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GSSP Working Paper #23

Tomato in Ghana: Summary of Stakeholder Dialogue

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Ghana Strategy Support Program (GSSP)

GSSP Working Paper No. 23

April 23, 2010

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THE GHANA STRATEGY SUPPORT PROGRAM (GSSP)
WORKING PAPERS

ABOUT GSSP

IFPRI's Ghana Strategy Support Program (GSSP) was launched in 2005 to address specific knowledge gaps concerning agricultural and rural development strategy implementation, to improve the data and knowledge base for applied policy analysis, and to strengthen the national capacity for practical applied policy research. The primary objective of the Ghana Strategy Support Program is to build the capabilities of researchers, administrators, policymakers, and members of civil society in Ghana to develop and implement agricultural and rural development strategies. Through collaborative research, communication, and capacity-strengthening activities and with core funding from the U.S. Agency for International Development/Ghana (USAID), GSSP works with its stakeholders to generate information, improve dialogue, and sharpen decisionmaking processes around the formulation and implementation of development strategies.

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Tomato in Ghana: Summary of Stakeholder Dialogue

Ministry of Food and Agriculture, Ghana (MoFA)
International Food Policy Research Institute

Ghana

This document summarizes the stakeholder dialogue, hosted by Ghana's Ministry of Food and Agriculture (MoFA) and the International Food Policy Research Institute (IFPRI), and titled "Transforming Agriculture: The Case of Tomatoes in Ghana." The dialogue was held on April 23, 2010 at the Coconut Grove Regency Hotel - Accra, Ghana.

Introduction to the Stakeholder Dialogue

On 23 April 2010, farmers, traders, processors, agribusiness, Ghanaian and international academics, donors, and officials met in Accra for an exchange of views on how to revive the strategic but ailing tomato sector. The dialogue was organized by Ghana's Ministry of Food and Agriculture (MoFA) and the International Food Policy Research Institute (IFPRI), and centered around the presentation and discussion of a case study of the tomato sector in Ghana that addressed productivity, processing, marketing, and institutional support. The dialogue was an important step in an ongoing study of the tomato sector that involves a range of stakeholders, mirroring the diversity of the dialogue participants.

The tomato case study, coordinated by IFPRI, is the result of contributions of many different stakeholders. The following individuals contributed directly: Kwabena Adu-Gyamfi (Afrique Link Ltd); Lydia Aforley Anum; Chris Lartey; Jones Okoe Tagoe; Kwame Owusu (Ghana National Tomato Traders and Transporters Assn); Aaron Attefa Ampofo (Meridian Agricultural Services); Samuel Asuming-Brempong (Agricultural Economics, University of Ghana); Stephen Awiti-Kuffuor (Independent consultant); Yakubu Balma (University of Development Studies); Dominic Fuachie-Sobreh (Savanna Agricultural Research Institute-CSIR); Emelia Monney (MoFA); John Ofosu-Anim (Crop Science, University of Ghana). The case study could not however have been prepared without the cooperation of many individuals and organizations who we met with over the past six months, including farmers, processors, and private sector companies (Upper East Vegetable Farmers Association and the Irrigation Company of Upper Region (ICOUR), for example).

Dialogue attendees

Participation in this stakeholder dialogue was characterized by its diversity, with representation from the whole value chain. In addition to 12 farmers, 6 traders and transporters, 4 representatives from the tomato processors, and 17 representatives from MoFA, there were representatives of agribusiness, NGOs, key donors to the agricultural sector, experts, academics, and policy makers including 4 members of parliament in attendance (Appendix 1 provides details of all the participants.)

Dialogue activities

The focus of the dialogue was to scrutinize links in the tomato value chain from plot to plate. To facilitate the process, participants were provided with a set of four pre-dialogue discussion documents a few days before the dialogue. These four documents summarized the key findings from the case study (a longer version of which, the "Tomato Narrative", subtitled "Transforming

Agriculture: The Case of Tomato in Ghana", was distributed at the dialogue) along four dimensions: Productivity, Processing, Marketing, and Institutional Support. This set of discussion notes provided participants with a fact-based analysis of the tomato sector in Ghana, to motivate the day's discussions.[1]

Opening

The dialogue was opened by Mr. Ram Bhavnani, Policy, Planning, Monitoring and Evaluation Division (PPMED) Director, MoFA, and chaired by Dr. Ahmed Y. Alhassan, MP and Chairman, Parliamentary subcommittee on agriculture and cocoa affairs. Shashi Kolavalli, Ghana Strategy Support Program (GSSP) Country Leader, IFPRI, provided additional welcoming comments, and invited Shenggen Fan, Director General, IFPRI, and Cheryl Anderson, USAID Ghana Mission Directors to give their perspectives on the day's events.

Ram Bhavnani stressed that agriculture has moved beyond purely thinking about production, and that for tomato there is an important social dimension. Shashi Kolavalli noted that value chain development has emerged as a key strategy in agriculture. He commented that this dialogue is taking a new approach to generating policy recommendations: making comprehensive information available to stakeholders, thereby initiating an informed dialogue that fosters a systems thinking approach to value chain development. Dr. Ahmed Alhassan reiterated the point that validated information can be used to inform decisions and policy. Cheryl Anderson reminded the audience of the United States' commitment to food security and agriculture. She stated that partnership is central to addressing problems, and that USAID is looking for partnership among the government of Ghana, the private sector, and researchers. Shenggen Fan commented that global food security remains under stress, and that climate change will affect agriculture. He also highlighted the important link between agriculture and nutrition and that growth is not necessarily translated into improved nutrition. Shenggen Fan stressed the importance of country-led country-owned and country-driven strategy support programs, and the Consultative Group on International Agricultural Research (CGIAR) mandate that is broadened beyond productivity to include nutrition and gender.

Discussion format

Following the above introductions, Shashi Kolavalli provided a brief overview of the day's events, after which Elizabeth Robinson (IFPRI) presented a summary of the key messages from the discussion notes. Central to the day's event were breakout discussions where participants were divided into one of four groups—production, processing, marketing, and institutional support—and, provided with a "focal question", the participants discussed and validated the findings of the case study and determined the areas that they felt were critical for the tomato sector. Following the group discussions, the participants came together in a plenary session in which the four groups presented their key findings for discussion by the larger group.

In this section we summarize some of the key messages from the case study and issues that emerged from discussion on the four themes of productivity, marketing, processing, and institutional support. Adjacent to each of these summaries we provide a summary of the discussion of each of the corresponding breakout groups during the stakeholder dialogue.

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[1] Updated versions of these documents can be found in IFPRI's GSSP 2010 Working Paper Series: Numbers 19, 20, 21, and 22.

Productivity theme

Key messages from case study	***Emphasis from breakout groups***
Ghana's tomato sector is low-productivity high-cost. Both production and productivity appear to have stagnated. Ghana is increasingly dependent on imported tomato paste and, from January through May, imported fresh tomato from Burkina Faso. Yields in the country are low with two-thirds of farmers having yields of less than 10 tons/ha. Costs are similarly variable and, particularly in the Upper East, may be higher than prices. The key drivers of cost are fertilizer, labor (both own and hired), and irrigation: they vary in importance by region. Productivity needs to be improved to reduce production costs. Variety grown is an important determinant of yield. Yet there is absence of breeding in the country and efforts to supply farmers with appropriate varieties and certified seeds. Farmers in the Upper East who often have to compete with supplies from Burkina Faso appear to have particular problems. Their yields are lower and fruits have lower storability. Our preliminary findings suggest that this may be related to absence of crop rotation, types of soils, weather conditions, and higher incidence of diseases. This year, some farmers in the Upper East have lost their entire crop to bacterial wilt. Farmers are demanding better access to knowledge and extension. Previous research efforts to develop new varieties and small scale processing technologies have not benefitted farmers. Traders, who prefer the longer-storing Burkina tomatoes, may bypass Upper East farmers.	George Aloko Dongo, a farmer from Upper East, highlighted a key constraint for the tomato sector that this group perceived: that there is virtually no research to support tomato production. In particular, the group highlighted a lack of location-specific good varieties for farmers and the need for certified seed to assure farmers of quality. Research into land husbandry was also highlighted as requiring more attention. Some felt that the use of greenhouses is an option for improving uniformity, whereas others were not sure that they are appropriate for smallholders, but all pointed out that more irrigation would be needed. Availability of specialized inputs for the tomato sector is also lacking. Particularly highlighted was the need for fertilizers specially designed for tomatoes, such as those available in Burkina Faso. Credit, high interest rates particularly in comparison with Burkina Faso, and crop insurance, were discussed at length. However, the group recognized that farming is risky so few organizations want to lend; interest rates are high, so hard for farmers to pay back; and when credit is extended, it is often not timely. All the groups felt that the fundamentals of the tomato sector remain problematic. Insufficient or absence of research on vegetables means the country has poor disease control and no seeds developed for particular regional agro-climatic conditions. Extension services are weak, in part because of a lack of sufficient training, but in part because there is insufficient research for extension officers to share with farmers. Convenient products, such as tomato-specific fertilizers, that Burkinabe farmers have access to are not available in Ghana. The processor group felt that even in their captive farm with South African expertise, these fundamental problems remain unresolved.

Processing

Key messages from case study	***Emphasis from breakout groups***
Tomato paste makes you compete with international imports, unlike fresh tomato where, in Ghana, the market is regional and prices set by local supply and demand rather than world prices. For a tomato processor to be competitive with internationally traded imports there is a limit to how much they can pay for tomato supplies. Given current prices, they cannot pay anymore than GHc150/ton. A majority of farmers may have costs of production that exceed this price. Moreover, the fresh market price is typically above this price ten months of the year. Even if 100 percent tariffs were imposed on imported paste, processors may not be able to buy at market prices that usually prevail in Brong Ahafo, or in the off-season throughout the country. Consumers of both tomatoes and paste would be harmed by this policy. Contract farming as a solution to the above has been tried by all three large processors with little success. In response, one processor has moved to producing their requirements (captive farming).	Contract and captive farming were a central theme of the group discussion. Contract farming was seen as feasible for farmers if they are able to produce high enough yields to comply with the contract. Equally it was recognized that processors need year-round supplies of fresh tomato. Captive farming was recommended as a solution for processors, particularly during the lean season, to be combined with purchases from farmers during the peak season when there is excess supply. Kwabena Adu-Gyamfi, owner of the Wenchi processor, which is planning to do much of the above, highlighted the key problem for processors: Ghana has neither the technologies nor the expertise to grow sufficient tomatoes of the right quality at low costs. Avoiding domestic processors having to compete with imported paste was another theme. Options included processing other vegetables such as garden egg. Angela Dannson (MoFA) suggested niche tomato markets such as pulps, soups, or tomato-based mixes more suited to a Ghanaian palate (such as with added pepper) might be more appropriate for domestic processors. A suggested alternative for farmers was to dry their tomatoes rather than rely on paste processors. Finally, mechanisms for a third party arbitration of price between farmers and processors were seen to be needed. The processing group recognized that contract farming is difficult because the price that processors can afford to pay farmers to remain competitive with imports is often many times lower than the price paid by traders for fresh tomato. And so enforcing the contract is virtually impossible.

Marketing

Key messages from case study	*Emphasis from breakout groups*
The key message from this theme is the recognition that tomato is a perishable crop that must move over long distances from production area to consumption area. Storability and transport therefore are critical issues. The “two-level” market system, in which a single trader takes tomato from farm to urban market reduces the time between harvest and consumption. But it may disadvantage farmers because in Ghana they are not permitted to take their tomatoes to the large urban markets. Traders restrict access to the large urban markets to prevent more tomatoes entering the market than the traders can sell, resulting in tomatoes spoiling in the market for lack of customers. Recently in the Upper East farmers have made an agreement with traders and transporters to enable themselves to sell more of what they produce to the traders rather than having to rely on the local markets. Overall, though farmers are organized, they have less power in the system compared to the well-organized traders and the lead boys who match traders with farmers and often prefer to direct traders to Burkina Faso. There is no grading at the farmgate, average tomato quality is low, and crates are too large to be carried safely or to encourage grading by farmers.	Ramatu Alhassan (University of Ghana) identified seasonality as having a critical influence on tomato marketing. This group emphasized poor quality of tomatoes as a problem for the markets, linking this largely to the usage of inappropriate seeds. They also felt that farmers in Burkina Faso, using the same varieties as farmers in Ghana’s Upper East, get better results suggesting that production practices matter, and so Ghana needs improved extension services. Farmers complained of the greater power that traders have in their relationship; and of the “lead boys” and “assistant traders” brought in by the traders who also seem to exploit them. Some suggestions to increase farmers’ power were: for MoFA to organize farmers, and to build pack houses so they do not have to sell on a particular day. The traders emphasized unstable retail markets, accidents transporting tomatoes, and farmers mixing poor quality tomatoes in their crates. Some suggested that third parties were needed to ensure fair standards, grading and sorting of farmers’ tomatoes, perhaps involving assembly markets or trade houses. Others highlighted the need for smaller crates, though recognizing that this has been tried before but failed. Now however all groups seem willing to accept smaller standardized crates. In Ghana markets are often about relationships. An ICOUR representative felt that in Upper East, relations between farmers and traders are poor. In this group there was a general feeling that those involved in the tomato trade were all struggling in a system not ideal for anyone. It is generally accepted that traders have more power than farmers, but even traders complain that farmers in some regions do not allow any sorting of tomatoes, increasing the likelihood of spoilage on the journey from farm to market. Key issues that were highlighted specific to marketing were the need for sorting and grading, and standards and protocols.

Institutional support

Key messages from case study	***Emphasis from breakout groups***
The government has made many interventions in the tomato sector over the past decades. But most direct efforts have focused on large-scale processing, with much less emphasis on addressing productivity, yields, and varieties. A key problem may be the focus on the “glut” rather than a focus on reducing the cost of fresh tomato and appropriate varieties. This has encouraged the government to focus on processing to “mop up the glut” rather than on creating an enabling environment of low-cost production and high productivity that would provide the year-round excess supply of tomato required to allow a domestic processing sector that is competitive with imported tomato paste.	This group focused on the question: Why have past interventions apparently not resulted in sustainable positive impact on the tomato sector? A number of key reasons were identified. One general comment was that whatever had been done was not enough. The group suggested that a comprehensive value-chain approach and market analysis has been lacking, and that the government has not done enough in expanding irrigation facilities and processing. The group felt that the government has not prioritized vegetable research; has virtually ignored development of appropriate tomato varieties; and that there is a lack of training, extension services, and agronomists at irrigation systems. Lack of institutional coordination was highlighted, as was indiscipline among stakeholders and little institutional coordination; lack of farmer education on grading of fruits; and competition between market traders and processors. Finally, the institutional support group emphasized, in addition to the need to prioritize research on vegetables, the absence of a comprehensive approach to address the complexity of the tomato value chain and the conflicts between different groups along the chain

Summary of breakout groups' discussions

Individuals continued to impress on the group the lack of basic knowledge in the sector, highlighting a lack of soil analysis, appropriate varieties, and an inability to solve problems such as the bacterial wilt that has become endemic to many areas. There were also requests for subsidies, regulation of inputs, block farming, and for tomato to be part of national policy. Dr Alhassan pointed out that the parliament was working on legislation that would strengthen regulation of trade in plant protection chemicals, seeds, and fertilizers.

There was further discussion concerning how processors can source fresh tomato. The model of what might be termed "captive-plus" was discussed in more detail, in which processors have a captive farm to supply fresh tomato during the lean season and to ensure that the processor has sufficient inputs to cover its annual running costs, but which is supplemented by purchases direct from farmers during the peak harvest seasons when there is a surplus of tomatoes above the demand from the fresh market, and prices are lower.

Philip Abayori, president of the National Farmers and Fishermen Award Winners Association of Ghana (NFFAWAG) did however point out that even if such a structure was implemented, access to credit and timely payments by the processor would still be needed for sector sustainability.

It was suggested that low farmgate prices drive farmers to continue to rely on low-cost production methods, and so yields remain low. Problems with the marketing system that were emphasized again included too many intermediaries between the farmer and the trader, a lack of trust between farmers and traders, and a lack of enforcement of standards.

Moving forward

This session of the dialogue was chaired by Vesper Suglo, Director, Plant Protection, MoFA.

There was some concern expressed that governments typically look for "quick fixes" such as chemicals that can strengthen the shelf life of tomatoes rather than recognizing that the tomato sector is complex and basic production needs to be improved for processing to be viable. But equally, the government cannot focus on each individual crop but needs to look at groups of crops and therefore look at tomato within the context of vegetables in general.

Addressing processing, Dr Alhassan said that a key problem for processing was that there is not enough tomato in the system for both the fresh and processed markets.

There was also further discussion about the relationships between farmers and traders, particularly in Upper East. A representative from ICOUR felt that these relationships were critical yet at the moment they are not as healthy as they should be. For example, there is a perception that farmers do not acknowledge the risk that traders face, particularly road accidents and loss of tomato while being transported long distances. Others felt that there needed to be some way to reduce the strength of the traders, but Philip Abayori pointed out that farmers, traders, and retailers are often linked through informal credit transactions that currently would preclude farmers from selling directly to market retailers who typically buy on credit from the traders. He also reminded the group that tomato is highly perishable and so requires a specific marketing approach, which provides a rationale for the role of traders.

There was also continued emphasis on the importance of Burkina Faso as a supplier of fresh tomato to the Ghana markets. Indeed, most of the participants seemed sensitive to the competition that Burkina Faso provides during the irrigated season. One participant suggested that Burkina Faso is successful in tomato because “tomato is to Burkina Faso what cocoa is to Ghana”.