

Teachers' and Parents' Perceptions of the Effectiveness and Sustainability of School Feeding Programmes in Tanzanian Primary Schools: A Qualitative Inquiry

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Abstract

Despite the widespread implementation of School Feeding Programmes (SFPs) in Tanzania, research offers limited insight into how teachers and parents interpret SFPs and sustain them in everyday school life. This study explored stakeholder perceptions of SFPs' contribution to children's learning, well-being and participation in the Mara Region, and how motivational and ecological factors shape engagement. Guided by Hoover-Dempsey and Sandler's parental involvement model and Bronfenbrenner's ecological systems theory, we used a qualitative, interpretive phenomenological design. Data comprised 40 individual teacher interviews and 20 parent focus group discussions (n=200) across 20 public primary schools; analysis treated each school and focus group as the comparative unit and triangulated accounts using thematic analysis. Teachers associated SFPs with improved attendance and punctuality, stronger concentration and participation, calmer classroom behaviour and reduced stigma, with steadier gains in urban-proximate schools and more seasonal patterns in agrarian and lakeshore communities. Parents framed SFPs as a lifeline in food-insecure settings and as a motivational and social-cohesion mechanism where households had more reliable food access, and reported perceived health and emotional benefits alongside strong norms of collective responsibility. Sustainability was described as precarious due to poverty, climate variability, rising costs, infrastructure gaps (fuel, water, storage/utensils) and weak institutional support, yet communities reported adaptive collective strategies. Sustainable SFPs require resilient financing, basic infrastructure investment, and policy recognition of local agency and trust as foundations for educational equity.

Keywords: School feeding, home-school partnerships, short-term hunger, community engagement, educational equity

INTRODUCTION

Child malnutrition remains a critical public health and educational challenge across Sub-Saharan Africa, with profound implications for school attendance, cognitive development, and learning outcomes. In Tanzania, persistent nutritional deficiencies among school-age children continue to undermine national efforts to achieve equitable and high-quality education. Malnutrition, as evidenced by stunted growth, wasting, and micronutrient deficiencies, has been consistently linked to poor school participation, including absenteeism, early dropout, and low concentration in class (Grantham-McGregor et al., 2007; Sando et al., 2024; Silva et al., 2023). Children who attend school hungry often struggle to focus, retain information, or engage effectively in classroom activities, perpetuating cycles of poverty, food insecurity, and educational disadvantage. Recent reviews of Tanzania's school health and nutrition policies highlight that addressing school-age malnutrition remains an urgent concern, particularly in rural and food-insecure regions where vulnerability to seasonal hunger is acute (Sando et al., 2024). Despite steady policy attention to early-childhood nutrition, the nutritional status of school-age children remains comparatively under-addressed, even though it directly shapes learning readiness, equity, and progression through primary schooling. In this study, school feeding is treated not only as a welfare initiative but as a foundational enabling condition for educational participation and classroom engagement in food-insecure settings.

In response to these challenges, school feeding programmes (SFPs) have been widely adopted in Tanzania as integrated education and nutrition interventions that alleviate short-term hunger, enhance concentration, and promote attendance and retention. These programmes operate through diverse models, including donor-supported initiatives, government-led schemes, and home-grown school feeding (HGSF) approaches that utilise locally produced food and community involvement (Roothaert et al., 2021). Mara Region, situated in northwestern Tanzania along the shores of Lake Victoria, offers a particularly relevant context for such initiatives. It is predominantly agrarian, dependent on rain-fed agriculture and fishing, and characterised by chronic household food insecurity. Mara's significance in school feeding stems from its history with the Project Concern International's (PCI) "Pamoja Tuwalishe" programme, which between 2016 and 2020 reached over 170,000 preschool and primary school pupils across 231 schools, empowering local communities to manage meal programmes, mobilise resources, and strengthen

transparency. The initiative's success led to the establishment of the Mara Regional School Feeding Strategy (MRSFS) in 2020, the first regional-level framework of its kind in Tanzania, signalling the region's leadership in institutionalising school feeding as part of long-term education and nutrition policy. In Tanzania, recent policy discussions increasingly frame school feeding as a cross-sector intervention linking education, health, agriculture, and social protection, particularly through home-grown approaches that aim to strengthen local supply chains while improving pupils' nutrition. This framing highlights that SFPs are not simply service-delivery mechanisms; they are governance arrangements that depend on local coordination, accountability, and sustained stakeholder contribution.

Empirical evidence from Tanzania and other East African countries demonstrates that well-implemented SFPs contribute meaningfully to children's educational engagement, attendance, and overall well-being. Studies in northern Tanzania have shown that school meals significantly reduce absenteeism and improve classroom participation, particularly among children from food-insecure households (Roothaert et al., 2021). Similar findings in Rwanda and Kenya suggest that meals enhance pupils' concentration and participation, while also strengthening parental involvement in school life (Assefa, 2025; Uwababyeyi & Munyakazi, 2024). However, the sustainability and effectiveness of SFPs rely heavily on the engagement of key stakeholders, especially teachers and parents, who are directly involved in daily operations, mobilisation, and maintenance of the programmes. Teachers coordinate meal delivery, monitor attendance, and observe classroom impacts (Mtambo & Omer, 2024), while parents contribute food, labour, and financial support through school committees (Roothaert et al., 2021). When these stakeholders perceive school feeding as valuable, they demonstrate stronger ownership and commitment (Gonjo et al., 2024; Haruna & Mwakalinga, 2025); conversely, when they view it as burdensome or externally imposed, sustainability is weakened. However, evidence from implementation settings suggests that positive outcomes are not automatic: programme effectiveness and continuity depend on operational reliability, transparency, and the day-to-day commitment of teachers and parents who manage resources, labour, and oversight at the school level. The post-donor phase is especially informative because it reveals whether perceived benefits translate into durable ownership and sustained community investment.

Despite widespread implementation of school feeding across Tanzania, most research on the subject remains quantitative, focusing on measurable outcomes such as attendance, nutritional status, or programme coverage (Sando et al., 2024). There is a limited understanding of how key stakeholders interpret, value, and experience these programmes in practice. Moreover, some studies suggest variations in how school feeding is perceived, with some viewing it as a burden due to cost-sharing demands. While many stakeholders view school feeding programs as beneficial, perceptions are not always uniform. In some settings, school feeding is embraced as essential to improving educational outcomes, while in others, it is viewed as a logistical burden or as externally imposed. These contradictions in experience and perception underscore the need for a more in-depth, context-specific exploration. For instance, Alderman, Gilligan, and Lehrer (2012), in their study of Northern Uganda, found that although food-for-education programs increased school participation, the degree of impact varied across regions and was influenced by how parents and communities perceived the relevance and ownership of the program. As such, there is a need to examine the subjective, contextual, and sometimes conflicting meanings associated with school feeding initiatives among those most directly involved in these initiatives. In particular, there is limited qualitative evidence on how teachers and parents interpret trade-offs around cost-sharing, labour demands, and fairness, and how these interpretations shape sustained participation once external support declines. Addressing this gap requires attention to lived experience, not only programme outputs, because stakeholder meaning-making often explains why the same intervention endures in some schools yet weakens in others.

This study aims to explore how teachers and parents in Mara Region perceive the effectiveness and sustainability of school feeding programmes for children's learning, attendance, and well-being. Specifically, it examines how teachers perceive the role and impact of school meals in promoting pupils' academic engagement and how parents value these programmes for their children's educational participation. In doing so, the study also identifies the contextual challenges and motivations that shape the engagement of both groups with school feeding initiatives. By integrating these perspectives, the research seeks to provide a more nuanced and locally grounded understanding of the social and cultural dynamics that influence programme sustainability in rural Tanzanian settings. Drawing on in-depth interviews with teachers and focus group discussions with parents across multiple primary schools in

Mara Region, the study foregrounds stakeholder meaning-making as a key determinant of both perceived effectiveness and long-term sustainability.

METHODOLOGY

This study employed a qualitative, interpretive design with a phenomenological orientation to explore how teachers and parents perceive the effectiveness and sustainability of school feeding programmes (SFPs) in Mara Region, Tanzania. The approach prioritised participants lived experiences and meaning-making, recognising that perceptions of SFP value and sustainability are socially constructed through interaction among families, schools, and community structures (Creswell & Poth, 2018). Recent educational research in Tanzania has also employed phenomenological designs to examine stakeholders' experiences of school initiatives, reinforcing the appropriateness of this orientation for the present study (Kojo, Seni, & Ndibalema, 2024; Mfaume, 2022; Silayo et al., 2025).

The study was informed by two complementary interpretive lenses: Hoover-Dempsey and Sandler's Model of Parental Involvement (Hoover-Dempsey & Sandler, 1995, 1997; Hoover-Dempsey et al., 2005) and Bronfenbrenner's Ecological Systems Theory (Bronfenbrenner, 1979, 1994; Bronfenbrenner & Morris, 2006). Hoover-Dempsey and Sandler's model sensitised the analysis to how role construction, perceived invitations, and self-efficacy are experienced and negotiated by parents and teachers within school-community relationships (Hoover-Dempsey & Sandler, 1995, 1997; Hoover-Dempsey et al., 2005). In resource-limited contexts, stakeholders' beliefs about sustaining feeding programmes are intertwined with local values of care, reciprocity, and collective action (Athumani, 2023; Roothaert et al., 2021). Similarly, parental and teacher self-efficacy is shaped by lived experiences of success or struggle in mobilising resources (Kigobe et al., 2025), while perceived invitations to participate are interpreted through relational practices such as inclusion, respect, and communication (Haruna & Mwakalinga, 2025; Malingumu, Kigobe, & Amani, 2023).

Bronfenbrenner's ecological perspective situated these meanings within interacting environmental layers (micro-, meso-, exo, and macro-systems), enabling interpretation of stakeholder engagement as shaped by household livelihood realities, community structures, and institutional and policy conditions (Bronfenbrenner, 1979, 1994; Bronfenbrenner &

Morris, 2006). Recent qualitative studies in Tanzania show how ecological approaches illuminate the contextual dynamics through which school-based initiatives are shaped, including the influence of local norms, economic realities, and institutional environments (Amani & Mgaiwa, 2023; Davis et al., 2021; Edward & Shukia, 2023; Ndijuye et al., 2020; Wineman et al., 2022). Used together, these frameworks supported a holistic interpretation of how individual beliefs and structural contexts jointly shape SFP participation and sustainability in rural Tanzania (Amani & Mgaiwa, 2023; Ndijuye et al., 2020).

Mara Region was purposively selected because it has implemented multiple SFP models (community-led, government-assisted, and donor-supported) and because many schools have experienced post-donor transition, creating a relevant context for examining sustainability. Twenty public primary schools were selected using purposive sampling and a multiple-case logic (Stake, 2006; Yin, 2018) to capture variation by geography (rural and peri-urban), programme model, and programme maturity. Each school constituted an embedded case. Participants were recruited through purposive sampling (Patton, 2015). The sample comprised 40 teachers (two per school) who participated in semi-structured interviews and 200 parents who participated in 20 focus group discussions (FGDs; one per school with approximately 10 parents). The analytic units were the school (case), the interview, and the FGD (20 cases; 40 interviews; 20 FGDs), rather than the total headcount, consistent with a qualitative multiple-case approach (Stake, 2006; Yin, 2018). Teachers were eligible if they had at least one year of experience at the selected school and direct involvement in, or sustained exposure to, the feeding programme. Parents were eligible if they had a child currently enrolled and were engaged with school-related activities (e.g., meeting attendance or committee participation). Individuals with very limited exposure to the school or feeding programme were excluded to ensure data reflected direct experience. Sample adequacy was assessed using the principle of information power (Malterud, Siersma, & Guassora, 2016).

Data were collected over three months using semi-structured teacher interviews (20-30 minutes) and parent FGDs (30-40 minutes). Guides were developed using sensitising concepts from the two theoretical lenses while remaining open to emergent meanings. All interviews and discussions were conducted in Kiswahili to support participant comfort and expression. With informed consent, sessions were audio-recorded and supplemented with field notes. The researchers maintained a reflexive

journal to document positionality reflections, field decisions, and evolving analytic insights, contributing to transparency and an audit trail (Nowell et al., 2017). Audio data were transcribed verbatim in Kiswahili and translated into English, with attention to retaining culturally specific meanings and contextual nuance. Analysis followed Braun and Clarke's (2006) six-phase thematic analysis (Braun & Clarke, 2006), combining inductive coding with theory-informed interpretation. Coding proceeded iteratively, moving between transcripts and emerging themes, refining theme boundaries to reduce redundancy, and checking consistency across cases and data sources (teacher interviews and parent FGDs). NVivo 14 supported systematic coding, retrieval, and cross-case comparison. Cross-case matrices were used to compare convergence and divergence across schools and to assess analytic sufficiency at the case and group level, consistent with the principle of information power (Malterud, Siersma, & Guassora, 2016); by the final set of interviews and FGDs, no substantively new themes were generated, and additional data primarily deepened contextual nuance rather than adding new categories.

Trustworthiness was addressed using Lincoln and Guba's (1985) criteria. Credibility was strengthened through triangulation (interviews and FGDs), prolonged engagement across schools, and member checking through end-of-session summary confirmation (Lincoln & Guba, 1985). Dependability and confirmability were supported through an audit trail (including the reflexive journal, coding memos, and documented theme revisions) and peer debriefing with two independent researchers (Lincoln & Guba, 1985; Nowell et al., 2017). Transferability was supported through thick description of school and livelihood contexts and the multiple-case design (Lincoln & Guba, 1985). Ethical clearance was obtained from the Open University of Tanzania, with permissions granted by relevant regional and district authorities. Informed consent was obtained in Kiswahili, pseudonyms were used to protect confidentiality, and data were securely stored. The study adhered to principles of respect, beneficence, and justice consistent with ethical standards for qualitative research in Tanzania.

RESULTS

The findings of this study are organised in three main focus areas: (i) teachers' perceptions of the effectiveness of school feeding in enhancing learning and engagement; (ii) parents' perceptions of effectiveness and sustainability; and (iii) challenges and contextual factors affecting sustainability. Throughout, teacher and parent accounts are explicitly

cross-referenced to support triangulation, highlighting convergence, divergence, and contextual variation.

Teachers consistently described attendance and punctuality as among the most visible improvements following the introduction of school feeding, although the magnitude and stability of gains varied by livelihood and geographic context. In urban and peri-urban schools (Musoma Municipality and Musoma District Council), teachers tended to describe steady and sustained gains in both attendance and timely arrival, attributing improvements to predictable meal routines:

“Before the feeding programme, we would have 15-20 children absent daily out of 60 enrolled. Now, absenteeism has dropped to 3-5 on average. The change happened within the first month and has held steady for two years.” (Interview, Teacher 12, Musoma Municipality).

“Punctuality was our biggest problem. Children would arrive at 9 or 10 a.m., missing morning lessons entirely. Now, about 80% arrive by 7:30 a.m. because they know breakfast porridge is served at 8 a.m. sharp.” (Interview, Teacher 15, Musoma District Council)

By contrast, teachers in more remote agrarian communities (Bunda and Butiama) reported more fluctuating patterns linked to planting and harvest cycles, describing feeding as a partial buffer rather than a complete solution to seasonal attendance constraints:

“During planting and harvest seasons, attendance still drops because children help in the fields. But even then, the feeding programme has reduced absenteeism by half compared to before.” (Interview, Teacher 3, Bunda).

“Attendance is still seasonal here, but the programme has changed the baseline. Before, 40% attendance was normal during planting. Now, it is 65-70%.” (Interview, Teacher 2, Bunda).

In addition to school-level attendance changes, teachers emphasised that feeding reshaped children's motivation and household routines around schooling, shifting morning dynamics from enforcement to anticipation of meals:

“Parents used to have to drag children to school. Now, children remind parents if they are running late. The programme has shifted the burden from parents to children's own desire to attend.” (Interview, Teacher 18, Musoma District Council).

"Hunger was the invisible barrier. Once we removed it, the path to school became clear." (Interview, Teacher 9, Butiama).

"Before, I had to drag him out of bed... Now, he prepares his uniform the night before." (FGD, Bunda 1, Female participant).

Parent FGDs corroborated these attendance and punctuality gains, with many parents describing reduced morning conflict and children's heightened motivation to arrive early for meals. Convergence was strongest in food-insecure rural communities, where feeding was described as shifting daily routines; in more food-secure settings, parents more often framed the meal as a motivational supplement and a way of keeping children in school for the full day.

Beyond attendance, teachers linked school feeding to improved concentration, participation, and academic performance, while emphasising that effects varied by meal timing and programme arrangement. Where schools offered morning porridge (14 of 20), teachers commonly described immediate improvements in attentiveness during early lessons:

"The difference between a hungry child and a fed child is like night and day. Before porridge, children would stare blankly... After porridge, they participate, ask questions, and complete tasks." (Interview, Teacher 5, Bunda).

"In mathematics lessons, I used to repeat explanations five or six times. Now, twice is enough." (Interview, Teacher 11, Butiama).

In schools providing a midday meal (6 of 20), teachers more often emphasised reduced late-morning fatigue and improved afternoon participation:

"By 11 a.m., children used to become restless and irritable. Now, knowing that lunch is coming, they stay focused... Afternoon attendance has also improved." (Interview, Teacher 14, Musoma District Council).

"The midday meal has eliminated the 'afternoon slump.' ... Now, they return energised and ready to learn." (Interview, Teacher 19, Butiama).

When teachers discussed performance, they often framed feeding as enabling learning rather than as a single causal factor:

"Our Standard 4 exam pass rate increased from 62% to 81% over two years. I cannot say it is only because of feeding, but feeding made learning possible." (Interview, Teacher 2, Bunda).

"The children who benefited most are those from the poorest families... Feeding levelled the playing field." (Interview, Teacher 16, Butiama).

Teachers also described changes in classroom climate, frequently linking feeding to calmer behaviour and fewer conflicts. Across most schools (teachers in 17 of 20 schools), these changes were interpreted as reductions in hunger-related stress and irritability alongside improved emotional regulation:

"Hunger made children aggressive... After we started feeding, the fights decreased dramatically. Now, they share, they wait their turn, they help each other." (Interview, Teacher 8, Bunda).

"Before feeding, children would cry easily... Now, they are more resilient. They try again when they fail." (Interview, Teacher 17, Butiama)

In schools serving higher proportions of orphans and vulnerable children, teachers described feeding as particularly important for restoring inclusion and self-confidence:

"For children from very poor homes... coming to school hungry was a daily humiliation... Now, everyone eats the same meal... It has restored their dignity." (Interview, Teacher 10, Butiama).

"The biggest change I see is in mood... regular meals have stabilised his emotions." (FGD, Musoma District Council 2, Female participant)

Parents described similar changes in children's mood and self-regulation, aligning with teachers' observations of improved classroom behaviour, including reduced conflict and greater cooperation. Across the two datasets, behavioural improvements were most often described as contingent on programme reliability; where meals were irregular, both teachers and parents reported that positive effects were less stable.

Teachers further described school feeding as a levelling mechanism that reduced visible socioeconomic differences and strengthened peer cohesion. Teachers in 16 of 20 schools highlighted shared meals as normalising participation for poorer pupils and strengthening peer relationships across household wealth:

"The meal is a great equaliser." (Interview, Teacher 4, Musoma District Council).

"At lunchtime, everyone lines up together... That simple act teaches children that they are equal." (Interview, Teacher 11, Butiama).

"For us, the benefit is not survival, it is convenience and equality. My child eats with everyone else, learns to share, and does not feel different from poorer children. That is valuable." (FGD, Musoma District Council 1, Male participant)

Parents partially echoed this equity framing, often emphasising dignity, inclusion, and the normalising effect of children eating together. However, parents in the most food-insecure contexts more frequently framed equity in material terms (reducing hunger and enabling attendance), while those in relatively better-off contexts foregrounded social inclusion and peer learning, indicating variation in how "equity" was experienced and articulated.

Many teachers reported that feeding strengthened school-community relationships by increasing parental participation, trust, and shared responsibility. Teachers in 15 of 20 schools described feeding as catalysing greater parental engagement and strengthening everyday school-home relationships, with food, firewood, and labour contributions framed as generating ownership:

"Now, they see it as 'our school' because they contribute food, firewood, and labour." (Interview, Teacher 4, Bunda).

"Feeding opened a door that was previously closed." (Interview, Teacher 14, Musoma District Council)

At the same time, a minority of teachers (in 3 schools) reported tensions, including expectations of preferential treatment and the risk of wealthier contributors dominating decisions, suggesting that participation could build cohesion while also generating new equity challenges.

"This is not the government's programme, it is our programme. We own it." (FGD, Bunda 1, Male participant).

Parents' accounts of ownership and collective responsibility converged with teachers' reports of strengthened school-community relationships and increased parental participation. Parent discussions also surfaced fairness tensions and capacity constraints around contributions, indicating that cohesion and participation were actively negotiated and could vary by season and community conditions.

Alongside perceived benefits, teachers consistently portrayed school feeding as fragile without reliable funding, consistent contributions, and institutional support. Across schools, teachers described progress as precarious in the absence of stable resourcing, with drought, rising prices,

and contribution fatigue presented as risks that could quickly reverse gains:

"This programme is the best thing that has happened to our school. But every day, I worry: What if the food runs out? ... We have no backup plan." (Interview, Teacher 3, Bunda).

"We are one drought, one bad harvest, one funding cut away from losing everything we have gained." (Interview, Teacher 16, Musoma District Council).

"When the rains fail... the feeding programme stopped for two months. Children went back to staying home." (Interview, Teacher 2, Bunda)

Across interviews and FGDs, sustainability concerns were ubiquitous. Teachers most often highlighted institutional and logistical constraints (storage, kitchens, fuel, and local authority support), while parents more often highlighted household economics and climate-related shocks. The triangulated pattern indicates high perceived value alongside persistent vulnerability to resource and governance gaps.

On parents' perceptions of the Effectiveness and Sustainability of School Feeding, the majority of parents framed school feeding as a critical form of security and support, though the intensity of dependence varied by household food security, livelihood, and exposure to climatic and economic shocks. Across the 20 FGDs, parents framed school feeding not only as an educational support, but as a household food-security strategy and source of emotional relief. However, the intensity of dependence varied sharply by livelihood and baseline food security. In chronically food-insecure agrarian areas, the school meal was often described as the most reliable meal available to children:

"Even if we have no food at home, I know my children will not stay hungry because the school will give them porridge." (FGD, Bunda 2, Female parent participant).

"Last year, during the drought... the school kept feeding the children. That programme saved lives." (FGD, Butiama 1, Male parent participant)

In more food-secure and urban settings, parents emphasised convenience, time savings, and social benefits (e.g., keeping children in school throughout the day and reducing visible differences between households). Fishing-dependent communities highlighted income volatility as a driver of episodic food insecurity, with school meals providing rare predictability.

Table 1
Cross-FGD variation in the 'school feeding as a lifeline' theme

FGD	Theme prominence	Context/livelihood	Key framing	Illustrative quote
Bunda 1	Dominant	Agrarian, chronic food insecurity	Survival necessity	"Some days we eat nothing at home. Children eat only at school."
Bunda 2	Dominant	Agrarian, drought-affected	Life-saving intervention	"Last year, the programme saved lives during drought."
Bunda 3	Dominant	Agrarian, seasonal hunger	Only reliable meal	"Some days, school is the only place my child eats."
Bunda 4	Dominant	Agrarian, poor harvest	Peace of mind	"I know my child will not starve because of the school meal."
Bunda 5	Moderate	Mixed livelihoods	Important, but not only a meal	"The meal is important, but we also feed them at home."
Butiama 1	Dominant	Fishing, income variability	Stability amid uncertainty	"Mining is gambling. School meal is stable."
Butiama 2	Moderate	Mixed farming/fishing	Complementary support	"We feed them at home, but the school meal helps a lot."
Butiama 3	Dominant	Fishing, unpredictable income	Essential safety net	"When the catch is poor, the school meal is everything."
Butiama 4	Moderate	Agrarian, moderate food security	Helpful addition	"We can manage, but the meal makes life easier."
Butiama 5	Dominant	Agrarian, poor soil quality	Survival framing	"Without school meals, children would be malnourished."
Musoma DC 1	Moderate	Semi-urban, mixed livelihoods	Convenience and equality	"Benefit is convenience and teaching equality."
Musoma DC 2	Moderate	Semi-urban, better market access	Time-saver for parents	"Meal saves us time and keep children at school."
Musoma DC 3	Moderate	Peri-urban, wage employment	Motivational tool	"Children want to go to school because of the meal."
Musoma DC 4	Dominant	Peri-urban, fishing families	Income-dependent necessity	"When fishing income drops, the meal is critical."

FGD	Theme prominence	Context/livelihood	Key framing	Illustrative quote
Musoma DC 5	Weak	Semi-urban, relatively wealthy	Nice to have	"We can afford food, but the meal is still useful."
Musoma Urban 1	Weak	Urban, diverse livelihoods	Equality benefit	"Benefit is equality, not survival."
Musoma Urban 2	Weak	Urban, salaried families	Convenience	"Keeps children at school all day."
Musoma Urban 3	Moderate	Urban, mixed-income	Variable within group	"Some families need it badly, others less so."
Musoma Urban 4	Weak	Urban, business families	Social cohesion	"Meal teaches children to eat together."
Musoma Urban 5	Moderate	Urban, low-income families	Important support	"Even in town, some families struggle. Meal helps."

Across 18 of 20 FGDs, parents used terms such as “peace,” “relief,” “blessing,” and “lifeline” to describe the emotional impact of feeding. Overall, the ‘lifeline’ framing was strongest in rural agrarian and fishing communities where food insecurity and income volatility were most pronounced, and weaker in semi-urban and urban groups where households had more diversified livelihoods and market access.

Parents repeatedly described marked shifts in children’s motivation to attend school, with the nature of the change varying by pre-programme barriers in rural, semi-urban, and urban contexts. Parents across 17 of 20 FGDs described a marked shift in children’s motivation to attend school. In remote rural areas, parents reported dramatic reversals, from daily resistance to self-initiated early preparation, often explicitly linking the shift to relief from morning hunger. In urban areas, parents described feeding as adding an incentive that competed with play or household work.

“In town, children were not starving, but they preferred to stay home and play. Now, school feeding gives them a reason to go.” (FGD, Musoma Urban 1, Female parent participant)

Within-FGD interaction vignette (FGD Bunda 2): parents negotiated multiple explanations for children’s renewed enthusiasm, illustrating collective meaning-making rather than a simple aggregation of individual views.

Female Parent Participant 1: *“My daughter wakes up early now because she loves the porridge. It is that simple.”*

Male Parent Participant 1: *“It is not just the porridge. It is also that she sees other children there.”*

Female Participant 2: *“Yes, but before, even with friends, they did not want to go because they were hungry and tired.”*

Male Parent Participant 2: *“I think it is also that teachers are kinder now... the whole atmosphere has changed.”*

Female Parent Participant 3: *“For my child, it is all of these things: food, friends, and kind teachers. You cannot separate them.”*
[Group murmurs of agreement; several participants nod.]

Similar interactional dynamics, where participants refined and integrated explanations through dialogue, were observed in 14 of 20 FGDs. Moreover, parents reported observed improvements in children’s health,

energy, and development, with the types of change differing by baseline nutritional status and community context.

"My child used to be weak and often sick. Since the feeding programme started, she has fewer illnesses and more energy. Even the clinic said her nutrition had improved." (FGD, Bunda 3, Female participant)

Parents in 14 of 20 FGDs reported visible improvements in children's health, energy levels, and emotional well-being. In food-insecure settings, parents described pronounced physical changes (e.g., weight gain, reduced illness, improved vitality). In contrast, in better-off contexts, they more often highlighted subtler dietary diversification and mood stability.

"Before, my son was thin... Now, he has gained weight... and he is full of energy." (FGD, Bunda 3, Female parent participant)

Parents described substantial contributions to school feeding and a strong sense of ownership, while also highlighting variation in contribution capacity, fairness norms, and the social practices that sustained collective action.

"Every month, each family contributes two kilograms of maize. It is not much, but when you put it together, it feeds many children for weeks. That teaches us the power of unity." (FGD, Butiama 1, Female parent participant)

A consistent theme across FGDs was strong parental ownership of feeding programmes. Parents described contributing maize, beans, firewood, labour, or cash as a shared investment in children's futures. However, contribution mechanisms and reliability differed by community capacity and seasonality. High-capacity communities (Musoma Urban and parts of Musoma District Council) more often described cash-based contributions with formalised committees and record-keeping. Agrarian communities relied primarily on in-kind contributions tied to harvest cycles, creating predictable seasonal shortfalls. In chronically food-insecure settings, parents described substituting labour and collective work days for food contributions.

Within-FGD interaction vignette (FGD Butiama 3): parents negotiated what 'fair' contribution means under unequal capacity.

Male parent participant 1: *"Every family should contribute equally... That is fair."*

Female parent participant 1: *"But some families have nothing. How can they contribute equally?"*

Male parent participant 2: *"Then they should contribute labour. Everyone must give something."*

Female parent participant 2: *"Labour is also hard when you are sick or old... We should accept that some families can only give a little."*

Female parent participant 3: *"That is the spirit of Ujamaa (collective solidarity). The strong help the weak."*
[Group murmurs of agreement; several participants nod.]

Despite strong appreciation for programme value, parents in all FGDs expressed concern about sustainability; the specific drivers of anxiety varied across agrarian, fishing, semi-urban, and urban contexts. Parents in all 20 FGDs expressed concern about sustainability. In agrarian communities, climate variability and harvest failure were central; in fishing communities, unpredictable income and declining catches were emphasised; and in urban/semi-urban groups, rising food and fuel costs and 'free-rider' dynamics were prominent.

"Everything is getting more expensive, maize, beans, firewood... We need external support." (FGD, Musoma Urban 1, Female parent participant)

Notwithstanding these risks, a resilience narrative was present in 15 of 20 FGDs, with parents describing adaptive strategies such as borrowing grain, fundraising events, rotating contribution schedules, and substituting porridge when staples were scarce. Cross-FGD comparison showed that shared themes coexisted with clear contextual variation, confirming the analytic value of conducting 20 separate discussions.

By district, Bunda and Butiama FGDs most strongly framed school feeding as a survival necessity and emotional "lifeline," alongside strong narratives of community solidarity and collective responsibility. Sustainability concerns in these districts were primarily linked to climate and harvest instability, and free-rider concerns were rarely foregrounded. Musoma District Council FGDs were more mixed: lakeshore communities echoed the "lifeline" framing due to income volatility, while peri-urban groups more often framed feeding as a motivation and time-saving mechanism that kept children in school throughout the day; sustainability concerns here were frequently described through coordination burdens and rising costs. Musoma Urban FGDs least emphasised survival framing and most emphasised convenience, equality, and social cohesion benefits, while also reporting the strongest concerns

about coordination fatigue, fairness, and free-riding, alongside higher expectations of government support.

By livelihood, agrarian FGDs most consistently emphasised seasonal contribution variability and climate vulnerability, while also describing strong reciprocity-based solidarity that enabled continued participation despite hardship. Fishing FGDs most strongly emphasised income unpredictability and dependence on the meal as a stabilising safety net when catches were poor. Mixed/urban livelihood FGDs placed less emphasis on survival and more emphasis on coordination challenges, fairness disputes, and cash-based contribution models.

By programme model, community-led programmes were associated with the strongest expressions of ownership, pride, and creative local coping strategies (rotating contributions, substitution of staples, community fundraising), but also with explicit concern that continuity remained fragile without external stabilisation. Government-assisted programmes generated stronger expectations of state responsibility and sharper frustration with inconsistent support, sometimes coinciding with weaker norms of parental contribution. Hybrid programmes occupied an intermediate position: parents described high local involvement and gratitude for external inputs, while also voicing uncertainty about dependency should outside support decline. Taken together, these patterned differences show that while appreciation of feeding and anxiety about sustainability were widespread, *what feeding meant* (lifeline versus convenience) and *what threatened it most* (climate/harvest versus costs/coordination) varied systematically across contexts, supporting the need for disaggregated analysis rather than a single aggregated “parent perspective.”

On the challenges and contextual factors affecting the sustainability of School Feeding programmes, both teachers and parents identified sustainability as the central challenge for school feeding programmes. However, they emphasised different but complementary constraints. Sustainability emerged as the central challenge across both data sources. Teachers tended to emphasise institutional and logistical constraints within schools, while parents foregrounded household-level economic fragility and climate-linked shocks. Together, these perspectives illustrate sustainability as an interplay of economic, institutional, logistical, and environmental factors.

Economic fragility and inconsistent contributions were consistently described as major threats to continuity, especially in households and communities vulnerable to seasonal or income shocks. Teachers in all 20 schools described inconsistent parental contributions as the most frequent barrier, while explicitly distinguishing inability from unwillingness. Parents corroborated this account, describing predictable seasonal depletion of household stocks and the moral stress associated with 'failing' to contribute.

"Poverty is the problem, not attitude." (Interview, Teacher 8, Butiama)

"By February or March, our stores are empty. We have nothing left to give. We feel ashamed." (FGD, Butiama 1, Male parent participant)

Logistical and infrastructural deficits (kitchens, storage, utensils, water, and fuel) were described as operational bottlenecks that increased costs and labour burdens and undermined reliability. Teachers in 14 schools reported infrastructure deficits (kitchens, storage, utensils, water access) that increased labour burdens and reduced reliability of meal provision. Parents in 13 FGDs similarly highlighted the rising costs and scarcity of firewood and transport.

"We cook outside under a tree. When it rains, we cannot cook."
(Interview, Teacher 3, Bunda)

"Firewood used to be free... Now, the bush is bare, and we have to buy it." (FGD, Butiama 1, Female parent participant)

Limited institutional support from local authorities was repeatedly described as a gap between rhetorical endorsement and material resourcing. Teachers in 17 schools and parents in 12 FGDs expressed frustration with limited material and technical support from district authorities, describing a gap between rhetorical endorsement and resource allocation.

"Praise does not feed children." (Interview, Teacher 5, Bunda)

"We see those building offices and buying vehicles... Why is there no budget for feeding our children?" (FGD, Bunda 2, Male parent participant)

Despite these constraints, teachers and parents described adaptive strategies and collective problem-solving that enabled programmes to continue, albeit often through compromise and uncertainty. Teachers and parents described adaptive practices that kept programmes functioning, including substituting staples, rotating contribution schedules, partnering with local faith organisations, and forming savings groups. These

strategies were often anchored in the moral language of collective responsibility and Ujamaa-style solidarity.

“Even when food runs out, we sit together and find a way... We will not give up.” (FGD, Bunda 1, Female participant)

By integrating teacher interviews and parent FGDs, a consistent pattern emerges: school feeding was widely described as beneficial for attendance, punctuality, classroom engagement, and children's wellbeing, while its continuity was repeatedly characterised as fragile in the absence of stable resources. Across accounts, participants also described shared meals as reducing visible socioeconomic differences and strengthening children's sense of belonging at school. At the same time, teachers and parents emphasised different constraints: teachers most often highlighted school-level logistical and institutional challenges, whereas parents foregrounded household economic pressures and climate-related shocks. Reported experiences varied by context, with rural agrarian and fishing communities more often framing feeding as a livelihood safety net, and urban or relatively more food-secure settings more often framing it as an incentive, convenience support, and equity practice. Taken together, these results underscore high perceived value alongside persistent vulnerability shaped by local livelihood conditions, contribution capacity, and uneven institutional support.

DISCUSSION

This study explored teachers' and parents' perceptions of the effectiveness and sustainability of school feeding programmes (SFPs) in Tanzanian primary schools, with a focus on how these stakeholders engage with and make sense of such initiatives within their lived school and community contexts. The findings affirm that stakeholders do not perceive school feeding in the Mara Region as a mere welfare service or short-term intervention, but rather as a core pedagogical and community-building mechanism. Across the 20 school cases, teachers repeatedly described feeding as *associated with* improvements in children's capacity to engage in learning, highlighting improvements in attendance, concentration, participation, and classroom harmony when meals were available. Statements such as “when they eat, they listen better, even the shy ones start to talk” encapsulate how teachers directly link nutrition to academic engagement and emotional readiness. These perceptions align closely with Hoover-Dempsey and Sandler's (1997) assertion that teachers' involvement in promoting learning is influenced by their beliefs about effective educational practices. In this case, school meals are

viewed not only as supporting cognitive performance but also as enhancing emotional regulation, cooperation, and the overall classroom climate.

Teachers' sense of efficacy, central to their professional identity, is reinforced when basic physiological needs are addressed, allowing them to fulfil their instructional roles more effectively. This echoes Bronfenbrenner's (1979) notion of the microsystem, where the immediate learning environment must support stable, responsive interactions for development to occur. When students are not distracted by hunger, they are more present, emotionally regulated, and socially engaged, contributing to a classroom culture where teaching and learning can flourish. Similar outcomes have been documented in other Tanzanian contexts. Mabula, Mkulu, and Tangi (2023) found that school feeding programmes in Misungwi District led to a marked decline in truancy and dropout while enhancing academic performance. Likewise, Daftari and Umeodum (2022) reported that female students in Morogoro Municipality participated more actively and confidently in lessons when meals were served regularly.

For parents, school feeding was perceived not just as a nutritional intervention but as a deeply moral and communal responsibility, reflecting both practical necessity and culturally grounded values. Parental narratives revealed strong emotional investment, with many describing feeding as an act of love and protection, particularly critical in a region where food insecurity is widespread. A parent's statement, "Even when we have no food at home, I know they will eat at school", highlights how SFPs alleviate household stress while also reinforcing parents' roles as caregivers and contributors to their children's futures. Within Hoover-Dempsey's model, this aligns with the construct of motivational beliefs and role construction: parents engage with school initiatives when they believe their involvement makes a difference, and when participation is consistent with their self-concept and community norms.

The concept of collective efficacy emerged strongly in this study, as parents described contributing maize, firewood, or labour not as burdensome, but as expressions of solidarity. This supports findings from Haule and Mwinami (2024), who documented similar parental involvement in Gairo District, and from Haruna and Mwakalinga (2025), who found that parent-school collaboration around feeding enhanced

trust, ownership, and sustainability. These relational dynamics sit within Bronfenbrenner's mesosystem, where the quality of interaction between home and school determines the level and effectiveness of stakeholder participation. Parents reported feeling more connected to the school and more respected when their contributions were recognised, which in turn motivated continued involvement. As Hoover-Dempsey et al. (2005) assert, perceived invitations to participate, particularly from teachers, are among the strongest predictors of parental engagement. Notably, the FGD format itself made visible how such norms are collectively negotiated: parents frequently co-constructed explanations for children's changed school engagement and refined shared expectations of "fair" contribution through dialogue, consensus-building, and reference to cultural values such as Ujamaa.

However, this engagement is not unconditional. When communication breaks down or when schools fail to demonstrate transparency and appreciation, parental motivation tends to weaken. This was observed in Swilla, Seni, and Machumu (2024), where inconsistent communication in Dodoma led to disillusionment and a reduction in parental involvement. The same tension was acknowledged by participants in this study, who described greater enthusiasm for SFPs in schools that communicated openly and treated parents as partners, rather than passive donors. These dynamics underscore the fragility and importance of mesosystemic connections, which necessitate ongoing reinforcement through mutual respect, clear roles, and inclusive decision-making processes.

Despite these strong motivations and community commitment, the sustainability of school feeding programmes remains precarious due to persistent structural and contextual constraints. Both teachers and parents identified economic hardship, erratic rainfall, seasonal food shortages, inadequate infrastructure, and limited government support as major obstacles. These conditions are shaped by the exosystem and macrosystem in Bronfenbrenner's framework, which encompass local economies, agricultural systems, policy environments, and institutional support mechanisms. For example, teachers reported that when the rains failed, parents were unable to contribute, and schools were forced to suspend their feeding programs temporarily. Such disruptions were not due to apathy but to structural poverty and environmental vulnerability, conditions beyond the control of individual schools or families. Importantly, the cross-case results suggest that "sustainability" is not experienced uniformly: rural agrarian communities tended to frame risk in

terms of rainfall and harvest failure, fishing communities in terms of income volatility, and urban/peri-urban communities more in terms of coordination costs and free-rider dynamics, patterns that map directly onto ecological differences in livelihood systems and local social organisation.

Similar challenges have been reported across Tanzania and the region. Athumani (2023) found that parents in Karatu District, although motivated, struggled to maintain contributions during periods of drought. Liguori et al. (2024) catalogued more than 50 implementation challenges across African countries, ranging from fuel and food procurement issues to storage constraints and inconsistent policy support. In Kisarawe, Sebba et al. (2025) observed that most schools failed to meet basic national standards for feeding due to limited resources and infrastructure, even when community support was high.

Nonetheless, what emerged powerfully from this study was a sense of local resilience and ingenuity. Faced with ongoing adversity, communities mobilised coping strategies such as rotational cooking shifts, collective fundraising, and informal task-sharing among parents. These efforts reflect what Bronfenbrenner (2006) describes as adaptive human agency, where individuals and groups act creatively within their environments to sustain key practices and behaviours. This resilience underscores that sustainability is not simply a technical challenge but also a social and moral endeavour, built upon trust, cooperation, and a shared vision for children's welfare. Roothaert et al. (2021) support this view, finding that school feeding in northern Tanzania thrived when communities were supported to take ownership through transparent management and inclusive decision-making.

Ultimately, this study illustrates that school feeding is a socially embedded practice, deeply intertwined with cultural values of care, reciprocity, and shared responsibility. Stakeholders described feeding as a form of "love for our children," highlighting its symbolic as well as practical function. This aligns with Bronfenbrenner's macrosystem, which refers to the cultural and ideological patterns that give meaning to everyday practices. In this context, feeding is not just about nutritional intake or education policy; it is about fulfilling communal obligations and preserving social cohesion. The programme becomes a vehicle through which communities enact their values and aspirations, making school feeding both a developmental tool and a moral institution.

This framing challenges technocratic and donor-centric models of school feeding that prioritise metrics and outputs without sufficiently acknowledging local meaning-making and community agency. Research from South Africa (Ndamase, 2025), Kenya (Njumwa & Solomon, 2024), and Malawi (Sulu & Matemba, 2023) similarly emphasises that sustainability depends not only on material inputs but also on whether programmes are seen as authentic, culturally consonant, and morally resonant. In Mara Region, school feeding is sustained not by mandates or external incentives alone, but by the collective conviction that feeding is integral to children's success, family dignity, and community vitality.

In synthesising these insights, the study shows that the sustainability and effectiveness of school feeding arise from the interplay of belief systems (motivation), interpersonal relations (engagement), and structural contexts (resources and policy). Teachers and parents are not passive implementers of external interventions; they are co-creators who negotiate meaning, mobilise resources, and reconstruct programmes in ways that align with their cultural logics and material realities. The integration of Hoover-Dempsey's motivational framework with Bronfenbrenner's ecological systems theory reveals the full complexity of this process. Together, these frameworks help explain how feeding initiatives become embedded in everyday school life, not simply as policy artefacts, but as lived, evolving, and socially constructed practices of care, education, and hope. This interpretation is strengthened by triangulation across individually elicited teacher accounts and interactionally generated parent FGDs: convergence was clearest on perceived effects for attendance/engagement and child well-being. At the same time, divergence was most apparent in how constraints were narrated (institutional/logistical emphases among teachers versus economic/climatic pressures among parents).

These findings are further validated by converging evidence across Tanzania and Sub-Saharan Africa. Multiple studies document the academic and behavioural benefits of feeding (Daftari & Umeodum, 2022; Mabula et al., 2023; Mohammed et al., 2023), the importance of community-based and culturally aligned engagement (Haruna & Mwakalinga, 2025; Haule & Mwinami, 2024), and the persistent threats posed by poverty, environmental shocks, and weak infrastructure (Liguori et al., 2024; Mainje et al., 2024; Sebba et al., 2025). Taken together, this evidence reinforces the view that sustaining school feeding requires a holistic approach, one that honours both the practical needs and the moral

commitments of the communities that make such programmes possible. At a reporting level, the study therefore prioritises depth, triangulation, and cross-case variation rather than “volume” of distinct quotations proportional to headcount; the 20 FGDs function as 20 comparative cases, and the discussion interprets the patterned meanings that recur and vary across those cases.

CONCLUSION

This study explored how teachers and parents in Tanzania’s Mara Region perceive the effectiveness and sustainability of school feeding programmes (SFPs), drawing on their lived experiences across 20 diverse primary schools. Anchored in Hoover-Dempsey and Sandler’s motivational framework and Bronfenbrenner’s ecological systems theory, the findings reveal that school feeding is perceived not simply as a nutritional intervention but as a community-embedded practice that supports children’s learning, emotional well-being, and consistent school attendance.

Teachers viewed feeding programmes as critical for fostering academic engagement, concentration, and classroom harmony, particularly in contexts of poverty and food insecurity. Parents, meanwhile, saw feeding as a moral responsibility and a form of social care, deeply tied to cultural values of solidarity and collective parenting. Despite persistent challenges, including poverty, seasonal food shortages, and limited infrastructure, teachers and parents demonstrated strong commitment and adaptability, finding locally grounded strategies to sustain the programmes through shared labour, contributions, and cooperation. Ultimately, this study highlights that school feeding is not only a tool for educational access but also a catalyst for community ownership, relational trust, and moral agency. It calls for a deeper recognition of the cultural and ecological dimensions that shape local engagement with SFPs, positioning sustainability not just as a logistical issue, but as a shared social responsibility.

RECOMMENDATIONS AND IMPLICATIONS

This study offers several practical and policy-oriented implications for enhancing the effectiveness and sustainability of school feeding programmes (SFPs) in Tanzania. At the policy level, there is a clear need to institutionalise school feeding as a core component of the national education strategy, rather than treating it as an auxiliary welfare intervention. To achieve this, the government should allocate consistent

funding at both the district and national levels, ensuring long-term financial sustainability. In addition, promoting home-grown school feeding models that connect schools with local farmers can stabilise food supply chains while simultaneously boosting local agricultural economies. Policy tools such as the SABER School Feeding framework may be used to monitor programme performance, support coordination, and ensure alignment with Tanzania's broader development priorities (Assefa, 2025; Schultz et al., 2024).

From an educational practice perspective, the findings of this study underscore that school feeding is not just a logistical exercise but also a deeply relational and pedagogical activity. Teachers play a central role in sustaining these programmes, and as such, they require professional development that equips them to engage communities effectively. Training in areas such as parent engagement, communication, transparency, and participatory school governance is vital to fostering trust and shared responsibility between schools and families (Haruna & Mwakalinga, 2025). Strengthening these relational capacities can enhance parental involvement and improve the overall quality and sustainability of feeding initiatives.

The implications also extend to development partners and NGOs working in school nutrition. Rather than focusing on short-term food provision, such actors should prioritise long-term community empowerment and capacity building. This includes supporting the development of effective school committees, enhancing local governance structures, and promoting locally managed feeding systems that build on existing social capital and cultural values. When communities are actively involved in decision-making and programme implementation, as documented by Kazanskaia (2025a, 2025b) and Lema and Mwila (2022), programmes are more likely to succeed and endure beyond donor cycles. Investments in basic infrastructure, such as kitchens, food storage facilities, and monitoring mechanisms, are also crucial for reducing dependence on external aid and enhancing operational efficiency.

The study carries several implications for future research as well. It demonstrates the value of combining motivational and ecological theoretical lenses to gain a deeper understanding of how community-based education programmes function and evolve. Future studies should include the voices of children themselves to better capture their lived experiences and perceptions of school feeding. Longitudinal research is

also necessary to track changes in programme impact, stakeholder engagement, and community ownership over time (Mainje et al., 2024; Roothaert et al., 2021). Moreover, expanding the scope of inquiry to include local government officials and school management committees would provide a more holistic picture of how institutional and policy environments interact with grassroots implementation practices. These research directions can inform the design of more inclusive and context-sensitive school feeding strategies across Tanzania and the broader Sub-Saharan region.

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