Photo Credit: Derrick Taremwa for the International Rescue Committee

MULTI-SECTORAL COST-EFFICIENCY BRIEF – PlayMatters Emergency Response Mechanism Program

Ethiopia | 2022

Executive Summary

In 2022, the International Rescue Committee (IRC), Plan International, and 10 sub-granted international and local partners implemented the PlayMatters Emergency Response Mechanism (PM ERM) program in the Afar, Amhara, Benishangul-Gumuz, and Oromia regions of Ethiopia. This program aimed to increase access to quality education services for vulnerable girls and boys through integrated education, child protection, WASH, and health and nutrition activities. From September 2022 to October 2023, PM ERM served 177,409 children and 4,572 teachers in 201 schools through its partnership with twelve implementing organizations and the LEGO Foundation.

The average cost to implement PM ERM across the twelve implementing partners (IPs) was $70 per child. PM ERM implementers collectively spent $12,473,547, and each implemented at different scales. The cost per child between International Non-Government Organization (INGO) and Local Non-Government Organization (LNGO) IPs is relatively similar. Overall, the Education and WASH program areas showed a decrease in cost per child as scale increased.

Across all partners, the largest spending program area for PM ERM programming was the education sector with an average cost of $39 per child. Education activity spending ranged from 28% to 74% of any given implementing organization's total spending.

Project Description

Increased armed conflict, drought, the COVID-19 pandemic, cholera epidemics, and flooding have given rise to complex crises in Ethiopia's Amhara, Afar, Benishangul-Gumuz, and Oromia regions. Millions of families have been affected by the lack of access to physical safety, water, food, school, and adequate shelter, all of which induced some level of trauma in this state of emergency.[1] A total of 185 schools and 86 health facilities are not able to function as designed due to physical damage and the repurposing of these sites as shelters for internally displaced peoples (IDPs) and stations by armed groups.[2]

As a result, children experienced a critical decrease in access to education, health, WASH, and child protection services. In 2021, peace settlements for individuals displaced by the Northern Conflict brought some stability. However, ongoing security concerns and limited access to vital resources across the Amhara region continued to create a complex situation that required emergency response and recovery efforts.

In response to these crises, the LEGO Foundation granted PlayMatters the flexibility to reallocate USD 15M from the larger PlayMatters grant to design and implement a one-year multi-sectoral Emergency Response (PM ERM) Program.

PlayMatters aims to build sustainable capacity in existing education systems and integrate Learning through Play (LtP)[3] approaches for children. The objective is to provide refugee and host community children with the opportunity to improve their holistic learning and well-being in crisis contexts. The PM ERM project provided an integrated and holistic response to ensure that the basic health, safety, and educational needs of children in crisis-affected locations were met. PM ERM ran from

Key Intervention Activities

Education in Emergencies

To create a child-friendly learning environment, the PM ERM project used a variety of strategies including classroom rehabilitation, training educators on child safeguarding and psychosocial support (PSS), supplying learning materials, furnishing schools with age-appropriate materials/equipment, establishing a school feeding program, and building the capacity of teachers, caregivers, and other education personnel on Learning through Play (LtP) pedagogies.

WASH in Emergencies

To meet the specific physical needs of children and create a favorable school educational environment for girls and boys, the PM ERM project supported schools by ensuring access to clean water, basic sanitation, adequate latrines, Menstrual Hygiene Management (MHM) rooms/kits, and promoting hygiene management practices.

Child Protection in Emergencies

To support vulnerable and at-risk school children, the PM ERM project provided case management services to prevent and respond to any violence, exploitation, and abuse. Child protection services also included family tracing and reunification, mental health and psycho-social support (MHPSS) services, referral pathways, and community-based child protection mechanisms to further mobilize resources and community members in the efforts.

Health and Nutrition in Emergencies

To meet children's basic health needs through improved access to health and nutrition services, the project supported health centers/facilities by providing routine deworming and vaccination services.

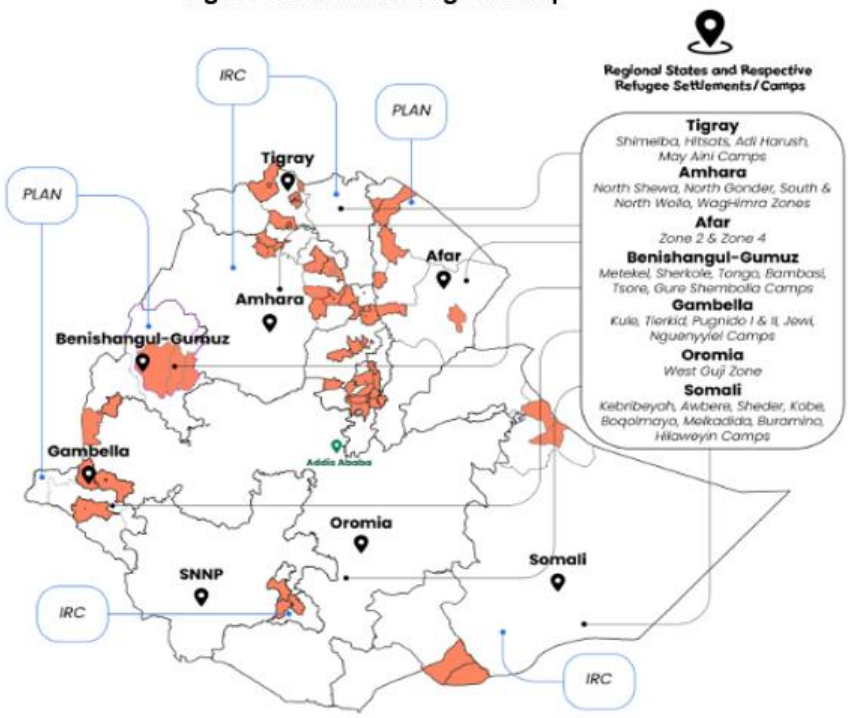
[1] UNICEF. (2023). Humanitarian action for children: Ethiopia. Retrieved from https://www.unicef.org/media/131956/file/2023-HAC-Ethiopia.pdf.

[2] United Nations Office for the Coordination of Humanitarian Affairs. (2022). Ethiopia: Rapid inter-agency needs assessment report North Shewa Zone, Amhara Region - 1-5 Feb 2022.

[3] UNICEF. (2018) Learning through play: Strengthening Learning Through Play in Early Childhood Education Programmes.

September 2022 to October 2023.[4] The International Rescue Committee (IRC), Plan International, and 10 other implementing partners[5] (IPs) carried out implementation in 201 integrated pre-primary and primary schools, jointly reaching 177,409 children and 5,449 teachers. PM ERM was provided through schools as multi-sectoral humanitarian programming, covering education, protection, WASH, and health interventions. Historically, many EiE interventions do not comprehensively include holistic responses integrating these sectors. Thus, this study assesses the cost-efficiency of an integrated and multi-sectoral EiE response program to inform the design and delivery of future interventions.

Figure 1. PM ERM Program Map



As the lead implementing organization, the IRC coordinated project implementation. This included a six-month inception period and continuous oversight, monitoring, and technical support to IPs during implementation. IRC also provided training for system actors and procured bulk educational and recreational materials for all partners.

Overall, the PM ERM team facilitated implementation by training teachers and educators in play-based active teaching and learning methods to strengthen children's creative, emotional, social, physical, and cognitive skills. This brief analyzes the cost-efficiency of the PM ERM program and as a result, also provides the cost of multi-sectoral education in emergencies in crisis-affected Ethiopia. Considering that, historically, many EiE interventions do not comprehensively include holistic responses integrating these program areas, this analysis inspects the cost drivers across the four implemented activities to better inform stakeholders on the benefits and barriers to multi-sectoral EiE response.

Project Costs

Implementers of the PM ERM program collectively spent $12,473,547. Expenditure incurred by IRC as the lead implementer included costs to procure and coordinate across the IPs, in addition to program implementation costs. IRC's Best Use of Resources (BUR) team calculated the cost to each implementing organization through financial data and time and effort allocations, relying on the support of program teams across the twelve organizations to share the nuances of their PM ERM implementation and the

[4] PlayMatters: ERM End of Project Technical Narrative Report, (unpublished, December 2023).

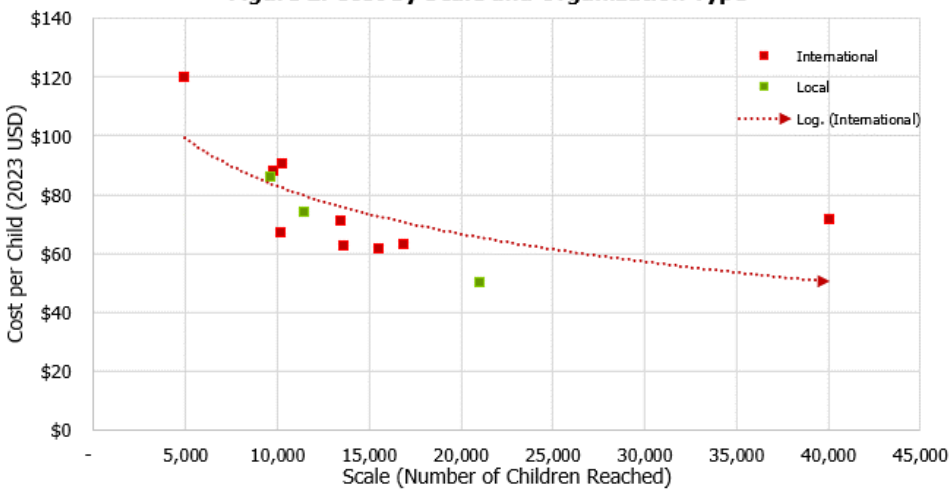
[5] ERM implementing partners include Child Believe, Child Fund, Concern Worldwide (CWW), Faith in Action (FIA), Imagine One Day, the International Rescue Committee (IRC), the Lutheran World Foundation (LWF), Plan International, Rift Valley Children and Women Development Organization (RCWDO), Save the Children, Tesfa Berhan Child and Family Development Organization and ZOA.

program's achievements. We exclude content design and development costs because we expect these to be one-time costs that implementers would not incur for future rounds of implementation. Future iterations would leverage the existing content. Finally, cost estimates exclude the fixed costs of four IPs that did not disclose this information in their shared budgets.

The PM ERM program costs $70 per child, on average, regardless of organization type.

PM ERM-implementing organizations included three Local Non-Government Organizations (LNGOs) and nine International Non-Government Organizations (INGOs). On average, LNGOs spent $908,810 to serve 14,090 children while INGOs spent $1,083,013 and served 15,016 children (Figure 2). Although INGOs serve more children, they also incur higher expenditures. In other words, according to our sample, were LNGOs to spend the same as INGOs, the former might reach more clients. With these figures, however, it is critical to consider the small sample size of our data. Given that the average cost of PM ERM for INGOs and LNGOs is $77 and $70 per child, respectively, we generally believe INGOs and LNGOs deliver services at similar costs. It is also important to note the programmatic differences between participating IPs, which affect costs per child. IP-specific program costs varied due to different grant arrangements, implementation contexts, and inflation.[6]

Figure 2. Cost by Scale and Organization Type



Supplies and materials comprised the largest cost category of PM ERM implementation.

Spending on supplies and materials comprised 70% of total PM ERM implementation. Cost drivers varied by partner. However, the most common supplies and materials program costs across IPs included

[6] IPs carried out PM ERM in different regions across Ethiopia and implemented activities at different scales, based on the number of participating schools and the number of children enrolled in each. LNGOs executed all PM ERM multi-sectoral activities while some INGOs implemented a different arrangement of activities. Four of the nine INGO IPs did not implement health and nutrition services, as this was not a required activity. IPs decided on health and nutrition implementation based on the perceived need in their target area.
Additionally, Plan International (PIE), as a PlayMatters Consortium partner, was not sub-granted in the award of IRC Ethiopia. As a result, the INGO did not receive the same technical support, monitoring, coordination, and in-kind contributions as the other 10 IPs. Therefore, PIE's direct management of logistics and procurement resulted in higher operational costs compared to other IPs. There were several factors that drove the gap between PIE's projected and actual reach. Firstly, PIE intervention sites hosted many IDPs, and, upon the cessation of hostilities, many children and teachers returned to their homes, leaving a reduced number of clients in target schools. This was not an issue other IPs faced. Secondly, the pastoralist nature of the Afar host community (one of the two regions of PIE implementation) led to inconsistent enrollment rates in schools. Lastly, nationwide inflation increased costs and affected procurement plans, which were further exacerbated by insecurity limiting access to implementation sites. Other partners did contend with the challenge of inflation. However, PIE faced more obstacles by comparison. Overall programming across IPs was very similar, however, due to various contextual factors, cost differences persisted.

classroom rehabilitation, school feeding, in-school latrine construction, and the provision of scholastic materials, furniture, and textbooks (Figure 3). Supplies and materials costs also included all training costs, such as caregiver and teacher training on "learning through play" (LtP) and interactive teaching, as well as costs related to capacity building for school administration. These costs include spending on training materials, transportation, and sites to conduct all training and capacity building.

All PM ERM training took place in person. A five-day training of trainers (ToT) took place at the start of the program for 66 system actors and focused on LtP pedagogies. All IPs subsequently cascaded newly acquired strategies and learning content to participating pre-primary and primary school teachers through trained system actors. The training encouraged teachers to practice LtP strategies in their daily lesson plans. Some teachers also received training on child safeguarding, psychological first aid, and psychosocial support, depending on each IP's implementation model. Teachers, children, school personnel, and local district sector offices also received additional multi-sectoral training that went beyond the scope of education. As integrated programming is a core component of PM ERM, many of the multi-sectoral costs mentioned were anticipated program cost drivers.

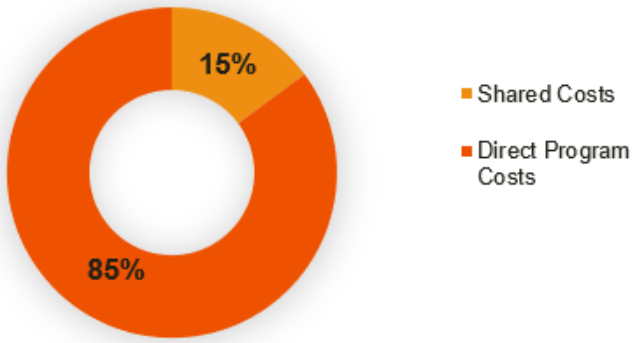
Furthermore, caregivers received training in LtP awareness and positive parenting skills. Children received follow-up sessions to continue supporting their social-emotional development. Each partner's driving costs allowed for the facilitation of classroom learning and focused on the holistic needs of crisis-affected boys and girls.

Figure 3. Average ERM Costs by Category

National Staff costs comprised the second largest category at nearly 12% of total program costs. Staffing costs include but are not limited to program officers and facilitators who led key activities across the twelve IPs. Compared to development programs, humanitarian response programs increase staff costs due to the added layer of security and daily onsite presence to supervise and monitor multi-sectoral delivery and rehabilitation activities. Supplies, materials, and national staff costs were largely driven by the program's rehabilitation and training-focused model as well as its in-person delivery modality.

Implementing partners, on average, invested 15% of total spending on operation support costs while investing the remaining 85% in direct program implementation (Figure 4).

Figure 4. Average Fixed vs. Direct Program Costs



The cost-efficiency analysis calculates the cost per child across the twelve IPs. Costs incurred by each implementing organization were calculated by analyzing financial data and time and effort allocations. Shared (support) costs incurred by each partner covered operational costs necessary for program implementation. These shared costs included field office rent, salaries of support staff, procurement, and human resources. Shared costs are not directly attributable to one program, rather, they support all partner programming. As a result, a portion of the shared costs is included in every analysis to account for resources that may not be direct implementation costs but remain essential for complete and successful program implementation.[7]

IRC incurred more costs than other implementing partners to coordinate PM ERM activities. As the prime, the IRC incurred additional costs to guide, support, and supply all IPs with activity materials. Any additional materials acquired after inception were purchased directly by partners. Prime start-up costs ($36,145) incurred by IRC include program design, selecting IPs, travel, material procurement, staff time, and applicable shared costs. Prime implementation costs ($1,070,248) incurred by IRC included travel, equipment, ToT training, material translation, and printing costs, as well as partner workshops. This analysis redistributed any in-kind costs, initially incurred by the IRC for material procurement, back to the IPs.

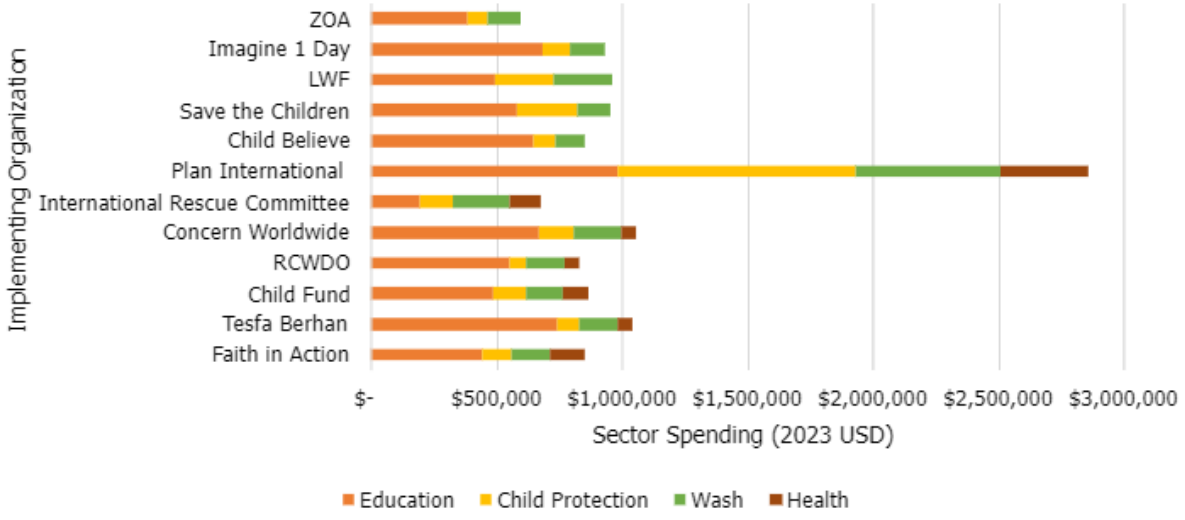
Costs by Program Area

To understand the program area drivers for holistic implementation, this section breaks down the costs for each sector of PM ERM programming: education, child protection, WASH, and health and nutrition (Figure 5).[8]

[7] Note that four of the twelve implementing partners did not share their fixed costs.

[8] The breakdown of the number of children reached by each partner in each of the four program areas can be found in the annex.

Figure 5. Cost by Program Sector



Education costs remained the highest among all program areas.

The education foundation of the PM ERM program aimed to establish child-friendly learning environments in schools, increase students' access to learning materials, introduce a school feeding program, and build the capacity of teachers, caregivers, and other education personnel on LtP pedagogies. These elements provided the building blocks of the program and required a larger portion of program resources. Training and material acquisition were the main cost drivers for education spending. On average, it cost IPs $39 per child to execute education-specific activities and reach 177,409 children. These costs generally increase for partners with a lower reach, as resources and activities get distributed across fewer clients, and decrease for partners who reached more clients. In particular, cost per child is higher in contexts where fewer children attended schools to take advantage of the improved infrastructure, the school feeding program, and the LtP activities provided in classrooms by newly trained teachers.

All students received educational activities at school sites. Other components of PM ERM's multi-sectoral implementation did not take place directly in schools, as not all children required supplemental services, and separate sites were often dedicated to other program area activities, like health centers.

Child protection costs the most per child across all program areas.

The costs for child protection (CP) were driven by needs-based material support for unaccompanied and other vulnerable children, as well as support for caregivers. For instance, activities aimed to support the well-being of school children in part by placing them with volunteer caretakers in their communities after they were separated from their primary caregivers. The costs of CP activities were also driven by MHPSS training for child protection staff and need-based material support for UASC, other vulnerable children, and caregivers. As a result, the cost per child is nearly 67% higher than other program areas.

All IPs provided CP services. This required the same set of resources such as coordination across government sectors and the woreda community, as well as the training of CP field experts on case management, family tracing, reunification, and MHPSS services. PM ERM programming also supported community-based CP mechanisms to mobilize resources and people who can successfully identify protection risks and responsibly refer children to services.

While each partner used the same level of resources for CP, each reached a different number of clients based on the need for protection services. On average, IPs served 16,837 children. The variance in the number of children benefiting from CP activities across IPs accounts for the higher average cost per child of $141 for this activity. In other words, there was a higher client reach across IPs for other PM ERM activities than CP activities.

Health, nutrition, and WASH activities cost the least among all program areas implemented.

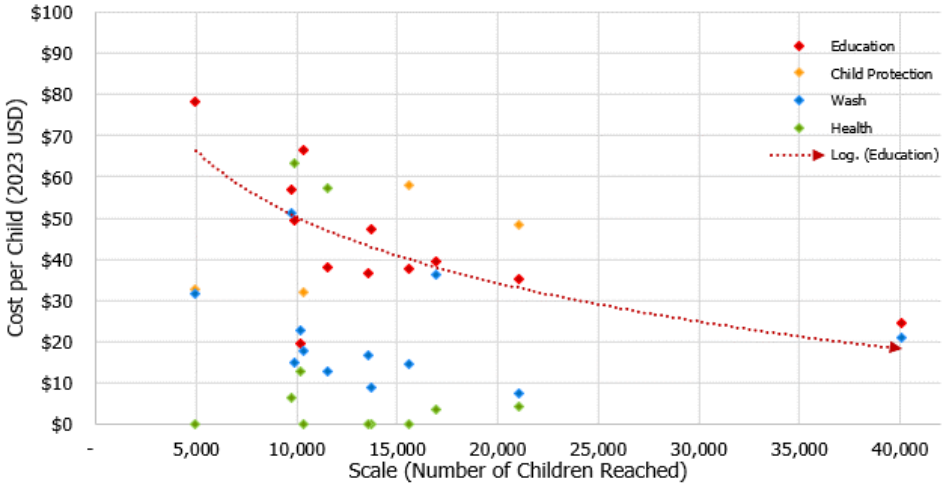
On average, health and nutrition services cost $16 per child to reach 57,084 children. Seven of the twelve partners implemented health and nutrition activities, which entailed screening and referring malnourished children to treatment centers and building the capacity of existing health professionals and centers through Immunization in Practice training (deworming and vaccination training) and essential drug distribution. Roughly 5% of children in this program area were treated for malnutrition, while the remaining 95% were dewormed and vaccinated in schools. Cost drivers within this program area include essential drugs and supplies for local health facilities, logistic support, and training staff on deworming. Compared to education, health and nutrition activities require fewer resources, driving the cost per child down while reaching the same number of children.

Similarly, on average, WASH activities cost $17 per child across the twelve IPs to reach 134,850 children. WASH cost drivers include the procurement and installation of water storage tanks, pipe extensions, rehabilitation and construction of water points, Menstrual Hygiene Management (MHM) rooms, and in-school latrines. Procuring disinfecting materials as well as MHM kits, along with training teachers and students on hygiene promotion in emergencies, further aided in WASH implementation. Like health and nutrition, WASH activities reached a greater number of children. The WASH-related improvements made to schools brought the sector's reach close to that of the education sector, benefiting nearly all students with their upgraded conditions.

Education and WASH activities indicate a decrease in cost per child as the scale increases.

Apart from generating a cost-per-child figure, cost analysis interrogates the relationship between cost and scale. This relationship often highlights the efficiency pattern of a project as its scale changes. PM ERM partners implemented at different levels of scale while scale also varied by program area. On average, Education costs $39 per child with the scale across IPs ranging from 4,966 to 40,093 children reached (Figures 6 and 7), while WASH costs an average of $17 per child with the program area scale ranging from 3,003 to 27,630 across partners. For both program areas, we see a decrease in cost per child as the scale increases. The correlation between cost and

Figure 6. Cost by Scale: Program Areas



scale for health, nutrition, and CP is not as apparent. Despite the varying costs and scales for these program areas, we also do not observe a clear scale at which cost per child begins to level off for any program area. This may be due to the fact that projects differed in specific design, so some larger-scale projects in a given program area may have generally been more cost-intensive than smaller-scale projects (or vice versa). It may also be the case that per-child fixed costs are relatively larger proportions of project costs than for education programming. Future research with a larger sample size at new/varying levels of scale and cost may facilitate additional findings.

Figure 7. Cost by Scale: Program Areas

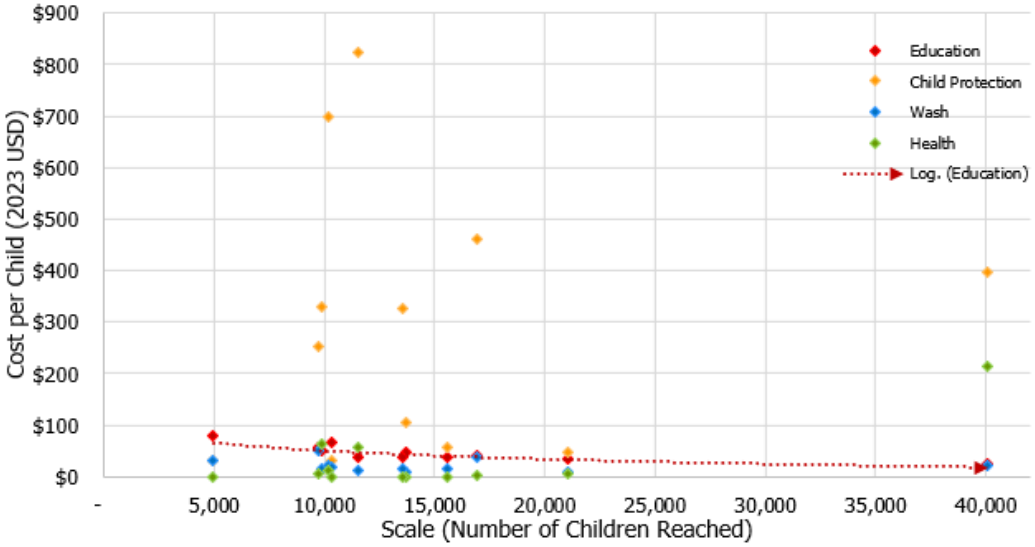


**Figure 7 is a zoomed-out version of Figure 6.*

Conclusion

Cost-efficiency gains could be achieved with scale, especially by increasing program coverage in existing facilities.

If additional funding becomes available, the PM ERM program has the potential to reach more clients by targeting schools with higher enrollment. Scaling the program would likely improve its cost-efficiency, as activities would reach more clients and costs would be more distributed. To support schools with more children, PM ERM would need to invest the same resources at a higher magnitude, for example, increased spending on training and materials. Evidence suggests that scale due to increased coverage (in fewer facilities) is generally more cost-efficient than increased scale due to widened geographic coverage (more facilities).[9] Therefore, investing additional funding in outreach activities is a recommended approach, expected to drive down the cost per child as more families will be further informed regarding services and motivated to have children attend school.

When the population density of participating schools is lower, fewer children will be served. Therefore, an increase in scale is also possible by expanding the number of schools each partner implements in or extending program services beyond schools to non-formal teaching and learning environments. Potential expansion requires IPs to consider the needs of each woreda and implement PM ERM activities

[9] Lee, Derek. 2022. "Health Scenario Analysis- Nutrition at Scale in Somalia." The International Rescue Committee.

accordingly. Furthermore, ensuring that IPs are investing equally in operational costs is essential to PM ERM cost-efficiency. If IPs are responsible for all logistic management, procurement, monitoring, and coordination, individual costs will unnecessarily increase the overhead costs of the program. If these costs are incurred solely by the leading IP, we can expect cost-efficiency to improve.

As previously highlighted, INGO and LNGO IP costs are relatively similar. Prioritizing opportunities to conduct further research on the relationship between IPs running EiE programming can support future decisions regarding partnerships. For instance, if further examination finds that costs between INGOs and LNGOs are not different, we can prioritize partnerships based on LNGO's important community ties and influence or INGO's reach and resources. All in all, impact data would help us assess the cost-effectiveness of the PM ERM program and draw further conclusions and recommendations regarding the program's impact.

An explanation of the IRC's cost analysis methodology can be found here:
www.rescue.org/report/cost-analysis-methodology-irc

More on IRC's costing work can be found at ***rescue.org/cost-analysis***

The cost to the implementing organization was led by the Best Use of Resources team at the IRC. For questions or more information please contact us at **costanalysis@rescue.org**.

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PlayMatters: ERM End of Project Technical Narrative Report, (unpublished, December 2023).

UNICEF. (2023). Humanitarian action for children: Ethiopia. Retrieved from https://www.unicef.org/media/131956/file/2023-HAC-Ethiopia.pdf.

UNICEF. (2018) Learning through play: Strengthening Learning Through Play in Early Childhood Education Programmes.

United Nations Office for the Coordination of Humanitarian Affairs. (2022). Ethiopia: Rapid inter-agency needs assessment report North Shewa Zone, Amhara Region - 1-5 Feb 2022.

Annex: Ingredients Lists by Implementing Partner

The ingredients list for each of the 12 PM ERM implementing partners can be found here: https://rescue.box.com/s/lfgdzs2hjfdlh4vx9fkbcwe6jheizn94

Annex: Client Reach by Implementing Partner

Ethiopia | 2022 USD

CLIENTS REACHED BY PARTNER	
ERM Partners	**Child Count**
Faith in Action	11,522
Tesfa Berhan	21,035
Child Fund	9,852
RCWDO	9,712
Concern Worldwide	16,888
International Rescue Committee	10,200
Plan International	40,093
Child Believe	13,689
Save the Children	15,574
LWF	13,540
Imagine 1 Day	10,338
ZOA	4,966
TOTAL	**177,409**

Annex: Cost per Child by Implementing Partner

Ethiopia | 2022 USD

**Grey cells indicate activities that partners did not implement.*

COST PER CHILD BY PARTNER & SECTOR					
ERM Partners	**Overall Cost per Child**	**Education**	**Protection**	**WASH**	**Health & Nutrition**
Faith in Action	$74	$38	$823	$13	$57
Tesfa Berhan	$50	$35	$48	$7	$4
Child Fund	$88	$49	$328	$15	$63
RCWDO	$86	$57	$252	$51	$6
Concern Worldwide	$63	$40	$460	$36	$3
International Rescue Committee	$67	$19	$697	$23	$13
Plan International	$71	$25	$396	$21	$215
Child Believe	$62	$47	$104	$9	
Save the Children	$61	$38	$58	$14	
LWF	$71	$37	$326	$17	
Imagine 1 Day	$90	$66	$32	$18	
ZOA	$119	$78	$33	$32	
TOTAL	**$70**	**$39**	**$141**	**$17**	**$16**