Linking Nutrition to agriculture through school Feeding

Josephine Kiamba
CAADP Nutrition Workshop, ECA
Dar es Salaam,
25 Feb-1 March 2013
What about this child??

“—the first 1000 days are a critical window in a child’s development, but lets not forget this child on day 1,001.”

School nutrition programmes help to address the +1,001 day gap.
School nutrition-why worry?

Hunger and malnutrition have effects that last throughout the life cycle
Primary school age- dynamic period of physical growth and mental development,
Micronutrient deficiencies can occur at any age and are common in school children.

Worldwide,

• 66 million school children are undernourished (WFP, 2009), an additional 67 million children are out of school. (UNESCO, 2011)

• It is estimated that half of the school children in poor communities are deficient in iron
Global Picture

- School feeding is common worldwide
  - ...but programme coverage is weakest where the needs are greatest
  - ...emerging opportunity to transition from externally supported projects to nationally owned programmes

# School feeding transition

<table>
<thead>
<tr>
<th></th>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Stage 3</th>
<th>Stage 4</th>
<th>Stage 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Policy framework for school feeding</strong></td>
<td>limited</td>
<td>increased</td>
<td>strong</td>
<td>strong</td>
<td>strong</td>
</tr>
<tr>
<td><strong>Government financial capacity</strong></td>
<td>limited</td>
<td>moderate</td>
<td>increased</td>
<td>strong</td>
<td>strong</td>
</tr>
<tr>
<td><strong>Government institutional capacity</strong></td>
<td>limited</td>
<td>limited</td>
<td>moderate</td>
<td>increased</td>
<td>strong</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afghanistan</td>
</tr>
<tr>
<td>CAR</td>
</tr>
<tr>
<td>Ethiopia</td>
</tr>
<tr>
<td>Cambodia</td>
</tr>
<tr>
<td>Mali</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
</tr>
<tr>
<td>Kenya</td>
</tr>
<tr>
<td>Lesotho</td>
</tr>
<tr>
<td>Malawi</td>
</tr>
<tr>
<td>Mali</td>
</tr>
<tr>
<td>Rwanda</td>
</tr>
<tr>
<td>Niger</td>
</tr>
<tr>
<td>Senegal</td>
</tr>
<tr>
<td>Madagascar</td>
</tr>
<tr>
<td>Mauritania</td>
</tr>
<tr>
<td>Nigeria</td>
</tr>
<tr>
<td>India</td>
</tr>
<tr>
<td>El Salvador</td>
</tr>
<tr>
<td>Ecuador</td>
</tr>
<tr>
<td>Honduras</td>
</tr>
<tr>
<td>Brazil</td>
</tr>
<tr>
<td>Chile</td>
</tr>
<tr>
<td>Jamaica</td>
</tr>
<tr>
<td>Brazil</td>
</tr>
<tr>
<td>Zimbabwe</td>
</tr>
<tr>
<td>Sudan</td>
</tr>
<tr>
<td>Tanzania</td>
</tr>
</tbody>
</table>

(Source: Bundy et al., 2009)
## The education benefits

<table>
<thead>
<tr>
<th>School feeding activity</th>
<th>Enrolment</th>
<th>Attendance</th>
<th>Educational achievement</th>
<th>Cognition</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-school meals</td>
<td>+ (♀ effect)</td>
<td>+++</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td>Take-home rations</td>
<td>+ (♀ effect)</td>
<td>+</td>
<td>++</td>
<td>++</td>
</tr>
<tr>
<td>Fortified biscuits</td>
<td>+</td>
<td>++</td>
<td>+</td>
<td>++</td>
</tr>
<tr>
<td>Supplementation</td>
<td>+</td>
<td>+++</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td>Deworming</td>
<td>NA</td>
<td>+++</td>
<td>++</td>
<td>++</td>
</tr>
</tbody>
</table>

+ = evidence from quasi-experimental evaluation
++ = evidence from at least one Randomised Control Trial
+++ = evidence from more than one RCT
NA = not assessed

(Source: Bundy et al., 2009)
Past and current situation

Two key broad observations

• Sub-Saharan Africa school feeding has been associated with imported food aid

• At the same time farmers in SSA struggle due to lack of market access
Linking agriculture to school feeding

• In 2003, NEPAD, in collaboration with WFP and the Millennium Hunger Task Force launched the Home Grown School Feeding and Health Programme initiative

• Concept: harness structured demand from school food provision (a win-win for farmers and school children).

• NEPAD launched Home-Grown School Feeding pilot programme in 12 countries, namely
  – Cote d’Ivoire, Ghana, Kenya, Mali, Nigeria, Tanzania, Ethiopia, Malawi, Mozambique, Senegal, Uganda, and Zambia.
Objective of the HGSF

• The overall objective of the HGSFP is to:
  – Act as a vehicle for promoting local development and fighting food & nutrition insecurity and disease
  – Link local small producers to markets (schools) and stimulate agriculture production and development

• Within education, the purpose of HGSF is to;
  – Increase enrolment
  – Promote regular school attendance and retention
  – Improve children’s learning capacity, and learning outcomes
  – Enhance gender equality
HGSF: With multiple benefits

Nutrition

Value transfer

Education/gender

Socioeconomic

Agriculture
HGSF Theory

**Farmer Needs**
- Accessible and stable market
- Agricultural support services

**Expected benefits from Exchange**
- Stable/Timely income
- Predictable demand
- Credit worthiness
- Opportunity for farm investment

**The Child’s Needs**
- Daily nutritious meal, education

**Expected benefits Exchange**
- Increased enrolment/Attendance
- Reduced drop-out/Absenteeism
- Increased attention/performance
- Improved nutritional status
HGSF effects

• Theory of change for HGSF includes several potential benefits and opportunities:
  – School feeding creates additional demand for food commodities- Demand driven development intervention
  – Provides a stable and predictable market for farmers to access
  – Reducing risk and increasing investment behaviour
  – Overcomes barriers to market entry
Beneficiaries of HGSF

- HGSF can have 3 target groups:
  - school children
  - small scale farmers (food production)
  - community stakeholders (food preparation)
  - Cross-cutting gender dimension

- HGSF policy objectives include:
  For children: - improved nutrition and health
  - access to education, cognition and learning
  For farmers and community stakeholders: improved food security, including food availability, access and utilisation
The HGSF Supply Chain

Secondary Beneficiary: Actors along the supply chain

- Organization of farmers
- Production of food
- Wholesale, Trading
- Transportation & Storage
- Processing & distribution to schools
- Food Preparation
- Distribution To Children

Agriculture sector and food production
Food Procurement
Logistics and processing
Food preparation and feeding

Secondary Beneficiary: Actors along the supply chain

Farms
Understanding different models

- Fully decentralised model (e.g., Kenya): Schools receive government funds through the district authorities, but implement projects fully themselves.

- Fully centralised outsourced model (e.g., Chile): Private contractor on behalf of the government (DISTAL).

- Partly decentralised NGO driven model (e.g., Cote d’Ivoire): Women’s Groups → Schools.

- Fully decentralised model (e.g., Kenya): Schools (fully decentralised model: schools receive government funds through the district authorities, but implement projects fully themselves).
Ensuring nutritional content and impact of the ration

• Seasonality—nutrient content differs by season
• Proper storage mitigate nutrient loss
• Proper preparation and cooking methods mitigate nutrient losses
• Health of children affects nutrient utilization (i.e., deworming children is a complementary activity)

(Source: Galloway, 2012)
Short-term actions for improving food & nutrient intake of school children

• Provide iodized salt to schools to improve iodine intake
• Identify one or two nutrient-dense crops on a seasonal basis that can be added to the staple food
• Provide information to parents that school meals should not substitute for what children are receiving at home
• Include high-impact health interventions such as deworming school children

(Source: Galloway, 2012)
Long-term actions for improving food & nutrient intake of school children

• Define the pathway for choosing nutritious foods for school children
• Develop a list of best buys for nutrient-rich foods to add to school meals
• Develop nutrition standards for school children (nutrition requirements and foods at school to partially meet them)
• Think family nutrition—messages to increase the consumption of a diversified diet by all the family

(Source: Galloway, 2012)
Managing trade-offs across the supply chain: school feeding side

• SF programme design options?
  – Modality (biscuits/meals/take-home rations)
  – Ration (calories and micronutrients) and menus
  – Feeding days
  – Targeting criteria (including geographical targeting)

• Trade-offs between SF design options?
  – Costs
  – Efficiency (outputs) and effectiveness (outcomes)
  – Equity
  – ...
Examples of trade-offs across the supply chain: food production side

• SF design options determine/shape nutritional content but also demand for small-holder products
  – Food quantities?
  – Food types and nutritional content?
  – Processing requirements/standards?
  – Geographic distribution?

• Linking HGSF demand to small-holder production
  – Quality?
  – Locality?
  – Seasonality?
  – Procurement modalities?
  – Defaults?
  – Costs?
  – …
HGSF and Strategic Grain Reserves

Linking SGRs with HGSF -provides opportunity to:-

• improve the rotation and management of the reserve stocks (e.g. reduce stock age)

• strengthen the procurement from smallholder farmers
Main areas to be developed by Current and Future SFP/HGSF Programmes

• Demand: targeting and amounts of foods and variety
• Supply: definitions of locally versus national produced
• Procurement mechanisms: public and private sector arrangements
• Impact: nutritional, health, education, local economy
• Governance: institutional set up, requirements for sustainability, links to other sectors and national development agenda, logistics etc
• Capacity building: needs at various levels
• Funding: who funds the programme? Sustainability ...
Programming SFPs for Better Nutrition Outcomes

- Diversification of the ration/food basket: thus
  - children eat healthy,
  - help to change/modify behaviour
  - Children demand diverse diets at home
- Nutrition education: to support demand for health diets, influence future behaviour
- Lifecycle approach to nutrition: take into consideration preschool, primary and adolescent
PCD’s Involvement

• Offering evidence based programme and policy guidance on Home Grown School Feeding
• Using an analytical approach PCD aims to promote sustainable, cost-effective and nationally owned HGSF programmes
• Technical support to countries to develop HGSF
Menu planning software

• Calculating the content of menus is not always straightforward

• New simplified menu planning software developed by Partnership for Child Development defines macro and micronutrient content of locally procured food commodities in the Ghana HGSF context and calculates the degree to which the food basket meets children’s requirements based on FAO/WHO recommended nutrient intakes
Find out more at
www.hgsf-global.org

Downloadable
• Research publications
• Case studies
• Working papers
• News and views
Thank you!