



World Food Programme

# Evaluation of the School Meals Programme in Malawi with financial support from the United States Department of Agriculture (USDA)

## Key Findings



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SAVING  
LIVES  
CHANGING  
LIVES

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# Purpose

**To understand the extent to which the programme objectives have been achieved and reasons for lack of fulfilment.**

**Specific objectives are :**

- **Accountability** – Assess and report on performance and results of the School Meals Programme (SMP) in the 13 target districts, guided by the OECD/DAC evaluation criteria of Relevance, Effectiveness, Efficiency, Impact and Sustainability.
- **Learning** – Determine reasons for results, derive good practices and pointers for learning and provide evidence-based findings to inform operational and strategic decision-making.
- **Deepening understanding** – Deepen knowledge and understanding of the underlying assumptions guiding the design and implementation of the programme and the cultural context of implementation.

**Evaluation period: October 2016 to December 2018.**

Focus on schools, school-age children, their households and key stakeholders in the target districts

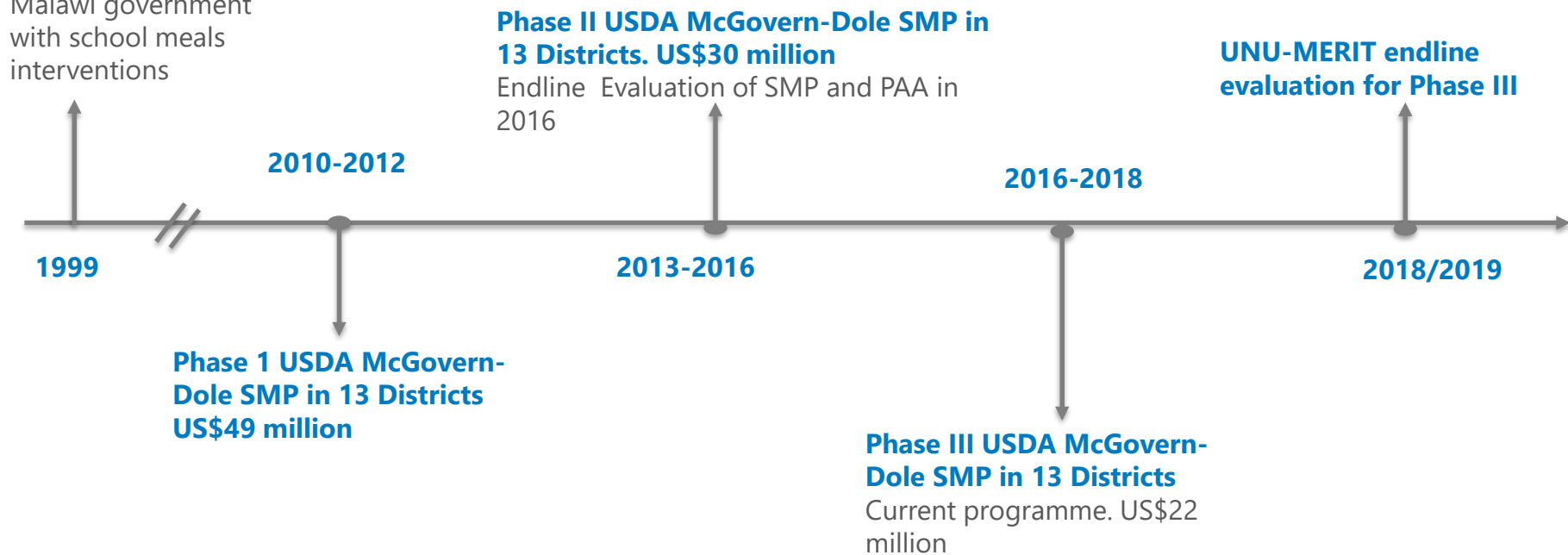
## Country Context

- **50.7%** of the population is poor, with **25% extremely poor**.
- About **3.8 million people suffer from hunger**
- Vulnerable to **recurrent weather shocks**
- National school drop-out rate is **3.8% for boys and 4% for girls**: ancillary costs, pregnancy and early child marriage cited as reasons
- **70%** of children aged 5-10 **go to school hungry**. **37% of children stunted**.
- WFP Malawi has given technical support to the Govt's basic education (primary & ECD) programme through school meal interventions since 1999.
- The **USDA (McGovern-Dole)** supported SMP implemented in 13 of the most food insecure districts, for **637,473 pupils in 783 Schools and 93 ECD**.

# Subject of Evaluation: SMP History

## School Meals

WFP supports Malawi government with school meals interventions



## Centralized Model (McGovern-Dole SMP)

### On-Site Meals



Pre-primary and primary school children:

**Super Cereal (CSB+)** porridge, **60g daily** ration  
(WFP standard ration is 100g).

### Take Home Ration



Girls and orphaned boys (std 5-8):

**10kg maize meal**, conditional on  $\geq 80\%$  class attendance in lean season (January-March).

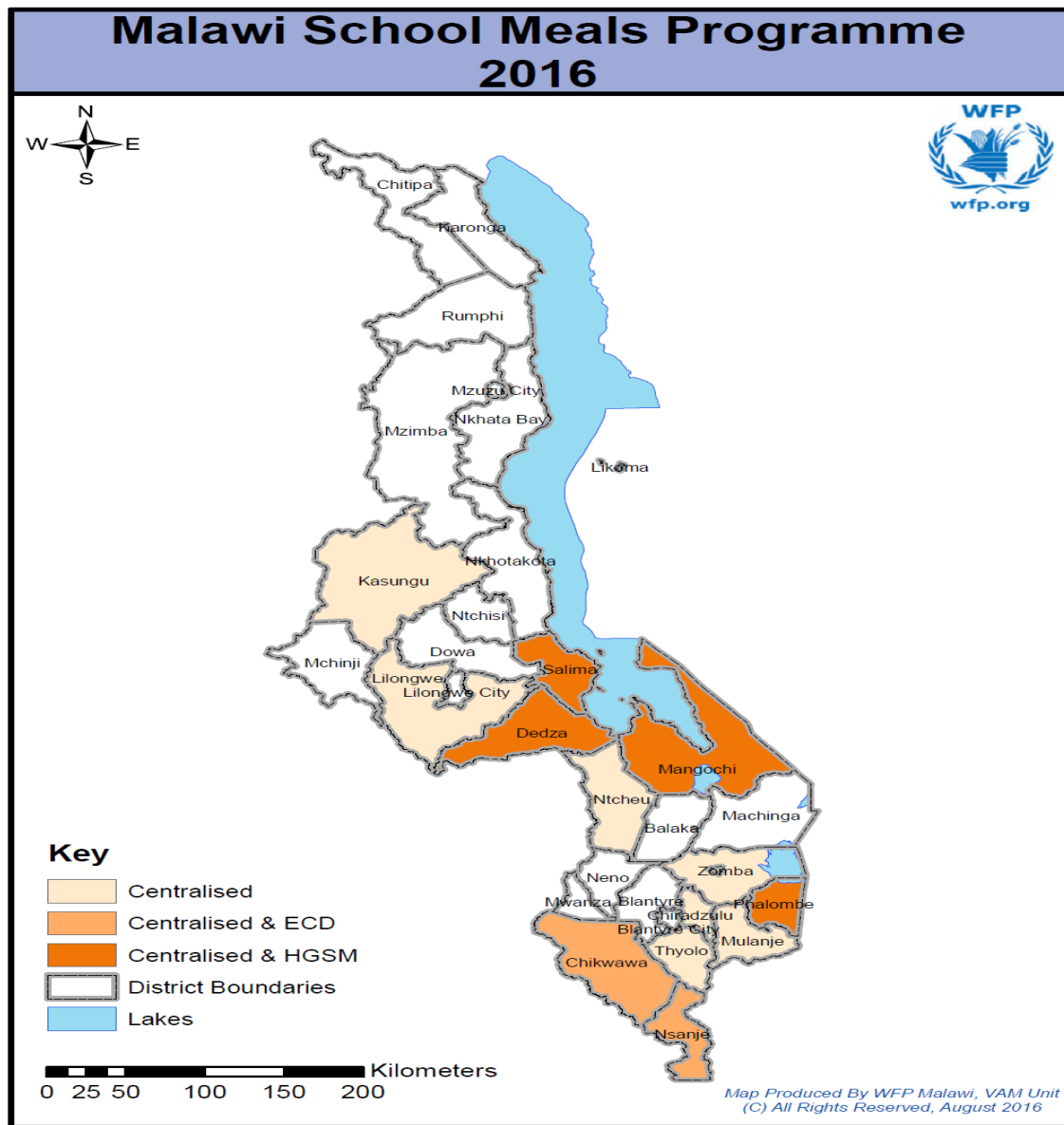
## Geographical Scope

### Beneficiaries:

- 637,473 learners
- 49% male, 51% female
- 456 primary schools; 35 ECD Centres (Chikwawa and Nsanje)

### Target districts:

Mangochi, Nsanje, Phalombe, Chikwawa, Mulanje, Zomba, Thyolo and Chiradzulu in southern Malawi  
Dedza, Lilongwe, Salima, Ntcheu and Kasungu in central Malawi



# Objectives and Activities of SMP

- **Objectives**
  - Increase literacy (Strategic Objective 1)
  - Increase use of health and dietary practices (Strategic Objective 2) among school-aged children.
- **Key activities: In addition to on-site meals & take home rations (THR)**
  - Provide school gardens, non-food items (energy saving stoves, cooking pots and eating utensils), bursaries
  - Training on commodity management, food storage and preparation, health and nutrition practises
  - Capacity building at all govt levels
  - Literacy and education promotion; school supplies distribution
  - Partnerships with farmer organisations to supply food to schools
  - Construction/rehabilitation of secondary schools, kitchens, storerooms and feeding shelters

# Key Results of SMP

**Increased skills and knowledge** of school administrators;

**Improved quality of Literacy** instruction and materials

**Increased government engagement** and capacity to manage and implement school feeding programmes

**Better access to school supplies** and Materials

Increased **skills and knowledge of teachers**

**Increased access to food** (school meals)

**Improved teacher and student attendance**

**Improved policy and regulatory framework**

**Increased knowledge of health, hygiene, nutrition and sanitation practices**

**Increased student enrolment** rates



# Methodology: Design and Approach

- **Research design**

- **Longitudinal:** schools from endline of Phase II (January 2013 to December 2016) as baseline
- **Cross-sectional:** household data & EGRA

- **Research approach**

- **Quantitative:** household interviews || EGRA || school checklist
- **Qualitative:** FGDs || KIIs || document review

## Quasi-experimental design approach possible in some areas

### Beneficiary:

- Schools
- Learners
- Households
- Communities

### Non-beneficiary:

- Schools
- Learners
- Households
- Communities

# Sampling strategy

## Stage 1: Schools

Baseline WFP school list used. Re-selection in event of attrition.

## Stage 2: Learners

Children drawn at random from all Standards for household interviews and/or to undertake EGRA

## Stage 3a: Households

Children drawn at random, approx. 10 per school, over all Standards. Enumerators taken to their homesteads to conduct household interview

## Stage 3b: EGRA

Children from Std. 2 & 4 drawn at random from 2 schools per district to take EGRA.

## Final sample:

**191 schools** (128 SMP; 63 non-SMP), **124 in a panel** with baseline schools (92 SMP; 32 non-SMP)

**1398 household interviews** (922 beneficiaries; 476 control)

**996 EGRAs** (512 beneficiaries; 480 control)

## Quantitative Data Collected

Districts	Schools		Learners (EGRA)		Households	
	Targeted	Non-targeted	Targeted	Non-targeted	Targeted	Non-targeted
Mangochi	10	4	80	80	61	64
Chiradzulu	10	6	80	40	77	43
Mulanje	14	11	81	79	104	81
Phalombe	21	9	79	80	154	69
Chikwawa	31	15	80	40	218	109
Kasungu	31	14	80	77	227	106
Salima	11	4	80	40	81	34
<b>Total</b>	<b>128</b>	<b>63</b>	<b>516</b>	<b>480</b>	<b>922</b>	<b>476</b>
<i>Note</i>	11 ECDs	6 ECDs				
<b>Girls/Female head</b>	-	-	299	271	28.6%	24.8%
<b>Boys</b>	-	-	217	209		
<b>Standard 2</b>	-	-	260	240	-	-
<b>Standard 4</b>	-	-	256	240	-	-

## Qualitative Data Collected

FGDs	Total	Male %	Female %
Chikwawa	7	13	87
Mulanje	15	45	55
Phalombe	14	40	60
Chiradzulu	4	48	52
Mangochi	4	48	52
Salima	13	23	77
Kasungu	5	37	63

**FGDs:** **62:** Beneficiary schools **34** || Non-beneficiary schools **28**

**KIIs:** **80** from WFP (CO, RB, NY), Ministries, local govt, World Vision, Save the Children, AECD, CRECCOM, farmers organizations, School Feeding Committees

# Early Grade Reading Assessment-EGRA

<b>EGRA Subtask</b>	<b>Stimuli</b>	<b>Score range</b>	<b>Length of subtask</b>
<b>Letter name knowledge</b>	0-100 letters	0-100	1 minute
<b>Initial letter sound identification</b>	0-10 letters	0-10	1 minute
<b>Familiar-word reading</b>	0-50 letters	0-50	1 minute
<b>Unfamiliar-word reading</b>	0-50 words	0-50	1 minute
<b>Oral reading fluency</b>	0-70 words	0-70	1 minute
<b>Reading comprehension</b>	5 questions	0-5	Untimed
<b>Listening comprehension</b>	5 questions	0-5	Untimed
<b>Reading above MOEST benchmark</b>	20 correct words/min	0/1	-

**25 schools** (14 SMP || 11 non-SMP) across 7 Districts

# Data Analysis

- **Descriptive statistics** - means and mean comparisons
- **Rigorous impact evaluation techniques** (Quasi-experimental)
  - Difference-in-Differences (DID) for **attendance, attentiveness, dropout rates, skills and knowledge**
  - Ordinary/ instrumental variable regressions for **short-term hunger at household level**
  - Matching method (CEM) for **literacy**
- **Cost- efficiency analysis** (i.e. CTR and alpha ratio): comparing SMP with HGSM
- Qualitative data analysis: **thematic assessment of the narratives**
- Where possible, ***the analysis used a gender lens.***

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# Limitations

- **Reduced school sample for longitudinal analysis:**
  - Transition SMP -> HGSM reduced sample available for longitudinal analysis.
- **Contemporaneous interventions:**
  - Spill-over effects as non-beneficiary schools are within the same districts.
  - Emergency School Meal Programme implemented in non-SMP schools in 2016/2017. Possibly raised baseline values.
  - Other programmes (e.g. social cash transfer) are controlled for in causal analysis where possible
- **Cross-sectional samples:**
  - Household data and EGRA scores are **cross-sectional**. This means analysis cannot fully account for unobserved factors.

# Key Findings



## Relevance and Appropriateness

- **High relevance** to context and beneficiary needs
  - On-site daily meals and THRs relevant to chronically poor and vulnerable beneficiaries in food insecure districts
  - Consumption of breakfast before school is not common in this context
    - Among non-beneficiary households, 77% reported not providing daily breakfast to children.
  - Beneficiaries report that THRs benefit households through:
    - Increased school participation among girls & orphaned boys; reduced transactional sex, early marriage, teenage pregnancy among girls
  - On-site meals do not discriminate against children from marginalized groups
  - SMP **well aligned with the policies and priorities of the government**, WFP, UN, USDA and other actors providing school meals

# Relevance and Appropriateness

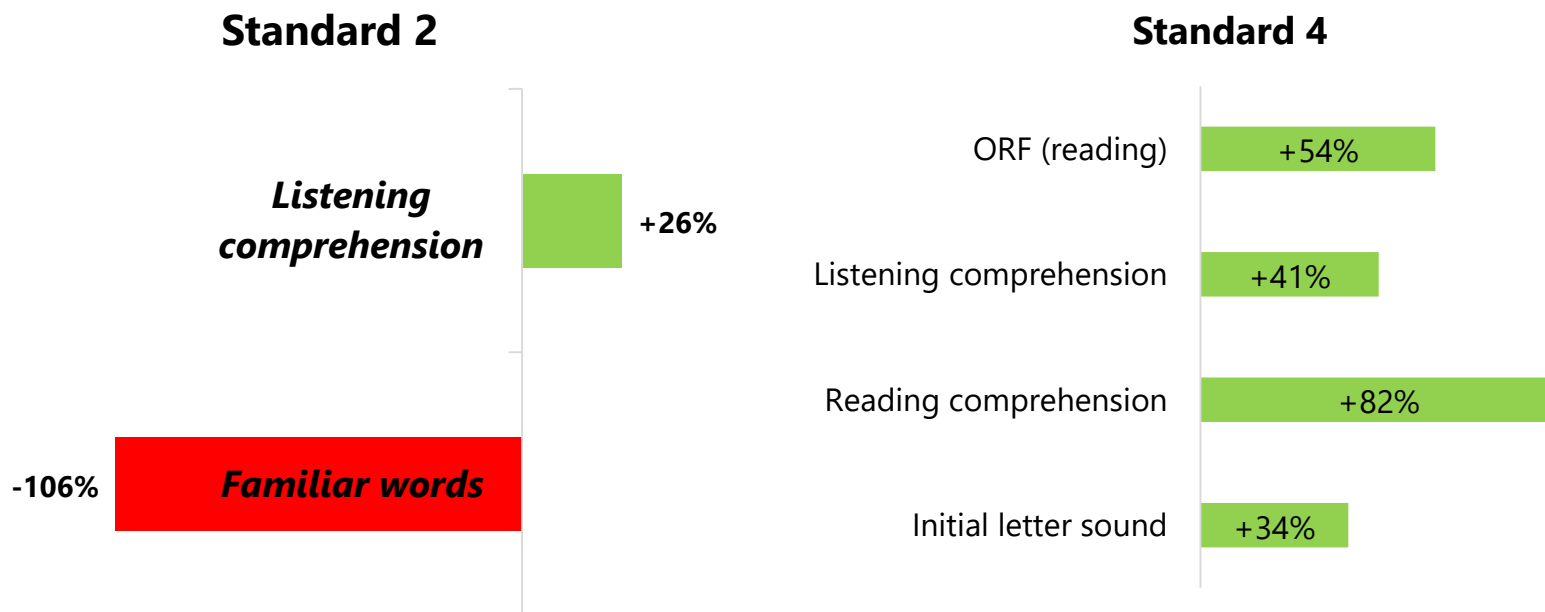
- **Appropriateness undermined by:**
  - Complaints of the **bitter taste** of on-site meals, though this does not diminish consumption.
- **Early feeding time**
  - Minimizes disruption to learning at the expense of perceived safety of volunteer cooks (female majority) who travel before dawn
  - PM hunger is a risk among vulnerable older pupils where SMP is daily meal
  - Stakeholders concurred feeding time study necessary to inform policy
    - Government study in progress

## Relevance and Appropriateness

- **GEEW activities appropriately mainstreamed and THR are gender sensitive by design though without guiding gender & protection strategy/action plan.**
  - **Gender analysis can be improved by:**
    - **integrating GEEW** and **protection** indicators into **monitoring** processes.
    - E.g. female leadership of SFCs, child marriage, food preparation time, volunteer safety, bullying/GBV
  - **Regular gender and protection assessments**
  - **Encouraging gender balance in meal preparation** – now dominated by women
    - Community sensitisation on importance of gender equality in domestic roles
  - **Encouraging greater use of existing toll-free confidential hotlines** and suggestion boxes || use of non-confidential CFMs – e.g. face-to-face – is high

# Impact on Literacy (SO1)

Targeted schools vs. non-targeted schools

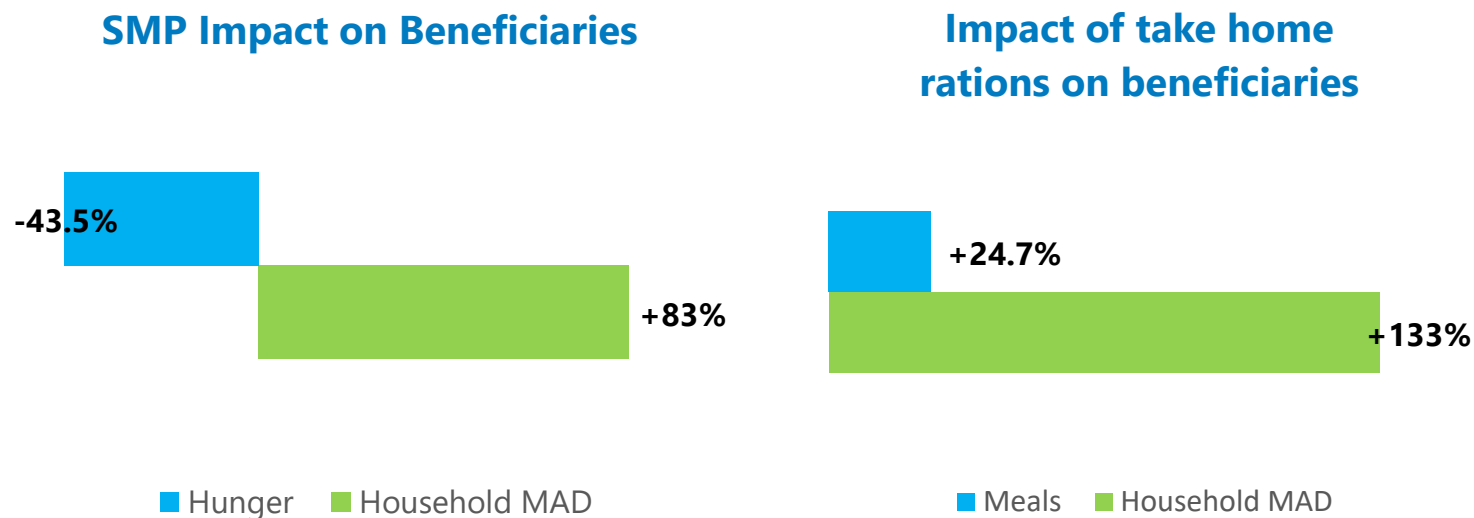


- **Standard 4 : Positive impacts: Girls scored higher than boys** in initial letter sound identification, listening and reading comprehension.
- **Minimal impact in Standard 2** diluted by less experienced teachers, overcrowded and ill-equipped classrooms, limited ECDs, uneven implementation of partner activities

## Impact on student attendance, dropout, attentiveness

- SMP **reduced absenteeism by 5 percentage points** (about 116% of baseline 4.3% average), with a stronger impact on boys, contrary to previous studies.
  - Impacts for girls may be attenuated by bullying/GBV and early marriage
- **Dropout rates reduced by 2.9 percentage points** (marginally significant). Similar trends across gender.
- **No significant effect on attentiveness.** But limited longitudinal survey data from non-targeted schools.
- Qualitative surveys: **positive impacts** on attendance, psychosocial health of **orphans and children with disabilities**, as schooling removes them from an abusive home environment.

## Impact on short term hunger (SO1), dietary practices (SO2)



- Significant **reductions in short-term hunger (SO1), improvements in dietary diversity among learners and households (SO2).**
  - Lower hunger , better coping strategies, more meals consumed than non-beneficiaries. Gains mostly observed in male-headed households.
  - Increased MAD in male-headed households , decrease in female-headed households.
- Residual effects of THRs in October 2018 (received January-March 2018).

## Impact of SMP on skills and knowledge of teachers

- **No impact on the number of teachers and administrators using new techniques or tools.**
- May explain the minimal impact on literacy in standard 2
- Literacy promotion activities began much later in 2018.
- Qualitative interviews: teachers reported short duration and low number of literacy training sessions.

## Unintended impacts

- Qualitative interviews report **high enrolment rates & migration to SMP schools**
- Quantitative data show **SMP had no impact on enrolment rates or classroom congestion.**
  - **Student – teacher ratio reduced over evaluation period**
  - Standard 2: SMP schools 92:1 || Non-SMP 96:1
  - Below government 2020 target of 67:1
- **Underage enrolment high in targeted schools**
  - SMP schools Standard 2 2.7% || Non-SMP schools Standard 2 1.7%
  - About 70% of underage learners are girls



## Unintended impacts

- **No meal substitution at home for children receiving school meals.** More likely to consume lunch and/or dinner than non-targeted children.
- **Meal preparation work constitutes about 33% of total working time for employed women** creating livelihood opportunity costs for the majority female cooks
- **Firewood demand may fuel deforestation:** planting of woodlots undermined by poor management, theft, and consumption by livestock.

# Effectiveness: Achievement of Targets

## SO1 targets

### Targets met

**Direct and indirect beneficiary numbers exceeded targets**

**Student attendance, enrolment output targets and Standard 2 literacy rates have been achieved**

**Training of school administrators, teachers (techniques) and community members (commodity management)**

**Number of school administrators is practising new techniques**

**Reduction of household hunger coping strategies exceeded targets**

### Unmet

**Pipeline delays meant provision of the SMP did not meet targets**

**But only 23% of literacy promotion materials have been distributed**

**School construction below target, along with bursary provision. (ongoing)**

**Number of teachers practising new techniques.**

**Teachers reported insufficient training time (no causal impact on teaching skills)**

**Number of meals consumed (but positive impacts in causal analysis)**

# Effectiveness: Achievement of Targets

## SO2 targets

- **Targets were broadly met**, notably health, nutrition, food management training and MAD (with causal impact in male headed households).
- **All targeted schools have kitchens**, but not all have established gardens.
- Most schools feature **functioning latrine & improved water source**
- Foundational results:
  - Achievement of partnerships, local organisation support is strong.
  - At time of evaluation, education policies were still in development
- Gender disaggregated data is ubiquitously unavailable in monitoring reports along with hygiene and water supply information

# Effectiveness: Cross Cutting Indicators

## Gender Equality

- **Gender parity in beneficiary numbers, school enrolment, literacy rates**
- Absenteeism, drop-out rates **higher among girls**
- Attainment of **MAD lower among girls**
- **Women control THRs** in >50% of households
- **>50% of school feeding committees led by women**
- **Meal preparation burden falls on women**; creates income opportunity costs

# Effectiveness: Cross Cutting Indicators

## Protection

### Community sensitisation against GBV

**Use of confidential CFMs is low** (hotlines and suggestion boxes); strong reliance on face-to-face approach which hinders sensitive conversations.

**Security risks while travelling to SMP sites** reported

**3% of female learners afraid of GBV** while walking to school

## Partnerships

**Strong partnerships with the MoEST**, other ministries and agencies (UNICEF, UNFPA)

**WFP and government work closely at district, national levels**

**Financial value of public-private investments increased**

SMP supported local governance groups like PTAs

# Effectiveness

## Internal factors affecting outputs and outcomes

**Early feeding time increases learning time but introduces security risks for cooks**

**Capacity building** has been provided though it has been deemed **inadequate and patchy**

**Funding constraints prevented the provision of the planned 100g meal size**

**Weak monitoring capacity** in school & community structures – **provide learner registers, staff turnover**

**Inadequate resources at district level (DSMC, SHN)** place burden on WFP field monitors

**Untimely delivery of the commodities** || **<65% on-time**

**Uneven implementation** of partner-managed **complementary activities**

**Community participation facilitates local implementation of SMP**

- feeding committees, contributions of labour and inputs (food, bricks), mentorship for girls

**Strong partnerships with the MoEST**

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# Effectiveness

## External factors affecting outcomes and outputs.

- Gender norms/barriers
  - Early marriage, sexual initiation rituals, bullying, GBV, poor access to sanitary products decrease school participation
- School conditions
  - lack of secondary schools, poor quality of school infrastructure and teaching materials diminish the quality of education.

## Overall assessment of Effectiveness: Medium/Average

## Efficiency

- **HGSM more cost-efficient than centralized SMP.**
- In 2018, the **total cost for delivering USD1.00 to beneficiaries was USD2.08 for the HGSM** as compared to **USD3.13 for the McGovern-Dole SMP**
- **Under the SMP, greater share of financial resources go to admin and distribution than to beneficiaries**
- Transportation costs are the largest cost driver for the SMP
  - Economies of scale from consolidated commodity transportation should be harnessed
  - Local/regional commodity purchase can reduce shipping costs
- **Operational efficiency diminished by untimely delivery of commodities due to the rainy season and an initial pipeline break**

**Overall assessment of efficiency: Low**



## Sustainability

- Extensive political & policy commitment to school feeding, capacity support from WFP and high community engagement,
- National financial readiness is low: donor funding is essential & sudden cessation of funding would have severe consequences for feeding in the short to medium term.
- To improve sustainability:
  - Create a phased hand-over roadmap from international to national funding for a contextually suitable SMP – account for agricultural diversity and linkages with resilience and climate-smart agriculture
  - Find and secure fiscal space for the SMP – ring fenced budget line at MoEST or local council level; ringfence tax revenue. Internally, reduce inefficiencies
  - Strengthen communities' sense of ownership should via sensitization
  - Establish public-private partnerships to create resource flow

**Overall assessment for sustainability: Low**

# Key Messages

## Positives of SMP

**Positive impacts on literacy** in Standard 4

**Decreases absenteeism**, possibly drop out rates

**Reduces short term hunger, improves dietary diversity** (especially among male headed households)

**THRs increase meal consumption** among children- impacts beyond lean season

## Concerns

**Minimal impacts on literacy** in Standard 2

**No impact on teacher skill or knowledge**

**Cost-efficiency of centralized SMP is lower** than HGSM

**Poor sustainability**; government financial readiness is low

**Gendered burden of meal preparation** creates income opportunity cost

# Recommendations

## Strategic

1. Improve access to Early Childhood Development Centres (ECD), school infrastructure and allocation of teachers to lower grades. [High priority](#)
2. Consult & review with teachers the duration, timing and quantity of in-service/continuous teacher training sessions in the literacy promotion activity of the SMP. [High priority](#)
3. Formalise a sustainable handover strategy to strengthen community ownership along with a contextually relevant climate-smart national SMP [High priority](#).
4. Improve financial readiness and sustainability by increasing fiscal space for the SMP, priority in fiscal planning and strengthening public-private partnerships. [High priority](#).
5. Review the consequences of the early feeding time. [Medium priority](#).

# Recommendations

## Operational

1. Scale up the duration and coverage of partner-managed complementary activities and improve their timing to maximise synergies, increase efficiency and effectiveness. **High priority.**
2. Improve efficiency through the timely delivery of commodities and reduction of transportation costs. **Medium priority.**
3. Strengthen gender mainstreaming, analysis and protection mechanisms by formulating a strategy/action plan, addressing gendered cultural norms, GBV and improving feedback mechanisms. **Medium priority.**
4. Strengthen M&E by streamlining indicators, incorporating gender and protection and building capacities at local level. **Medium priority.**

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**THANK YOU**

