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Gender and small-farmer commercialisation: The case of two farming communities in Ghana

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Different options of enhancing household financial status are explored by farmers in Ghana in order to cope with fast changing economic conditions. These include intensification of traditional crop production, diversification into new high value crops and off-farm activities. This paper examines small-farmer commercialisation (SFC) activities in the forest and transition zones of Ghana. Participatory appraisal methods including wealth ranking, livelihood analysis and interview of key informants and opinion leaders were used. The wealth ranking exercise resulted in the identification of three household categories as rich, intermediate and poor. Vegetable production was found to be an important commercialisation activity and pepper production was very successful in one subsidiary village in the forest zone, where the farmers formed a group for production and marketing of the produce. Adopters of SFC are motivated by profitability, regular flow of income from quick maturing crops, and important for women was the desire for financial independence and change in social status. A major barrier to participation in SFC is lack of credit as the adoption is both labour and capital intensive though large land holdings may not be required.

Key words: Women farmers and gender equality, farming systems, wealth ranking, small-scale farmer commercialization, participatory appraisal methods.

INTRODUCTION

The starting point of structural transformation is broad-based smallholder-led agricultural growth and commercialisation, integrating traditional smallholder farmers into the exchange economy (Jayne et al, 2011; Heltberg and Tarp, 2002). Commercialisation of subsistence agriculture in developing countries has led to different levels of production and consumption changes for men and women (Adenegan et al., 2013). The impact of smallholder commercialisation on gender depends on the available resources and on who controls the income generated. According to Berhanu and Jaleta (2010), commercialisation entails market orientation and market

participation, and enhances the links between the input and output sides of agricultural markets. Men and women in Ghana are faced with changing roles as a result of the transformation of agricultural enterprises from subsistence-based farming to market-oriented production systems and activities. The efforts of moving from subsistence-based production to more market oriented production is known as small-farmer commercialisation (SFC), the impact of which has not been rigorously ascertained.

Gender equality and the empowerment of women have been on the agenda for global development efforts for

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some time now. Indicators for this goal have focused on enrolment in school and status of women at all levels. Not a lot of attention has been devoted to exploring ways of empowering women in agriculture in general and in rural areas in particular. Fortunately, the impact of gender in improving the livelihoods of rural populations and people engaged in agriculture has recently been the focus of many global and continental institutions (IFAD, 2012; UNDP, 2012; WFP, 2012; FAO, 2011; World Bank, 2011; IFAD and AfDB, 2010). Studies on gender and agricultural commercialisation have focused on impacts of cash cropping on men and women and relations with nutrition and food security (von Braun and Kennedy, 1994; Webb, 1989). Not much work is available on what factors will make women adopt commercialisation activities. Little data exists in Ghana on men and women's agricultural commercialisation activities.

The aim of this paper is to assess the gender impacts of SFC in the forest and transition agro-ecological zones in Ghana, drawing experiences from the savannah zone. Each zone differs in population density, farming systems and livelihood experiences. The study identifies and examines small-farmer commercialisation activities, its pathways and constraints, and the motivation for SFC. It provides information for understanding how intra-household and inter-household gender relationships are affected by small-farmer commercialisation (SFC) in rural communities.

LITERATURE REVIEW

Given the interconnectedness of biological and social dimensions of human behaviour, gender should be seen to encompass both sex differences and social constructs that give rise to differences between men and women (Phillips, 2005). It is the central organizing principle of societies that governs the processes of production and reproduction, consumption and distribution (FAO, 1997). Gender analysis studies the different roles and responsibilities of women and men, the differences in women's and men's access to and control over resources, and their consequent constraints, needs and priorities. Incorporating gender analysis into the tools of participatory agricultural planning helps policy-makers and planners to understand how the structure of policies and programmes need to be designed to ensure that women benefit as well as men. Hunt (2004) added that gender analysis helps assess the impact of development activity on females and males, assess the differences in participation, and accrued benefits between men and women, towards sustainability and gender equality.

Globalization affects farmers around the world in different ways, based on their specific characteristics, the nature of their market networks and cropping patterns. Remoteness of a market reduces supply (Alene et al., 2008), and negatively affects farmer incomes. Market integration of producers of fruits and vegetables has been

shown to be higher than that of staple crop producers (Weinberger and Lumpkin, 2007). Inability of local agriculture to provide a reasonable standard of living pushes off farmers into low-paying jobs in towns (Jayne et al., 2011). As such, remaining in subsistence production with little market surplus that is sold in local markets limits the ability of smallholders to be better connected to the rest of the world.

Commercialisation is about increasing engagement with markets, increasing inputs and factors of production acquired from the market, using markets to hire labour, and borrowing funds to rent land, obtain technical advice and market information (Wiggins et al., 2011). It involves production of greater farm surpluses, expansion of participation in markets, and increases in farmer incomes and living standards (Jayne et al., 2011). Commercialisation of agricultural systems leads to greater market orientation of farm production (Pingali and Rosegrant, 1995; von Braun and Kennedy, 1994). Changes in product mix and input uses are determined largely by the market forces during the transition from subsistence production to market-oriented systems.

Smallholder farms are risk averse and do not make changes that could put them at financial risk or compromise their ability to ensure adequate supply of food for their household. Wiggins et al. (2011) noted that most examples of small farmers commercialising do not involve radical changes, but take place within existing farming systems, within existing land tenure systems, and are carried out by households using own labour.

Commercialisation leads to increases in income levels for small farmers. However, some researchers have expressed fears that agricultural commercialisation can weaken the role of women and their control over resources and income (Fischer and Qaim, 2012; Wiggins et al., 2011; Quisumbing et al. 1995; Quisumbing and Meinzen-Dick, 2001). According to Fischer and Qaim (2012), increasing degrees of commercialisation may worsen the role of women within farming households. Commercialisation is a major source of productivity growth in the future, yet, what is essential, as noted by Timmer (1997), is the need to deal with the risky environments facing farmers in order to speed up the commercialisation process.

METHODOLOGY

Study sites

The study was carried out in six rural communities in two important farming system zones in Ghana which represent a cross-section of SFC experiences across the country. Farmers in these areas produce a market surplus and the areas have strong trade links with the rest of the economy. At least some farm households in the area are actively involved in SFC or are in the process of adopting SFC activities. They are the transition zone (a major staple food supply zone in Ghana) and the forest zone (has farming systems that are important in terms of foreign exchange revenue generation for the country). The farming systems that characterize the



Figure 1. Map showing the three selected farming system zones.

transition zone are cereals, root and tubers, cotton, fishing, and livestock and those of the forest zone are tree crops (cocoa and oil palm), root and tuber crops, cereal and livestock.

One principal study village was first selected in each of the two farming systems. These are representative of the selected farming systems and have a growing incidence of commercialisation. They are Offuman for the transition zone and Bekwai for the forest zone. Two secondary villages were then selected in each farming system in the vicinity of the principal study village, which has relatively different production structures and market access. This helps to understand whether the SFC activities were also prevalent in smaller villages. Nyansuaka and Amoamo were the subsidiary villages in the forest zone, and Ampenkro and Adankranja were for the transition zone. The presence of a diversity of SFC activities was considered in the selection of communities.

The forest zone is located in the Ashanti Region of Ghana, in the Amansie East District with Bekwai as the district capital. Bekwai, which is about 40 km from Kumasi, the regional capital of the Ashanti Region, has a vibrant non-farm economy with significant marketing and trading activities. The site falls within the tropical rainforest with hilly topography and bimodal rainfall pattern. The transition zone is located in the Techiman District of the Brong-Ahafo Region of Ghana. It is the area between the forest zone in the south and the savannah zone in the north. Offuman is about 30 km from the district capital, Techiman, which has an international market patronised by traders from other parts of Ghana, and some West African countries including Togo, Burkina Faso, Mali and Cote d'Ivoire. The Techiman market goes on from Tuesday to Friday every week, unlike many markets that have a specific day of the week as market day. The presence of the market, coupled with improved road network to Offuman and to one of the subsidiary villages has resulted in vibrant market activities and trading in the community. Population density of the area is fairly low. A map of the study area showing the farming system zones is presented in Figure 1.

Analytical techniques

Participatory appraisal methods were used for case studies in

selected communities in the forest and transition zones of Ghana in order to capture changes that have occurred in their farming systems. Qualitative approaches were used coupled with in-depth interview of key informants to create a good database of the activities of the smallholders. The research methodology draws on rapid appraisal methods including wealth ranking, livelihoods analysis, income and expenditure matrices, benefit analysis flow chart, interview of key informants and opinion leaders, participant observation, and a review of secondary data. The combination of approaches helps to capture as much of the commercialisation activities in the communities as possible and reveal the challenges and barriers that limit their adoption of SFC.

Village entry approaches were used to prepare the communities ahead of actual visits for data collection. Community meetings were held in each of the principal and subsidiary villages, which were well attended by several households. Attendance at the community meetings in the selected villages ranged between 13 and 48 participants with female participation averaging about 40 percent of the total number. Women participated actively and were very outspoken in the two principal villages and Adankranja in the forest zone than in the other villages. It was observed that female participation improved whenever encouraged and also when the women were grouped separate from the men. Several days were spent holding meetings in each village.

The criteria for household classification were identified together with the community members for the wealth ranking exercise as no prior criteria for the classification was predetermined. Participants were given 100 cards to distribute according to wealth categories within the village. The criteria identified for household classification are farm size, asset ownership, livestock ownership, ability to educate children, type of housing, and adoption of improved production methods. Participants were also grouped by gender for income and expenditure matrix analysis.

For the income and expenditure analysis, the participants were divided into two groups based on gender and each group was given cards representing a specific amount of money, and was asked to distribute them among their main sources of income and expenditure. This exercise gave a clear indication of the patterns of expenditure of men and women as well as their income sources. The income generating activities were identified and documented in

each village. The livelihood activities were characterised to identify areas and pathways of commercialisation. Some of the information was obtained from key informants such as relevant officials at the District Agricultural Development Unit (DADU), the District Assemblies and village leaders.

RESULTS AND DISCUSSION

Household characteristics by wealth

The wealth ranking exercise revealed three main wealth categories namely; those who are rich, those who are intermediate and those who are poor. These categories in the Akan language, which is widely spoken in the forest and transition zones of Ghana, are '*osikani*' for rich, and '*dantemni*' and '*ohiani*' for intermediate and poor respectively. The household categories by wealth are similar in all the study communities. In the forest zone, the rich constituted 8% of the total households in the community, the intermediate households were 55% and poor households were 37%. In the transition zone, while only 5 percent are in the rich category, 71 percent of households are in the intermediate category and 24% are poor. Results from the household interviews show that the proportion of the households who are within the rich category ranges from 2% to 8% in the study areas, which is consistent with the finding from the focus group discussions. Majority of farmers are classified under the '*dantemni*' (intermediate) category. Targeting development programmes at the intermediate and poor households can yield the best results for farmers in rural communities.

The wealth ranking exercise in Offuman, the principal village of the transition zone, showed that the rich had larger household size (more people living in the household) than the poor and the intermediate categories. Most of the households in the rich and intermediate categories have built their own houses but only 40 percent of the poor live in their own houses. The rich live in cement houses which are roofed with iron sheets. About 65% of those in the intermediate group have cement houses and 35% have brick houses roofed with iron sheets. All those who are considered as poor are in mud houses; 30% with thatch roofing and 70% had iron sheet roofing. Household size is not different in the forest zone, where the average household size is larger for rich households than for poorer households. According to the farmers, though there are very rich people who are part of their communities, they have migrated to live elsewhere. The rich and intermediate categories contribute significantly towards community development projects.

Farm size is related to wealth status. Average size of cultivated land is 170 hectares for rich households and 2 hectares for poor households. Production levels are also proportional to wealth status. Households with very small farm sizes are often food insecure as they also have low

incomes and limited range of economic activities. While the rich farmers are more diversified in both agricultural and non-agricultural activities, poorer households have farming as their only occupation and means of livelihood. Besides, richer households are able to adopt new technologies faster than poorer households.

The rich have more resources, are more educated, and have skills that enable them to produce on a large scale. There are differences in the level of education of household members among the categories. The poor and intermediate households are less educated, have limited skills, depend on traders who come to the village to sell their farm produce, and are often compelled to sell their produce early. The rich are able to move their produce to markets outside their local community to sell at competitive prices, with some engaged in trading and buying of farm produce from other farmers to sell in markets outside the village. The rich tend to have stronger market linkages and access to a wider range of information. To cope with livelihood difficulties, the poor resort to providing labour services on other farms for daily wage in order to provide food, pay school fees for children and meet other household needs.

Farming systems and small-farmer commercialisation activities

African smallholders have diverse sources of livelihood including crop and livestock farming and off-farm activities. In farming communities, commercialisation encompasses selling of a marketable surplus of traditional crops, diversification into the production of new crops, introduction of new income generating activities and post-harvest activities such as processing of farm produce. Livestock sales are undertaken in limited communities in the transition zone. Beyond keeping of few animals for household consumption, livestock production is not widespread in the forest zone. Different communities were found to have different production structures, potential for economic growth and value-added systems. Produce from food crops were consumed within the household and the surplus was sold for income. Where household members are engaged in non-farm activities or diversified agricultural production activities, they are able to finance the production of new crops and store farm produce to sell at a higher price at a later date.

Commercial production of vegetables (garden-eggs, tomatoes and pepper) was the most important pathway to commercialisation in the 6 villages visited (Table 1). Overall, about 31 percent of all cultivated land is devoted to vegetable production in the study area and 35 percent was to the production of root and tubers. Rich households can cultivate about 10 acres of vegetables while the intermediate households can cultivate about 5 acres of vegetables. Vegetable production was very

Table 1. Commercialisation pathways in two agroecological zones in Ghana.

Forest zone		
Asanso	Adankranja	Denyasi
<p>Crops: Vegetables. Brought to village a few years ago from the Brong-Ahafo Region (Transition Zone).</p> <p>Non-agriculture: Trading in district and regional capital. Artisan work.</p>	<p>Crops: Vegetables (pepper). Taro, cocoa, oil palm are also lucrative but limited to few people and few areas.</p> <p>Non-agriculture: Widespread small-scale trading in agricultural and non-agricultural products.</p>	<p>Crops: Vegetables.</p> <p>Intensification of cocoa production.</p> <p>Non-agriculture: Trading</p>
Transition zone		
Offuman	Nyansuaka	Ampenkro
<p>Crops: Vegetables (tomatoes and garden-eggs).</p> <p>Non-agriculture: Trading in agricultural produce and ownership of stores</p> <p>Other: Keeping of livestock.</p>	<p>Crops: Vegetables (very limited). Grows a lot of maize</p> <p>Other: Keeping of livestock</p>	<p>Crops: Vegetables (tomatoes). Tomatoes processing factory being rehabilitated in a nearby town.</p> <p>Non-agriculture: Limited trading.</p>

effective where the producers have formed a group for production and marketing. Only small amounts of vegetables are consumed at farm household level. Households consume a lot of cassava, plantain, maize and taro. Cocoa, oil palm and citrus are cultivated, but in limited quantities. As such, vegetables should be considered as cash crop.

Pepper production is very successful in Adankranja in the forest zone. A community member bought the seeds and began its production in 1983, a period when Ghana experienced extreme hardship and famine. After the first cultivation, he introduced four of his friends to it and all the four friends became wealthy through pepper cultivation. In the principal village, vegetable production was introduced from the transition zone (Brong-Ahafo Region). In these villages, the 1983 famine in Ghana led to a shift in the production of tree crops to the production of pepper in order to get quick money. Pepper production then expanded over the years.

The pepper farmers in Adankranja formed a group that had a membership of about 30 farmers. The cooperative enabled them obtain credit, which they paid up promptly. They were also able to access loans from the market women who bought the pepper. As a group, they negotiated for good and stable prices for their produce and agreed on a harvesting pattern whereby only a specific number of farmers harvested pepper at a time, to regulate the quantity available on the market at a given time.

The use of fertilizers and agro-chemicals started in 1988 due to low soil fertility and the incidence of pests and diseases. In the same year, the pepper farmers' cooperative bought a water pumping machine, which helped with dry season cultivation. Pepper cultivation gradually changed from small-scale farming to large-scale cultivation and new varieties were introduced with

time. However, the withdrawal of government subsidies which were on agricultural inputs through the Economic Recovery Programme (ERP) and Structural Adjustment Programme (SAP) resulted in very high cost of inputs and presents a constraint for adopting SFC.

Another example of SFC is maize. Farmers in Nyansuaka, a subsidiary village in the transition zone cultivate a lot of maize for sale. The driving force behind the cultivation of maize is its storability and contribution to household food security. It is consumed in large quantities throughout the year. Maize can be stored for a long time and sold during the lean season at a higher price. There is a high motivation for growing more maize as vegetables are perishable but are not processed. The farmers have constructed a maize storage unit where they store maize in bulk. Maize can be planted twice in a year and also brings quick income to farm households, and turns out to be the most profitable staple crop if it can be cultivated on a large scale and stored for a long period of time.

Ability to store storable farm produce makes it possible for farmers to sell them at a time when the price is favourable and when farmers are in need of money. Farmers who do not have money to pay off debts after the cropping season are compelled to sell their produce early. Rich households are more capable of storing farm produce than the intermediate and poor households. Obviously, the poor are compelled to sell immediately after harvest at prices that are usually dictated by the buyers. The farmers indicated that financial pressure, lack of alternative income generating activities and non-farm employment opportunities compel them to sell their produce early, which has implications for food security, investment and other financial obligations.

In addition to farming, there were a few off-season and non-farm activities such as firewood gathering, charcoal

production and general trading, including moving of farm produce to sell outside the villages. Households in the farming system zones have limited post-harvest activities. Yam, cocoa and other tree crops were found to provide those engaged in their production with good income annually but the income is not frequent. Though taro cultivation is profitable, it does not present a general opportunity for many people as it only thrives well in valley bottom areas.

The availability of non-farm income was found not to be related to household typology. On average, 52 percent of households have non-farm income while 48 percent do not. Thirty-seven percent of poor households have non-farm income against 62 percent of intermediate households. Surprisingly, 67% of rich households have no non-farm income. It can therefore be said that wealth status is not determined by the extent of diversification into non-farm activities in the two farming system zones. The percentage of farmers in non-farm activity is, however, higher in areas that are characterised by a single farming season.

Generally, crop farming constitutes the major economic activity in most areas. However, focusing on traditional cropping activities makes the farmers vulnerable to economic and climatic shocks. Crop failure is on the increase due to land degradation, population growth, and climate change. Very few farmers are diversified, which reduces their production and financial risk. Differences in livelihood strategies lie in the differences in household resource endowment, institutional linkages, infrastructural development, and nearness to major marketing centre among others.

Motivation for SFC

Several factors motivated the farmers who adopted SFC in the study area. Regular flow of income, which comes from quick maturing crops like vegetables, and crops that have good yields with high demand and competitive pricing system are attractive to farmers. The need to come out of poverty was an important factor that motivated them to adopt SFC. Increase in income levels is therefore a major driving force. In addition, to women, economic independence is greatly desired either because they perceive that their husbands alone could not cope with the financial demands of the household or they are not in favour of requesting financial assistance from their husbands for every minor need. Women are attracted to high value crops which do not require large land holdings.

Vegetable production was therefore attractive to land poor farmers as it does not require large acres of land to adopt. It also does not hold the land for a long period of time. Belonging to an association is another major motivation as it is an effective means of obtaining credit and farmer information on inputs and prices.

The movement of households from one farming system

zone to settle at another led to the introduction of new crops in areas where they were not previously cultivated. An example is the introduction of beans and tomatoes production in the transition zone by settlers from Northern Ghana. The example of pepper in the forest zone by migrants from the Brong-Ahafo Region was mentioned earlier. The settler farmers explain the system of cultivating the new crop and farm households observe their cultivation and profitability. The profitability of a crop serves as an incentive for adoption or at least trial.

The level of profitability of the new crops, mostly high value crops which have good yields, is directly related to appropriate farm management practices. For example, vegetables are less resistant to harsh environmental conditions and require more care and attention. The attention includes frequent weeding, spraying against insects and diseases, fertilisation, and prompt harvesting. For those who adopt vegetable production, SFC has compelled them to adopt good farm management practices.

Farmers are aware that the production of non-staple or non-traditional crops can generate higher incomes. The reasons for adoption and the characteristics of adopters and non-adopters are presented in Table 2. Commercialisation has resulted in improved income levels that have enabled households to build houses, purchase pumping machines, some have purchased vehicles, cater for children, cater for themselves, and to improve household nutrition. Adopters of commercialisation had improved living standards than non-adopters.

Barriers to participation in commercialisation activities

The pathways of commercialisation often demands capital and labour as well as a thorough supervision of the process. Determination is necessary to adopt SFC. Access to credit and other means of financial support are necessary to enable farmers consider adopting commercialisation. Otherwise, community members who are resource poor are unable to participate. SFC requires large outlays of capital to purchase fertilizer and agro-chemicals, and to pay for labour services. Apart from credit, some farmers do not have fertile land on which to cultivate vegetables.

There is some degree of uncertainty in adopting vegetable production as output price is sometimes unfavourable. Farmers sell even when the price is very low because the produce is perishable and not stored or processed within the local setting. Farmers incur large losses when traders fail to come and buy the produce. Alternative marketing avenues need to be explored besides the role of the middleman.

Small-scale farmers are rather unwilling to purchase food items which they can grow themselves. This is

Table 2. Reasons for adoption and characteristics of adopters and non-adopters.

Adopters	Non-adopters
Characteristics	
<ul style="list-style-type: none"> • Have more income and own properties such as houses, television, and fridges. • Give better education to children. • Provide good and nutritious food for their family. • Good physical appearance (clothing). • Less borrowing 	<ul style="list-style-type: none"> • Low income levels • Not able to educate children to higher levels. • Not able to provide good and nutritious food for the family. • Poor physical appearance (clothing). • Borrows money often.
Reasons for adoption and non adoption	
<ul style="list-style-type: none"> • The quest for better standard of living. • The need to get quick income to meet financial expenses, especially to pay for children's education. • In the case of vegetables, it is early maturing and can be harvested every week. 	<ul style="list-style-type: none"> • Have another viable enterprise (taro, cocoa, oil palm, cassava and maize) • Adoption needs a lot of labour and capital. • High cost of chemicals and fertilizers. • Very intensive and difficult to undertake – requires hard work. • No interest in vegetable production. • Few fertile lands that can support such production activities.

particularly important considering their risk averse behavior. This confirms conclusions of a study by Drafor et al. (2013), which analysed the behavior of rural households in ensuring food security in lean seasons and showed that rural small-scale farmers will produce rather than purchase staples for household consumption under different policy scenarios. Consequently some community members in the farming system zones, especially the land poor, are hesitant to adopt SFC due to its implications for food security.

In communities where vegetable production is widespread, SFC is said to result in food shortages as vegetables are not consumed in large quantities and most of the fertile land is devoted to its production. Households involved in food production are key contributors to making commercialisation possible due to the complementary role they play in contributing to food security.

Gender impacts in agricultural commercialisation

The transformation of traditional farming economies into modernized small-scale farming has cultural implications, including important changes in indigenous patterns of gender relationships within the household and the community. The ability for women to move into commercial production requires resource availability, access to new technologies and market opportunities. Women often need to adopt strategies that allow them to bypass gender constraints to enable them have access to land, capital and other productive resources.

The key aspects of impact of SFC are increase in income, change in social status, economic and financial

independence, empowered decision-making position and gender equity. Some of these are particularly more important for women than men who usually play leadership and decision-making roles in society. Women adopters had better financial independence which improved their status in the household and community, especially when they control income generated from commercialisation activities.

Ability to control income from SFC activities depends on whether the activity was carried out as a household or at individual level. Most families farm together as a team, though there are individual farms. Many women also have their own farms. Access to and control of resources depends on who controls the income from economic activities in the household. Household members who have control over the income from SFC are able to rent land and hire labour, purchase fertilizers, agro-chemicals and farm equipment. As such, lack of control of income is directly linked with lack of access to productive resources. However, it was found that before some women could get access to a knapsack sprayer or a pump for work on their vegetable farm, they have to work for three days on the farm of the one who owns it. She is then allowed to have user access to these resources.

When both the man and the woman undertake commercialisation activities, they bring their resources together to educate their children and for the general welfare of the household. Children help on the farm after school and the entire household benefits. In the past, a division of labour existed, but everybody worked for the direct survival of the family – men, women and children. With the introduction of cash crops, women's responsibility to provide the required food crops increased, while men's main responsibility shifted to the

production of cash crops, often with considerable labour contributions from women. An earlier study by Saito et al., (1994) showed that the introduction of cash crops resulted in the weakening of the traditional gender division of intra-household rights and obligations and farm women increasingly undertook tasks previously done by men.

There are changes in intra-household division of labour with the introduction of profitable commercialisation activities. In the study sites, women undertake the harvesting and marketing activities while the men carried out the land clearing, chemical application and some harvesting. The children do the planting and fertilizer application. In Nyansuaka and Ampenkro, women do most of the work on the farm after the men clear the land. With time, when more money is obtained from SFC activities, women and children work less on the farm in male-headed households since there is money to hire labour. When there is limited household income in the face of increasing farm size, women work more in the farm, which could affect the time left for them to undertake household activities. On the other hand, women in female-headed households (single women, the divorced, the separated and women with absentee husbands) work more on the farm with the introduction of SFC. Challenges in intra-household relationships stem from situations in which men complain of disrespectful behaviour from women whose income level have increased. Women also complain that some married men put pressure on the family when they adopt SFC by taking concubines.

Adoption of SFC is a gain to an entire village community. Inter-household relationships are strengthened through various forms of inter-dependence and collaboration. Non-adopters, including the youth, are employed to undertake various activities, for which they are paid either in kind or in cash. Borrowing from community members reduces as a result of financial independence of adopters. Adopters of SFC are major financial contributors towards community development, contributing more to enhance progress in the villages. This impact on community development is very important, especially with limited national development efforts in rural areas. Besides, SFC serves as motivation to stay in the villages and has resulted in reducing rural-urban migration.

CONCLUDING REMARKS

If we want agricultural growth to reduce poverty, it must be inclusive, leaving no real alternative to a smallholder-led agricultural development strategy (Jayne, et al. 2011). Interactions and interconnectedness of rich farmers and poor farmers can result in effective rural development and growth, without which many poor households can be left out completely. The outcome of small-farmer

commercialisation in two farming system zones reveals that entire communities benefit from SFC due to inter and intra-household relations.

There are a number of factors that motivate the adoption of small-farmer commercialisation in rural Ghana. Small farmers are attracted to activities that will bring quick and regular income, and which do not need large acres of land. Vegetables and maize satisfy these conditions. Farmers moving from one community to settle in another results in the introduction of new crops in the new communities, thus promoting small-farmer commercialisation. Membership of groups is also an advantage in benefiting from SFC activities in the farming system zones as it does not only encourage adoption of SFC, but also facilitates the process of obtaining credit and good prices. For maize however, production of a marketable surplus is key to improving income.

Women's entry into commercial agriculture is individual and therefore sustainable. Furthermore, the presence of SFC enhances gender equality and the empowerment of women in rural areas. When women have access to and control enterprises, resources and revenue from commercialisation activities, it enables them to achieve financial independence, increased social status and integrates them better into national and global markets. This process promotes the empowerment of woman in the agricultural sector.

Some of the advantages of adopting SFC can only be derived through the simultaneous adoption of improved farm and production management practices. SFC has compelled farmers to adopt better farm practices, which is unavoidable for vegetables as they are less resistant to harsh environmental conditions and require more care. Adoption of good agricultural practices can be increased if more farmers are given incentives to adopt SFC.

Small-farmer commercialisation improves the livelihood of rural households but requires access to productive resources and services. Access to credit and effective markets can serve as incentives for more women adopting SFC, leading to improved incomes, better social status, financial independence, and greater gender equality. SFC is generally capital intensive and many smallholders are unable to meet the high production costs from their own savings. It follows that rich households are more able to adopt SFC activities that require large capital outlays, followed by intermediate households. The role of credit and small starter packs are increasingly relevant for enhancing smallholder adoption of SFC. Poverty and the absence of alternative income sources in rural areas compel farmers to sell their produce early, limiting their ability to benefit from higher prices in lean seasons.

From the example of the pepper producers in the forest zone, market access, which addresses the role of middlemen that can diminish farm incomes, is a vital factor for successful commercialisation of agriculture. Consistent with Weinberger and Lumpkin (2007), market

integration of vegetable producers is higher than that of staple crop producers. A revisit of the system of marketing agricultural products across the country with specific policies that protect the interest and income of small-scale farmers is an urgent need. Effective marketing systems and alternative avenues for value addition for vegetables should be explored due to their perishable nature.

Conflict of Interests

The author(s) have not declared any conflict of interests.

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REFERENCES

- Adenegan KO, Adams O, Nwauwa LEO (2013). Gender Impacts of Small-Scale Farm Households on Agricultural Commercialisation in Oyo State, Nigeria. *Br. J. Econ. Manage. Trade* 3(1):1-11.
- Alene DA, Manyong VM, Omanyua G, Mignouna HD, Bokanga M, Odhiambo G (2008). Smallholder market participation under transactions costs: Maize supply and fertilizer demand in Kenya. *Food Pol.* 33:18-328.
- Berhanu G, Jaleta M (2010). Commercialization of smallholders: Does market orientation translate into market participation? Improving Productivity and Market Success (IPMS) of Ethiopian farmers project Working Nairobi, Kenya, ILRI. P. 22.
- Drafor I, Kunze D, Sarpong D (2013). Food Security: How Rural Ghanaian Households Respond to Food Shortages in Lean Season. *Int. J. Agric. Manage.* 2(4):199-206. DOI: 10.5836/ijam/2013-04-03. <http://dx.doi.org/10.5836/ijam/2013-04-03>
- Fischer E, Qaim M (2012). Gender, agricultural commercialization, and collective action in Kenya. *Food Sec.* 4(3):441-453.
- FAO (2011). *The State Of Food And Agriculture 2010-11: Women In Agriculture Closing the Gender Gap for Development*. Rome: FAO.
- FAO (1997). *Gender: The key to Sustainability and Food Security*. SD Dimensions/ Women and Population/Special. www.fao.org/WAICENT/FAOINFO/SUSTDEV/Wpdirect/WPdoe001.htm.
- Heltberg R, Tarp F (2002). Agricultural supply response and poverty in Mozambique. *Food Pol.* 27:103-124.
- Hunt J (2004). Introduction to gender analysis concepts and steps. *Dev. Bull.* 64:100-106. Accessed on August 26, 2013. Available at: http://www.vasculitissfoundation.org/wp-content/uploads/2012/11/development_studies_network_intro_to_gender_analysis.pdf.
- IFAD (2012). *Grants: An overview*. Accessed on March 18, 2013. Available at: <http://www.ifad.org/operations/grants/index.htm>.
- IFAD and AfDB (2010). *Towards purposeful partnerships in African agriculture: A joint evaluation of the agriculture and rural development policies and operations in Africa of the African Development Bank and the International Fund for Agricultural Development*. Accessed on December 20, 2012. Available at: <http://www.ifad.org/evaluation/jointevaluation/docs/africa/africa.pdf>.
- Jayne TS, Haggblade S, Minot N, Rashid S (2011). *Agricultural Commercialization, Rural Transformation and Poverty Reduction: What have We Learned about How to Achieve This? Synthesis report prepared for the African Agricultural Markets Programme Policy Symposium, Alliance for Commodity Trade in Eastern and Southern Africa April 20-22, 2011, Kigali, Rwanda*.
- Phillips SP (2005). Defining and measuring gender: A social determinant of health whose time has come. *Int. J. Equity in Health*, 4(11):1-4. doi:10.1186/1475-9276-4-11. <http://dx.doi.org/10.1186/1475-9276-4-11>
- Pingali PL, Rosegrant MW (1995). Agricultural commercialization and diversification: processes and policies. *Food Pol.* 20(3):171-185.
- Quisumbing AR, Meinzen-Dick RS (2001). *Empowering Women To Achieve Food Security: Overview*. FOCUS 6 • Policy Brief 12. International Food Policy Research Institute, Washington DC.
- Quisumbing AR, Brown LR, Feldstein HS, Haddad L, Pena C (1995). *Women: The Key to Food Security*. Food Policy Statement No. 21, Aug. 1995. International Food Policy Research Institute, Washington, DC.
- Saito AK, Mekonnen H, Spurling D (1994). *Raising the Productivity of Women Farmers in Sub-Saharan Africa*. World Bank Discussion Papers. Africa Technical Department Series, P. 230. Washington DC.
- Timmer P (1997). *Farmers and Markets: The Political Economy of New Paradigms*. *Am. J. Agric. Econ.* 79(2):621-627
- United Nations Development Programme (UNDP) (2012). *Africa Human Development Report 2012: Towards a Food Secure Future*. UNDP Report.
- von Braun J, Kennedy E (Eds.) (1994). *Agricultural commercialization, economic development and nutrition*. Johns Hopkins University Press for the International Food Policy Research Institute, Baltimore and London.
- Webb P (1989). *Intrahousehold Decisionmaking and Resource Control: The Effects of Rice Commercialization in West Africa*. International Food Policy Research Institute, Washington DC.
- Weinberger K, Lumpkin TA (2007). Diversification into horticulture and poverty reduction: A research agenda. *World Dev.* 35(8):1464-1480. doi:10.1016/j.worlddev.2007.05.002.
- WFP (2012). *Purchase for Progress: Gender*. Accessed on December 28, 2012. Available at: <http://documents.wfp.org/stellent/groups/public/documents/reports/wfp252603.pdf>.
- Wiggins S, Argwings-Kodhek G, Leavy J, Poulton C (2011). *Small farm commercialisation in Africa: Reviewing the issues*. Future Agricultures Consortium, Research Paper.
- World Bank (2011). *World Development Report – 2012 – Gender Equality and Development*, Washington D.C.: World Bank