Examining the costs and cost-efficiency of the Dubai Cares GAIN-Assisted School Nutrition Project in Bangladesh

Aulo Gelli¹
Yuko Suwa²
01 August 2013

Abstract
School feeding programmes exhibit different, context-specific models or configurations. The purpose of this analysis is to examine the Dubai Cares/GAIN-Assisted School Nutrition Project in Bangladesh, conducting a high-level supply and value chain analyses of the cluster kitchen model, examining costs, cost-efficiency and cost drivers to support policy and planning.

¹ IFPRI
² Imperial College London
Executive summary

**Background:** Child development requires a life-cycle approach to intervention. School health and nutrition programmes are a key part of this continuum, providing the foundation for physical, cognitive and educational development that will allow children to reach their full and equal potential. Today, every country for which we have information is seeking to provide food, in some way and at some scale, to its schoolchildren. However, where the need is greatest, in terms of hunger, poverty and poor social indicators, the programmes tend to be the smallest. Past experience shows that countries do not seek to exit from providing food to their schoolchildren, but rather to transition from externally supported projects to nationally owned programmes.

School feeding programmes exhibit different, context-specific models or configurations. A key activity in the Partnership for Child Development research programme involves understanding the trade-offs in terms of cost-efficiency of different school feeding supply chain models. Cost estimates of school feeding programmes generally do not capture contributions made by the community at the school level. In fact only one study in the literature includes full costing across the supply chain. Though there is a dearth in the evidence on the benefits of school service provision at the community level, conceptually, school feeding service provision can direct financial resources in the school community through two main channels, funds for food procurement and funds for support services in terms of food management and preparation. In terms of food preparation, emerging evidence suggests the potential for community development benefits but this remains another important area of future research.

The purpose of this analysis is to examine the Dubai Cares/GAIN-Assisted School Nutrition Project in Bangladesh, conducting a high-level supply and value chain analyses of the cluster kitchen model, examining costs, cost-efficiency and cost drivers to support policy and planning.

**Methodology:** The analysis was guided by the supply chain reference framework developed by PCD, WFP and partners and by the five international school feeding standards developed by the World Bank, WFP and PCD. This approach provides a standardized reference model and benchmarking framework for school feeding supply chains that allows for meaningful comparisons of programs across different implementation models. Implementation processes specific to the SNP project in Bangladesh were mapped against this reference model to provide standardised measures of performance. Qualitative and quantitative data were collected retrospectively using semi-structured questionnaires following an ingredients approach, covering inputs and outputs of activities, financial figures, operational indicators, organization-level measures and information on external factors (e.g. context). The qualitative data collection also captured more information on the challenges and constraints of achieving the various school feeding objectives and possible trade-offs among them. Interviews and focus group discussions were conducted in seven schools, five kitchens, the Banchte Shekha SNP office, BRAC-HQ, and GAIN-Bangladesh office. The survey tool was based on the standardised costing framework capturing capital (fixed) and recurrent costs incurred at all levels of programme implementation. The questionnaire also covered both cash and in-kind contributions and was used to estimate both financial and economic costs. Opportunity costs of school staff and community members were calculated using local pay scales. The assumed useful life of all relevant school level assets was set to 10 years and capital costs were annuitized over this period using a discount rate of 3% as per World Bank
recommendations. Costs were standardised to a 200 feeding day year and 700 daily planned kilo-calories.

**Results:** Mapping the SNP school feeding supply chain to the reference framework highlighted that the cluster kitchen implementation model has similarities with semi-decentralised model and outsourced models, the main differences involving implementation scale, scale of purchasing volumes and frequency of purchasing. Two important features stand-out in terms of SNP implementation, including nutritional quality of the meals and community involvement in programme implementation. The analysis of SNP menus highlighted considerable diversity in terms of ingredients, whilst providing nutritionally balanced meals. As part of the programme implementation, mothers of children attending SNP schools provide voluntary service in support to school level SNP activities, including food distribution, monitoring service delivery and in some-cases develop as self-help groups.

Analysis of project performance was challenging due to different reporting periods for the data from different stakeholders. The standardised cost per child per year was found to be $145 USD including all levels of implementation. Banchte Sheka and BRAC-URBAN operations had very similar standardised costs per child per year, namely $58 and $56 USD respectively, compared to $120 USD for BRAC Rural. Including annuitisation for capital costs, discounting capital investments over the project lifetime, reduced the standardised costs per child per year to $110 USD. The SNP standardised cost per child estimates are above the average, but well within the range, for both low- and middle income-country cost benchmarks. Despite the nutritious content of the meals, the overall cost-efficiency in terms of cost per nutrient output was lower than the benchmark for centralised programmes across energy, iron, vitamin A and iodine provision. Overall, unlike the data from the operational benchmarks, the main cost drivers in the SNP were support costs.

Considering the full GAIN operational data, support costs were about $55 USD per child per year, with about $44 USD of these support costs spent on recurrent expenditures. A breakdown of the support costs into start-up and recurrent costs (staff and non-staff) highlights similar distribution of costs across GAIN, Banchte Sheka and BRAC Rural operations and higher start-up investment in BRAC Urban operations. Start-up costs ranged between 19-51% of total support costs. A break-down of staff costs into programme and kitchen level staff also highlighted similarities between Banchte Sheka and BRAC Rural operations spending approximately equal amounts in staff costs at programme and kitchen levels. However, BRAC Urban operations invested a larger share in kitchen staff salaries than the other two models.

**Conclusions:** The findings of this analysis highlight how Dubai Cares/GAIN SNP provides an example of an innovative school feeding model, combining emphasis on high quality meals service delivery with strong community engagement. The model is involves the provision of diverse and nutritionally balanced meals, integrating school meal service within a broader framework of school-health interventions. The cluster kitchen model also integrates a strong community development component engaging mothers in the service delivery.

The estimated standardised cost per child per year of 110 USD is above the benchmarks for low- and middle-income countries but it reflects to a large extent the intensive start-up investment and support provided by GAIN. Operationalising all the different components of the SNP has clearly been complex, involving interactions between a multitude of stakeholders across sectors and levels of implementation. The considerable start-up
investments were not limited to infrastructure development but also involved intensive facilitation, advocacy and stakeholder engagement, followed by more in-depth technical assistance and capacity building. GAIN’s role in this cannot be underestimated, the fruits of which can be seen both in terms of the quality of the service provision, but also the level of engagement from stakeholders across sectors and implementation levels.

Questions remain as to whether this start-up investment is a model related constraint and how would support costs vary over longer project lifetime. The qualitative data collected in this analysis suggests that sizeable support investments would have tailed-off as the project would mature. A more detailed analysis of these issues is warranted but was out of scope for this work.

The detailed analysis of cost-drivers was constrained by some data quality issues as the breakdown of support costs was ‘noisy’ across different stakeholders using different reporting formats. The development of standard reporting formats is a clear, low-cost, action that would improve future analyses.

The analysis also highlighted important trade-offs in the cluster kitchen model vis-à-vis other implementation models, including issues of resource intensiveness, economies of scale and quality control. Quantifying these trade-offs more explicitly, within the operational performance benchmarking framework developed in this analysis is a clear opportunity for further work.

A number of follow-up analytical activities have been identified in this analysis, including modelling support cost structure as programme matures, including a cost analysis within annual programme monitoring activities and understanding emerging value chain development opportunities.
# Table of Contents

Executive summary .......................................................................................................................... 1  
Acknowledgements ........................................................................................................................... 6  
1. Background .................................................................................................................................... 7  
   Understanding the full costs of different school feeding models ....................................................... 7  
   School feeding in Bangladesh ......................................................................................................... 8  
   Aim and objectives ........................................................................................................................... 8  
2. Methodology ................................................................................................................................. 9  
3. Results: Salient features of School Nutrition Project in Bangladesh ............................................. 10  
   3.1 Design and implementation ........................................................................................................ 10  
   3.2 Policy frameworks .................................................................................................................... 22  
   3.3 Institutional capacity and coordination ...................................................................................... 22  
   3.3 Financial capacity ...................................................................................................................... 26  
   3.4 Community participation and ownership .................................................................................... 27  
4. Results: Costs and cost-efficiency analysis ................................................................................... 29  
5. Results: Strengths and weaknesses, opportunities and threats (SWOT) analysis ....................... 33  
6. Discussion and recommendations ................................................................................................. 37  
References ......................................................................................................................................... 39  
Annex 1: Detailed costing framework with GAIN project data ....................................................... 41  
Annex 3: Schedule of field work ........................................................................................................ 42  
Annex 4: List of interviewees ............................................................................................................. 44  
Annex 5: SNP evolution timeline ....................................................................................................... 47  
Annex 6: Example of semi-structured questionnaire ........................................................................ 48
Acknowledgements

We would like to acknowledge Dubai Cares for funding this study, and Banchte Shekha, BRAC, and GAIN for their full cooperation and for generously making time to ensure the success of the field mission. We also thank Tania Sufi (GAIN-Bangladesh) and especially Cathy Bipasha Sarker (BRAC University student) for their excellent assistance. We would like to extend a special thank you to Mr. Md. Zakir Hossain Akanda (GAIN-Bangladesh), without whom it would have been impossible to conduct our field study through a series of hortals (general strikes).

This work was undertaken by Aulo Gelli and Yuko Suwa at the Partnership for Child Development. AG designed the study and undertook the quantitative analysis. YS developed the interview guides and questionnaires and undertook the field work in Bangladesh. Both authors contributed to the final report.
1. Background

Child development requires a life-cycle approach to intervention. School health and nutrition programmes are a key part of this continuum, providing the foundation for physical, cognitive and educational development that will allow children to reach their full and equal potential. Today, every country for which we have information is seeking to provide food, in some way and at some scale, to its schoolchildren. However, where the need is greatest, in terms of hunger, poverty and poor social indicators, the programmes tend to be the smallest. Past experience shows that countries do not seek to exit from providing food to their schoolchildren, but rather to transition from externally supported projects to nationally owned programmes. Countries that have made a successful transition have often explored linking school feeding programmes to agriculture and economic development – an approach also known as “Home Grown School Feeding” (HGSF).

The Partnership for Child Development consists of a global consortium of civil society organizations, academic institutions and technical experts with a streamlined Coordinating Centre based at Imperial College London. The role of the Centre is not as an implementing agency, but to engage specific experts, in specific countries, on specific issues, as and when required. In this way, we are able to bring together a distinct combination of academic excellence, technical expertise and high level networks to governments and international organizations, resident in many different countries.

PCD is an organisation committed to improving the education, health and nutrition of school-age children and youth in low-income countries. Our on-going research and operational activities in the field of school health and nutrition and HIV and education now provide an impressive evidence-based platform that assists countries and international agencies turn such findings into national interventions. PCD is part of the Department of Infectious Disease Epidemiology which is in turn part of the Faculty of Medicine of Imperial College London.

Understanding the full costs of different school feeding models

School feeding programmes exhibit different, context-specific models or configurations. A key activity in the PCD research programme involves understanding the trade-offs in terms of cost-efficiency of different school feeding supply chain models. HGSF, for example, involves linking the provision of goods and services for school feeding to smallholder farmers and the community (Sumberg & Sabates-Wheeler, 2010). Different approaches can even co-exist within the same country, where, for instance, programme implementation is owned by decentralised institutions (e.g. individual states in Brazil or India), or where agencies like WFP are complementing the national programmes (e.g. Ghana and Kenya). Figure 1 shows stylised supply chains linking food production to food distribution in schools for three different implementation models.

Cost estimates of school feeding programmes generally do not capture contributions made by the community at the school level. In fact only one study in the literature includes full costing across the supply chain (Galloway, R. et al., 2009). This study analysed on-site meal programmes in 4 countries in sub-Saharan Africa, namely Kenya, Lesotho, Malawi and the Gambia. School level contributions to school feeding ranged from 0% in Lesotho to 15% in Kenya. Though there is a dearth in the evidence on the benefits of school service provision at the community level, conceptually, school feeding service provision can direct financial resources in the school community through two main channels, funds for food procurement and funds for support services in terms of food management and preparation. In terms of
food preparation, emerging evidence suggests the potential for community development benefits but this remains another important area of future research.

**Figure 1: Stylised school feeding supply chains and example country models**

**School feeding in Bangladesh**

Bangladesh is, according to the FAO definition, a Low Income Food Deficit Country (LIFDC) with a population of over 150 million people, over 31 percent of whom are under 15 years of age (Source: UNFPA). In fact, “most children in Bangladesh...show signs of micronutrient deficiencies (53%, 43% and 25% from iron, iodine and vitamin A deficiency respectively), which very naturally creates hindrance to the development of their cognitive capacity resulting in low enrolment and retention and high dropout rate of students at schools. Bangladesh has the highest number of hungry poor in the world after India and China”.

The Government of Bangladesh has considerable experience in school feeding programmes, including school meals, snacks and take-home rations. Most recently, in a partnership between the Government, GAIN and Dubai Cares led to development of a pilot of School Nutrition Project (SNP) in both rural and urban areas of the country that focussed on the development of a centralised kitchen model.

**Aim and objectives**

The purpose of this project is to examine the Dubai Cares/GAIN-Assisted School Nutrition Project in Bangladesh, conducting a high-level supply and value chain analyses of the cluster kitchen model, examining costs, cost-efficiency and cost drivers to support policy and planning.

Key research questions include:

- What are the full programme costs (including “hidden” costs)?
- How do the costs and cost-efficiency data compare with benchmarks from similar programmes?
- What are the main cost drivers?
What are the key trade-offs involved in the design and implementation of the “cluster kitchen” model?

2. Methodology

The analysis was guided by the supply chain reference framework developed by PCD, WFP and partners (Gelli et al., 2012) and by the five international school feeding standards developed by the World Bank, WFP and PCD (Bundy et al., 2009). This approach provides a standardized reference model and benchmarking framework for school feeding supply chains that allows for meaningful comparisons of programs across different implementation models. The project involved the development and analysis of performance indicators for the cluster kitchen model based on the standard reference model. Implementation processes specific to the SNP project in Bangladesh were mapped against this reference model to provide standardised measures of performance. The project scope was divided into 3 phases as captured in Figure 2.

![Figure 2: Stylised view of project scope.](image)

**Data collection**

Qualitative and quantitative data were collected retrospectively using semi-structured questionnaires following an ingredients approach, covering inputs and outputs of activities, financial figures, operational indicators, organization-level measures and information on external factors (e.g. context). The qualitative data collection also captured more information on the challenges and constraints of achieving the various school feeding objectives and possible trade-offs among them. Interviews and focus group discussions were conducted in seven schools, five kitchens, the Banchte Shekha SNP office, BRAC-HQ, and GAIN-Bangladesh office (see Annex 3 and 4 for more details).

The survey was based on the standardised costing framework capturing capital (fixed) and recurrent costs incurred at all levels of programme implementation. The questionnaire also covered both cash and in-kind contributions and was used to estimate both financial and economic costs (see Annex 5). Financial costs capture actual expenditures in terms of programme implementation on an annual basis. Economic costs included the opportunity costs of community members, teaching staff and other school level stakeholders involved in the school feeding service provision. The range of capital and recurrent costs captured by the survey is shown in detail in Annex 2. Opportunity costs of school staff and community members were calculated using local pay scales. The assumed useful life of all relevant school level assets was set to 10 years and capital costs were annuitized over this period.
using a discount rate of 3% as per World Bank recommendations. Annuitisation enables an equivalent annual cost to be estimated and reflects the value in-use of capital items, rather than reflecting when the item was purchased (Brooker et al., 2007). Costs were standardised to a 200 feeding day year and 700 daily planned kilo-calories (Gelli et al., 2011). All costs were incurred in Bangladeshi Taka (BDT) and converted to US dollars using official exchange rates, based on average yearly exchange rate: 1 US$ 77.17 BDT in March 2013.

3. Results: Salient features of School Nutrition Project in Bangladesh

In this section we describe the main features of the School Nutrition Project (SNP) in Bangladesh using a framework provided by the five international school feeding standards developed to provide an integrated assessment of school feeding programmes (Bundy et al., 2009). The five standards include design and implementation, policy frameworks, institutional capacity and co-ordination, financial capacity, and community participation.

3.1 Design and implementation

The SNP, one of several school feeding programmes in Bangladesh, is the first programme to provide a hot cooked meal to the school children in the country. The SNP began its scheduled two year implementation in December 2010 with total funding of US$2,491,000. Cooked meal service provision began in June 2012 in partnership with the Government of Bangladesh (GoB), GAIN, and Dubai Cares. As of March 2013 when this study was undertaken, the SNP was still in pilot stage, operating in three sub-districts covering 18,809 students.

3.1.1 Project objectives

The overarching objective of the SNP is to:

“Reduce malnutrition by increasing the consumption of appropriate, fortified foods by primary school aged children living in low-income families in Bangladesh, on a sustained basis”\(^1\).

The overarching objective covers the following sub-objectives:

1. Provide supplementary nutrition to children aged 5 to 11 years through government and BRAC schools in Bangladesh and ensure reach of good quality fortified foods to vulnerable children in the country.
2. Demonstrate the technical and operational feasibility of providing a variety of fortified foods through scaled-up school feeding programs in Bangladesh.
3. Demonstrate the educational and nutritional benefits of school feeding programs.

3.1.2 Implementation model

SNP developed and adopted an innovative “Cluster Kitchen” model based on experiences from school feeding implementation in India. In 2011, the Government of Bangladesh (GoB), and the two local IPs participated in the GAIN-coordinated field visit in India to observe two types of school feeding programmes; the centralised and the school-based kitchen models. After the visit, the participants analysed the two Indian models by applying them in the Bangladeshi context as below.

- The centralised kitchen model was found to be unsuitable because:

___

Electricity supply is not stable enough in Bangladesh to operate the state-of-art technology-intensive facilities necessary for centralised kitchen model implementation.

Heavy traffic (especially in Dhaka) prevents smooth and regular delivery of meals from a small number of centralised kitchens.

- The school-based kitchen model was found to be unsuitable because:
  - Space constraints of the schools in Dhaka and the slum areas make it impossible to build an extension kitchen.
  - It would be too expensive to hire 3-4 kitchen workers for each kitchen.
  - School teachers should not be disturbed from their primary duty of teaching and may find the school level implementation intrusive.

The GoB opted to implement a hybrid “Cluster Kitchen” model involving the following characteristics:

1. It covers 1,500-2,500 students of 5-6 schools on average (a school “cluster”).
2. It delivers food to schools within 40-60 minutes regardless of the heavy traffic.
3. It is manually operated and not dependent on electricity supply.

Two implementing partners (IPs), Banchte Shekha and BRAC, were charged with the service delivery. As of February 2013, Banchte Shekha operated four kitchens in Trishal sub-district (Banchte Shekha Kitchen Group) whereas BRAC operated two kitchens in Dhaka (BRAC-Urban Kitchen Group) and two more kitchens in Bhaluka sub-district (BRAC-Rural Kitchen Group).

Though they follow the same model, the IPs customised the implementation to suit their different contexts. These differences allow the IPs to exercise their ingenuity and stimulate innovation in school feeding implementation. Qualitative research suggests that the SNP greatly benefits from the knowledge exchange between the two different implementation designs, leading to greater synergies and development of best practices which could be of immense benefit to the SNP scale-up in the future.

### 3.1.3 Programme coverage

The SNP is designed to provide hot cooked meals to the students of the public primary schools (which are usually called Government Primary School, GPS)\(^2\) and BRAC schools\(^3\) for 6 days a week, 240 days in an academic year running from January-December. Table 1 shows the coverage of SNP as of 28th February 2013. SNP currently provides hot cooked meals to 18,809 school children of 102 schools by operating 8 kitchens of 3 kitchen groups.

<table>
<thead>
<tr>
<th>Kitchen groups</th>
<th>Area description</th>
<th>No. of Kitchens</th>
<th>No. of Schools</th>
<th>No. of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^2\) One GPS receives children from 1\(^{st}\)-5\(^{th}\) grade, age ranges from 6 to 11.

\(^3\) BRAC schools are the non-formal education systems of BRAC which provide quality education through “one-class one-teacher” style for around 30 underprivileged children per class/school. In SNP, BRAC-Urban/Rural clusters cover those schools, and they vary from pre-primary schools (aged 5+ children for primary school entry preparation) to primary schools (grades 1\(^{st}\)-5\(^{th}\)). Unlike the normal “one-class one-teacher” style schools, BRAC schools do not have the “multi-grade system” in one school. In other words, each BRAC school is designated for only one grade.
Mapping the SNP model supply chain (see Figure 3) to the school feeding supply chain reference framework developed by PCD and partners highlights the similarities with semi-decentralised model and outsourced models (Gelli et al., 2012). The main differences include implementation scale, scale of purchasing volumes and frequency of purchasing.

![Figure 3: Stylised SNP supply chain (adapted from Gelli et al., 2012).](image)

### 3.1.4 Procurement

While all three kitchen clusters procure their food and cooking fuels for the kitchens belonging to the same cluster, the two IPs have different procurement procedures. Banchte Shekha uses open competitive tender for all types of procurement. On the other hand, BRAC uses limited competitive mechanism for non-perishables and sole sourcing for perishables.

**Banchte Shekha kitchen group**

The following process is used for vendor selection in Banchte Sheka kitchens:

---

*Note: The numbers presented within parentheses show the coverage within BRAC schools.*

<table>
<thead>
<tr>
<th>BRAC-Urban</th>
<th>Slum areas in Dhaka city inhabited by Bengali population</th>
<th>2</th>
<th>57</th>
<th>8,808</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(52)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(1,666)</td>
</tr>
<tr>
<td>BRAC-Rural</td>
<td>Bhaluka, Mymensing District inhabited by Bengali with considerable Garo tribal population</td>
<td>2</td>
<td>23</td>
<td>3,839</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(15)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(465)</td>
</tr>
<tr>
<td>Banchte Shekha</td>
<td>Trishal, Mymensing District inhabited by Bengali population</td>
<td>4</td>
<td>22</td>
<td>6,162</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>8</td>
<td>102</td>
<td>18,809</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(67)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(2,122)</td>
</tr>
</tbody>
</table>
1. Request the higher authority to issue the open tender.
2. Receive approval from the higher authority.
3. Open competitive tender: receive applications from the vendors with quotations.
   a. Open tender requires at least three quotations.
   b. Perishable product vendors are in a near-by market to the Banchte Shekha SNP office in Trishal sub-district.
   c. Non-perishable product vendors are in the bigger market in the Mymensing city (22km away from the Banchte Shekha SNP office).
4. “Procurement Committee” select three or more vendors through the quality and cost based selection (QCBS) to recommend them to the higher authority.
   a. Constitution of the Procurement Committee differs based on the amount/cost of the purchase. If it is below 50,000 Tk. (which is usually the case for perishables and cooking fuel), then Project Coordinator and two Food Monitors are the members. If the cost is 50,000 Tk. or above (which is usually the case for non-perishables), then Treasurer, Programme Director, and Project Coordinator are the members.
5. Vendors are selected when the higher authority reaches its final decision.
   a. For non-perishables, one official vendor is selected with 2-3 stand-by vendors.
   b. For perishables, Banchte Shekha rotates the vendor from a pool of the selected vendors.

The purchasing cycle then includes:

6. Issue the purchase order to the selected vendor(s).
   a. Non-perishables: purchase order is issued weekly.
   b. Perishables: purchase order is issued every other day while the delivery is made every day.
7. Send a pick-up van to the vendors, and vendors fill the van with goods and collect the invoice. All this is done in the presence of the Procurement Committee.
8. Kitchens receive goods and invoice.
9. Kitchens verify consignment against purchase order and invoice.
10. Kitchens record procurement note (punctuality, quality, quantity, price, etc.)
11. If the goods are non-perishables, then kitchens store the goods. If the goods are perishables, then kitchens start preparing them for cooking.
12. Send vendors’ invoice to the Accounts Officer at the Banchte Shekha SNP office.
13. Accounts Officer examines the purchase order against invoice and bills submitted by the vendors.
14. Accounts Officer pays the vendors by cheque.

**BRAC kitchen groups**

For non-perishables the following procurement procedures are followed:

1. Procurement Committee goes to market to collect at least three quotations from the wholesalers in the market in the vicinity of the kitchens.
   a. Non-perishable procurement is carried out on a weekly basis.
   b. Constitution of the Procurement Committee is Area Coordinator of the kitchen cluster, Accountant of the kitchen cluster, and at least one Quality Controller who is stationed in every kitchen.
2. Procurement Committee select quotation through QCBS.
3. Issue the purchase order to the selected vendor(s).
4. Send either a pick-up van or rickshaw vans to the vendors, and vendors fill the van(s) with goods and collect invoice.

5. Kitchens receive goods and invoice.

6. Kitchens verify consignment against purchase order and invoice.

7. Kitchens record procurement note (punctuality, quality, quantity, price, etc.).

8. Kitchens store the goods.

9. Accountant Officer pays the vendors.
   a. If the bill is less than 10,000 Tk., then the payment is made in cash.
   b. If the bill is 10,000 Tk. or more, then the payment is made in cheque.

For perishables the following procedures are followed:

1. Procurement Committee goes to the market in the vicinity of the kitchens and purchase the goods.
   a. Perishable procurement is carried out every day to prepare the next day meals.
   b. No quotation needs to be sought.
   c. Sole sourcing is adopted following the basic guidelines (different vendors, competitive price, etc.).

2. Send either a pick-up van or rickshaw vans to the vendors, and vendors fill the van(s) with goods and collect the invoice. All this is done in the presence of the Procurement Committee.

3. Kitchens receive goods and invoice.

3.1.5 Kitchen operation

Banchte Shekha kitchen group and BRAC kitchen groups share the most part of the implementation modalities in common. However, there are some differences between them as described below.

Kitchen and office setting

The kitchens of both groups are similarly equipped: one store room, one residence room for cooks to stay overnight, one toilet with hand washing facilities, at least one water basin, and one cooking area with at least two fixed improved ovens made by Grameen Shakti. Space either for cutting vegetables or for storing firewood can be separate rooms or a corner of one of the relatively large rooms. All rooms have windows, ventilation gaps, and/or fans, and their size varies. Every kitchen is equipped with one first aid box/bag, one fire distinguisher with additional preparation of bucket of water and sand. Anyone who enters the kitchen has to remove shoes and wear sandals and cap (and also gloves and apron in case of Banchte Shekha) for both groups. They also share the same policy that toilet users must change their shoes unless the toilet cabinet is located outside.

There are some differences in the storage practices between the Banchte Shekha and BRAC kitchen groups. For example, BRAC kitchens store onions, ginger, and garlics on the elevated place while Banchte Shekha places them on the floor by putting sacs between them and the floor. BRAC uses racks to store spices while Banchte Shekha uses the freezer of the refrigerator. Nonetheless, all kitchen groups secure one room with a window and a ceiling fan for storage, keep the door locked for most of the day, and ventilate the room every day. There has never been any food wastage between food procurement and storage also between storage and cooking for all kitchen groups.
The most evident difference in their settings is the location of their offices. Banchte Shekha newly set one office, completely separate from their kitchens, in Trishal exclusively for SNP implementation. BRAC kitchen groups, on the other hand, set one office room for each kitchen. Consequently, this setting also affects the distance between not only the office(s) and the kitchens but also the office(s) and the schools.

**Office staff**

SNP-designated staffs in the offices are different in terms of titles and roles between the two IPs. Banchte Shekha allocates eight staffs: Project Coordinator, Accounts Officer, Office Assistant, Health Promoter, and four Food Monitors (one for each kitchen). Among them, Food Monitors take unique roles. Their roles are taken place at kitchen and the school levels:

A) Go to the kitchen every day to monitor inflow and outflow of storage, hygiene and sanitation of the kitchen facilities, cleanliness and health/work condition of kitchen workers, quality and quantity of food (before and after cooking), and before and after delivery of cooked food.

B) Go to the market every time when the perishables are procured to monitor the quantity and quality of the food.

C) Manage the record of feedback and comments from the visitors to their kitchens in the book called Visiting Register.

D) Time management of cooking time, delivery time, and distribution time.

E) Visit schools every day during the distribution and meal time. While monitoring the school feeding related activities including WASH practices, Food Monitors not only observe but also naturally become the feedback reception point from the school level.

F) Organise monthly MC meeting.

G) Draft monthly and quarterly report of their activities which are compiled by the Project Coordinator to submit to the Programme Director (who contributes 20% of his work for SNP activities at the HQ level).

As listed above, Food Monitors function as a kitchen manager as well as facilitator of school feeding quality and women empowerment at the schools. They position as the vital liaison between kitchens, the office, and the communities. Their work is closely monitored and supported by the Project Coordinator.

BRAC assigns ten staff who are fully designated to SNP. Most of them are stationed directly in the kitchens: Area Coordinators and Associate Officer Accounts for each kitchen group (BRAC-Urban and BRAC-Rural), and at least one Quality Controller for each kitchen. At the HQ, Program Manager is fully engaged with SNP activities and manages both kitchen groups while Program Coordinator (contributing 10-20% of her work) engages with higher level management.

In case of BRAC, it is Quality Controllers who closely monitor daily kitchen activities and facilitate monthly MC meetings. Their work is directly monitored by the Area Coordinators. BRAC kitchens also have social audit reception system by receiving visitors’ feedback and opinion anytime at the kitchen level. What may deserve attention is that distribution and meal time at the schools is everyday monitored by all the kitchen office members including Associate Officer Accounts. School visit during the meal time is also frequently made by the Program Manager.
In short, it seems fair to say that all kitchen groups have established a mechanism of quality control at the kitchen level in terms of food, hygiene, sanitation, and work environment for the kitchen workers. Feedback from the community-level stakeholders is, as mentioned earlier, considered seriously and some of the points made by them have already been reflected in the Project. One of the interesting differences between the two IPs is that Banchte Shekha focuses on establishing more personal relationship between kitchens and the schools by concentrating the daily communication point to the Food Monitors, BRAC systems allow its office staffs to be equally exposed to direct and real time feedback from the schools and to share it among them.

**Kitchen workers**

All kitchens implement school meal cooking by one Head Cook, at least one Assistant Cook, and minimum four Helping Hands. It was recognized that all cooks are men while Helping Hands can be men and women though the position is dominated by women. Tasks and responsibilities of each position are almost the same among the three kitchen groups, but numbers of working hours, days, and salaries are different for each kitchen group.

**Basic work description for cooks is listed below:**

A) Work starts from 4-6AM to 5-9PM, 6-7 days per week, 26-30 days per month.
B) Cooks are still paid during some long periods of non-school feeding days: 30 days of Ramadan, 30 days on average of National Primary Certificate Examination (PSC Exam), and 7 days of Puja (religious holidays). In addition, there are around 2 days of paid leave per month.
C) Salaries are:
   i. Head Cook: 6,000-13,000 Tk. per month
   ii. Assistant Cook: 5,000-9,000 Tk. per month
D) Cook food with oven under the instruction of Head Cook.
E) Measure ingredients (Head Cook, only).
F) Monitor and direct overall cooking activities (Head Cook, only).
G) Assist cooked meal delivery. Frequency varies for the kitchens.
H) In some cases, cooks carry food containers from the delivery van to the distribution points at the school before Mothers’ Club members start distribution.
I) Assist Procurement Committee when the Committee goes to the markets to procure food and cooking fuels.
J) Assist Helping Hands for preparing vegetables for next day.
K) Stay in the kitchens overnight as watchman for 6-7 days a week^4.

The list below shows basic work description for Helping Hands:

A) Work starts from 6AM to 5PM, 6-7 days per week, 26-30 days per month.
B) The conditions for paid leaves and payment during the long vacations are the same as for cooks.
C) Salaries vary between 4,000-5,000 Tk.
D) Prepare spices and vegetables by washing, peeling and cutting.
E) Wash rice and lentils
F) Clean cooking space and cutting space.

---

^4 Most of the cooks stay together in one Residence room of the kitchen. Some kitchens rotate which cooks take a day off from the overnight stay among them during the weekend.
G) Wash utensils and food containers.
H) Help in loading food containers to the vans.

There seems to be a tendency that all Helping Hands are from the vicinity of the kitchens while most cooks are not from the vicinity (at least 30km away). Similarly, while most of the Helping Hands learnt about their positions through their children’s schools, cooks learnt about their positions in varying ways: from schools of their children, from extended family or neighbours who work as SNP-target schools, from TV advertisement, and a friend or a family member who works for IP. All cooks have work experience as cook and were selected through interview and practice test. Cooks and Helping Hands received trainings separately before the kitchen operation started.

Even though there are some differences in the dispatch timing for delivery agents (for some schools require two consignments a day), the most part of the cooking schedule remains the same for all kitchen groups.

Kitchen operation starts between 4-6AM with opening fire in the oven. Washing rice and lentils, and then cooking with oven follow. The delivery timings greatly vary between 7:30-10:00AM for kitchens depending on schools and road traffic. While cooks leave kitchens either for schools or for markets, Helping Hands takes break after cleaning the kitchens. Helping Hands in BRAC kitchen groups wash used containers and utensils once the delivery agents bring the containers back to the kitchen after the meal time is over at the schools. (For Banchte Shekha kitchens, MC members wash the containers at the school level before returning them to the kitchens.) Helping Hands then start preparing vegetables as soon as the vegetable delivery arrives at the kitchens. They usually start processing from the leafy vegetables. Cooks also join them to finish preparation of the perishables by 5-9PM.

3.1.6 Food delivery and waste management

Neither Banchte Shekha nor BRAC owns vehicles exclusively for SNP. They mostly use independent private agents and pay by day. Delivery methods and cost change for kitchen groups depending on environmental factor (rural or urban), amount of the food to deliver, road conditions, distance to schools, and transportation methods. SNP presently uses the combination of the following three vehicles for delivery:

![Figure 4: Different food transportation options.](image)

The most widely used vehicle is rickshaw vans (cycle rickshaw). Delivery agents work with SNP from 7:30-9:30AM to 4-5PM, 6 days a week. The fee rates diverse as a list below:

- Rickshaw van …200-400 Tk./day
- Open pickup van …1,800-2,600 Tk./day
• Close pickup van …2,200 Tk./day

The delivery agents are used to; (1) deliver cooked food; (2) collect the used containers and utensils after the meal time is over at the schools; and (3) procure food and cooking fuels.

Waste management is slightly different for IPs. Banchte Shekha makes holes in the ground next to each kitchen as well as next to each school. While kitchen scraps from cooking and untouched leftover returned from schools are discharged into the holes next to the kitchens, students’ leftover is disposed in the holes at the schools. BRAC, on the other hand, disposes any kitchen scraps and untouched leftover in the returned containers from the schools at the dumping ground located next to the kitchens in the open area. In case of BRAC, it was observed that some students take their meal (leftover or untouched) home. Since they use tiffin box for eating meals, it is possible for them to carry school meal to their home.

3.1.8 Food menu and preparation

Kitchens of two IPs provide quality cooked meals to the schools regularly. This meal provision can be summarised in the following activities:

1. Procure the ingredients, prepare, deliver, and distribute the hot cooked meals to the schools.
2. Monitor food procurement, hygiene of the kitchens, and meal preparation and distribution for the quality control.
3. Receive feedback from the visitors to the kitchens (students’ parents including the members of SMC, PTA, MC, community members, and the others such as the Union Parishad representative) and the final beneficiaries at the school level (i.e. students, teachers, and MC), record feedback. For example, actions such as adding new menu (Banchte Shekha) and changing the texture of Kichuri\(^5\), one of the standard menus (BRAC), were carried out based on the feedback.
4. Report their activities to Banchte Shekha-HQ/BRAC-HQ which will in turn report the kitchen activities to GAIN.

Note that the IPs have one common menu, Kichuri, which was designed based on the international nutrition standards from neighbouring countries and BSTI. The IPs have additional menus to kichuri: biryani\(^6\) (BRAC); rice accompanied with the fried vegetables, and biryani (Banchte Shekha). IPs cook these additional menus by using the same ingredients of Kichuri with some slight differences in amounts and the variety of ingredients available in the markets. BRAC kitchens provide Kichuri and Biryani (without meat) three times per week while Banchte Shekha kitchens do so by providing Kichuri and Rice & Vegetables for a week with Biryani once per month. The ingredient and nutrition components of the three menus (from Banchte Shehka) are displayed in Table 2. All ingredients are domestically produced and locally available.

\(^5\) A traditional Bangladeshi comfort food made from rice and lentils.

\(^6\) A rice-based dish made with spices, rice, and a choice of meat, fish, and vegetables.
The analysis of the nutritional content of the menus highlights both the diversity of the ingredients and nutritional balance of SNP meals compared to recommended daily allowances for the school-age child (see Table 3 for an example using Banchte Sheka menu data).

Table 3: SNP menu specifications (Source: Banchte Sheka)

---

7 Five to seven vegetables are included in one meal from choices of carrots, pumpkins, potatoes, red/green spinach, cauliflowers, coriander, chick peas, tomatoes, kohlrabi, turnips, papaya, bitter gourd, cabbages, etc. Even though the SNP kitchens also use onions, garlics, gingers, they often classify these vegetables as spices.

8 Spices generally include turmeric, chilli powder, green chili, black pepper, cinnamon, green cardamom, clove, sage, etc.
3.1.8 Distribution and consumption in schools

In some schools, there used to be a problem between arrival of the delivered food to the schools and distribution by the MC members. Since some schools are multiple-storey construction, MC could not carry many hot, large, and heavy food containers to their distribution points. In order to fill the gap between delivery and distribution, BRAC-Urban kitchen group now allocates Distributor/Liftman (currently there are 16 of them) to carry the delivered food containers to classrooms. Distributors work between 9AM to 2:30PM, 6 days per week for the salary of 4,000 Tk. per month.

Distribution from the containers to the students is mainly carried out by MC members for all kitchen groups. Distribution takes around 30 minutes and meal time takes another 15-30 minutes. MC members also eat the school meals after the students finish their meals.

In addition to the distribution task, MCs in Banchte Shekha-covered schools take two more responsibilities. First, they prepare and facilitate hand washing practice of the students before distribution. Second, they wash food containers and students' dishes and glasses after the meal time. Thus, while MC members in BRAC-covered schools spend around one hour for SNP at schools, MCs in Banchte Shekha-covered schools devote at least two hours at schools for SNP.

Finally, the modality of meal consumption is different for the IPs (see Figure 5). In case of Banchte Shekha, students eat meals with steel dishes and glasses after washing hands. It is Banchte Shekha who provides dishes while parents of the students cover the cost of glasses (40 Tk. per glass). Apart from the water tanks, the capital costs to build hand washing facilities (taps, towels, buckets, and soaps) were met by SMCs who collected money from their communities. On the other hand, students consume the school meals with tiffin box as an individual container, spoon, handy table cloth (to put between the surface of the
desk/floor and the tiffin box) and bottled drinking water. Tiffin boxes and spoons are provided by BRAC, while table cloth and drinking water are prepared by the students. Tiffin boxes and spoons belong to the students once they are distributed, so it is students who wash and bring them to school. This style was introduced to overcome the difficulty to install hand washing facilities in all BRAC-covered schools many of which (e.g. GPS in Dhaka city and BRAC schools) are facing severe space constraints to install such facilities.

![Banchte Shekha style](image1) ![BRAC style](image2)

**Figure 5: Different food distribution options.**

### 3.1.9 SHN-Essential package provision

According to Ministry of Primary and Mass Education (MoPME) & GAIN (2012), this package includes the following activities:

1. WASH (Water, Sanitation, and Hygiene) advocacy activities
2. Nutrition education
3. Vitamin A supplementation
4. Immunization
5. De-worming

Regardless of SNP, GoB is the principal provider of the activities listed above. For instance, all GPS are equipped with toilets, and the students of GPS receive the immunization regularly and de-worming treatments twice a year. Therefore, in case of BRAC schools, it is BRAC who sends the staff from its health department (separate from SNP-team) to the BRAC schools to de-worm not only the students but also MC members and the kitchen workers. Nevertheless, both SNP IPs promote these SNP support package activities. In the case of Banchte Shekha, for example, it was Banchte Shekha kitchens and the Health Promoter who persuaded SMCs to install the hand washing facilities at the schools and maintain the facilities and the practice so that the SNP can support the enabling environment to cultivate the hand washing habit. BRAC also engages with this WASH promotion by cleaning the school water tanks and checking the sanitation every three months.

While the above project support package activities are targeting the students, the activities described below are more aimed at their parents and community members:

1. Implement the capacity building orientation/training for the SNP-staff, kitchen workers, and the community volunteers.
2. Raising awareness among the different stakeholders on SNP.
3. Conduct advocacy to support and strengthen the Project.
These are generally carried out by the collaboration of the SNP-staff and the staff from HQ/Regional offices of each IP. The modality of the collaboration/arrangement differs for each IP.

### 3.2 Policy frameworks

The Government of Bangladesh is committed to achieving the Education for All (EFA) and Millennium Development Goals on education. The recent National Education Policy includes a National School Feeding Program (SFP) to be scaled-up in phases starting with from areas of greatest needs. To date, however, there are no specific policies or guidelines on the national school feeding programme (GAIN, 2012).

### 3.3 Institutional capacity and coordination

The stakeholder map for the SNP is depicted in Figure 6, followed by the description of each stakeholder’s roles and responsibilities mostly based on MoPME & GAIN (2012), shows the institutional framework and its coordination of the present SNP.
Ministry of Primary and Mass Education (MoPME)

As the nodal agency of SNP, MoPME plays the following roles:

1. Develop national policy framework for building the enabling environment.
2. Monitoring of SNP activities at the national, regional (district and sub-district), and local levels for the effective implementation of the project.
3. Periodic review of the progress of the project activities at different forums.

Other ministries involved in the SNP project management unit (PMU) and project management team (PMT) include:

- Ministry of Health and Family Welfare (MHFW)
- Ministry of Food and Disaster Management (MFDM)
- Ministry of Women and Children Affairs (MWCA)

Project Management Unit (PMU) / Project Management Team (PMT)

The PMU is the SNP steering committee where the MoPME, the other relevant GoB ministries, development partner GAIN, the IPs (it is BRAC and Banchte Sheka in the case of SNP), and academia collaborate to provide policy guidance for project implementation. The project management responsibility lies with this PMU. PMU members meet on a quarterly-basis to review the implementation progress of the Project. PMU may form sub-committees and technical groups as necessary to advice on technical matters. Project Management Team (PMT) is one of the examples.

The PMT was formed to provide policy and technical support and to create an enabling environment for smooth functioning of the Project. The following agencies are members of PMT:

1. Joint Secretary of MoPME: Chairperson of PMT
2. One representative from Directorate of Primary Education, MoPME
3. One representative from MHFW
4. One representative from MFDM
5. One representative from MWCA
6. Management at the Top Stage-2 team (MATT-2\textsuperscript{9})
7. A professor of nutrition from Institute of Nutrition and Food Science (INFS) of Dhaka University
8. One representative from Bangladesh Standard and Testing Institute (BSTI)
9. Representatives from GAIN
10. Representatives from Banchte Sheka and BRAC

Dubai Cares

Dubai Cares is a philanthropic organization based in Dubai, United Arab Emirates. Dubai Cares is the sole donor of SNP since Dec/2010.

\textsuperscript{9} A GoB mandated team of selected bureaucrats. MATT-2 assists the GoB for mobilizing the partnership with development partners by acting as liaison between the development partners and the local communities.
Global Alliance for Improved Nutrition (GAIN)

GAIN is a Geneva-based non-profit foundation established to fight against malnutrition through sustainable market-based strategies. GAIN functions as the overall SNP programme management agency covering tasks such as:

1. In consultation with GoB, select (a) IPs through open competition, and (b) the SNP pilot sites based on the VAM technology.
2. Develop the project work plan, implementation framework, quality control protocols and the operational guideline with GoB and the IPs.
3. Report the SNP progress to PMU
4. Ensure fund transfer from the donor to the IPs.
5. Provide technical assistance and supervision to the IPs in the various activities (e.g. baseline survey, project design, monitoring and research, direct and through media-platform advocacy and behaviour change at the community level, in-site supervision in the kitchens and the schools).
6. Conduct and co-facilitate regional/community-level stakeholder meetings and workshops with IPs, such as the quarterly meeting at the sub-district level (sub-district departmental and local government functionaries and the schools at each kitchen group), and technical knowledge sharing workshops either between the different kitchen groups or within the same kitchen groups.

District Education Officer/Sub-District Education Officer

They are the officers from the line departments of the Directorate of Primary Education, MoPME.

Union Parishad Representative

It is an elected representative from a local government entity tasked with carrying out spot checks to kitchens and schools once per month on average to monitor the food/cooked meal quality and quantity, delivery, and distribution.

Banchte Sheka HQ/Regional Office(s)/BRAC HQ/Regional Office(s)

They are the main bodies of two Bangladeshi IPs. BRAC is an NGO, present in all 64 districts in Bangladesh, whose objectives include education, public health, economic and social development, disaster relief and ICT development. Banchte Sheka is a leading Bangladeshi NGO with the objective of uplifting the socio-economic condition of women and children. Both NGOs provide a variety of support to the SNP-related activities executing bodies i.e. kitchens. The modality of the technical and financial support differs for the NGOs.

Banchte Sheka Kitchen Group/BRAC-Rural Kitchen Group/BRAC-Urban Kitchen Group

These are the main executing bodies of all SNP-related activities; hot cooked meal provision to the school children with support package activities including nutrition education, hygiene and sanitation and food safety practices, and de-worming. Their main functions are:

Before operationalizing the kitchens

1. Develop a baseline profile of the schools and the students in the project areas.
2. Develop an operational plan and a procurement system.
3. Select kitchen sites and set up kitchens (and offices).
4. Hire and train staff and kitchen workers.
5. Raise awareness of school feeding programme and negotiate with different parties at the local level.
6. Form MCs and FMCs (Mother's Clubs and Food Monitoring Committee respectively) at the school level.
7. Encourage SMC and PTA to cooperate to implement SNP.
8. Conduct capacity building orientation and training for the SNP-staff, kitchen workers, and the community volunteers especially MC members.
9. Contribute to draft the SNP technical guideline.

After the kitchen operation commences:

10. Provide hot cooked meal to the students for 6 days a week, 240 days per school year.
11. Implement a variety of project support package activities around the subjects of nutrition, sanitation and hygiene.
12. Organise periodic capacity building/empowerment meetings for community volunteers. For MC, for instance, IPs organise monthly meeting for capacity building by covering a wide range of the topics including nutrition, WASH, rights, gender, and violence against women.
13. Organise meetings to exchange views and opinions on SNP among the stakeholders, such as SMC, PTA, MC, local government officers, Sub-/District Education Officer(s), GAIN, and EA in the vicinity of each kitchen group.
14. Report the relevant issues for the other SNP stakeholders (mainly PMU members), and implement the follow-up activities to improve the identified problems and situations.

School Management Committee (SMC)

All GPS have SMC (composed of 12 members) as per government policy.

Parent Teacher Association (PTA)

All GPS have PTA (composed of 5 members) as per government policy.

Mother's Club (MC)

It is a group of mothers whose children are attending SNP-targeted schools. Members are collected on a voluntary-basis, receive the orientation on the required topics, and play a role as distributors of the hot cooked meal at school free of charge. Each club has 12 members at a minimum to 20-30 members on average, and at least one member is also a member of the SMC of the school. The tasks played by MC at schools are:

1. Prepare water for hand washing before the distribution of meals in the schools where water pumps and tanks cannot supply enough quantity (Banchte Shekha).
2. Monitor and guide the students on hand washing before the distribution of meals, which is a part of the project support package activities (Banchte Shekha).
3. Monitor cleanliness of the dining space, children's hands and nails.
4. Monitor cleanliness of the students’ utensils for eating. In case of Banchte Shekha covered schools, it is steel glasses and dishes while it is cutleries, tiffin boxes, and handy table clothes for the students of schools covered by the BRAC kitchens.
5. Monitor the quality and quantity of the delivered food in the containers from the kitchens.
6. Distribute hot food to the students with either another MC member or students.
7. Maintain students' discipline during the meal time.
8. Manage the leftover food. In case of Banchte Shekha covered schools, MC members discharge the leftover to a food garbage holes located next to each school. On the
other hand, MC members of the BRAC covered schools place the leftover into the containers before the containers are recollected to the kitchens by the delivery agents.

9. Wash used food containers, dishes, and glasses.
10. Participate in a monthly capacity building meeting organized by IPs.
11. Carry out some surprise visits to the kitchens to monitor the quality of the sanitation of the kitchens as well as the procured food and cooked food.

During the field study, it was observed that some MCs have also started to provide additional activities. For example, some MCs have supported an EA by advising on some aspects of the food procurement by their kitchen. They also started producing some vegetables collectively which were sold to their kitchen once. They have now stopped using the meeting expenses (150Tk. per person per month) allocated by an EA for their monthly meeting. They are in discussion on how to best utilise the saving made from the monthly meeting expenses in the MC’s collective bank account.

**School Food Management Committee (FMC or SFMC)**

It is formed by the volunteer members from SMC, PTA, MC, SU, and the vicinity community members of each SNP-target school. According to Husain (2012), FMC consists of 5 members from SMC, MC, Union Parishad representative, and two community members. FMCs do not exist in each school but for each kitchen.) FMC is designed to deliver the following tasks:

1. Monitor the quality and safety of the distributed food to their wards.
2. Check the attendance of the students every time when the cooked food is delivered to school to predict next day attendance and therefore amount of cooked food to be served.
3. Arrange the steel glasses and plates before the food distribution starts (Banchte Shekha).
4. Receive the cooked food from the deliverer agents using the Way Bill.
5. Monitor the hand washing activity by the students before and after the meal.
6. Support MC in distributing meals among the students.
7. Taste the delivered food before distributing it to the students (Banchte Shekha).
8. Return the food containers to the deliverers.

**3.3 Financial capacity**

SNP started its first project period of two years in December 2010 with the fund of US$2,491,000 from Dubai Cares aiming at direct beneficiaries of 88,000 students. Note that the fund from Dubai Cares first goes to GAIN-Geneva (Dubai Cares & GAIN 2010). The fund is then transferred into the account (so-called “mother account”) of a Bangladeshi international commercial bank which is under the strict supervision of the NGO Affairs Bureau (NGOAB) of the Prime Minister’s Office of Bangladesh. NGOAB inspects the purpose of the fund and the accountability of the NGO activities to the State. After the clearance of the NGOAB inspection, the fund is finally transferred to the local banks from which two IPs as well as GAIN-Bangladesh can receive their funds. While NGOAB contributes significantly to transparency of the fund flow, it often causes delay for funds to reach GAIN-Bangladesh and the IPs.

Some unexpected events, such as delay in acquisition of government authorisation to second the project manager, delay in the IP selection, delay of the arrival of the funds to the IPs and GAIN-Bangladesh, and heavy rains in 2012, prevented SNP from carrying its schedule as originally planned.
3.4 Community participation and ownership

SNP depends on IPs for its implementation, precisely in terms of kitchen management and operation, WASH promotion, and facilitation of orientation and trainings. Financial contribution from the community is still very limited. However, it appears to be fair to say that the degree of participation and ownership from the communities is already considerably high.

First of all, SNP incorporates very rigorous social audit system. As mentioned earlier, FMCs make surprise visits to the kitchens once a month on average, and kitchens are always open to any visitor. In case of Banchte Shekha, kitchens also disclose their budget to community members (including vendors) at the kitchens and the schools (Husain 2012). All kitchen groups visit schools every day during the meal time so that they can receive the direct feedback from the most essential beneficiaries of the Project, school meal consumers. Feedback from community members is not only recorded but already made some change in menu and procurement source.

Moreover, substantial part of the SNP implementation relies on community participation. For example, all kitchen groups procure food from local markets which sell nationally or locally produced food. All Helping Hands, engaging with food preparation at the kitchen level, are locally hired people. At the school level, WASH practices, food monitoring, and distribution are supported by SMC, PTA, and especially MC members.

From the in-depth discussion with project stakeholders it was apparent that there is certainly more space to improve community participation. Food sourcing from the local/smallholder producers is one of the examples. In the present framework of SNP, food sourcing from local farmers has very weak emphasis and does not appear to be one of the main objectives. However, practices such as strong social audit, incorporation of community feedback into next action, and integration of community member into the implementation activities should certainly be considered as good indicators of community participation, and this can possibly foster higher degree of the ownership of the Project by the communities.
Figure 7: Map of Bangladesh and school feeding programmes.
4. **Results: Costs and cost-efficiency analysis**

Analysis of project performance was challenging due to different reporting periods for the data from different stakeholders, including:

- **GAIN:** Up to December 2012
- **Banchte Sheka:** Up to February 2013
- **BRAC:** Up to October 2012

A work-around was devised, as described in the methodology section, to estimate the cost per child per day and then standardise over school year. To allow for meaningful comparisons with benchmarks data in the literature, costs are presented by aggregate cost category including support, transport and food cost components. The project data relevant to the cost and cost-efficiency calculations is summarised in Table 4. The standardised cost per child per year was found to be $145 USD including all levels of implementation.

**Table 4: Summary of key project performance data.**

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Banchte Sheka</th>
<th>BRAC-Urban</th>
<th>BRAC-Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reporting period</td>
<td>To Dec 2012</td>
<td>To Feb 2013</td>
<td>To Oct 2012</td>
<td>To Oct 2012</td>
</tr>
<tr>
<td>Project expenditures</td>
<td>1,192,020</td>
<td>224,612</td>
<td>84,173</td>
<td>67,568</td>
</tr>
<tr>
<td>School feeding days</td>
<td>113</td>
<td>160</td>
<td>44</td>
<td>38</td>
</tr>
<tr>
<td>Children covered</td>
<td>18,818</td>
<td>6,216</td>
<td>8,763</td>
<td>3,839</td>
</tr>
<tr>
<td>Project cost per child per day (USD)</td>
<td>0.56</td>
<td>0.23</td>
<td>0.22</td>
<td>0.46</td>
</tr>
<tr>
<td>Ration kcals</td>
<td>541</td>
<td>541</td>
<td>541</td>
<td>541</td>
</tr>
<tr>
<td>Std. Cost per child per year (USD)*</td>
<td>145</td>
<td>58</td>
<td>56</td>
<td>120</td>
</tr>
<tr>
<td>Projected** Std. Cost per child per year (USD)</td>
<td>110</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Over 200 day, 700 kilocalories

** Over 200 day, 700 kilocalories, annuitised over 10 year asset life span

In terms of IPs, Banchte Sheka and BRAC-URBAN operations had very similar standardised costs per child per year, namely $58 and $56 USD respectively, compared to $120 USD for BRAC Rural (Figure 8). Including annuitisation for capital costs, discounting capital investments over the project lifetime, reduced the standardised costs per child per year to $110 USD.
The SNP standardised cost per child estimates are above the average, but well within the range, for both low- and middle income-country cost benchmarks (see Figure 9).

Despite the nutritious content of the meals, the overall cost-efficiency in terms of cost per nutrient output was lower than the benchmark for centralised programmes across energy, iron, vitamin A and iodine provision (see Figure 10).
Figure 10: Cost per nutrient output, SNP Project compared to operational benchmarks.

Overall, unlike the data from the operational benchmarks, the main cost drivers in the SNP were support costs (Figure 11). The high share of support costs relative to centralised programme benchmarks is reflected in the GAIN programme management component.

Figure 11: Cost structure comparisons, SNP Project, IPs and operational benchmarks.

Considering the full GAIN operational data, support costs were about $55 USD per child per year, with about $44 USD of these support costs spent on recurrent expenditures. A breakdown of the support costs into start-up and recurrent costs (staff and non-staff) highlights similar distribution of costs across GAIN, Banchte Sheka and BRAC Rural operations and higher start-up investment in BRAC Urban operations. Start-up costs ranged between 19-51% of total support costs (Figure 12).

---

10 For consistency with benchmark data, transport costs include all logistics, transport and storage costs. All other support costs (direct and indirect) were aggregated within a high-level support cost category.
Figure 12: Start-up and recurrent cost comparisons- absolute values and cost shares, for GAIN and IPs.

A break-down of staff costs into programme and kitchen level staff also highlighted similarities between Banchte Sheka and BRAC Rural operations spending approximately equal amounts in staff costs at programme and kitchen levels. However, BRAC Urban operations invested a larger share in kitchen staff salaries than the other two models (Figure 13).

Figure 13: Staff cost structure comparisons- absolute values and cost shares, for, GAIN and IPs.
5. Results: Strengths and weaknesses, opportunities and threats (SWOT) analysis

A summary of the strengths, weaknesses, opportunities, and threats of the Cluster Kitchen model and of the SNP is presented in Table 5.

**Table 5: Summary of findings of SWOT analysis.**

<table>
<thead>
<tr>
<th>Internal origin (attributes of the model/project)</th>
<th>Helpful (to achieve the goals)</th>
<th>Harmful (to achieve the goals)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strengths</td>
<td></td>
<td>Weaknesses</td>
</tr>
<tr>
<td>1. Better placed to negotiate competitive price</td>
<td></td>
<td>1. High start-up investment</td>
</tr>
<tr>
<td>2. Economies of scale</td>
<td></td>
<td>2. High dependency on community volunteer workers</td>
</tr>
<tr>
<td>3. No teacher involvement is required</td>
<td></td>
<td>3. Less flexibility in procurement</td>
</tr>
<tr>
<td>4. Less chances of pilferage and leakages</td>
<td></td>
<td>4. Delivery schedule is vulnerable to external factors</td>
</tr>
<tr>
<td>5. Standardised nutritional content of meals</td>
<td></td>
<td>5. Expensive to run in low density/dispersed population areas</td>
</tr>
<tr>
<td>6. More standardised hygiene practices in the kitchens to ensure better food safety</td>
<td></td>
<td>6. Secure well-trained kitchen workers</td>
</tr>
<tr>
<td>7. Manageable without electricity supply</td>
<td></td>
<td>7. Find adequate number of suitable kitchen sites</td>
</tr>
<tr>
<td>8. Manageable catchment area</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Educate women in hygiene and nutrition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>External origin (attributes of the environment)</td>
<td>Opportunities</td>
<td>Threats</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>---------------</td>
<td>---------</td>
</tr>
<tr>
<td></td>
<td>1. Private sector involvement for food fortification</td>
<td>1. Local political pressure</td>
</tr>
<tr>
<td></td>
<td>2. Introduce systematic smallholder engagement</td>
<td>2. Natural disaster</td>
</tr>
<tr>
<td></td>
<td>3. Local women empowerment</td>
<td>3. Political instability</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Commitment of GoB</td>
</tr>
</tbody>
</table>
The main trade-offs of the Cluster Kitchen model vis-à-vis School-based Kitchen model seems to lie between efficiency and economies of scale derived from the coverage size per kitchen and flexibility. Compare to the Centralised Kitchen model, the Cluster Kitchen model gains more secured timely delivery while giving up higher economies of scale as well as price negotiation power. One SNP specific trade-off is that proactive promotion of community participation makes the Project community dependent.

**Strengths**

1. Better placed to negotiate competitive price
2. Economies of scale

These two points are derived from the scale of the service of this model. Since this model caters to groups of schools, purchases are made in bulk which enables them to procure at competitive prices. The Cluster Kitchen model also has a clear cost advantage with more efficient cost per unit.

3. No teacher involvement is required

Substantial resource allocation of teachers is usually a major drawback in many school feeding programmes. This model addresses this issue and requires no teacher requirement because of the system of MC.

4. Less chances of pilferage and leakages

Consolidated management system leaves less space for pilferage and leakages throughout the supply chain.

5. Easier to guarantee standardized nutritional value
6. More standardized hygiene practices in the kitchens to ensure better food safety

Since food is procured and prepared at a small number of locations, it inevitably leads to standardized nutritional value of the school meals. It also enables standardised hygiene practices and food safety.

7. Manageable without electricity supply

Although the kitchens produce large amount of the meals, the degree of automation is minimal thereby reducing electricity dependency.

8. Manageable catchment area

Semi-decentralised nature of the model leads to a manageable service area. This consequently reduces transportation cost and ensures timely delivery.

9. Educate women in hygiene and nutrition

The proactive and systematic involvement of women in this model through MC and recruitment of the Helping Hands has helped educate women in hygiene and nutrition.

**Weaknesses**

1. High start-up investment

The cluster kitchen operation involves considerable infrastructure and capacity building activities in order to provide quality service.

2. High dependency on community volunteer workers
The model involves a large volunteer corps for some key tasks to varying extent (depending on the model). This makes the model vulnerable to mass attrition since the volunteers are not bound by any conditions of service. Furthermore, this practice may be seen as exploitative.

3. Less flexibility in procurement
The size of the operation requires more stringent procurement norms which provides for very limited flexibility to take advantage of local market conditions.

4. Delivery schedule is vulnerable to external factors
The model requires physical delivery of food to different schools and thus makes it vulnerable to external factors like weather, traffic disruption, etc.

5. Inadaptable in low density/dispersed population areas
This model is most suitable for relatively high density areas given the issues of transportation and delivery from one kitchen to a number of schools.

6. Secure well-trained kitchen workers
It is difficult to train some kitchen workers given the low levels of education and poor appreciation of health and hygiene practices. Any deficiency in hygiene practices leading to food safety issues in one kitchen can impact a much larger number of students. Furthermore, there is also a risk of losing workers after investing in their training.

7. Find adequate number of suitable kitchen sites
It is difficult to find appropriate sites for establishing kitchens given issues such as finding willing land/property-owners, space deficit, erratic electricity supply, etc.

Opportunities

1. Private sector involvement for food fortification
Since food fortification to improve nutrition intake is on the agenda of SNP, it provides large number of potential opportunities for private sector participation.

2. Introduce systematic smallholder engagement due to the size of purchase
The relatively large purchase volume and streamlined procurement practices of the Cluster Kitchen model provides a good opportunity for systematically engaging with local/smallholder farmers.

3. Local women empowerment
During the field study, it was observed that this model design is already leading to some degree of women empowerment since many members of MC expressed that they felt more respected and empowered than before through participation in the SNP activities. It was further observed that some MCs have already collectively sold their agricultural products to their kitchen once. This suggests that MC could widen their activities to more business-oriented field with their kitchens and thereby SNP could give them opportunities for income generation.

4. Commitment of GoB
Substantial commitment of GoB is an indispensable prerequisite for scaling up of SNP and its sustainable implementation.

Threats

1. Local political pressure
SNP design engages substantially the local community in implementation (kitchen site, procurement, recruitment and distribution) and thereby becomes community dependent. There is therefore more chance to be affected by local political pressure. During the field study, for example, it was reported that one the IPs was once pressured by local middlemen to procure food from them regardless of the fact that this was not consistent with the mandated food quality.

2. Natural disasters
Chronic floods and other natural disasters are frequent in Bangladesh, and are a constant threat to smooth SNP implementation.

3. Political instability
The recent political instability leading frequent violent hartal presents a significant risk to SNP implementation.

4. Price volatility
Given the fact that food cost is the greatest cost driver of SNP, high food price volatility will cause serious disruptions in SNP budgeting.

5. Commitment of GoB
As mentioned earlier commitment of GoB is an indispensable prerequisite. In other words, SNP will fail in the absence of GoB support and initiative.

6. Discussion and recommendations
The findings of this analysis highlight how Dubai Cares/GAIN SNP provides an example of an innovative school feeding model, combining emphasis on high quality meals service delivery with strong community engagement. The model is involves the provision of diverse and nutritionally balanced meals, integrating school meal service within a broader framework of school-health interventions. The cluster kitchen model also integrates a strong community development component engaging mothers in the service delivery.

The estimated standardised cost per child per year of 110 USD is above the benchmarks for low- and middle-income countries but it reflects to a large extent the intensive start-up investment and support provided by GAIN: unlike the existing benchmark data, from mature, centralised programmes, the main cost-drivers associated in the SNP were associated with programme support and start-up activities.

The considerable start-up investments were not limited to infrastructure development but also involved intensive facilitation, advocacy and stakeholder engagement, followed by more in-depth technical assistance and capacity building. GAIN’s role in this cannot be underestimated, the fruits of which can be seen both in terms of the quality of the service provision, but also the level of engagement from stakeholders across sectors and implementation levels.
Operationalising all the different components of the SNP has clearly been complex, involving interactions between a multitude of stakeholders across sectors and levels of implementation. This is not a typical of school feeding implementation. However, in its current set-up the SNP is a two year pilot, and as such it involved considerable start-up investment that inevitably will offset any cost-efficiency calculations during that period as those undertaken in this work.

Questions remain as to whether this start-up investment is a model related constraint and how would support costs vary over longer project lifetime. The qualitative data collected in this analysis suggests that sizeable support investments would have tailed-off as the project would mature. A more detailed analysis of these issues is warranted but was out of scope for this work.

The detailed analysis of cost-drivers was constrained by some data quality issues as the breakdown of support costs was ‘noisy’ across different stakeholders using different reporting formats. The development of standard reporting formats is a clear, low-cost, action that would improve future analyses.

The SWOT analysis has highlighted important trade-offs in the cluster kitchen model implementation vis-à-vis centralised kitchen model, including:

(+): Less resource intensive, lower start-up costs and logistics requirements: Cluster kitchens have a clear advantage also in terms of flexibility and adaptability to local customs.

(-): Price negotiation power, economies of scale: Smaller-scale operations inevitably are at a disadvantage in terms of bulk buying and spreading costs over larger beneficiary populations.

Similarly, trade-offs vis-à-vis school-based model include:

(+): Efficiency, economies of scale, quality control

(-): Flexibility

An important SNP specific trade-off involves community participation in the programme, or more specifically:

(+): Community participation: Strong engagement of community level stakeholders, like the mother’s clubs has provided entry points for strengthened accountability and feedback loops.

(-): Community dependency: Much of the work at community level is based on voluntary contributions or unpaid labour without which the programme service would clearly suffer. The burden on the community should be carefully monitored throughout the programme implementation.

Quantifying these trade-offs more explicitly, within the operational performance benchmarking framework developed in this analysis is a clear opportunity for further work.

**Opportunities for further work**

A number of follow-up analytical activities have been identified in this analysis, including:

- Modelling support cost structure as programme matures and including a cost analysis within annual programme monitoring activities. This would include
developing standardised reporting templates for cost data based on the benchmarking framework.

- Addressing the above point would also provide a basis to start quantifying performance trade-offs as the programme matures.
- Understanding emerging value chain development opportunities, including food fortification, fresh vegetables and fish, for example.

Next steps

- Validate findings: Sharing the draft report for feedback from project stakeholders
- Finalise report based on stakeholder feedback
- Plan for further analysis, including:
  - Supply and value chains
  - Identification of on-going activities (e.g. economic activities by the community members, and other projects funded by different donors to examine the possibility of collaboration with them
  - Economic model for mother's club

Limitations

This field study suffered from a number of logistical constraints, including intensive and sudden hartal for a total of three days. This prevented the team from proceeding as per the planned schedule during the hartal days and the nights before the hartal. A series of unexpected hours of electricity outage in Mymensing also made it extremely difficult to access electronic data and to conduct interviews. These issues hampered the team from completing interviews with both BRAC-Urban and BRAC-Rural Office Staffs. Moreover, in order to make the most efficient use of the limited amount of time, the study concentrated on collecting data around budget, cost, and output (performance) of SNP. Therefore, the study had to defer the opportunities to conduct interviews with stakeholders from ministries and district/sub-district/local governments.

The main limitation of the quantitative analysis is the fact that data was only available for an incomplete implementation yearly cycle- in the BRAC instance the number of school feeding days was lowest, but for both BS and GAIN the analysis also lacked a full picture. Repeating the cost analysis annually, or at least once at least one years’ worth of school feeding days (around 200-240 days) data is available, using the same framework and methodology, would be a very useful endeavour. In practice, this would mean getting a further round of data for analysis around September time at least, if not later, seeing that the hartal situation is a big problem on the ground.

References


---

11 General strike. Even though hartal used to be a peaceful nationwide strike, it has increased the hazardous tone since the beginning of this year. Once hartal is announced, civil unrest become intense a night before the hartal day starts. Vehicles running during the hartal day can be attacked by the demonstrators, and the odds of this happening have increased recently. It is expected that this hartal will last until the beginning of next year.


### Annex 1: Example of detailed costing framework with GAIN project data

<table>
<thead>
<tr>
<th>Activity</th>
<th>Subactivity</th>
<th>Description</th>
<th>Cost (Taka)</th>
<th>Cost (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INPUT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indirect</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OUTPUT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>RESOURCE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indirect</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Annex 3: Schedule of field work

<table>
<thead>
<tr>
<th>SUNDAY</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
<th>SATURDAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/Mar</td>
<td>11/Mar -DAY 1-</td>
<td>12/Mar -DAY 2-</td>
<td>13/Mar -DAY 3-</td>
<td>14/Mar -DAY 4-</td>
<td>15/Mar -DAY 5- Weekend</td>
<td>16/Mar -DAY 6-</td>
</tr>
<tr>
<td>PM</td>
<td>AM</td>
<td>AM</td>
<td>AM</td>
<td>AM</td>
<td>AM &amp; PM</td>
<td>AM</td>
</tr>
<tr>
<td></td>
<td>Inception meeting</td>
<td>Departure for Mymensing</td>
<td></td>
<td></td>
<td></td>
<td>BS Gopalpur Kitchen</td>
</tr>
<tr>
<td></td>
<td>Dorji GPS</td>
<td>Pakhirchala GPS</td>
<td>BRAC-R Paragaon Kitchen</td>
<td></td>
<td>BS SNP Office interview</td>
<td>observe kitchen, cooking, and delivery</td>
</tr>
<tr>
<td></td>
<td>observe food</td>
<td>interview MC, students, and observe food distribution</td>
<td></td>
<td></td>
<td>BS SNP Office</td>
<td></td>
</tr>
<tr>
<td></td>
<td>distribution,</td>
<td></td>
<td></td>
<td></td>
<td>interview BS-SNP</td>
<td></td>
</tr>
<tr>
<td></td>
<td>interview with</td>
<td></td>
<td></td>
<td></td>
<td>staffs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>students &amp; MC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PM</td>
<td>BRAC Korail Bon</td>
<td>BRAC-R Pakhirchala</td>
<td>BRAC-Lobonkotha School</td>
<td>BRAC-R Pakhirchala</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bazar School</td>
<td>Kitchen observe</td>
<td>interview MC</td>
<td>Kitchen observe</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>observe food</td>
<td>kitchen, interview</td>
<td></td>
<td>kitchen, interview</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>distribution and</td>
<td>kitchen workers</td>
<td></td>
<td>kitchen workers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>interview MC</td>
<td>and BRAC-R Kitchen</td>
<td></td>
<td>and BRAC-R Kitchen</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>interview BRAC-SNP</td>
<td></td>
<td>Kitchen staffs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>staffs and BRAC-U U</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kitchen staffs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>7:30PM-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>BRAC-HQ interview</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>BRAC-SNP staffs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>and BRAC-U Kitchen</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>staffs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sudden HARTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PM</td>
<td>BS SNP Office</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arrival in Dhaka</td>
<td></td>
<td>interview BS-SNP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17/Mar -DAY 7-</td>
<td></td>
<td>observe kitchen, cooking, and delivery</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National Holiday</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18/Mar -DAY 8-</td>
<td>National Holiday</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HARTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19/Mar -DAY 9-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HARTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20/Mar -DAY 10-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HARTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21/Mar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Activity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>--------------------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AM</td>
<td>Return to Dhaka</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>BRAK-R Pakirchara Kitchen</strong> interview BRAC-R Kitchen staffs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PM</td>
<td>Return to Dhaka (cont.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>HARTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AM &amp; PM</td>
<td><strong>BRAC-HQ</strong> interview BRAC-SNP staffs and BRAC-U Kitchen staffs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AM &amp; PM</td>
<td><strong>GAIN</strong> interview GAIN-SNP staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AM</td>
<td><strong>BRAC-U Aftab Nagar Kitchen</strong> observe cooking, delivery, interview Kitchen staffs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>BRAC-U Meradiya Kitchen</strong> interview kitchen staffs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PM</td>
<td><strong>Debriefing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AM</td>
<td>Departure from Dhaka</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Annex 4: List of interviewees

The table below shows interviewees as well as the participants in focus group meetings.

<table>
<thead>
<tr>
<th>Name</th>
<th>Organisation/School</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nazrul Islam</td>
<td>Banchte Shekha</td>
<td>Program Director</td>
</tr>
<tr>
<td>Kitchen workers (6)</td>
<td>Banchte Shekha kitchen group:</td>
<td>Head Cook (1)</td>
</tr>
<tr>
<td></td>
<td>Bolgar Bazar Kitchen</td>
<td>Assistant Cook (1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Helping Hands (4)</td>
</tr>
<tr>
<td>Mothers’ Club members (17)</td>
<td>Banchte Shekha kitchen group:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gopalpur GPS</td>
<td></td>
</tr>
<tr>
<td>Mothers’ Club members (20)</td>
<td>Banchte Shekha kitchen group:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Narayanpur GPS</td>
<td></td>
</tr>
<tr>
<td>SMC members (3)</td>
<td>Banchte Shekha kitchen group:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Narayanpur GPS</td>
<td></td>
</tr>
<tr>
<td>Students (1 class)</td>
<td>Banchte Shekha kitchen group:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Narayanpur GPS</td>
<td></td>
</tr>
<tr>
<td>Asia</td>
<td>Banchte Shekha-SNP</td>
<td>Health Promoter</td>
</tr>
<tr>
<td>Md Lukman Hossain</td>
<td>Banchte Shekha-SNP</td>
<td>Food Monitor, Bolgar Bazar Kitchen</td>
</tr>
<tr>
<td>Md Mafizul Haque</td>
<td>Banchte Shekha-SNP</td>
<td>Project Coordinator</td>
</tr>
<tr>
<td>Md Saifur Rahman</td>
<td>Banchte Shekha-SNP</td>
<td>Food Monitor, Hariranpur Kitchen</td>
</tr>
<tr>
<td>Md Sharif Jaman</td>
<td>Banchte Shekha-SNP</td>
<td>Accounts Officer</td>
</tr>
<tr>
<td>Shamasnee Bishnu</td>
<td>Banchte Shekha-SNP</td>
<td>Food Monitor, Gopalpur Kitchen</td>
</tr>
<tr>
<td>Tanjila Akter</td>
<td>Banchte shekha-SNP</td>
<td>Food Monitor, Chandertiky Kitchen</td>
</tr>
<tr>
<td>Ameena Ahmed</td>
<td>BRAC-HQ</td>
<td>Program Coordinator, Education Program</td>
</tr>
<tr>
<td>Md Askrafuzzaman</td>
<td>BRAC-HQ</td>
<td>Senior Sector Specialist,</td>
</tr>
<tr>
<td>Name</td>
<td>Institution</td>
<td>Position</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Md Faroque Hossain</td>
<td>BRAC-HQ</td>
<td>Program Manager, Education Program</td>
</tr>
<tr>
<td>Md Abul Kashem</td>
<td>BRAC-Rural kitchen group</td>
<td>Field Coordinator</td>
</tr>
<tr>
<td>Md Mafuzur Rahman</td>
<td>BRAC-Rural kitchen group</td>
<td>Quality Controller</td>
</tr>
<tr>
<td>Md Manir Hossain</td>
<td>BRAC-Rural kitchen group</td>
<td>Associate Officer Accounts</td>
</tr>
<tr>
<td>Md Siful Islam</td>
<td>BRAC-Rural kitchen group</td>
<td>Quality Controller</td>
</tr>
<tr>
<td>Sabjal Hossain Khan</td>
<td>BRAC-Rural kitchen group</td>
<td>Quality Controller</td>
</tr>
<tr>
<td>Kitchen workers (12)</td>
<td>BRAC-Rural kitchen group: Pakhirkhara Kitchen</td>
<td>Head Cook (1) Assistant Cook (3) Helping Hands (8)</td>
</tr>
<tr>
<td>Kitchen workers (7)</td>
<td>BRAC-Rural kitchen group: Paragaon Kitchen</td>
<td>Head Cook (1) Assistant Cook (3) Helping Hands (4)</td>
</tr>
<tr>
<td>Mothers’ Club members (12)</td>
<td>BRAC-Rural kitchen group: Paragaon GPS</td>
<td></td>
</tr>
<tr>
<td>Mothers’ Club members (12)</td>
<td>BRAC-Rural kitchen group: Lobonkotha BRAC school</td>
<td></td>
</tr>
<tr>
<td>Mothers’ Club members (30)</td>
<td>BRAC-Rural kitchen group: Pakhirkhala GPS</td>
<td></td>
</tr>
<tr>
<td>Students (1 class)</td>
<td>BRAC-Rural kitchen group: Paragaon GPS</td>
<td></td>
</tr>
<tr>
<td>Students (3 classes)</td>
<td>BRAC-Rural kitchen group: Pakhirkhala GPS</td>
<td></td>
</tr>
<tr>
<td>Md Abdur Razzaque</td>
<td>BRAC-Urban kitchen group</td>
<td>Area Coordinator</td>
</tr>
<tr>
<td>Ratnashee Debnath</td>
<td>BRAC-Urban kitchen group</td>
<td>Quality Controller</td>
</tr>
<tr>
<td>Shocokat Ali Sarkar</td>
<td>BRAC-Urban kitchen group</td>
<td>Officer Accounts</td>
</tr>
<tr>
<td>Kitchen workers (13)</td>
<td>BRAC-Urban kitchen group: Meradia Kitchen</td>
<td>Head Cook (1) Assistant Cook (4) Helping Hands (8)</td>
</tr>
<tr>
<td>Kitchen workers (21)</td>
<td>BRAC-Urban kitchen group</td>
<td>Head Cook (1)</td>
</tr>
<tr>
<td></td>
<td>Aftab Nagar Kitchen</td>
<td>Assistant Cook (7) Helping Hands (13)</td>
</tr>
<tr>
<td>----------------------</td>
<td>----------------------------------------------------------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>Mothers’ Club members (12)</td>
<td>BRAC-Urban kitchen group: Korail Bou Bazar BARC School</td>
<td></td>
</tr>
<tr>
<td>Mothers’ Club members (15)</td>
<td>BRAC-Urban kitchen group: Dorji GPS</td>
<td></td>
</tr>
<tr>
<td>Students (4 classes)</td>
<td>BRAC-Urban kitchen group: Dorji GPS</td>
<td></td>
</tr>
<tr>
<td>Md. Zakir Hossain Akanda</td>
<td>GAIN-Bangladesh</td>
<td>Program Manager, School Nutrition</td>
</tr>
</tbody>
</table>
Annex 5: SNP evolution timeline (to be verified)

<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>02</td>
<td>Assessment of the situation was started? ended? by MATT-2</td>
</tr>
<tr>
<td></td>
<td>05</td>
<td>MOU was signed between Dubai Cares and GAIN</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>SNP start-up</td>
</tr>
<tr>
<td>2011</td>
<td>04</td>
<td>EA selection started</td>
</tr>
<tr>
<td></td>
<td>07</td>
<td>GoB representatives and the EA candidates? Participated in an exposure visit to see the Centralised Kitchen Model (by Naandi Foundation) and School-based Kitchen Model in India.</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>EA selection was completed. BRAC and Banchte Shekha were selected among 40 candidates. GoB, GAIN, and IPs decided to install Cluster Kitchen Model for the SNP. MoPME selected three pilot sites based on the Vulnerability Assessment and Mapping (VAM) technology(^\text{12}).</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>Consultation on PPP with PRAN Group and the other two processed food companies on processed food provision started. MOU was signed between GAIN and MoPME.</td>
</tr>
<tr>
<td>2012</td>
<td>02</td>
<td>Technical guideline was finalized by GAIN and MoPME.</td>
</tr>
<tr>
<td></td>
<td>03</td>
<td>Designing of the Project was started</td>
</tr>
<tr>
<td></td>
<td>05</td>
<td>IPs started kitchen construction</td>
</tr>
<tr>
<td></td>
<td>07</td>
<td>Survey by the implementing agencies was started? ended? First hot meal provision started</td>
</tr>
<tr>
<td></td>
<td>09</td>
<td>Full meal provision started</td>
</tr>
</tbody>
</table>

\(^{12}\) By Jan/2012, the poorest upazilas (sub-districts) up to 106\(^{th}\) (out of 145 food insecure and poverty prone upazilas) were already covered by the different school feeding programmes by other agencies (86 upazilas by GoB & WFP, 20 by EU). As a result, Trishal and Bhaluka upazilas (107\(^{th}\) and 108\(^{th}\) respectively) were chosen. Slum area in Dhaka city was also chosen for the piloting reasons (5-6, Narrative Annual Report 2011).
Annex 6: Example of semi-structured questionnaire

Example from a questionnaire for BRAC/Banchte Shekha staffs

Interviewee Information

Please tell me about yourself in your work for the School Feeding programme:

<table>
<thead>
<tr>
<th>Description of supports that your Organization provides for SNP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description of Your responsibilities and tasks for SNP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

Duration of dealing with SNP

(if applicable) Brief description of previous SNP-related experience

1. Scale
   1. Number of feeding days per year, is it different for schools?
   2. How many kitchens do you operate?
   3. How many meals per week does the programme provide?
   4. What are the components of the service per week? ⇒80 Hot meal days & 160 Processed food days? (GAIN & MoPME 2012, p. 24)

  E.g. 1  E.g. 2
  Hot meal x6  Hot meal x5
Processed
x1

5. What do you mean by “Clustered” Kitchens (but not “Centralised” Kitchens)?
6. Please describe the operation figures of each central kitchen.

<table>
<thead>
<tr>
<th>Kitchens / Locations (NGO)</th>
<th>Budget</th>
<th>Expenditure (if possible)</th>
<th>Schools / Locations</th>
<th>1-way Delivery Min/Km</th>
<th>No. students</th>
<th>No. Feeding days</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>e.g. Kitchen A in Town B (NGO C)</td>
<td>500,000</td>
<td>500,000</td>
<td>School A in Town X</td>
<td>20min/15km</td>
<td>300</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>School B in Town Y</td>
<td>45min/38km</td>
<td>500</td>
<td>500</td>
<td></td>
</tr>
</tbody>
</table>
II. Fund

1. What is the overall budget that your organization receives from the SNP? What is the process to decide that budget? Can you raise any request?

2. What are the major components of the entire budget?

3. In your organization, did you form a special office or team to participate in the SNP? If so
   a. How much did it cost for you to set it up? (capital costs)
   b. How much does it cost (annually?) for you to run the SNP, apart from the catering services? (Recurrent costs.) If possible, please illustrate the breakdown of the cost.
      i. Project support package activities (de-worming, nutrition education, safety practices)
      ii. Promotion of the community involvement/ownership (any activity example?)
      iii. Other activities?
   c. Do you have any specific format to keep a track of expenses of all sorts of SNP-related activities of your organisation?
   d. Is there usually any surplus for SNP at the end of month/term/financial year? How is it utilized?

4. How much does it cost to build and equip one kitchen on average? (Capital costs.) And if possible, please describe the breakdown of that capital cost per kitchen.
   a. Please describe the average equipment/facility of a kitchen. (E.g. Construction of kitchen area, oven, storage facilities, toilet block, water pump, and hand washing facilities, utensils, cutlery, stationary, etc.)
   b. Who covers the cost of the building and equipping the kitchens? What is the cost?
   c. Who designs the kitchens? How closely does it follow the guideline?

5. What is the direct recurrent cost per month (No. of days) or per year?
   a. Per kitchen or per cluster on average?
   b. If possible, please provide the breakdown. (E.g. Transportation, fuel for cooking, electricity, potable water, uniforms for kitchen workers, staple crops, legumes, vegetables, meat, fish, fruits, oil, condiments, other food products, drivers/deliverers, security/watchman, etc.)

6. What is the indirect recurrent cost per month (No. of days) or per year?
   a. Per kitchen or per cluster on average?
   b. If possible, please provide the breakdown. (E.g. maintenance for cookery, stove & chimney, storage facilities, toilet block, water pump, hand washing facilities, etc.)

7. Do you have any specific format to keep a track of expenses of the kitchens?

8. Is there usually any surplus for kitchen operations at the end of month/term/financial year? How is it utilised?

9. How much do prices fluctuate over a year? Please provide some examples if possible. How do you cope with it?

10. Does the SNP have any financial support programme for its stakeholders? (E.g. for service providers, cooks, schools, farmers, etc.) If so,
    a. What are the programmes?
    b. How often do you carry out them?
11. What is the most significant cost driver for your SNP-related activities?
12. In your opinion, is the budgetary allocation sufficient to carry out the planned activities (of either your organization or the entire programme)? If not, which part(s) of the programme suffer(s) from the scarcity? Why?

III. Management Structure
1. Is there an oversight mechanism?
   a. Who checks what parts of YOUR activities? How often?
   b. What do YOU check? How often?
   c. How much budget do you have for oversight provision?
2. What are the procedures to collect the school-level information to assess the feeding volume (e.g. enrolment figures, feeding days, etc.)?
3. Is there a feedback mechanism?
   a. How is it collected?
   b. Is the decision-making informed by the feedback?
   c. Any example of actions taken?
4. In your opinion, what are the major challenges of the overall SNP implementation?
5. In your opinion, what are the major challenges particularly for the kitchen operation?

IV. Food Procurement
1. Is frequency of purchase different for the products and/or kitchens?
2. Which product is procured from where (how far from the kitchens?) by whom?
3. How do you decide the food providers (traders, shops, markets, farmers, etc.)? Is it closely following the guideline?
4. What are the food purchasing criteria? If there are any guideline or set criteria, then, how closely is it followed?
5. Who does actually purchase food? “Administration Department” of your organization?
   a. How often? (please describe based on different types of food)
   b. Is food purchased strictly according to the menu or is there some flexibility?
6. Who brings the purchased food to the kitchens, and how?
7. How much does each product cost (ballpark cost/unit)?
8. How much money do you spend on each product per month (per kitchen/all kitchens)?
   a. Is there any gratuitous food contribution from the community or parents? If so, what do they contribute? How much in quantity and how often?
9. How many guidelines do you have for food storage? How closely are they followed?
10. Throughout the procurement (and storage) process, is there food wastage? How do you manage it?
11. What are the difficulties that your organisation is currently facing in terms of the food procurement (and storage)?
12. In your opinion, which local food products could be suitable to include in the food basket?
a. Why? (E.g. taste, nutrition value, production, etc.)
b. What does “local” imply in this context?
c. Are you interested in local smallholder involvement? If so, what would you expect to achieve?

V. Preparation/Delivery
1. How many people work in the kitchens? (E.g. per cluster/kitchen on average)
2. Does running kitchen create jobs for the local community?
   a. Any example?
   b. What are their roles? (E.g. Cooking, packing, cleaning, delivery, supervising, etc.)
3. How much does your organisation pay them per day?
4. How does your organisation pay them?
   a. How often? (Daily? Monthly?)
   b. Cash? In-kind? Or receive free voluntary labour contribution from whom?
   c. How much is the national minimum wage? Is it per day?
   d. Does the payment process involve any commercial bank?
5. Are there nutrition standards?
6. Who designs the menu, and how?
7. Does the SNP have intention to reflect local food culture in the menu? If so, how is it done? Any example?
8. Please describe a model menu for one week. If possible, with a breakdown of nutrition components.
9. Do you know which menu is popular among the students and their parents? If so, how did you get to know? What are they?
10. Is there a mechanism to check the actual food basket? What do you do about the result?
11. In your opinion, what are the challenges in terms of preparing the meals?
12. Is there a mechanism to check quality and amount of food delivered? How is it done?
13. Throughout the preparation and delivery process, is there food wastage?
14. In your opinion, what are the difficulties in meal delivery?

VI. Distribution
1. Please describe the process from “receiving delivered meals” at the school level to “distribution to the students”.
   a. Who are involved? If they are paid, how much do they get paid?
   b. How long does it take?
   c. Are the distributors trained before they start their services? If so, how long does the training last? What does the training contain?
2. How do you keep track of the numbers of meals you deliver and distribute per day? Any guideline for this?
3. Do you serve students that are not part of the SNP? If so,
a. Do you serve them the same meals as the SNP?

b. Do you collect fees from them? How much?

c. How do you keep the record of different numbers served between SNP-target school children and those who are not?

4. Do the kitchens also provide dishes and cutlery along with the hot meals?

5. What is the procedure to discharge the waste after the distribution (left-over food)?

6. What is the procedure to re-collect food containers (and dishes & cutlery)?
   a. Who are involved? If they are paid, how much do they get paid?
   b. Who clean the containers and where do they clean them?

7. In your opinion, what are the challenges in the distribution stage?

VII. Infrastructure

1. What are the criteria for kitchen site selection?
   a. Geography?
   b. Ease of remodelling construction?
   c. Others (storage, cooking space, commitment from the Mother’s Club, etc.)

2. In your opinion, what are the challenges in the kitchen infrastructure?

3. What are the criteria of school targeting?
   a. Geography?
   b. Poverty level?
   c. Others

4. Are there any prerequisite for schools to be selected?
   a. Hand washing facility
   b. Toilet facility
   c. Canteen / Dining area
   d. Others (storage, cooking space, commitment from the Mother’s Club, etc.)

5. How much does it cost to build and maintain the hand washing facility in school, and who covers the cost?

6. How much does it cost to build and maintain the toilet facility in school, and who covers the cost?

7. How much does it cost to build and maintain a canteen (or, simply a dining area) in school, and who covers the cost?

8. In your opinion, what are the challenges in the school infrastructure?
Other articles in the PCD working paper series:

- Home Grown School Feeding: Linking Small Holder Agriculture to School Food Provision HGSF Working Paper 1
- Linking Agricultural Development to School Feeding HGSF Working Paper 2
- Food Provision in Schools: Developing an Evidence-Based Programme HGSF Working Paper 4
- Engaging Communities Evaluating Social Accountability in School Feeding Programmes: HGSF Working Paper 6

The working paper series and a wide range of HGSF resources are available for download from [www.hgsf-global.org](http://www.hgsf-global.org)