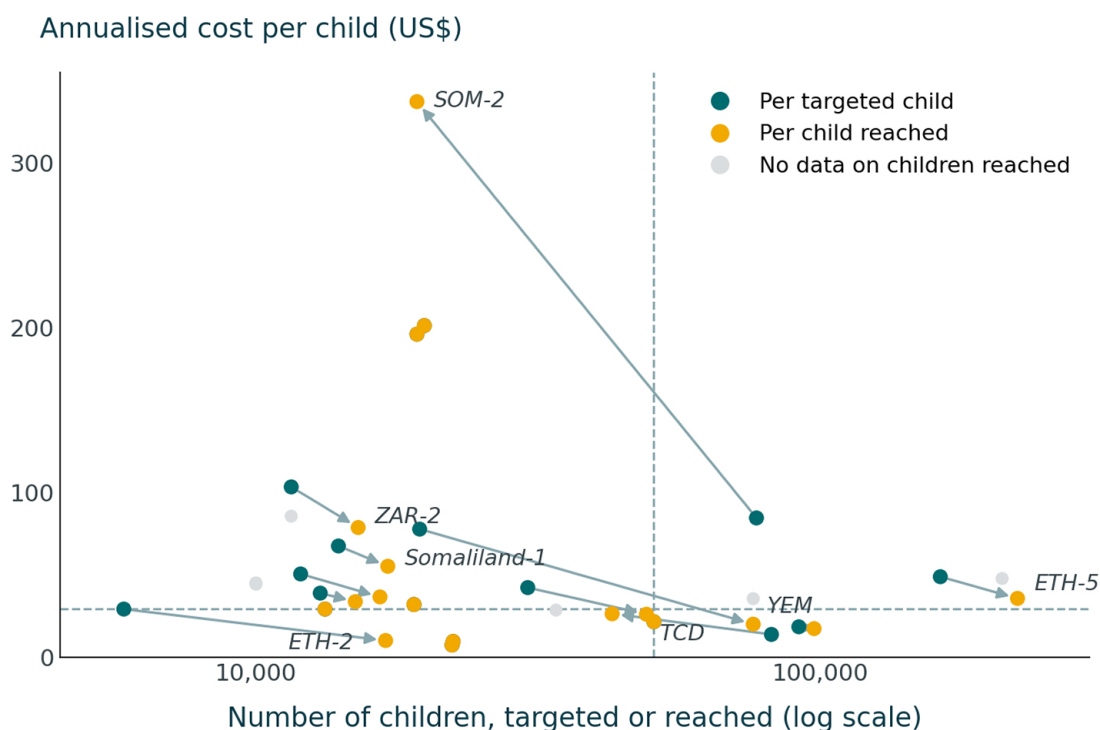
Notes: This figure includes data from 25 grants with available school feeding budgets and target beneficiary numbers, excluding COVID-era grants implemented during disease outbreaks. The horizontal axis (number of children) is on a log scale; labels show actual numbers of children. Per-child cost is given in USD.

To assess the sensitivity of the cost estimates to potential measurement error arising from this assumption, we conduct a sensitivity analysis for multi-year programmes for which only grant-level duration data are available. Figure 7 illustrates how estimated cost per child would change under alternative assumptions about feeding duration. Although cost estimates for some programmes vary depending on the assumption used, there is no evidence that uncertainty around feeding duration systematically changes the overall pattern of cost variation. Nearly all programmes classified

⁶ This has become apparent at the case study stage when we obtained more information from key informants that was not available during Phase 1 desk review.

as relatively cost-efficient using the 25th-percentile threshold remain within the same range after the sensitivity checks. This suggests that uncertainty around the duration of school feeding in multi-year programmes affects individual estimates but does not materially alter the main descriptive patterns documented in this section.

FIGURE 8. Scale and cost dynamics over the course of implementation (programmes excluding COVID grants)



Notes: The horizontal axis (number of children) is on a log scale; labels show actual numbers of children. Per-child cost is given in USD.

Finally, for a subset of programmes, documentation reports both targeted and actual beneficiary numbers, allowing comparison between budgeted cost per targeted child and budgeted cost per actual child. While this comparison is constrained by the absence of data on actual expenditures, it provides indicative evidence on scale adjustments during implementation. Importantly, because actual spending on school feeding rarely exceeds budgeted allocations, the resulting cost per actual child should be interpreted as an upper-bound estimate of the true unit cost. Figure 8 shows that some programmes expanded or reduced coverage relative to initial targets. Of the 18 programmes, nine reached more children than targeted, two reached fewer and seven reached the number targeted, so overall, the median and modal difference between the two cost measures is zero. Expansions are therefore more common than contractions, and several programmes achieved substantial scale-up during implementation (like in Yemen, Chad, Ethiopia), resulting in marked reductions in per-child costs. The two contractions (Somalia and the Democratic Republic of the Congo) were larger than expansions.

VII. Case studies: design and operational features of selected programmes

This section synthesises evidence from selected country case studies to illustrate how school feeding in emergencies is designed and implemented in practice, particularly the operational choices, constraints, and adaptations made to deliver these programmes. The quantitative analysis in previous sections suggests systematic variation in cost and scalability across different emergency settings that cannot be explained by broad feeding modality categories alone. The case studies explore underlying mechanisms, such as procurement systems, market functioning, multidimensionality of crises, institutional delivery platforms, and implementation timing, to interpret the observed patterns and to draw lessons for programme design in future emergencies. Key informant interviews were conducted with representatives from implementing partner agencies who had been involved in designing and/or running the programmes.

Selection of case studies

The case studies were selected to reveal which programme design or implementation characteristics may have influenced the scale and cost of emergency school feeding programmes. Guided by the quantitative analysis presented above, cases were selected using an “influential outlier” approach. The focus was on identifying programmes that deviated from typical cost-scale patterns and therefore offer opportunities to understand operational drivers that might result in (i) low cost per child with relatively high numbers of beneficiaries, or (ii) lower cost per child due to scaling up during implementation, i.e., reaching more children than initially targeted. The selection strategy prioritised programmes that offered analytical insight into cost-scale dynamics rather than selecting cases based on perceived success or failure.

We applied the above selection criteria to select nine programmes spanning multiple emergency types, implementation modalities, and cost-scale profiles. Table 1 provides an overview of the programmes included in the case studies.

TABLE 1. Programmes selected for the case studies

Country	Grantee Organization	Type of Emergency
DRC	UNICEF	Multidimensional crisis
Ethiopia (2 programmes)	UNICEF	Drought & Armed conflict
Ethiopia (2 programmes)	Save the Children	Multidimensional crisis & Armed conflict
Haiti	UNICEF/WFP	Multidimensional crisis
Mozambique	UNICEF/WFP	Drought & Cyclone
Venezuela	UNICEF	Multidimensional crisis
Zimbabwe	Save the Children	Flooding

Cross-cutting findings from the case studies

Programme design and objectives. The review of programme narratives and interviews with staff confirmed that school meal interventions are included in emergency education programmes primarily to encourage school participation. In nearly all cases, programme objectives and monitored outcomes focused on school participation rather than nutrition. Implementers consistently described school feeding as a way to bring children back to school and reduce dropout where households had lost livelihoods or where insecurity and displacement had disrupted schooling. Nutrition outcomes were rarely prioritised in monitoring frameworks or measured systematically for reporting.

Targeting. Programmes often target all schools in selected geographic areas since most shocks tend to cause widespread vulnerabilities within large catchment areas. A plurality of programmes in our case studies were designed to provide universal coverage within selected schools as there is usually little basis, either ethical or economic, for subjecting the provision of school meals to any type of means testing. Where resources were insufficient to cover all children, programmes tended to prioritise younger grades or rely on pre-existing vulnerability lists maintained by schools and social programmes. Several key informants also noted that narrow targeting could result in geographic spillover effects whereby children migrate from non-beneficiary to beneficiary schools offering meals. This could ultimately undermine the targeting rationale and distort enrolment patterns. The challenge is that the minimum scale required to avoid spillovers may exceed what available budgets can cover, particularly in the current funding environment.

Modalities. The choice of modalities is often dictated by institutional defaults and path-dependence instead of cost-effectiveness evidence. It appears that implementers and host governments default to cooked meals because existing capabilities and previous delivery experiences are skewed towards on-site preparation. Nutrition considerations might reinforce this default because hot meals are typically more nutritious than biscuits or snacks, which may be important particularly in protracted crises where children face sustained dietary deficits.

Procurement systems. The efficiency of procurement systems was found to be important for the cost and scalability of emergency school meal interventions, particularly because the bulk of the programme cost is attributed to the cost of commodities. In cases where procurement was centralised through agencies such as WFP or large INGOs and linked to established supply chains, implementers could buy staples in bulk and standardise rations while distributing commodities on a predictable schedule. In Ethiopia, for example, biscuits were centrally procured and delivered on a quarterly cycle. In Mozambique and Haiti, the procurement and distribution of a standard dry basket by WFP enabled expansion across multiple provinces despite cyclone damage and insecurity.

In contrast, programmes based on local sourcing could be harder to sustain in acute emergencies. This is largely because crisis-affected areas often lack sufficient local supply at stable prices.

Additionally, farmer groups and cooperatives in many of the areas might not be able to comply with some of the procurement conditions set by implementing organisations. It was also observed that sudden price spikes could force programmes to shift to central purchasing, which makes local procurement models unstable.

Community contributions. Emergency school feeding programmes usually involve a significant element of community participation, particularly in the delivery of meals at school level. In many cases, parents and school committees contribute labour and complementary inputs (cooking fuel, vegetables or other ingredients). This means a portion of the total economic costs of the programmes is off-budget. Zimbabwe's "bring and share" model, for example, relied on parents to provide vegetables and labour while the programme supplied staples (grain, oil and salt). In principle, community contributions can offer some benefits beyond cost reduction, including local ownership and accountability mechanisms that externally managed programmes might lack. But there is also a risk that a disproportionately high share of the burden might fall on vulnerable parents.

VIII. Conclusions, key takeaways, and policy lessons

This paper examined the patterns in the cost, scale, governance and delivery of school meal interventions embedded in emergency education responses. The evidence shows that school feeding is valued by frontline organisations to help sustain school attendance and protect children during crises, but it is also one of the most resource-intensive components in integrated EiE grants. The relevant policy question is therefore when, for whom, and through which delivery arrangements school meals can be justified within constrained education budgets in humanitarian settings.

Two caveats are important when interpreting the findings. First, all cost figures are planned (budgeted) costs rather than realised expenditures. Second, the paper does not assess whether school feeding is cost-effective relative to other interventions included in the budget trade-off analysis. In other words, our findings on cost and coverage are necessary but not sufficient inputs for judging comparative cost-effectiveness, which requires outcome data that current programme reports do not provide with sufficient consistency.

The following are the policy lessons synthesised from the key takeaways.

1. **Make budget–coverage trade-offs explicit**

Across the nineteen grants with complete budget and beneficiary data, school feeding accounted for about 31 percent of aggregate budgets while serving about 7 percent of aggregate beneficiaries. Grant proposals should therefore show how allocations to school feeding may affect the coverage and intensity of other education inputs, including learning materials, teacher support, WASH, psychosocial support, and school rehabilitation. It was also shown that narrow targeting can create spillovers as children move from non-feeding

to feeding schools. However, the geographic saturation needed to avoid the spillover may exceed available budgets. Therefore, the appraisal process should also treat this trade-off explicitly.

2. **Calibrate cost expectations to context and scale**

The portfolio review revealed that budgeted annualised costs per targeted child vary widely across programmes, from USD 4 to over USD 201 per targeted child, with a median of USD 35. The average cost is higher in drought and multidimensional crises than in disease-outbreak settings. This indicates that donors and implementing organisations should use context-specific cost bands, differentiated by emergency type and delivery constraints when appraising school meal interventions. Larger programmes tend to have lower per-child costs, but this relationship might not always hold in complex emergencies. Therefore, the appraisal process should consider whether the minimum efficient scale is feasible in the specific crisis context.

3. **Match modality and procurement to crisis conditions**

The sample contains too few alternative modalities to establish relative cost-efficiency because the great majority of programmes for which we had data provided on-site meals. Given that this reflects an absence of evidence rather than evidence of absence, efforts should be made to test other modalities, such as high-energy snacks, dry rations, cash, or vouchers, in terms of their costs and effects on education continuity. Apart from modalities, the choice of procurement systems should be adaptive to cost conditions and existing capabilities. The experiences of programmes that performed well despite the inherent uncertainties of crisis settings show that contingency plans should account for changes in modality and logistical disruptions, as well as potential shifts in school enrolment patterns due to spillovers.

4. **Build on integrated delivery systems and national platforms**

Programmes that achieved relatively low per-child costs at scale often relied on established delivery platforms, including WFP and UN procurement pipelines, supplier frameworks, national targeting mechanisms, and wider social protection infrastructure. Emergency school feeding should also be planned alongside complementary EiE investments, especially WASH and school rehabilitation, so that basic enabling conditions are met. Where those conditions are absent, phased approaches may be more equitable than exclusion: for example, modalities that do not require extensive infrastructure can be used while water, storage, and cooking facilities are upgraded. Co-financing and community contributions can improve sustainability, but they should be calibrated carefully so that households facing acute deprivation are not asked to carry hidden economic costs.

5. **Improve reporting, coordination, and data systems**

The study was constrained by inconsistent cost, coverage, and outcome data across funders, grantee headquarters, country offices, and sub-grantees. Funders should require lightweight reporting on feeding duration, planned and actual beneficiaries, budgeted

and actual costs, modality, emergency context, and a basic split between food, logistics, and other costs. Monitoring should focus on outcomes that school feeding can plausibly influence in crises, especially attendance, re-enrolment, and retention, while treating nutrition as a primary outcome only where programmes explicitly target and measure it. GPE, ECW, implementing agencies, and national authorities should also coordinate more deliberately on shared data systems, targeting, procurement preparedness, standing partnerships, and anticipatory finance. As budgets tighten, school meals in emergencies will remain important, but the case for including them will be strongest when choices are explicit, evidence-informed, and matched to the operational realities of each crisis.

References

- Alderman, H., & Bundy, D. (2012). School feeding programs and development: Are we framing the question correctly? *The World Bank Research Observer*, 27(2), 204–221.
- Aurino, E., Tranchant, J.-P., Diallo, A. S., & Gelli, A. (2019). School feeding or general food distribution? Quasi-experimental evidence on the educational impacts of emergency food assistance during conflict in Mali. *Journal of Development Studies*, 55(S1), 7–28.
- Barrett, C. B., & Maxwell, D. G. (2005). *Food Aid After Fifty Years: Recasting Its Role*. London: Routledge.
- Bedasso, B., & Mendez Acosta, A. (2025). *The Cost of a School Meal: Longitudinal Evidence on Spending, Nutritional Quality, and Economies of Scale from 216 Programs*. CGD Working Paper 723. Washington, DC: Center for Global Development.
- Burde, D., Guven, O., Kelcey, J., Lahmann, H., & Al-Abbadi, K. (2015). What works to promote children's educational access, quality of learning, and wellbeing in crisis-affected contexts. *Education Rigorous Literature Review*. London: Department for International Development.
- Dago, D. J. M., & Yogo, U. T. (2022). School feeding and child labour: Evidence from a natural experiment in Liberia. *Journal of Development Effectiveness*, 14(4), 358–377.
- Earle, L., Crawford, K., & Garfias Royo, M. (2024). The unknowable cost of camps: Implications for a more sustainable refugee response. *Forced Migration Review*, 74.
- Gelli, A., Meir, U., & Espejo, F. (2007). Does provision of food in school increase girls' enrolment? Evidence from schools in sub-Saharan Africa. *Food and Nutrition Bulletin*, 28(2), 149–155.
- Gelli, A., Cavallero, A., Minervini, L., Mirabile, M., Molinas, L., & Regnault de la Mothe, M. (2011). New benchmarks for costs and cost-efficiency of school-based feeding programs in food-insecure areas. *Food and Nutrition Bulletin*, 32(4), 324–332.
- Global Education Cluster (2025). *Impact of Re-prioritization on EiE*. Geneva: Global Education Cluster.
- INEE (2020). *20 Years of INEE: Achievements and Challenges in Education in Emergencies*. New York: Inter-Agency Network for Education in Emergencies.
- Jamaluddine, Z., Sahyoun, N. R., Choufani, J., Sassine, A. J., & Ghattas, H. (2022). The effect of a school snack on dietary diversity and nutritional status among Syrian refugee children in Lebanon. *The Lancet Global Health*, 10(12), e1807–e1816.
- Mendez Acosta, A. M., & Bedasso, B. (2024). *The Effect of School Meals on Education Outcomes: A Systematic Review*. CGD Working Paper. Washington, DC: Center for Global Development.
- OECD (2026). *International Aid Fell Sharply in 2025, Says OECD*. Paris: OECD.
- Omwami, E. M., Neumann, C., & Bwibo, N. O. (2011). Effects of a school feeding intervention on school attendance rates among nursery children. *Pediatrics*, 128(4), e1013–e1017.

UNESCO (2025). *Aid to Education: Time for Tough Decisions*. Global Education Monitoring Report. Paris: UNESCO.

UNICEF (2020). *Humanitarian Action for Children 2020*. New York: United Nations Children's Fund.

WFP (2020). *A Chance for Every Schoolchild: Partnering to Scale Up School Health and Nutrition for Human Capital*. Rome: World Food Programme.

WFP (2024). *The State of School Feeding Worldwide 2024*. Rome: World Food Programme.

Appendices

APPENDIX 1. Countries and implementing organizations in the grant dataset

Grant ID	Country	Implementing Organization	Start Year	Funder
ECW01	Somalia	ADRA	2019	ECW
ECW02	Democratic Republic of Congo	AVSI	2018	ECW
ECW03	Burkina Faso	EdM	2021	ECW
ECW04	Burkina Faso	EDUCO	2022	ECW
ECW05	Burkina Faso	EDUCO	2020	ECW
ECW06	Libya	NRC	2020	ECW
ECW07	Mali	Plan	2021	ECW
ECW08	Kenya	Save the Children	2020	ECW
ECW09	Colombia	Save the Children	2020	ECW
ECW10	Ethiopia	Save the Children	2020	ECW
ECW11	Ethiopia	UNHCR	2023	ECW
ECW12	Central African Republic	UNHCR	2023	ECW
ECW13	Ethiopia	UNHCR	2020	ECW
ECW14	Ethiopia	UNICEF	2023	ECW
ECW15	Haiti	UNICEF	2022	ECW
ECW16	Cameroon	UNICEF	2022	ECW
ECW17	Burundi	UNICEF	2022	ECW
ECW18	Democratic Republic of Congo	UNICEF	2021	ECW
ECW19	Haiti	UNICEF	2021	ECW
ECW20	Ethiopia	UNICEF	2021	ECW
ECW21	Venezuela	UNICEF	2020	ECW
ECW22	Chad	UNICEF	2020	ECW
ECW23	Yemen	UNICEF	2019	ECW
ECW24	Niger	WFP	2021	ECW
ECW25	Niger	WFP	2020	ECW
ECW26	Burkina Faso	WFP	2020	ECW
ECW27	Niger	WFP	2020	ECW
ECW28	Chad	WFP	2020	ECW
ECW29	Malawi	WFP	2019	ECW
ECW30	Myanmar	Save the Children (Norway)	2023	ECW
ECW31	Somalia	Save the Children (Norway)	2019	ECW
ECW32	Sudan	Save the Children (Norway)	2022	ECW
ECW33	Venezuela	UNICEF	2019	ECW
GPE01	Somalia	Save the Children (US)	2017	GPE
GPE02	Burkina Faso	UNICEF	2020	GPE
GPE03	Burundi	UNICEF	2021	GPE

(Continued)

APPENDIX 1. (Continued)

Grant ID	Country	Implementing Organization	Start Year	Funder
GPE04	Central African Republic	UNICEF	2018	GPE
GPE05	Chad	UNESCO	2020	GPE
GPE06	Democratic Republic of Congo	UNICEF	2020	GPE
GPE07	Ethiopia	Save the Children (UK)	2020	GPE
GPE08	Ethiopia	Save the Children (UK)	2022	GPE
GPE09	Mali	World Bank	2020	GPE
GPE10	Mozambique	UNICEF	2020	GPE
GPE11	Niger	AFD/UNICEF	2020	GPE
GPE12	Somalia	Save the Children (US)	2020	GPE
GPE13	Somalia	UNICEF	2022	GPE
GPE14	Somalia	UNICEF	2022	GPE
GPE15	Somalia	Save the Children (US)	2019	GPE
GPE16	Somalia	Save the Children (US)	2022	GPE
GPE17	Sudan	Save the Children (Norway)	2023	GPE
GPE18	Zimbabwe	Save the Children (UK)	2020	GPE
GPE19	Nigeria	Save the Children (UK)	2024	GPE
GPE20	Democratic Republic of Congo	UNICEF	2020	GPE
GPE21	Côte d'Ivoire	UNICEF	2020	GPE
GPE22	Gambia	World Bank	2020	GPE
GPE23	Guyana	UNICEF	2020	GPE
GPE24	Liberia	UNICEF	2020	GPE
GPE25	Malawi	UNICEF	2020	GPE
GPE27	Somalia	UNICEF	2020	GPE
GPE28	Benin	World Bank	2020	GPE
GPE29	Burundi	UNICEF	2020	GPE
GPE30	Cambodia	UNICEF	2020	GPE
GPE31	Republic of Congo	UNICEF	2020	GPE
GPE32	Djibouti	World Bank	2020	GPE
GPE33	Guinea	UNICEF	2020	GPE
GPE34	Guinea-Bissau	UNICEF	2020	GPE
GPE35	Kenya	World Bank	2020	GPE
GPE36	Mozambique	UNICEF	2020	GPE
GPE37	Niger	AFD/UNICEF	2020	GPE
GPE38	Papua New Guinea	UNICEF	2020	GPE
GPE39	Rwanda	World Bank	2020	GPE
GPE40	Senegal	AFD	2020	GPE
GPE41	Zimbabwe	UNICEF	2020	GPE

APPENDIX 2. Sample and sub-samples

Analytical Step	Sample Size	Used For
Full grant sample	74	Portfolio description
Full school feeding grant sample	65	Portfolio description
Grants with some total budget data	42	Aggregate grant financing
Grants with school-feeding budget allocations	37	Feeding allocation analysis
Grants with beneficiary targets	42	Coverage analysis
Grants with modality/context information	42	Descriptive delivery analysis
Grants with calculable annualised cost per child	33	Cost distribution and cost-scale analysis
Non-disease-outbreak grants with cost data	25	Sensitivity analysis excluding COVID-era grants
Grants with complete budget and beneficiary data for school feeding and overall grant	19	Budget-beneficiary trade-off analysis

APPENDIX 3. Characteristics of grants in the trade-off sample vs the rest of the portfolio

Characteristic	Mean, Trade-off Sample	N	Mean, Rest of Portfolio	N	p-Value
All grants					
School-feeding budget (USD m)	3.49	19	2.89	18	0.64
School-feeding target (children)	85,871	19	88,498	23	0.97
Total grant (USD m)	11.2	19	8.8	23	0.26
Annualised cost per targeted child (USD)	53.8	19	59.2	14	0.81
School-feeding months	16.6	19	14.9	44	0.55
Start year	2020.2	19	2020.5	46	0.51
School-feeding share of grant budget (%)	28.9	19	31.4	17	0.79
Funder: GPE (share)	0.58	19	0.48	46	0.47
Take-home rations (share)	0.21	14	0.27	22	0.70
Disease-outbreak/COVID grant (share)	0.16	19	0.24	46	0.45
Excluding disease-outbreak grants					
School-feeding budget (USD m)	3.66	16	3.68	9	0.99
School-feeding target (children)	39,303	16	46,204	16	0.72
Total grant (USD m)	12.1	16	10.2	12	0.49
Annualised cost per targeted child (USD)	61.7	16	82.3	9	0.48
School-feeding months	17.8	16	15.2	34	0.44
Start year	2020.2	16	2020.6	35	0.44
School-feeding share of grant budget (%)	27.8	16	36.0	8	0.60
Funder: GPE (share)	0.50	16	0.31	35	0.23
Take-home rations (share)	0.23	13	0.23	13	1.00