



Linking Agricultural Development to School Feeding

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Abstract

This paper critically examines the theory of change associated with what has become known as the home-grown school feeding (HGSF) approach. HGSF is conceived of as combining two distinct policy objectives: the first is a social protection objective focused on the health and nutritional status of school-age children, while the second focuses on the economic and technical transformation of small-scale agriculture.

“Far from being just about school food, then, the Home-Grown School Feeding initiative embodies the entire drama of development in microcosm.” (Morgan et al. 2007, p.13)

Executive summary

This paper critically examines the theory of change associated with what has become known as the home-grown school feeding (HGSF) approach. HGSF is conceived of as combining two distinct policy objectives: the first is a social protection objective focused on the health and nutritional status of school-age children, while the second focuses on the economic and technical transformation of small-scale agriculture. These objectives are addressed by two separate policy instruments: school feeding which addresses the social protection objective, and “structured demand” which represents the strategic use of public procurement (to supply school feeding programmes) in order to open new markets to family farmers and thus stimulate their investment in productivity enhancing technology. The paper contextualises the rise of interest in HGSF within broader debates in both the developed and developing worlds around the use of public procurement to achieve broader economic, social and environmental goals and the value of more “local” economic development strategies.

The focus of the paper is on the agricultural development objective and the use of structured demand as a key policy instrument (the social protection objective is addressed in an associated working paper). The arguments presented herein aim to provide a basis for moving towards clarity on (1) a theory of change for HGSF programmes; (2) the conditions under which HGSF programmes are more able to yield positive agricultural development outcomes and; (3) an agenda for moving forward on research and impact evaluation.

The paper explores a number of narratives, concepts and models that are relevant to the HGSF proposition (including the “localised procurement model”, demand-assisted growth, structured demand, multipliers and spill-overs). It also presents an analysis of the direct and indirect agricultural development benefits likely to be associated with HGSF and the factors that may affect the magnitude and distribution of these benefits. The characteristics of school food procurement systems, through which structured demand is ultimately operationalised, loom large in this analysis.

The paper highlights the complexity of pathways to agricultural transformation associated with the seemingly simple idea of HGSF, an idea that is increasingly held up as “win-win”. We expose areas of inconsistency across the literature and HGSF programmes in SSA as well as possible tensions that may arise in attempting to pursue both market and social objectives in the same initiative. The paper ends with a proposed research agenda that also speaks more generally to important under-researched areas within the general social protection and agricultural development discourse.

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Introduction and background

Scope of the paper

This paper is an output from the initial phase of the Home-Grown School Feeding (HGSF) Project which is funded by Bill & Melinda Gates Foundation (BMGF) and implemented by the Partnership for Child Development at Imperial College. The Institute of Development Studies (IDS) at the University of Sussex is a project partner and part of the project's agricultural technical consortium. As such IDS is charged with providing expertise across three areas: agricultural development, food security and social protection. IDS also play a central role in the evaluation component of the project.

Over the last five years HGSF – essentially an attempt to actively and explicitly link agricultural development with school feeding – has received increasing attention from international agencies (Sanchez et al. 2005), policy makers (e.g. CAADP²), national governments, academics (Morgan et al. 2007) and practitioners (Espejo et al. 2009). BMGF has funded or co-funded some of these activities as well as other closely related initiatives such as WFP's Purchase-for-Progress (P4P) programme.³

The rise of interest in HGSF in many ways parallels and even reflects the recent convergence in policy debates between agricultural and social protection policies, especially in Africa. This interlinking of “social” and “economic” policies for poor farmers was anticipated by earlier debates in the 1990s around “linking relief and development” and “productivity-enhancing safety nets”. However this link has been sharpened by the “colonisation” by social protection of many traditional agricultural policy instruments, including innovative approaches to crop insurance, agricultural input subsidies and even grain futures markets. The conventional view – that agricultural policies promote growth in yields and incomes, while social protection stabilises yields and consumption (when production fails) – is being challenged by emerging evidence that both objectives can be achieved, over specific populations, in a single instrument (Dorward et al. 2006; Sabates-Wheeler et al. 2009). The evidence base for these positive synergies is limited but growing, and in many ways this paper charts the territory for investigating whether and under what conditions these synergies exist for HGSF.

The objective of this working paper is to explore the links between school feeding and agricultural development that are at the heart of HGSF. In particular we want to interrogate the “home-grown” element of HGSF from first principles. What are the narratives, concepts, models and experiences that inform the HGSF proposition, particularly as it relates to sub-Saharan Africa (SSA)? This paper has a specific focus on the notion of “structured demand” or “demand-assisted growth” and the ways it can be manifest through different procurement systems. We do not review the global experience with school feeding in general or HGSF in particular as this has been done by others (Morgan et al. 2007; Espejo et al. 2009).

The paper proceeds as follows. In the next section we explore relevant narratives, concepts and models, focusing particularly on the “localised procurement” model, structured demand, strategic complementarities and multipliers. Following this we explore how direct and indirect benefits might arise through “demand assisted agricultural growth” linked to school feeding. The next section presents a preliminary discussion of some selected HGSF procurement models. The final section presents conclusions and suggestions for further work.

² CAADP is NEPAD's Comprehensive African Agriculture Development Programme (www.nepad-caadp.net/). The programme's Pillar 3 (Food supply and hunger) specifically highlights home-grown school feeding (<http://www.nepad-caadp.net/pillar-3.php>).

³ <http://www.wfp.org/purchase-progress>

Narratives, concepts and models

HGSF has been defined in a variety of ways, e.g.:

Espejo et al. (2009) in *Home-Grown School Feeding: A Framework to Link School Feeding with Local Agricultural Production* suggest that HGSF is:

“In the broadest sense... a school feeding programme that provides food produced and purchased within a country to the extent possible.”

“... linking school feeding programmes with local small-scale farmer production by creating an ongoing market for small landholders (“smallholders”).”

“... a school feeding programme that offers food produced and purchased within a country.”

Morgan et al. (2007) in *Home Grown: The New Era of School Feeding* suggest that HGSF is:

“... a new model of school feeding that is designed to deliver agricultural/market improvements as well as nutritional and educational benefits”

“...a novel approach to school feeding that simultaneously addresses nutritional, educational, agricultural/market improvements in ways that create new and innovative synergies to deliver broader development outcomes”

CAADP, in its description of Pillar 3 (*Food supply and hunger*) (<http://www.nepad-caadp.net/pillar-3.php>), describe HGSF as:

“... designed to link school feeding to agricultural development through the purchase and use of locally and domestically produced food”

The common element that links these various definitions is the idea that HGSF is **an attempt to actively and explicitly link agricultural development with school feeding**.⁴ There is less agreement in relation to the **scale** at which this linkage might take place (“local”; “within a country”; “domestically produced”) and the **nature of the linkage mechanisms** is seldom specified. As indicated in the introduction, HGSF seeks to deliver simultaneously on economic growth and social protection / poverty reduction objectives. As such it brings together very different agendas that are at times contradictory and in tension with each other. As we will see in a later section these tensions show up at the procurement and production level in terms e.g. of trade-offs between profit for entrepreneurs and adequate provision of food for vulnerable groups.

The story or narrative that is commonly used to explain and justify the interest in HGSF has three parts as follows:

1. The agricultural sector and the livelihoods of small-scale farmers in SSA can be transformed for the better primarily through greater engagement with markets.
2. However, this transformational potential is presently constrained by the failure of input and output markets, poor infrastructure and sub-optimal use of productivity enhancing technology.
3. But, by “structuring” demand in ways that make it easier, less risky and more profitable for small-scale farmers to engage with markets, and by providing an array of complimentary services

⁴ It is important to note that from an agricultural development perspective, HGSF is no different than if one were to link hospital, army or prison feeding, or any other form of “public food”, to specific agricultural development objectives.

(training, credit, access to technology), school feeding programmes can be used to kick start this market-based transformational process.

This narrative can be reduced to a deceptively simple argument: **the livelihoods of poor, smallholder farmers in SSA will be transformed primarily through further integration with markets, and intervention is needed to get this process started.** This is actually a much more complex, multi-step argument; with some of the steps being hotly contested (**Table 1**).

As reflected in the narrative, much of the HGSF literature refers to “small farmers” and “smallholders”; yet, here as in so many other situations, names and labels matter. When it comes to how to refer to millions of people in sub-Saharan Africa who produce crops and livestock products, the choice is very wide indeed (**Table 2**). Each of these labels draws attention to some specific characteristic(s) of the lives or production systems of African “farmers”, or of the economic and political relations within which they farm. However, each label is partial, and many are poorly defined and arbitrary. In addition, with increasingly diversified rural livelihoods (Ellis 2000; Bryceson 2002), blurred boundaries between “cash” and “food” crops, and the plethora of channels through which land is accessed, the value of many of the labels in the table must be questioned.

Therefore, following Sumberg (2006), in the remainder of this report we will use the terms “**family farmers**”, “**family farm**” and “**family farming**” to refer to the highly heterogeneous population of rural people whose livelihoods depend to some degree on farming and who pursue their farming primarily with their own and/or their family’s labour.

Table 1. The argument behind the HGSF narrative.

Step	Notes / comments / references
1. Agricultural growth is essential for broad-based poverty reduction in SSA.	See e.g. Delgado and Hopkins (1998); Irz et al. (2001) and Thirtle et al. (2003); cf. Söderbom and Teal (2003). ⁵
2. Agricultural growth will come about through increased engagement with input & output markets, which will be associated with technical change & productivity enhancement.	See e.g. Dorward et al. (2004).
3. In SSA the greatest poverty reduction impact of this “market engagement – agricultural growth – poverty reduction” linkage will come via a focus on small farms. ⁶	See e.g. Lipton (2009) and Wiggins (2009); cf. Collier (2008; 2009). ⁷ A more ideological restatement of Steps 1-3 might be: the agricultural sector & the livelihoods of small-scale farmers in SSA can be transformed for the better only through greater engagement with markets.
4. A major block to greater market engagement is the fact that in much of rural SSA input and output markets are “thin”, seasonal and poorly governed; infrastructure is poor etc.	See e.g. Poulton et al. (2006) and Barrett (2008).
5. The demand for food can be “structured” so that it is [easier, less costly, less risky] for specific target groups (e.g. the smaller-scale producers or poorer producers) within the population of “small farmers” to increase their level of commercialisation.	By “structured demand” we mean: <ul style="list-style-type: none"> • A public, demand-side market intervention • That seeks to reduce barriers to entry &/or transactions costs for the purpose of bringing specific groups into the market • And that may involve other longer-term, less-direct interventions e.g. transportation or policy

⁵ The literature on agricultural growth and poverty reduction is extensive – only a small sample of relatively recent work is cited here.

⁶ This could also include a group of small farmers working together or in cooperative structures.

⁷ Again, the literature relating to this step is extensive – only a small sample is cited here.

Table 1. (cont)

Step	Notes / comments / references
<p>6. The provision of complimentary services (training, credit, access to inputs & technology) can be linked to the process of structuring demand.</p>	<p>The cotton sector in some parts of SSA provides good examples of successful provision of services by produce buying agencies (see Tschirley et al. 2010).</p> <p>More generally see Tendler and Amorim (1996) on the provision of complimentary services to SMEs in as part of “demand-assisted growth” strategies.</p>
<p>7. Procurement of food for publically-funded school feeding is in the frame for two reasons:</p> <p>a. There is growing recognition among both funders and recipient countries of the benefits of substituting domestically produced commodities for food aid & imported commodities;</p> <p>b. Because demand is predictable it is seen to provide an opportunity to structure demand for a significant quantity of domestically produced food in a way that will stimulate greater market engagement by targeted groups of small farmers.</p>	<p>See e.g. Maxwell (2007)</p> <p>See Espejo et al. & Morgan et al. (2007)</p>
<p>8. Thus, the use of structured demand to supply school feeding programmes is an obvious avenue that can and should be used to kick start a sustainable process of rural poverty reduction & livelihood transformation.</p>	<p>CAADP Pillar III <i>Framework for African Food Security (FAFS)</i>⁸</p> <p>Bill & Melinda Gates Foundation <i>Agricultural Development Strategy Overview</i>⁹</p>

⁸ <http://www.caadp.net/pdf/CAADP%20FAFS%20BROCHURE%20indd.pdf>

⁹ <http://www.gatesfoundation.org/agriculturaldevelopment/Documents/agricultural-development-strategy-overview.pdf>

Table 2. Naming farmers in Africa.

Aspect or characteristic of farmer or farming activity	Common labels
Scale	<ul style="list-style-type: none">• Small-scale farmer• Large-scale farmer
Objective	<ul style="list-style-type: none">• Subsistence farmer• Semi-subsistence farmer• Commercial farmer
Level of engagement; importance within livelihood	<ul style="list-style-type: none">• Full-time farmer• Part-time farmer
Origin or level of inputs used	<ul style="list-style-type: none">• Family farmer• Low-external-input farmer• Mechanised farmer
Viability	<ul style="list-style-type: none">• Resource-poor farmer• Marginal farmer
Political economy within which farming takes place	<ul style="list-style-type: none">• Peasant farmer• Small-holder farmer• Capitalist farmer

Adapted from: Sumberg (2006)

The “localised procurement” model

In addition to links with the argument about agricultural growth and poverty reduction laid-out above it is possible to situate the growing interest in HGSF in relation to contemporary academic and policy debates (and increasing activism) around **public procurement** and **localisation**. The notion that public sector procurement can serve as a powerful tool to advance economic development (e.g. through small enterprise development) is well established – Tendler and Amorim (1996) describe this approach in terms of “demand-assisted growth”. More recently, the role of public procurement in promoting sustainability, environmental and social agendas has been highlighted in both the North (e.g. Eckersley 2004; McCrudden 2004) and the South (Bolton 2008; Geng and Doberstein 2008). The basic idea is that the immense purchasing power of the state can be used in a pro-active, innovative manner to favour different suppliers, regions and products – and ultimately transform outcomes – compared to more standard “least cost” or “value for money” approaches.

The particular example of procurement of food for schools has been explored in some detail (Morgan 2008; Morgan and Sonnino 2008; Sonnino 2009). The movement toward in-country (or regional) procurement of food aid can also be seen in the light of new understandings of the range of benefits (i.e. to farmers, traders, transporters and food aid beneficiaries) that can be derived from alternative and more localised public procurement strategies (Maxwell 2007).

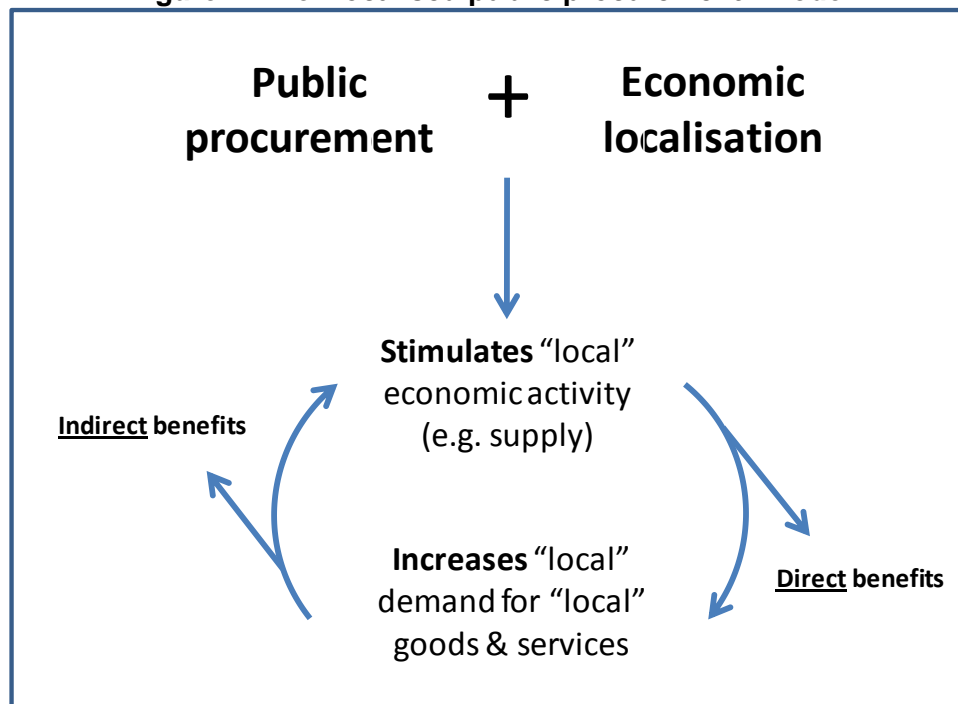
One of the unanticipated consequences of the era of globalisation has been the rise of interest in the “the local” and processes of economic localisation [for an analysis of this dynamic in relation to food see Hinrichs (2003)]. Indeed, some have suggested that efforts to localise (or re-localise) economic activity could or should be the centre-piece of area development or regeneration programmes addressing issues such as unemployment, inequality and vulnerability to climate change. Thinking along these lines is also central to the “food sovereignty” agenda and its alternative vision for

agriculture and rural development worldwide (Martinez-Torres and Rosset 2010). In the UK, the image of a “local” economy as a leaky bucket has been widely used to illustrate the benefits of localisation. The idea is that localisation can be seen as a process of “plugging the leaks” (i.e. reducing the outflow of money from the “local” area) (Ward and Lewis 2002); and it is argued that poor and disadvantaged people stand to benefit from enhanced money flows through the multiplier effect (see below). Over the last decade the social, economic and environmental implications of the localisation of food and food systems have received particular attention (Winter 2003; Hinrichs 2003; DuPuis and Goodman 2005; Born and Purcell 2006).¹⁰

The HGSF proposition combines elements from both the public procurement and localisation debates (**Figure 1**). This model proposes that public sector can be used to stimulate a “local” supply response which in turn (e.g. though the new wages pumped into the economy) creates new demand for “local” goods and services. In theory, as this cycle begins to turn it becomes increasingly self-sustaining.

A number of commentators have already noted that if not handled carefully, the process of establishing this virtuous cycle through HGSF could potentially result in negative impacts. For example, if a programme’s demand for food is large relative to the size of the “local” market, and there is no immediate supply response, prices could be driven up with negative consequences for poor people who rely on the same market for food provisioning [Stoppa (2007) modelled several scenarios along these lines]. One obvious conclusion is that **context** and **scale** considerations must figure prominently in programme design.

Figure 1. The “localised public procurement” model



¹⁰ There are many claims and counter-claims associated with “local” food e.g. in relation to freshness, flavour, health benefits, environmental impacts etc. – see Edwards-Jones et al. (2008) for a recent review.

The problem with “local” – a small aside

The word local is central to discussions of HGSF. This point is illustrated by two key documents: in *Home Grown: The New Era of School Feeding* (Morgan et al. 2007) local appears **838 times** (in 477 pages), while in *Home-Grown School Feeding: A Framework to Link School Feeding with Local Agricultural Production* (Espejo et al. 2009) it appears **124 times** (in 80 pages). However neither document spells out clearly what is meant by local. Rather, depending on the context it is used to refer to e.g. within the boundary of the village(s) surrounding a single school, or at the other extreme, to within the national boundary of the country within which the same school sits. For a word that is so central, this level of ambiguity, and the resulting confusion, is untenable.

Literature and practice relating to food systems point to a number of different approaches to defining local:

- **Administrative** – with local being defined as within the boundaries of an administrative unit such as a nation, a specific region, district or village. This approach results in unacceptable anomalies when, for example, the administrative unit is very large (e.g. cowpeas grown in northern Nigeria considered “local” to Lagos; or avocados from California considered “local” to New York) or very small; or a settlement of interest is located near the boundary of two contiguous administrative units.
- **Spatial** – with local being defined as within a set distance (e.g. 10, 50 or 100 km) from a settlement of interest. This approach is essentially arbitrary, taking no account of different size settlements, population densities, agro-ecological conditions and so on.
- **Environmental** – with local being defined in relation to the spatial pattern of carbon emissions (Plassmann and Edwards-Jones 2009).
- **Aspirational** – with local being defined on a sliding scale from the village to the nation, with the objective to purchase “as local as possible”. To some degree this reflects the current situation with HGSF, but it provides a very poor basis for analysis and evaluation.
- **Participatory** – with local being defined in each situation by “the people” themselves.

Each of these approaches has either serious conceptual and/or operational limitations. There seems to be some momentum within the HGSF community around the idea that **at a minimum** “local” production could be interpreted as “domestic” production (i.e. from within the national boundary). However this suggests a meaning of “local” that is neither intuitive nor anywhere close to common usage.

We conclude from this that for the sake of clarity in relation to HGSF, except in those situations where the intended meaning is unambiguous, it will be best to avoid the word local altogether. We follow this convention in the remainder of this report.

Market engagement, demand-assisted strategies and structured demand

Market engagement

In theory the long-term objectives of HGSF (i.e. social protection plus transformed livelihoods for poor “smallholder farmers”) are to be achieved primarily through increased market participation, which should in turn drive investment in productivity enhancing agricultural technology. The conventional wisdom is that in much of rural SSA this positive link between market engagement and investment in technology fails to materialise because agricultural input and output markets are “thin”¹¹, supporting institutions (e.g. providing research, extension and credit) are “weak” and many rural areas are poorly served by transportation and communications infrastructure. In other words, increased market engagement is constrained by a number of inter-related factors, some of which reflect fundamental geographical, political and economic relations. Under these circumstances, Barrett (2008, p.300) suggests that “One thus has to get institutions and endowments, as well as prices, ‘right’ in order to induce market-based development”.

More recently, social entrepreneurs (many funded and supported by BMGF) have identified not just “missing” markets, but lack of information and appropriate technology as the fundamental constraints to releasing entrepreneurial spirit at a mass level in Africa. The vision is then to provide the incentive for “latent entrepreneurs” to blossom: here the vehicle for poverty reduction on a large scale is to promote and create an entrepreneurial middle class in Africa. Central to this vision is the willingness of an external agency to underwrite (or subsidise) risk in the initial stages of growth and expansion.

Another closely related way to understand limited market engagement of smallholder farmers in SSA is through the lens of coordination risk. Dorward and Kydd (2004) define economic **coordination risk** as “the risk of failure of one player’s investment due to the possible absence of complementary investments by other players in different stages in the supply chain.” Coordination risk is particularly prevalent where there are thin markets and weak institutions, as in much of rural Africa.

Poulton et al. (2004) describe **coordination** within agricultural markets as “effort or measures designed to make players within a market system act in a common or complementary way or toward a common goal”, and suggest that coordination “may be undertaken by private agents acting collectively or may be orchestrated by state agents defining the boundaries within which private agents can act.”

From the perspective of those interested in pro-poor agricultural development in SSA, “the central **coordination challenge**... is... how to develop supply chain systems that provide smallholders with access to the *range* of pre-harvest services that they require *at the same time* as enhancing their access to remunerative output market opportunities” (Dorward et al. 2005). “This requires **non-market coordination** (sometimes, but not necessarily, led by the state) to deal with risks that inhibit complementary and mutually dependent investments along a supply chain, where these investments are held back by thin markets and by high costs in controlling opportunism (e.g. in produce grading and in seasonal finance)” (Dorward et al. 2005).

¹¹ A “thin” market is one in which there are relatively few bids to buy and few offers to sell. Small changes in supply or demand can have a dramatic impact on price.

Some examples of the use of non-market coordination mechanisms in smallholder agriculture in SSA include: contract farming (Little and Watts 1994; Porter and PhillipsHoward 1997; Minten et al. 2009); the cotton sector (Poulton et al. 2004; Tschirley et al. 2010); and the export horticulture sector (Dolan and Humphrey 2000). In most of these cases coordination includes (but is not limited to) the guaranteed markets and prices, the provision of some production inputs (e.g. seeds and fertiliser) on credit and technical assistance. Examples of state-led non-market coordination include the now largely abandoned use of grain marketing boards.

Demand assisted development strategies

For at least some proponents of HGSF increased market participation is closely tied to the notion of “**structured demand**” (see next section). While this term is relatively new it has a long intellectual and policy pedigree, and probably links most directly to ideas and experience around “small-enterprise favouring procurement”, “demand-driven models” and “demand-assisted [small enterprise] growth” (Tendler and Amorim 1996). These are in contrast to “supply-driven approaches” which “specialize in providing one or more ongoing services - credit, courses in business management, or technical assistance. They try to serve as many firms and as many sectors as possible” (Tendler and Amorim 1996). These two approaches are not unrelated – clearly the ambition of a demand-assisted approach is to stimulate a supply-side response – but the critical question is which side (demand or supply) drives the intervention. To the extent that the supply side is constrained through the coordination failures referred to above there may be a need to provide complementary services (training, technical assistance) to allow a demand-side response to develop.

Tendler and Amorim drew a number of lessons from their study “demand-assisted SE [small enterprise] growth” initiatives to promote SMEs in northeast Brazil. These include that:

1. “purchasing units should not be *required* to buy from small firms” (emphasis in original)
2. “the SE support functions be kept separate from the purchasing function, so that the support agency – together with the firms – will have to prove to the purchasing unit the SE products can be delivered at the same price and quality as that of the government’s existing suppliers”
3. “SE-favouring procurement should contract only with groups of firms, and pay each producer only upon delivery and satisfactory inspection of the product of the whole group”
4. “SE-favouring procurement must make a substantial part of the payment to suppliers up front – in our case, 50%”
5. “the support agency must earn a small commission on the contract”

To reiterate: the idea is not a strategy of positive discrimination that favours small firms at the expense of large ones, but rather a strategy that helps the small firms compete with other providers in term of both quality and price. Tendler and Amorim stress that one critical element of such a strategy is working through an association of firms because it allows peer monitoring, shared information and learning, quality control, group purchase, skills upgrading and backward and forward linkages. These important advantages can only be gained if the firms are in close proximity (this links

directly to both the extensive discussion of “enterprise clusters” in the SME literature and common strategies in the micro-finance sector). Close proximity is required if customised assistance is to be given in an efficient way to firms that are producing to the same contract, allowing “the support agency ... to link the organizing [of firms], and the service that goes with it, to a contract and the problems that arise in meeting it” (p.422).

Structured demand

Drawing on these earlier experiences and linking them to the current interest in the use of “structured markets” as a component of HGSF (Bill & Melinda Gates Foundation 2008, 2009) we suggest that structured demand can be conceived of as public, demand-side market interventions that have the explicit objective of reducing barriers to entry and/or transactions costs faced by specific groups of potential suppliers. In relation to food, these demand-side interventions:

- Seek to create significant additional demand¹² that is predictable over time; often by supplying programmes that use food as a form of social protection (e.g. school feeding...)
- May be accompanied by supply-side measures (e.g. access to information, new technology, credit, training etc)
- Are ultimately based on the proposition that greater market integration of target groups (e.g. small-scale agricultural producers in SSA) will result in significant income benefits and support long-term livelihood transformation

The areas of direct intervention that might be used to “structure” demand so as to encourage or facilitate engagement by small-scale producers include the specification of:

- The type and intrinsic qualities of the commodities to be purchased
- Any extrinsic qualities of the commodities (e.g. type of producer or geographical area of production)
- The quantity to be purchased (e.g. number of lots, minimum lot size) over what time period and delivery requirements (e.g. place, quantity, frequency)
- The mechanism for determining price
- Any minimum requirements to become a “registered” or “licensed” supplier; any other restrictions on who can tender
- Contract details (e.g. mode and frequency of payment, upfront payments, default penalties, insurance requirements...)

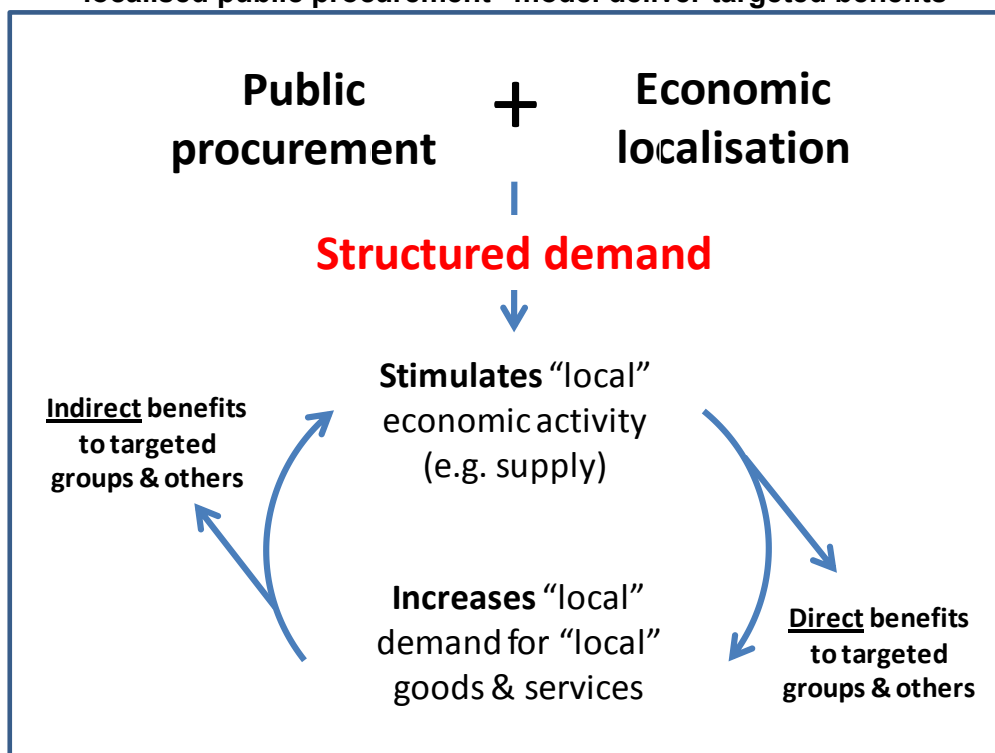
Beyond these, other longer-term, less-direct interventions may be required (e.g. in relation to transportation and policy).

We can now return to the localised public procurement model. In **Figure 2** we have added a box for structured demand, which represents, in effect, the way that the public procurement and localisation elements are operationalised. Seen from another angle, structured demand is simply a public-sector coordination mechanism.

¹² By “additional demand” we mean an increase in demand that is potentially satisfied by “local” family farmers. Thus, in the case of an existing school feeding programme where all food is presently imported, a shift to domestic procurement would be considered “additional demand” even though the total food consumed does not change.

In **Figure 2** we have also made explicit that the goal is to direct the benefits to specified target groups (i.e. family farmers) as opposed to simply increasing the aggregate level of economic activity.

Figure 2. “Structured market” required to make the “localised public procurement” model deliver targeted benefits



Multipliers and spill-overs

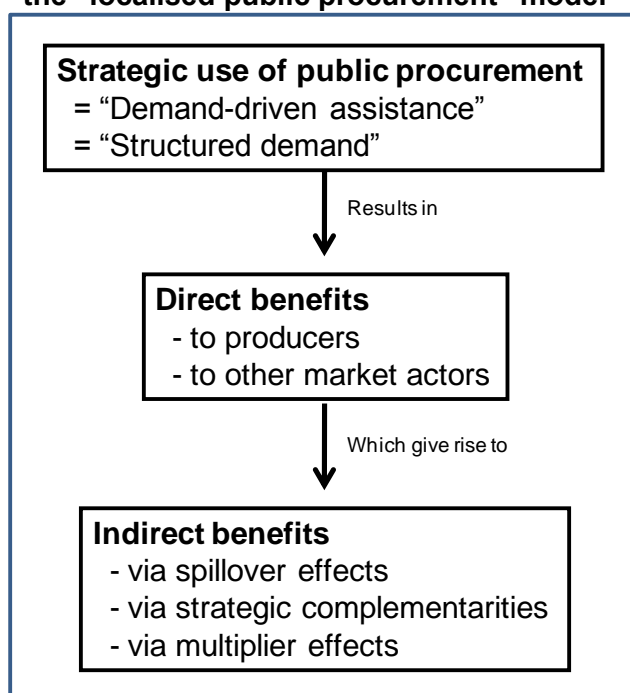
Figure 2 above provides a heuristic device that enables us to identify some testable hypotheses. In particular we are interested to establish whether and to what extent the structured demand model can provide the “spin-offs” to specified target groups as well as the stimulus to a “local” dynamism whereby demand and supply synergise to provide long term agricultural development.

When considering the impacts arising from a development intervention, it is common to divide these into **direct** and **indirect** impacts (**Figure 3**). The direct impacts are association with planned expenditure. In the case of HGSP, these direct effects arise from expenditure for the purchase of food resulting in an increased level of demand and additional marketing and income opportunities for food producers and suppliers. We will look at these direct impacts in more detail in a later section.

In exploring the indirect impacts associated with the creation of linkages between school feeding and agricultural development we make use of the literature on local economy effects. The view that providing support to communities affected by liquidity or credit constraints (in the form of development aid, cash transfers or other farm level support) could act to stimulate the local economy has a long tradition in economics. It reflects canonical views about the working of multipliers, say from Keynesian models which focus on the effects produced by agent interactions. A classic article by Cooper and John (1988) distinguishes between three different types of effects. **Spill-overs** occur where the actions of some agents confer external benefits on their neighbours. Typically, this is the example of a flower farmer who

benefits from the nearby bee keeper. Spill-overs can be positive (e.g. learning, technology transfer and social capital formation) or negative (e.g. pollution). **Strategic complementarities** on the other hand refer to the possibility that the strategy followed by one agent increases the optimal strategies of others. For example, road or irrigation improvements made by one farmer might enable an improved allocation of productive resources by her neighbours. Finally, there are **multipliers**.

Figure 3. Direct and indirect benefits arising from the “localised public procurement” model¹³



Kay (2002) suggests that an economic multiplier is “a number used to estimate economy-wide [or region-wide] impacts of industry-specific economic changes”. The greater the linkages between the industry or sector of interest and the rest of the economy the larger the multiplier; and, the greater the multiplier, the greater the economy-wide or employment impact of a given stimulus to one industry or sector of the economy. When linkages are limited (as indicated by low levels of “local” spending) there is said to be a high degree of “leakage”, and thus fewer positive indirect impacts on the “local” area of interest. The problem of leakage accounts for the general observation that there is a positive correlation between the size of the area being considered and the size of the multiplier. Kay highlights the fact that in principle multipliers allow the analyst to capture both the direct and indirect effects of an intervention.

This literature on local economy effects is critical to understanding the pathways (and constraints) by which structured demand and thereby HGSP, is able to effect broader agricultural change and transformation. We identify some of these pathways and the mechanisms for local economy effects below.

¹³ Clearly there could be also benefits to the local consumers (children and families) through (1) more culturally appropriate foods, and (2) more reliable supply. However, in this paper we are specifically interested in the farm producer and supplier side of the story.

Agricultural development benefits

Here we return to the discussion of possible direct and indirect agriculture and rural development benefits associated with HGSF. As the ultimately objective has been framed in terms of livelihood transformation, the concern has to be with the nature, magnitude, time-scale, and perhaps most importantly, the distribution of these benefits.

Direct benefits

A number of direct agricultural benefits that might be associated with HGSF can be identified (**Table 3**). Depending on the procurement model these might accrue to either producers or to other supply chain actors. The magnitude and distribution of these benefits will depend on how much food is purchased, the objectives and effectiveness of any targeting strategy, and where, how and how effectively the purchases are made (i.e. the procurement model and how effectively it is implemented).

The spatial distribution of these direct benefits (e.g. in relation to the schools being supplied) will depend on the procurement model and how effectively it is implemented.

Table 3. Potential direct agricultural development benefits associated with HGSF

Benefit	Beneficiaries	Size of benefit dependent on:
Increased demand for commodities already being produced	Producers &/or other supply chain actors	The net additional demand represented by HGSF purchases Supply response Functioning of existing market mechanism(s)
New marketing channel for commodities already being produced	Producers &/or other supply chain actors	Functioning of new market / procurement mechanism
Marketing channel for new commodities	Producers &/or other supply chain actors	Level of demand for new product Supply response Functioning of new market / procurement mechanism
Reduction in risk & income uncertainty	Producers &/or other supply chain actors	Proportion of marketed produce represented by HGSF purchases Functioning of new markets / procurement mechanisms
Improved access to training, credit, technology...	Producers &/or other supply chain actors	Terms governing access Effectiveness of goods / services in enhancing productivity

Indirect benefits

The indirect benefits of an intervention such as HGSF will be many, more widely distributed, develop over a longer time frame... and some are likely to be unintended and unforeseen. Nevertheless, a number of indirect benefits that might be associated with HGSF can be identified (**Table 4**).

Critical factors moderating positive benefits

In the preceding section we identified routes, both direct and indirect, by which benefits may arise through the “localised public procurement” model when applied to school feeding. These routes are further mediated by a number of factors, and in the sections below we consider four of these.

Spatial distribution of actors and benefits

So far in this paper spatial relationships have been highlighted in the discussion of localised public procurement, the ambiguity around “local” and the advantage of working with firms that are in close proximity. In this section we explore the spatial relations around HGSF further. Ultimately we are interested in understanding how different approaches to structuring demand, and the procurement models that result from these, affect the spatial distribution of benefit arising from HGSF, which brings us back to the whole question of targeting.

We can identify two potential spatial variables that might be important in relation to the level, type and/or distribution of benefits arising from HGSF. These are:

- The degree to which producers are clustered (e.g. clustered / not clustered)¹⁴
- The proximity of producers to point of consumption (e.g. nearby / distant)

Combining these we have three meaningful spatial configurations (**Figure 4**):

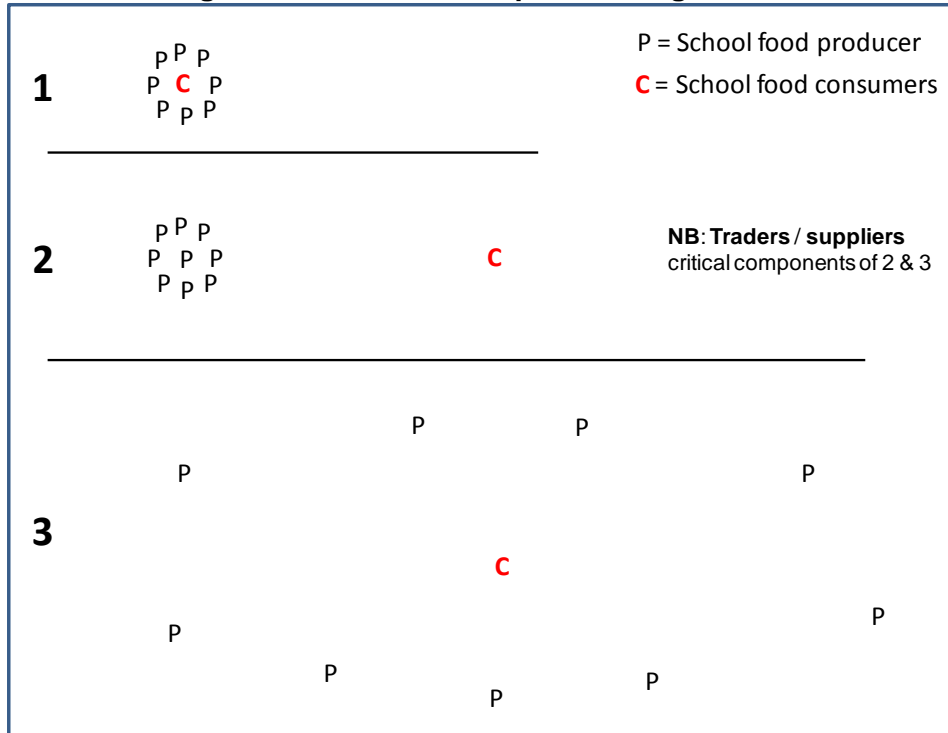
1. **Producers clustered; consumers nearby:** e.g. a very decentralised model of school-level procurement primarily from nearby producers;
2. **Producers clustered; consumers distant:** e.g. a more centralised model where food is procured from clustered farmers in food surplus areas and shipped to distant schools;
3. **Producers not clustered:** e.g. a centralised model where food is procured with no specification of origin and shipped to distant schools.

¹⁴ We recognise that by introducing the terms “clustered” and “nearby” we run the risk of re-introducing the same ambiguity that we have argued is associated with “local”. Therefore, by **clustered** we mean that producers are in close enough proximity to be able to easily / frequently visit each other, to learn from each other, and to have a good understanding of each other’s farming operations. By **nearby** we mean the producers / areas of production are “known” to the consumers (i.e. where they are; who they are) and that visiting the production area would not be a major undertaking.

Table 4. Potential indirect benefits associated with HGSF

Benefit	Beneficiaries	Mechanism	Benefit dependent on
Additional jobs / wages	People seeking jobs / wages	Multiplier	Quantities of commodities purchased by HGSF Marginal labour requirements (e.g. by commodity & production system) Consumption preferences
Increased demand for food	Producers & other food chain actors	Multiplier	Level of additional wages Consumption preferences
Increased demand for non-food goods & services	Providers of non-food goods & services	Multiplier	Level of additional wages Consumption preferences
Increased variety of commodities available in market	Consumers	Spill-over	HGSF creating demand for & stimulating surplus production of commodities not normally grown in area
Lower food prices	Consumers	Spill-over	Supply response via more land being cultivated or investment in technology (Stoppa 2007)
Technical learning	Producers Other food chain actors	Spill-over	Availability of appropriate & effective technical assistance Correct incentives being in place
Social capital formation	Producers Other food chain actors	Spill-over	Correct incentives being in place

Figure 4. HGSF actors: spatial configurations



Configuration 1 implies a very close link between the sites of production and consumption, which might be important in meeting “local” taste or quality preferences, in supplying very isolated schools or in supplying fresh or perishable produce. Configurations 1 and 2 allow for the clustering of producers as highlighted by Tendler and Amorim, and thus open the way for “peer monitoring, shared information and learning, quality control, group purchase, skills upgrading and backward and forward linkages”. Configuration 2 and 3 imply more centralised procurement systems operating at larger scales and handling greater quantities, and imply an important intermediary role for intermediaries in the supply chain. Configuration 3 gives the greatest room to manoeuvre in terms of choice, quality, price etc. but would make the provision of accompanying supply-side measures both difficult and expensive.

With these configurations in mind we can return to the potential direct and indirect benefits of HGSF identified in **Table 3** and **Table 4** respectively. In **Table 5** we make a preliminary assessment of which of the spatial configurations will likely be associated with relatively high levels of each potential direct and indirect benefit.

Thresholds and scale effects

As noted above the vision for HGSF is to help transform family farming and rural livelihoods. In order to understand the potential of HGSF to achieve this vision the concepts and empirics of thresholds and scale effects must be considered. Suppose, for instance, that we choose a highly decentralised HGSF model such that the focus is on a community of 100 farm households and a school for the children living in those households. It is obvious that even with such a focus there are multiple ways to achieve (or not!) a “local” aggregate growth effect. For example, we could design a restrictive procurement policy and system such that only a small subset of the 100 farmers were able to supply to the HGSF market. These, let’s say 10 household may be targeted because they meet specific poverty criteria.

Table 5. Spatial distribution of benefits associated with HGSF

[NB: the numbers in brackets refer to the configurations shown in **Figure 4**]

Benefit	Spatial configuration(s) & other factors associated with relatively high levels of the benefit
Direct: Increased demand for commodities already being produced	Producers being in close proximity with high level of demand [2]
Direct: New marketing channel for commodities already being produced	Producers being in close proximity with level of high demand [2]
Direct: New marketing channel for new commodities	Producers being in close proximity [1 & 2]
Direct: Improved access to training, credit, technology...	Producers being in close proximity [1 & 2]
Indirect: Additional jobs / wages	Producers being in close proximity [1 & 2]; high level of demand [2 & 3]
Indirect: Increased demand for food	Producers being in close proximity [1 & 2]; high level of demand [2 & 3]; consumption preference for “locally” produced food
Indirect: Increased demand for non-food goods & services	Producers being in close proximity [1 & 2]; high level of demand [2 & 3]; consumption preference for “locally” producer or supplied non-food goods & services
Indirect: Increased variety of commodities available in market	Producers being in close proximity [1 & 2]
Indirect: Lower food prices	Producers being in close proximity [1 & 2]
Indirect: Technical learning	Producers &/or suppliers being in close proximity [1 & 2]
Indirect: Social capital formation	Producers &/or suppliers being in close proximity [1 & 2]

However, is it then realistic to expect an aggregate level effect? The answer to this will depend on, among other things, (1) the scale of demand; (2) the ability of the targeted households to respond to that demand; and (3) the nature of the linkages between the producer households and the rest of the local economy. Thus *the scale* in terms of both coverage and size of demand will be vital in producing aggregate level local economy effects. Furthermore, at the aggregate level we need to factor in the quantity of food procured for school feeding in relation to the total demand for food in the economy. Will the demand specific to the school feeding programme be able to promote positive aggregate effects if it represents a very small proportion of the total demand for food? If not, is it then appropriate to expect HGSF to deliver on larger agricultural development objectives?

HGSF seeks to achieve market development and social protection objectives in one instrument, and because of this in many situations it will be necessary to undertake complimentary activities to enable poorer farmers to increase their engagement with markets. This is likely to require the programme (or an associated agency) subsidising training, provision of technology “starter packs” and complementary inputs and credit. In many ways this can be viewed as “protectionism” – i.e. shielding family farmers from full force of the market while they obtain some market advantage.

This protectionism implicitly recognises that many poorer family farmers face initial **thresholds** (in assets, training, income, etc), below which they are unable to compete and produce in a market environment. If it is to have the desired effects the HGSF model must attempt to kick-start these households by pushing them over these thresholds.

However, vulnerability often arises because farm households are constrained by multiple thresholds. Thresholds imply non-linear effects, such that livelihoods are particularly sensitive or vulnerable to changes over particular ranges of certain variables. Three thresholds illuminate possible synergies and conflicts between agricultural and social protection policies. As well as the **asset thresholds** (Carter and Barrett 2007) just mentioned where certain combinations or numbers of assets are needed to engage in certain livelihood activities (e.g. two oxen for ploughing), there are **price thresholds** and **market thresholds**. Price thresholds occur where certain activities only become worthwhile above a particular price. Market thresholds occur where low volumes and numbers of market players lead to high coordination risks and transaction costs. This sets up a vicious circle involving low levels of economic activity with few market players and low market volumes, high transport and communication costs, high transaction risks and costs, weak contractual enforcement institutions, high physical and market risks, and supply chain investment disincentives and failures (Dorward and Kydd 2005). All of these constraints on rural livelihoods reinforce the argument made earlier in this paper, that there is a logical convergence between agricultural policy and social protection policy – interventions in assets, prices or markets could benefit both agricultural production and household food security. In other words, it is not enough just to intervene on assets, or prices or markets alone. These are important considerations for any HGSF programme.

Policy complementarities and sequencing

Building on their development coordination hypothesis and drawing on experience from Malawi, Dorward and Kydd (2005) argue that input, output and financial markets are very thin for goods and services in many family farming areas, due to the lack of a well-developed and diversified monetary economy, the crisis in commercial agriculture, limited migrant labour opportunities and alternative avenues for diversification, weak services and communications infrastructure, and low levels of education, literacy and farmers' organisation. Moreover, trading costs are high, information services are costly and there is a high risk of transaction failures for buyers and sellers. To cover these imperfections and risks, prices are high which depresses demand. The effect of these conditions as well as the risks associated with variable prices and yields is to trap different players in the supply chains into low-level equilibrium activities and perpetuate widespread market failure. "Specific supply chains needed for rural people to intensify farm production or to start adequately capitalized non-farm enterprises tend to be absent or very weak" (Dorward and Kydd 2005, p.262).

Dorward *et al.* (2006) note that where markets are thin in poor rural economies, market-based approaches to food security will not work – as demonstrated by Malawi's 2001/02 food crisis. In such contexts, they argue for a three-step or sequenced approach to food security and rural poverty reduction:

- 1) ensuring immediate food security requires policies that will work in the absence of effective markets, implying a dominant role for social safety nets (where the choice between cash and food transfers must be based on sound market analysis) and less focus on economic growth;

- 2) in the medium-term there is a need to develop effective markets and rural infrastructure, while maintaining social protection measures that are sensitive to local market conditions;
- 3) in the longer term, once markets and traders are well established and rural infrastructure is in place, then market-based policies can be increasingly relied upon to promote food security and rural economic growth.

The crucial point is that sets of policies must be selected that complement each other in achieving short- and long-term objectives, and they should be adjusted over time as circumstances change. In other words, policy synergies between welfare improvements and pro-poor agricultural growth must be exploited sensitively depending on prevailing conditions and evolving priorities at the time. Furthermore, policy instruments need to complement each other at different stages of market development. Sometimes instruments will need to be largely non-market based, but at other times the appropriate instruments will be predominantly market based (**Table 6**).

Table 6. Policy requirements for short and long term achievements of food security, poverty reduction and rural economic growth

Policy Goals	Requirements for achievement of policy purpose	
	Short / Medium Term	Medium / Long Term
Food security: Secure & affordable access to food	Increased food self-sufficiency (especially for small farmers) with food delivery and/or productivity enhancing safety nets & humanitarian response	Increased household & national food market access (low & stable cost, secure, timely) through wider entitlements with (mainly) market-based safety nets & humanitarian response
Poverty reduction: Real incomes of the poor increase & are more secure, through low food costs, higher returns to labour, & safety nets	Productive safety nets for poor farmers (such as input subsidies) to increase/ secure real incomes & develop/ protect assets	Increased agricultural production & diversified rural livelihoods; broad-based economic growth with opportunities & wages for unskilled rural labour, low food prices, & safety net & humanitarian response as above
Rural economic growth: Increased levels of local economic activity, with stable income opportunities supporting poverty reduction & food security	Achievement in the short / medium term is not possible	Macro-economic stability & low interest rates; growth in agricultural & non-agricultural sectors tightening labour markets & raising real incomes with stable/affordable food prices. Development of market economy. Initial growth must be achieved without depending on (non-existent) markets or firms.

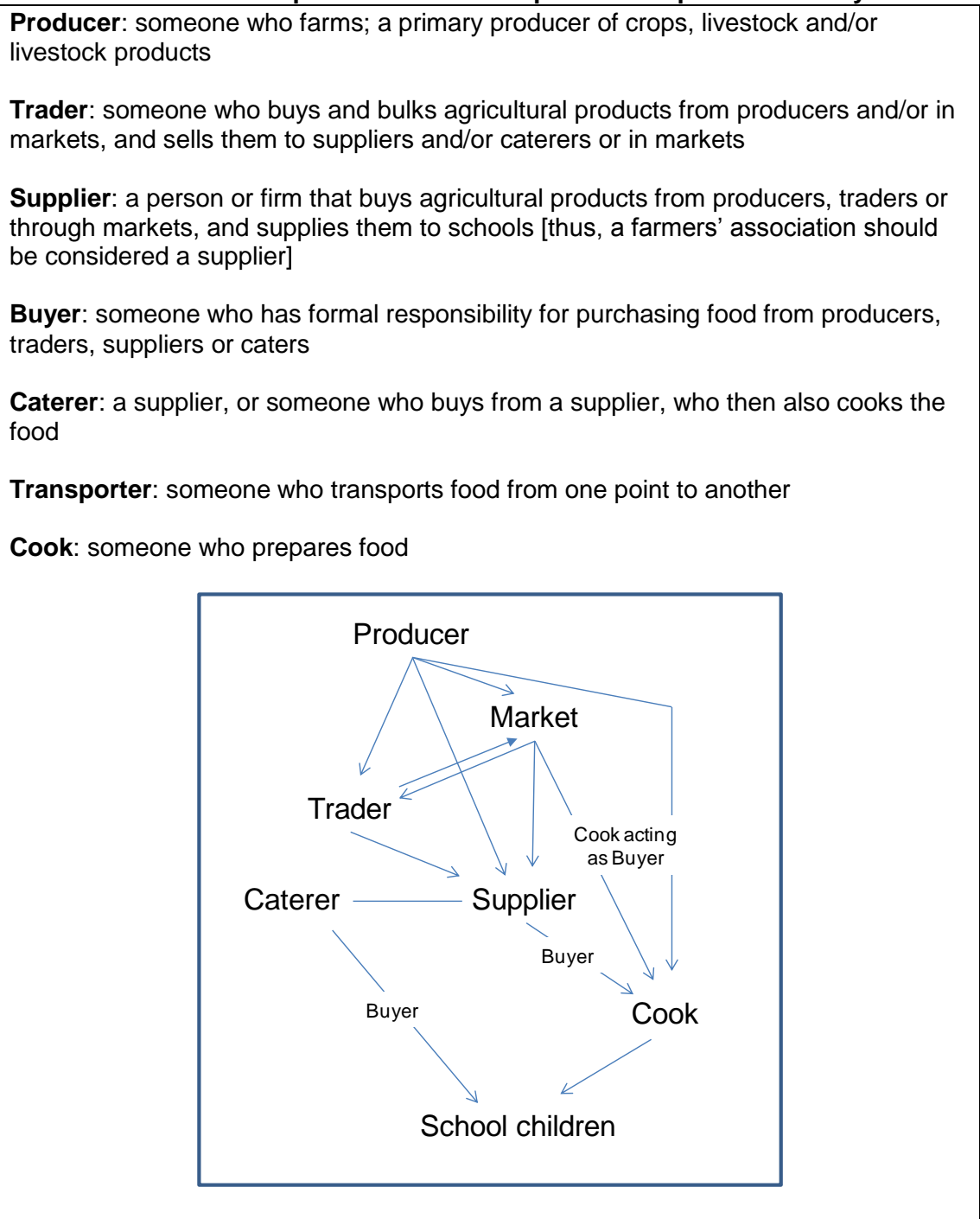
Source: Modified from Dorward and Kydd (2004)

HGSF procurement models

The closely-related concepts of demand-assisted growth and structured demand are operationalised through procurement strategy, policy and systems (**Box 1**). It follows therefore that the objectives and design characteristics of a procurement system will to a considerable degree determine the potential of HGSF programmes to deliver agricultural development benefits to family farmers. The degree to which this

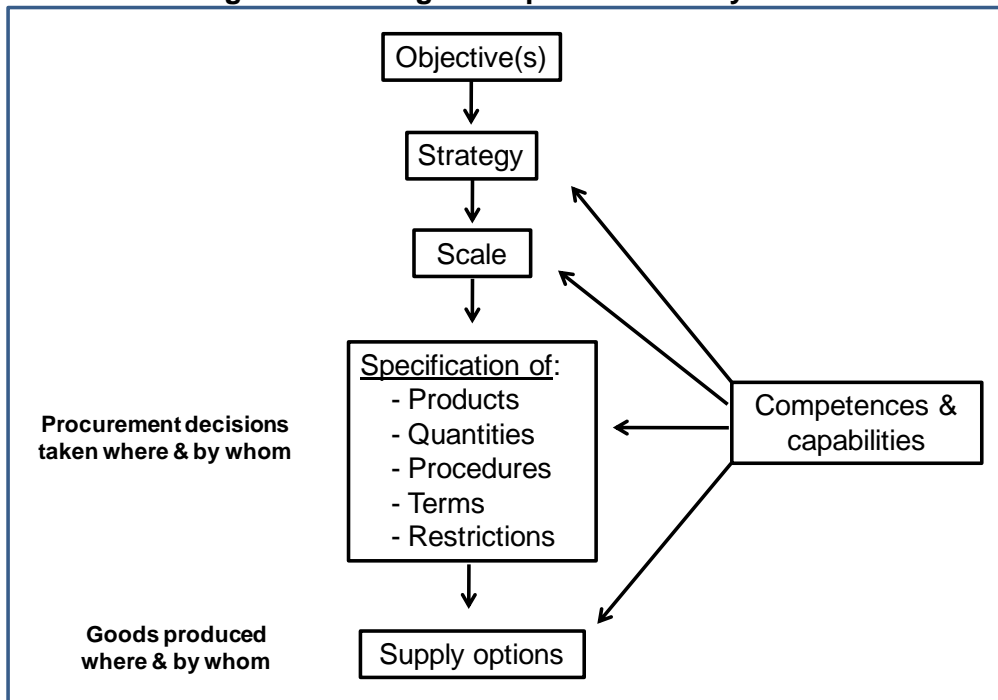
potential is realised will ultimately depend on how effectively the particular procurement system is implemented.

Box 1. Main actors and potential relationships in HGSF procurement system.



In **Figure 5** we outline the logic that would determine the shape and functioning of a food procurement system. Even if we assume that all procurement systems associated with HGSF have a dual objective of providing quality food at the lowest price and supporting “local” agricultural development, different procurement systems might be specified. Each system will entail trade-offs; and depending on the circumstances they might be expected to more or less effectively deliver the direct and indirect agricultural development benefits discussed previously.

Figure 5. The logic of a procurement system



For example, each of the three hypothetical procurement systems sketched out below would have some claim to addressing the dual objective, although presumably with different costs and resulting in different levels and distributions of agricultural development benefits:

- A cook, employed by a single school, goes to the nearby market on a weekly basis to purchase maize, cowpeas, oil and condiments. She negotiates with different traders in the market to get the best quality—price combination and pays in cash.
- After a public tendering process a school district signs a contract with a nearby farmers association to supply a specified quantity of “locally produced” maize and cowpeas per month through the school year. A minimum price is set, but the contract specifies that if at the time of delivery the “market price” is higher the minimum price, the producers association will be paid the market price + 10%. No advance payments are given. The goods are collected by the school district every month and delivered to individual schools. Oil, condiments, vegetables and other perishables are purchased by the school cook from the local market as outlined above.
- A national education ministry mandates its procurement office to publish a call for tenders in the national newspaper to supply, distribute and prepare food for a national school feeding programme. The call specifies that a minimum of 50% of all food must be produced domestically (within national borders) and that a suitable system must be put in place to monitor the proportion of domestic produce. The successful bidders must provide indemnity against default, and payments are made to the supplier one month in arrears.

In order to look further at the question of procurement we identified a number of key elements of a procurement system. The question is: how does variation in these elements impact on the ability of a procurement system to promote agricultural development and deliver benefits to family farmers? The elements are:

- Objective
- Scale [and thus where and how decisions are made, and by who]
- Frequency of tendering &/or purchasing events
- Average size of lots purchased; delivery requirements
- Nature of competition, tendering processes, pricing policy & contracts; payment terms
- Restrictions on potential suppliers
- Food management & quality control
- Governance, oversight & financial controls

The significance of these characteristics is explored further in **Table**, and it should be immediately obvious that they are not independent – e.g. the scale of the procurement system can be expected to impact on frequency of tendering event, the average size of lots purchased and so on.

We do not think it is realistic to assume that stimulating agricultural development can ever be the primary objective of a HGSF procurement system. Rather, the primary objectives must be a reliable supply of safe, appropriate food at a reasonable cost. It follows that just because it is called HGSF does not mean that schools should be willing to pay significantly more for “local” food than for “non local” food. After all, the whole idea is that these become “nationally owned” programmes, and the inescapable implication is that every extra Cedi, CFA franc, Naira or Shilling that is spent as a premium on “local” food is one less Cedi, CFA franc, Naira or Kenya that can be used to pay for teachers’ salaries, books, school maintenance etc.¹⁵ This links directly to the lessons highlighted by Tendler and Amorim: purchasing units should not be required to buy from small firms; products from small firms must be delivered at the same price and quality as that of the government’s existing suppliers. On the other hand, where procurement is directly from producers or producers associations and it is not realistic to make advance payments as described by Tendler and Amorim, a small “premium” over the prevailing market price might be justified as it would help ensure that the producers fulfil their commitments.

Using information drawn from project documentation we have used this same array of characteristics to make an initial analysis of HGSF procurement models in Ghana, Nigeria and Kenya (**Appendix Table 1**) and of three stylised food procurement models in Ghana (**Table 8**).

¹⁵ Although one might envisage a situation where any premium paid for “local” food is carried by a ministry of agriculture or rural development. Any such expenditure could presumably be counted under CAADP as agriculture sector investment.

Table 7. Key dimension of HGSF procurement systems

Characteristic	Possibilities / considerations	Implications
Objective	<ul style="list-style-type: none"> • Primary; Secondary • Cheap; “Best value” • Support specific producer group(s) • Support “local” economy 	The objective – or at least the implementers understanding / interpretation of it – may affect the ability to use the procurement system to achieve rural / social development objectives.
Scale	<ul style="list-style-type: none"> • Large (National; Regional) • Small / Medium, (District; Sub-district) • Micro (School) 	Scale will affect bargaining power (and thus the ability to structure demand) & drive frequency of purchasing, lot size, restriction of suppliers, ability to be opportunistic & feedback opportunities
Frequency of tendering &/or purchasing events	<ul style="list-style-type: none"> • Frequent; Infrequent 	Linked to scale: impacts on transaction cost; may restrict the ability of small scale producers & suppliers to supply
Avg. size of lots purchased	<ul style="list-style-type: none"> • Large; Small 	Linked to scale & frequency of tendering: may restrict the ability of small scale producers & suppliers to supply
Nature of competition, tendering, pricing & contracts	<ul style="list-style-type: none"> • Formal e.g. tendering • Informal e.g. local market 	<p>Linked to scale: formal tendering may restrict the ability of small scale producers & suppliers to compete</p> <p>Local market purchasing may favour small scale producers & suppliers</p>
Restrictions on potential suppliers	<ul style="list-style-type: none"> • Some; None • Formal; Informal • Minimum size • Legal status • Location • Origin of produce 	<p>Potentially linked to scale</p> <p>May restrict the ability of small scale producers & suppliers to compete</p> <p>But one possible way to achieve rural / social development objectives.</p>
Food management & quality control	<ul style="list-style-type: none"> • Centralised; decentralised • Formal; informal (e.g. ISO standards) • Capacity to enforce 	Linked to scale. Enforcement of food storage and handling standards may restrict ability of small- scale producers to supply. Potential impacts on children’s health (short and long term) and on school feeding program as a whole.
Governance, oversight & financial controls	<ul style="list-style-type: none"> • Degree of transparency • Opportunities for rent seeking • “Local” involvement 	<p>Potentially linked to scale</p> <p>Potential impacts on efficiency, sustainability, commitment etc</p>

Table 8. Characteristics of three stylised HGSP procurement models in Ghana¹⁶

Characteristic	Procurement model		
	“School”	“Supplier”	“Caterer”
Stated Objective	Contribute to poverty reduction & food security - Reduce hunger & malnutrition - Boost domestic food production	Contribute to poverty reduction & food security - Reduce hunger & malnutrition - Boost domestic food production	Contribute to poverty reduction & food security - Reduce hunger & malnutrition - Boost domestic food production
Scale	Micro (school, community) Small (sub-district)	Large (national) Medium (district)	Large (national, regional)
Frequency of tendering &/or purchasing events	Frequent	Infrequent	Infrequent
Avg. size of lots purchased	Small	Larger than school-based model	Larger than school-based model
Nature of competition, tendering & pricing	Informal	Informal	Informal
Restrictions on potential suppliers	Apparently none	Apparently none	Apparently none
Food management & quality control	??	??	??
Governance, oversight & financial controls	- Transparency: little - Local involvement: Strong - Oversight/control: Limited	- Transparency: in principle better than with school-based model - Local involvement: Limited - Oversight/control: Limited	- Transparency: in principle better than with school-based model - Local involvement: None - Oversight/control: Limited

¹⁶ Drawing from: Bounstein et al. (2006), GSFP (2006), GSFP (2007, 2008, 2009), Aberman (2007), Morgan et al. (2007); WFP (2007), Morgan & Sonnino (2008), SNV (2008).

As might be expected these tables paint an incomplete and highly diverse picture. In these countries the transition to HGSF is relatively recent and is on-going, and it is probably fair to say that appropriate and workable procurement systems are not yet fully developed. Nevertheless it is interesting to look at these emergent procurement systems in the light of the lessons Tendler and Amorim drew from the Brazilian experience promoting small enterprises through with demand-side strategies. Our analysis is as follows:

Lesson 1: *Purchasing units should not be required to buy from small firms. There is no evidence of any such requirements although in the Kenya case widowed women are identified as a “priority supplier”.*

Lesson 2: *Support functions must be kept separate from the purchasing function; support agency and producers must prove they can delivered at the same price and quality as that of the government’s existing suppliers. There is no evidence of specific provision of supply-side support.*

Lesson 3: *Procurement should contract only with groups of firms, and pay each producer only upon delivery and satisfactory inspection of the product of the whole group. There is no specific evidence of contracts being made with groups of farmers (e.g. through farmers associations).*

Lesson 4: *Procurement must make a substantial part of the payment to suppliers up front. There is no evidence that up-front payments are being made.*

Lesson 5: *The support agency must earn a small commission on the contract. There is no evidence either an identified support agency or specific provision of supply-side support.*

From this necessarily cursory analysis we can say that in general HGSF procurement has not taken much account of the lessons identified by Tendler and Amorim. On the other hand, as indicated above, these are must still be seen as emergent procurement systems. At the same time, as we highlight in the next section, there are questions as to how relevant the small enterprise experience is to family farmers in SSA.

Conclusions

Drawing on a wealth of literature and a limited number of case studies, this paper has laid out where we believe the state-of-the art to be in linking agricultural development to school feeding in SSA. We have specifically focused on the “home-grown” part of home grown school feeding, in an effort to draw out the general assumptions that inform the, often unstated, theory of change. By reviewing the HGSF literature and the main theories underpinning it – structured demand, localism, smallholder farmers – we have exposed areas of inconsistency across the literature and programmes as well as possible tensions that may arise in attempting to pursue both market and social objectives in the same initiative. In laying out this literature we hope to provide a basis for moving towards clarity on (1) the concepts and theory of change underpinning HGSF programmes; (2) the conditions under which HGSF programmes are more able to yield positive agricultural development outcomes and; (3) an agenda for moving forward on research and impact evaluation. Some areas where we see fertile ground for further research are identified below:

Are family farmers analogous to SMEs?

In this paper we have drawn heavily on the work of Tendler and Amorim (1996). While we find their arguments particularly compelling we nevertheless readily acknowledge that their work is focused on SMEs as opposed to family farms and draws on examples from Brazil not SSA. So, in using Tendler and Amorim's analysis of demand-assisted growth and the lessons they take from the Brazilian SME examples, are we drawing from the right intellectual and experiential well?

Tendler and Amorim go to great pains to distinguish between demand-side and supply-side growth strategies and suggest that by- and-large, supply-side strategies are not a successful way to promote SME growth. Traditional agricultural extension – whether provided by the state or NGOs – can be seen as a “supply-side” strategy, where the objective is to increase producers' productivity – and thus underpin agricultural growth – by introducing e.g. new technology. The assumption is that the market demand which will motivate the investment in technical change is either already present or will develop in response to the use of productivity enhancing technology.

Over the years there have been many different approaches to (a lot of criticism of) agricultural extension (a distinctly supply-side approach) in SSA (Rivera 1996; Rivera and Sulaiman 2009). On the other hand, similar models have played important parts in rapid agricultural change in other parts of the developing world. Could the nature of many agricultural markets in SSA – thin, with high levels of coordination risk – help explain these differences?

Possible research questions:

- Do family farmers in SSA operate with the same logic as SMEs? Can the lessons from SME development be easily transferred to the small farm sector (see Rogerson (2001) and Abor & Quartey (2010))?
- Do limited land availability and short-term inelasticity of supply that make demand-side approaches less appropriate for family farmers in SSA compared to SMEs?
- Can we identify equally compelling examples of the successful use of “supply-assisted growth” strategies in relation to either SMEs or family farming in SSA that would make us think differently about Tendler and Amorim's analysis?

Devolution and structured demand

The notions of “community ownership” and “community control” loom large in much that has been written about HGSF and in most national HGSF programmes in SSA. While mechanisms are seldom made explicit, the argument seems to be that devolving responsibility to the school level, and thus creating a sense of “local” ownership, will help ensure good management and financial control, responsiveness to “local” needs and long-term sustainability. It is in this light that some programmes put considerable emphasis on the role of e.g. “school management committees”.

One result of the strategy of devolution to school-level is the decentralised and atomised procurement activities than can be seen e.g. in Ghana, where a cook or

caterer may procure food for an individual school. This raises some important questions, and particularly in relation to the ability to effectively structure demand.

We might speculate that demand can only be effectively structured if and when a buyer can exercise a significant degree of power in a market. This power might be associated with a number of factors: the scale of procurement in relation to the size of the market; the offer of premium prices; better payment terms and so on. However, the scale of procurement might be the critical factor. A cook going into a busy market on a daily or weekly basis to procure food for a single school (essentially a spot market transaction) would be expected to have relatively little power. On the other hand, someone buying food on a much larger scale (e.g. for a number of schools and/or for a whole school year) would be in much stronger position to set the terms (quality, origin, delivery schedule, lot size etc) – in other words, to structure the demand.

If this is correct, then there may be a fundamental contradiction at the heart of HGSP: while devolution of day-to-day management may be desirable or even necessary in some situations, it may at the same time reduce the ability to structure demand, which in turn will break the link between school feeding and agricultural development.

Possible research questions:

- What are the motivations, benefits and costs of devolution of the management of HGSP programmes to “local” or school level?
- How is ability to structure demand affected by the scale of procurement? Can demand be structured – and the link between school feeding and agricultural development maintained – with devolved procurement?

Delivery mechanisms for supply-side measures

It is clear that there will be few if any agricultural development benefits from HGSP if there is no accompanying increase in productivity, which in most situations will be dependent on improved access to information, training, technology, inputs and production credit. In other words, in addition to the whole question of how demand can be structured, there are significant coordination and delivery challenges that both state-funded agricultural extension services and NGOs may struggle to meet.

Possible research questions:

- What are the implications of different procurement models and scales of procurement for the effective and efficient provision of supply-side measures to family farmers?
- What does the history and experience of farmers’ associations, cooperatives and other forms of collective action in SSA tell us about their role in coordination and value as channels for the provision of supply-side measures to family farmers?

Silver bullets on the school menu

It is commonly said that there are no “silver bullets” meaning that there are no simple, unproblematic or universally applicable answers to the difficult problems of (in this case) agricultural development in SSA. And yet, there is always the temptation to

oversell a potentially useful idea or model so that it becomes, at least in the eyes of some, **the** only answer.

From a research perspective, acknowledging that there are no “silver bullets” is only a first step. Following this is the real challenge – to determine in what situations and for what people particular ideas, interventions or models are likely to be of value. This is as true for HGSF as for anything else.

Possible research question:

- In what situations and contexts, and for what groups of family farmers, is HGSF likely to provide a cost effective vehicle for livelihood transformation?

Appendix Table 1. Characteristics of procurement systems in pilot countries.

Characteristic	Ghana	Nigeria	Kenya
Objective	<p>Development Objective: Contribute to Poverty Reduction & Food Security</p> <p>Immediate Objectives:</p> <p>3. Boost Domestic Food Production (GSFP AOP, 09')</p>	<ul style="list-style-type: none"> Stimulate local food production and boost income of farmers; Build and strengthen capacity for effective community involvement and participation in school management; Stimulate the development of Small and Medium-Scale Enterprises (SMEs) Contribute to reducing the incidence of poverty. (National Guideline, 07') 	<ul style="list-style-type: none"> To strengthen the capacity of stakeholders at all levels to implement school health, nutrition and meals programmes. To have a framework to regulate, coordinate and ensure standards in implementation of school health, nutrition and meals programmes. To enhance a comprehensive, effective, efficient and sustainable monitoring and evaluation system. (Kenya HGSF ITGM, 09')
Scale	Sub-district level (USDA, Ghana 09')	School level	Community level
Frequency of tendering &/or purchasing events	<p>Fund release is planned for every 2 weeks;</p> <p>Purchasing activities are ongoing & at caterers' discretion (GSFP PD, 07')</p>	<p>Funds are transferred every 2 weeks;</p> <p>Cooks purchase food from local markets running every 5 days;</p>	<p>Fund release is bi-annual (Kenya HGSF ITGM, 09')</p>
Nature of competition, tendering & pricing	<p>Tendering process is not clear;</p> <p>No formal selection process for caterers;</p> <p>Subsequent procurement sources & behaviour are unique (USDA, Ghana 09')</p>	<p>No formal tendering process (PCD Nairobi Workshop, Nigeria presentation, 10')</p>	<p>Competitive procurement process includes transport of food commodities (Kenya HGSF ITGM, 09')</p>

Appendix Table 1. (cont)

Characteristic	Ghana	Nigeria	Kenya
Restrictions on potential suppliers	Apparently none	Food items & materials should be obtained by direct procurement from the local community as much as possible (National Guideline, 07').	Widowed women identified as a priority supplier (Kenya HGSF ITGM, 09') & (USDA, Kenya 09')
Storage capabilities	Storage facilities at school level is not considered comprehensive enough to guarantee safe storage of food commodities (USDA, Ghana 09')	Guidelines state that storage at schools should meet a standard (VDI, Assessment 09'), however at no point in programme literature is the that standard defined. In any case, the frequency of purchasing probably limits the need for storage.	Storage facilities at school level are considered comprehensive enough to guarantee safely storing a three-month supply of food commodities in many schools (USDA, Ghana 09')
Food management & quality control	??	??	??
Governance, oversight & financial controls	Management in hands of District Implementation Committee (DIC) & School Implementation Committee (SIC) ; Transparency has come much into question and it has been suggested that reporting structures are inadequate to safeguard against corruption (SNV 08')	School-based Management Committees have management responsibilities – including oversight and approval of markets (VDI, Assessment 09')	School Management Committees are responsible for the entire programme (Kenya HGSF ITGM, 09')

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