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FORUM: LAND AND AGRICULTURAL COMMERCIALISATION IN AFRICA

Agricultural commercialisation models, agrarian dynamics and local development in Ghana

Joseph Awetori Yaro, Joseph Kofi Teye and Gertrude Dzifa Torvikey

The renewed commitment of African states to modernising agriculture has reignited longstanding debates about different models of agricultural commercialisation. Which forms of commercialisation models will reduce land dispossession and the impoverishment of smallholders, and transform smallholder agriculture and the wider economy? Of the three broad models of agriculture commercialisation in this debate – plantation, contract farming and medium-scale commercial farming – contract farming has been identified as central to the future of Africa’s commercial agriculture. This paper provides empirical evidence from Ghana on the impacts of these three models on land, labour/employment, livelihoods and local economic linkages. Our findings show that the plantation and the commercial farming areas have highly commercialised land relations, land scarcity and high land prices, compared to the outgrower area where traditional systems of accessing land still dominate, enabling families to produce their own food crops while also diversifying into wage labour and other activities. Food insecurity was highest in the plantation area followed by the commercial area, but lowest in the outgrower area. Here, semi-proletarianised seasonal workers combine self-provisioning from their own farms with wages, and this results in better livelihood outcomes than for permanent workers in plantations and commercial farms. Due to the processing units in the plantation and the outgrower models, they provided more employment. However, the casualisation of labour and gender discrimination in employment and access to land occur in all three cases. All three models generated strong economic linkages mainly because they combined attributes such as processing, provided markets for nearby farmers, induced state infrastructural development and diffused technology in competitive ways. The effects of the models on household and local development are coproduced by their interaction with pre-existing conditions and wider national economic structures.

Keywords: agricultural commercialisation; agrarian dynamics; local development

1. Introduction

While agricultural commercialisation is not a new phenomenon in Africa (Amanor 2009; Peters 2004), recent large-scale land acquisitions have led to an explosion of literature

This JPS Forum presents the findings of a study conducted in Ghana, Kenya and Zambia, coordinated by the Institute for Poverty, Land and Agrarian Studies (PLAAS) www.plaas.org.za at the University of the Western Cape, South Africa and under the auspices of the Future Agricultures Consortium (FAC) www.future-agricultures.org. The research was funded by the ESRC-DFID Joint Poverty Alleviation Programme, Grant ES/J01754X/1 and provided inspiration and insights to inform the FAC’s next phase of work: Agricultural Policy Research in Africa (APRA) programme.

about their drivers and effects. This has contributed to a debate about which model of agricultural commercialisation would reduce land dispossession and the impoverishment of smallholders and provide opportunities for the transformation of smallholder agriculture (Oya 2012; Smalley 2013; Vermeulen and Cotula 2010). Although the relative merits of three broad agriculture models, namely plantation, contract farming (or outgrower schemes) and commercialisation schemes, have been the subject of intense debate over the years (Epale 1985; Glover 1984; Watts 1994), many commentators now argue that the outgrower model is the future of Africa's agriculture (Kirsten and Sartorius 2002; World Bank 2010). This resonates with international donor organisations' agenda of transforming smallholder agriculture and connecting farmers into global value chains (World Bank 2010).

Yet the search for an ideal type model may be misplaced. Different models operate in different ways with different effects in different places and for different people. This paper presents research on three agricultural commercialisation models in Ghana, a country that has featured among the top 20 hotspots of transnational land deals globally (Kachika 2010). The three cases selected are: NORPALM, which runs an oil palm plantation in the Western Region of Ghana; Blue Skies, which contracts fruit growers in the Eastern Region; and mango farmers in a commercial farming scheme in Somanya, also in the Eastern Region. The paper asks which agriculture model generates more employment, reduces inequality in access to land and enhances livelihoods and local linkages. In this paper we explain the effects of the three commercial farm 'models' on the people who participate in them as labourers, contract outgrowers, or independent small- and medium-scale commercial farmers, and on households that happen to be in the vicinity of the models, showing their relative effects.

The Ghana case is useful because, in contrast to many other African countries, to date agricultural commercialisation has been largely smallholder-based, and 80 percent of land is held under customary land tenure (Kasanga and Kotey 2001; Tsikata and Yaro 2011). While the country has a long history of agriculture commercialisation, processes of land concentration are recent. The large-scale agricultural land deals of the late 2000s were driven by the belief that foreign investments are needed to modernise agriculture. Foreign investors have acquired substantial areas of land in recent years (Boamah 2011). Against this background, Ghana offers a unique setting for an analysis of the impacts of different models of agricultural commercialisation.

2. The context of the cases

A focus on commercial agriculture has a long history in Ghana. The colonial state used both coercive rules and incentive structures involving indirect rule through chiefs to achieve its aim of making the 'natives' produce commercial crops to sustain the economies of the metropole (Adu-Boahen 2000; Howard 1978). Colonial authorities preferred production based on a smallholder system rather than plantations, due to the success of small-scale oil palm and cocoa production. Traditional land tenure regimes and resistance to state appropriation of land made the expansion of an estate sector difficult (Aryeetey et al. 2007). The postcolonial state continued these policies but experimented with a few state plantations combined with outgrower schemes, although these have largely failed (Amanor and Diderutuah 2001). Over the years, however, local elite farmers, investing resources from urban employment, have established contiguous medium-scale farms in favourable ecological zones, often spurred by national and donor support eager to promote commercial farming.

Our plantation case study is NORPALM Ghana Limited (NGL; see Figure 1), a 4500-ha plantation located at Pretsea in the Western Region. The company was incorporated in 1998 following the government's divestiture of the state-owned company National Oil

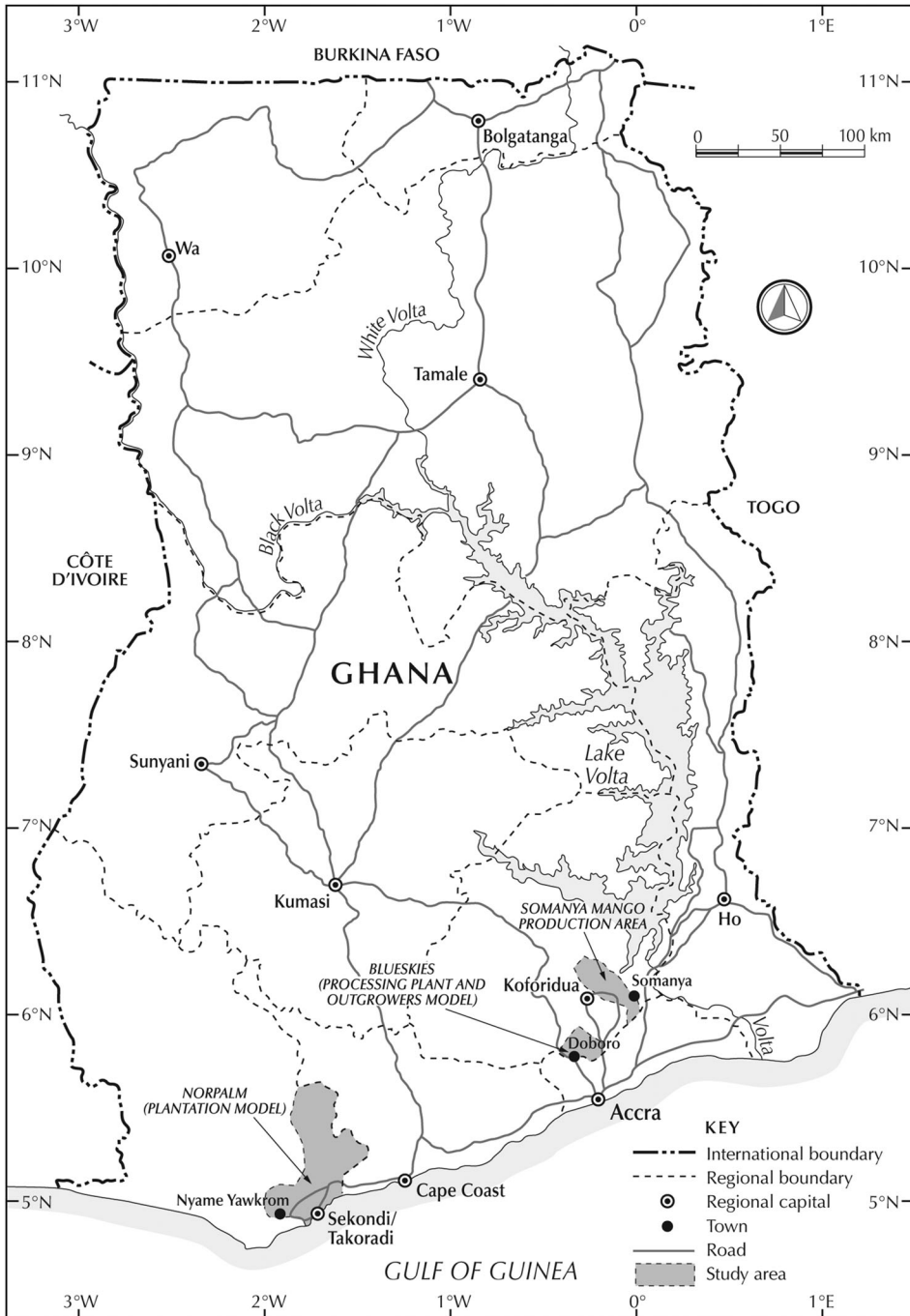


Figure 1. Map of Ghana indicating locations of the three case studies.

Palms Limited (NOPL), and began production in 2000. A Norwegian company, NORPALM ASA, owns 68.1 percent of shares, while a private Ghanaian company, PZ Cussons Industries Ghana Ltd., owns the rest. In addition to its plantation, the company has a mill, which processes an average of 70,000 tonnes of fresh oil palm bunches per year. The company lies within the tropical rainforest with a relative abundance of minerals, timber and natural conditions for major export crops such as oil palm, rubber and cocoa. This history is relevant in facilitating the plantation's supply chains through already existing rail and road infrastructure, knowledge systems on tree crops and an export orientation.

Our outgrower case study is Blue Skies Company Limited, established in 1998, which is located in a Free Zone enclave at Doboro near Nsawam in the Eastern Region. It is owned by three individuals, with 10 percent of shares held by a Ghanaian and 40 and 50 percent, respectively, by two British citizens. Only a small portion of the fruit processed comes from the company's 433 ha of land. The factory processes pineapples, mango, papaya, coconut and passion fruit for export, drawing over 90 percent of its supply from about 140 out-growers with farms ranging from 2 to 250 ha (mostly in the smaller size range), with whom it has flexible supply contracts. Ecologically, the area inhabits the moist semi-deciduous forest (90 percent) and coastal savannah grassland, which enables production of several fruits such as papaya, pineapple and citrus. The location is also strategically important because of its proximity to the country's international airport in Accra, allowing easy connection to overseas markets.

Our commercial farming area case study focuses on the commercial mango farmers located at Somanya, one of the few areas in the world with two mango seasons. While the area has historically been known for the small-scale production of mango, its commercial mango industry began in 1997 with support from the Adventist Development and Relief Agency (ADRA), with funding from the United States Agency for International Development (USAID) (Interview with Mango Farmers Association, 2013). Today, there are over 120 mango farmers in Somanya, with farm sizes ranging between 2 and 200 ha (Interview with President of the Somanya Mango Growers Association in 2014). Poor farmers with small farm sizes of 2 to 5 ha are mostly part of the ADRA intervention, while the majority of farms are over 20 ha and owned by wealthy farmers, many of whom have increased their farm sizes considerably over the past decade. While the early mango farmers at Somanya were mainly smallholder farmers and pensioners from the local area, the growing mango business has, in recent years, attracted farmers and urban-based businessmen and retired civil servants from other parts of Ghana. The mangoes produced are sold locally or exported outside Ghana. However, exporting mangoes directly is a herculean task. Apart from meeting very strict international market standards, farmers are faced with the challenge of looking for buyers abroad. Consequently, the farmers sell their produce to private exporters who in turn export them outside. The main processing company that deals with the mango farmers is the Blue Skies Company. In recent years, farmers have sold to other companies such as HPW Limited at Adieso in the Eastern region of Ghana, and Agrona Company Limited in Tema.

Table 1 summarises the key features of each of the three cases. Each case combines elements of the different commercial farming models (Smalley 2013). Both Blue Skies and NORPALM combine estate farming with outgrowing, for example. While Blue Skies has a clear outgrower strategy, NORPALM relies largely on its own estate and buys from farmers willing to sell to their processing plants without any formalised contracts. Also, the commercial mango farmers supply a large proportion of Blue Skies' procurement, even though they are not part of its formal outgrower scheme. There are great

Table 1. Model descriptions.

Case/model	Area	Historical context	Economic context	Model forms	Crop	Scale
Plantation: NORPALM	Prestea, Western Region	Formerly National Oil Palms Limited (NOPL) – privatised in 1996	Farming, mining, trading, oil, industry, harbour	Plantation and processing plant; product sourcing from local farms	Oil palm	4500 ha
Outgrower: Blue Skies	Doboro, Eastern region	Established in 1998	Farming, trading, agro- processing, satellite town	Nucleus farm, outgrowing, processing factory	Nucleus farm of passion, papaya, and pineapple; outgrowers supply a wide range of fruits	Company farm below 433 ha; Outgrower farms between 2–250 ha per landholding; estimated total land 3000 ha
Commercial farming area: Somanya mango farmers	Somanya, Eastern Region	Production intensified from the 1990s onwards	Trading and farming	Commercial farming	Mango	Between 2–200 ha per landholding; estimated total land 5000 ha

Source: Authors' compilation.

diversities of actual models within those broad categories, all of which presumably can lead to somewhat different outcomes. Also, the diversity of crops translates into very different dynamics on the business model. All of the schemes involve more than one commercial farming model: the plantation produces most of its output but buys some from ‘out-growers’; the outgrower scheme produces some of its output from the company’s nucleus plantation, but most is grown by contracted outgrowers; the mango farmers sell most of their output to the company that owns the outgrower fruit scheme. The plantation and the outgrower scheme own processing plants.

In the following sections, we examine the impacts on land access, labour, livelihoods and local economic linkages. As discussed in the introductory article of this collection, the data used were gathered through a combination of surveys, focus group discussions (FGDs) and in-depth interviews and qualitative focus group and life-history analysis undertaken in villages around the plantation, and within and around the commercial farming and outgrower areas; we look at those involved in the commercial enterprises, as producers or labourers, and those not involved at all, seeking livelihoods independently. We compare across the cases – although accepting that these are very different areas, involving different commercial crops – and also within, contrasting those who are more and less asset-rich, men and women, and younger and older people (see Hall et al., in this collection, for details on methodology).

3. Land access and tenure

While plantation agriculture disrupts the land holdings of local people through land expropriation, commercial and outgrowing schemes have also come under scrutiny for their potential for displacement through processes of land consolidation and social differentiation (Smalley 2013). The argument for an outgrower model as an alternative to land expropriation has also met with scepticism (Anseeuw et al. 2012; De Schutter 2011; Liversage 2011), as the outcomes of outgrowing contracts are contingent on a host of arrangements contained in their contracts as well as evolving local circumstances and governance systems (Oya 2012).

Table 2 shows that the number of those with no access to land is highest in the commercial farming area, followed by the plantation area, and is lowest in the outgrower area. In both the commercial farm and plantation case study areas, there are significant numbers of local landless workers and migrant landless workers seeking employment. The commercial farming area has the most unequal distribution of land among our sample population, as investors purchase land and crowd out local farmers. The outgrower area is that in which most people retain access to land – including those not supplying their produce on contract to the processing facility.

Table 2. Percentage of households without access to land, comparing those involved in the commercial enterprise (model), and those not.

Model	No access to land (involved, %)	No access to land (non-involved, %)	Total – no access – average (N = 382)
Plantation	30.65	24.05	26.95
Outgrower	13.33	22.68	19.72
Commercial	18.03	67.09	45.71

Source: Authors’ fieldwork, 2014.

In the three study areas, a significant proportion of households acquired land through inheritance: 28 percent in the plantation area; 50 percent in the outgrowing area; and 49 percent in the commercial farming area. But land rental markets were a major way in which those households involved in outgrowing (29 percent) and commercial farming (25 percent) acquired access to land. Outright purchases of land were much higher in the plantation area (28 percent) and the commercial farming area (24 percent) compared to the outgrowing area (10 percent). Informal occupation was significant in the plantation area (12 percent), but barely apparent elsewhere.

The investment in mango farming in the commercial farming area of Somanya has meant the growth of the land market – both leasing and purchase. Leasing is also important in the smallholder outgrowing area, although most hold onto their land and do not sell, resulting in less landlessness. In all sites commercialisation has resulted in a major change to traditional sharecropping systems, and the role of gifts and inheritance in land transactions. Amanor (2001) describes this trend as ‘turning kin to strangers’, as family heads prefer the monetary returns from external land seekers to sharing out land to family members for free.

In the outgrower case study area in Doboro, the increasing demand for farmlands for fruit cultivation by the emerging elite farmers among the outgrowers has strengthened the rental market. This has encouraged poorer families to lease out their land to bigger farmers. For instance, a wealthy outgrower in Nsawam producing papaya and pineapples began with a farm of 0.8 ha in the late 1980s, and currently has acquired more land with a farm size of 162 ha. In contrast, a young small outgrower farming pineapple lost the land inherited from his late father, and is unable to lease more land because of increasing land prices. A young, poor food crop farmer in the outgrower area asserts that ‘Farmers are leaving this area to look for land elsewhere because the land here is getting too expensive’. Displacement of poorer farmers – some of whom migrate elsewhere in search of alternative land – is an important effect of land concentration, even in the outgrower area.

Customary land tenure rights have diminished significantly, with the market increasingly dominating. Access to land is increasingly the product of land prices, which are rising in all the case study areas. In the plantation area, the annual rental payment for a 0.4-ha (one-acre) plot stands at GHC 15 to 100 (USD 5–25 as of 2014), while the cost of land purchase is USD 2000–3000. The communities immediately next to the NORPALM plantation have no way of expanding their farms, which creates higher values for scarce land. A middle-aged woman in Bokro in the plantation area, whose family owns a 10-ha oil palm plantation, complained that

Right now land prices have increased. That is why we are not able to expand the land our mother bequeathed to us. We basically inherited our farm and therefore we are continuing the same crops. Land is too expensive here.

Similarly, in the Somanya mango commercial farming area, the average selling price for 0.4 ha of agricultural land is GHS 10,000 (USD 2500 in 2016), similar to prices in the plantation area. The sale of land to mango farmers has disenfranchised local people as well as migrant settler farmers who previously cultivated these lands, either without any payments or on a sharecropping basis, as reported in FGDs. The models have contributed significantly to increases in land prices and changing relations to land. Poorer families unable to access land or survive from current land holdings take up wage labour; small outgrowers cling to family lands for both commercial and food crop; wealthy outgrowers continually lease more lands; small mango farmers also individualise family lands while engaging in other

activities; medium and large mango farmers lease more lands from food crop farmers as do independent large oil palm and rubber farmers in the western region.

Access to land has become more precarious for women who engage in wage labour, mostly as casual workers. A 36-year-old woman at Anortiakrom in the outgrower area used to cultivate 2 ha of land on which she planted maize and cassava on a sharecropping basis, but abandoned her farm to take up employment on a large commercial farm because she needed money to cater for her daily needs that her small plot could not provide. As women abandon borrowed, inherited or sharecropped farms for wage work, these are taken over by expanding capitalist farmers for the production of high-value crops. Although the new mechanisms for acquiring land may ostensibly be gender neutral, the pre-existing conditions in which women find themselves do not allow them participate in the new processes of accumulation. They are therefore disadvantaged actors with fewer benefits in the commercialisation of agriculture. Their limited capital prevents women from purchasing land in order to benefit from own-account farming (Amanor-Wilks 2009). Previously, many poor women relied on sharecropping arrangements to access land for farming, but as rental systems took over due to rising land values, women are no longer able to access land. Very few women are outgrowers or own commercial farms. Yet in the plantation area – where inheritance is matrilineal – some women inherited oil palm farms from their grandmothers (individual interviews).

The results above show that the levels of commercialisation of land relations in the study areas vary, with the commercial farming area being the most land-constrained environment, followed by the plantation area, in terms of prices, poor access and poor availability of land. The outgrower area has better access and availability even though land prices are rising, due also to national structural forces. The deepening of capitalist relations of production promoted by the commercialisation of agriculture is therefore associated with growing competition for land and increasingly commoditised transactions (Benjaminsen and Sjaastad 2008). In the plantation area, the situation is exacerbated by the competing land use from oil industry players and rubber plantations. The opening up of the countryside by the state through infrastructural developments attracts investors to these capitalist frontiers. The Somanya mango zone is peculiar in that commercial farming occupied the whole south-western section in a contagion-diffusion fashion, thereby depriving indigenes of the possibility to expand in that direction. The outgrower model, due to the nature of the crops – pineapple and papaya – does not really need large lands to make profits; hence, small producers can survive, which perpetuates them hanging on to small farms with few large units, in contrast to mangoes and oil palm. The nature of the crop and the peculiarity of the model are critical in defining emerging land relations.

4. Employment and labour relations

Although generating employment is a potential outcome of agricultural commercialisation (Cotula et al. 2009; Humphrey, McCulloch, and Ota 2004; Ramachandran 1990), recent scholarship has shown that large-scale farmers may displace existing land users without creating employment for people, creating a surplus population of people whose labour is not needed in large-scale agribusinesses (De Schutter 2011; Hall 2011). All three agricultural commercialisation models in our study have generated employment for skilled and unskilled workers. Our interviews show that all models employ both women and men for various tasks. In absolute terms, the plantation and outgrower models employ more people than the commercial farming model, because apart from labourers working on

farms, many people are employed on the processing plants in the plantation and outgrower estates. In 2013, NORPALM, for instance, had 1864 workers of whom 10 percent are permanent staff, while Blue Skies had about 1500 workers of whom 33 percent are permanent staff. Because of the processing plants with formal administrative units, NORPALM and Blue Skies employ relatively more educated people, including from other parts of Ghana. By contrast, commercial mango farmers largely employ less-educated young men from the community, although a few of the farm labourers (less than 10 percent) in the commercial farming area were from other West African countries, notably Burkina Faso, Niger and Togo. Some mango farm managers revealed that they prefer working with migrants from other West African countries because they are hard working and hardly complain about wages and other conditions. This reflects a pattern of exploitation of migrant labour on commercial farms.

While our findings support claims in the literature that the plantation model generates more employment overall than other models (Smalley 2013), contracts are increasingly casual and temporary. The permanent workers are mostly senior-level administration staff employed from urban areas, while local people employed as farm labourers are the majority, usually employed as casual staff. Rather than offering permanent contracts as in the past, the company currently employs casual workers on a contract basis for a period of three months and then lays them off, rehiring them for further three-month contracts. Although the proportion of permanent workers in the outgrower model is relatively higher compared with the proportion of permanent workers in the plantation model, the outgrower firm is also gradually moving towards casualisation. Individual farmers in all the case study areas employ more casual workers than permanent workers, although the commercial farmers at Somanya are more likely to employ permanent workers than individual farmers in the outgrower area are.

Wages in the different farm models vary across different types of employment. Permanent workers on NORPALM's plantation and at the Blue Skies estates receive higher wages than permanent workers in the commercial farming area or on the outgrower farms. In 2013, some of the sub-managers at NORPALM and Blue Skies received as much as GHC 2000 (USD 570) monthly, while managers on farms in the commercial farming and outgrower areas received about GHC 350 (USD 100) monthly. However, an analysis of wages received by casual labourers showed that those who work in the commercial farming area get higher daily wages on average at GHC 10 (USD 2.8) per day, compared to those working on the plantation (GHC 8.40 (USD 2.4) per day) and on outgrower farms (GHC 7 (USD 2) per day).

4.1. *Gender differentials in employment opportunities*

Employment opportunities are highly gendered (Dancer and Tsikata 2015; Doss, Summerfield, and Tsikata 2014; Tsikata and Yaro 2014). In all three models, men have more employment opportunities than women. As a manager confirmed, men are more likely than women to be employed by the NORPALM processing factory as permanent workers because of the belief that the work is too hard and tedious for women:

When it comes to job seeking, I would say a man is more likely to get a job here than a woman. The work requires a lot of energy and it is stressful so the women are not strong enough. The whole plantation has only three female workers who are permanent. (assistant field supervisor, NORPALM)

On the whole, NORPALM (in 2015) had 13 permanent workers, 173 casuals and 600 contract workers who were women, while 170 permanent workers, 266 casuals and 40 contract workers were men. In contrast, women account for a relatively higher percentage of workers employed on the Blue Skies estate. Women are often preferred by the outgrower firm, particularly in horticulture, again with assumptions of what constitutes 'women's work' (Barrientos, Dolan, and Tallontire 2003; Dolan 2002). 'We currently have 2013 workers and 63 percent of the workers are women. Many of our female staff work in the production unit which has 1800 workers and 70 percent of them are women' (Company Official A, Blue Skies, Doboro, 17 July 2013).

In relation to the individual farms in the commercial and outgrower areas, permanent employment positions are usually occupied by young men who clear the farm lands and spray the crops. Some farmers explained that women are only required temporarily during harvesting time:

Currently, I have four permanent labourers who are all males. ... I don't take women as permanent workers because the work is very difficult so it will be hard for the women. We don't like women to spray. Spraying is for men but for slashing and harvesting, we allow the women to do it. (62-year-old male wealthy mango farmer, Somanya)

There are also gender differentials in the positions occupied by men and women. In Blue Skies and NORPALM, men tend to occupy higher positions than women. Patriarchal gendered systems account for the low position of women in all the farming models. For instance, the patrilineal inheritance system, which is dominant in the mango production area, prevents women from inheriting land from their fathers. Consequently, only a few women are owners and managers of mango farms. Again, in all case study areas, as a result of patriarchal norms that construct men as superior to women, men are considered owners (or managers) of family property, including farms, even though both men and women may work regularly on these farms (Apusigah 2009).

4.2. Monetisation of family labour, and locking women out of family enterprises

Although hired labour is increasingly replacing household unpaid labour in all farming areas, poorer farmers depend more on family labour, while richer farmers depend more on hired labour. For instance, a 46-year-old farmer in the plantation area reported that for the past 25 years he has been cultivating 3.2 ha of oil palm, 0.4 ha of cassava and 0.9 ha of plantain, and he only depends on family labour since he does not earn enough to hire labour. Although unremunerated family labour is still used on many of the larger farms in commercial and outgrower areas, it is not as prominent as hired labour. This is mainly due to the education and migration of children, as stated below:

My other [son] is working in Accra for Prudential Bank and he has expressed his interest in the farm but he can't come and stay here So actually, all my children are happy about the farming business but their problem is sustainability in the future If a farmer has a son or relative on the farm, it is better since that relative can better brief the farmer about the happenings on the farm but our children don't want to come and stay here. (wealthy mango farmer, Somanya)

Many of the wealthy farmers, especially in the commercial farming area, rely heavily on hired labour because their own children are highly educated and sometimes living and

working outside Ghana. In cases where these educated adult children work with their wealthy parents, they are increasingly being paid as managers or adult workers.

Most of the wealthy farmers in the outgrower and commercial farming areas used family labour at the initial stages of farming, but relied more on hired labour once they become wealthier. For instance, a wealthy mango farmer and his wife separately narrated how they initially worked together on their mango farm at Somanya. Now that the farm has expanded, the husband works with hired labourers, while his wife diversified into selling clothing. Some wealthy farmers admitted that they do not want their wives to work with them because of fears that they will make greater demands for a share of family income if they realise the scale of their husbands' farming revenue. Women who have been marginalised in the sharing of proceeds from farming may resist by withdrawing their labour-power from the household and shift to cultivating their own cash crops elsewhere, working for wages on neighbouring farms or moving to off-farm trading activities, which was the pattern most prevalent in our case studies.

5. Livelihoods and food security outcomes

Agricultural commercialisation is expected to bring about increased productivity, employment, incomes and livelihood security (World Bank 2010; WorldBank 2007). However, as already noted, commercialisation also generates social differentiation, with some accumulating and some not. This is highly gendered, and age specific. As some accumulate land and resources, others are forced into labouring relations, or have to move to diversify incomes, complementing food production from often small farms. This process of semi-proletarianisation can in turn lead to livelihood and food insecurity (Ramachandran 1990; Watts 1994; White and Dasgupta 2010).

Across our case study sites, we asked about the rate at which household members skip meals, as an indicator of food insecurity. Across the sites, those living in villages around the plantation had the highest rate of skipping meals, with 71 percent of those whose family workers worked in the plantation saying that they had skipped meals in the past year. This was slightly lower for those who were not engaged with the plantation at 63 percent. For commercial farmers or those involved in outgrowing contracts, the rate of skipping meals during the past year was the lowest, at 30 percent and 20 percent, respectively, although for both these sites the rates were higher (49 percent and 24 percent) for those households in the sample not involved in commercial farming or outgrowing.

The proportion of households reporting that their food situation has worsened in the past 5–10 years was highest in the area around the commercial farms, followed by the plantation area, while in the outgrower area perceptions of food security were most positive. In the outgrower and commercial farming areas, people who were not engaged with the commercial enterprises were more likely to report a worsened food situation than those who were involved, while in the plantation area, those involved (mostly low-paid casual workers) perceived food security trends to be worse than those not engaged with the plantation.

Patterns of food security in the plantation case study are influenced by employment conditions and land access. Plantation workers without access to land are more vulnerable to food insecurity as a result of poor remuneration and poor supplementation from their own farms. Wages from plantations seem not to be able to meet the food needs of families, while families relying on own farms are better able to self-provision. The inability of farm workers to dedicate time to their own farms, and the fact that many do not have land, also accounts for the lower food security status of plantation workers as analysed by focus group members in the plantation site. Most workers on the plantation also were migrants without

access to inherited lands, and without funds to lease land in an increasingly commercialised land market. In the past, workers were better able to meet their food needs when the company allowed them to use open spaces within the plantation for food production, but they now have to do so clandestinely. For workers staying on the farm, the inability to self-provision increases their vulnerability. Those who benefit the most from the plantation are those wealthy farmers producing oil palm for supply to the company, followed by better off farmers producing for other markets. The poor peasant farmers, however, produce little oil palm and mainly food crops. Those able to straddle farming and wage employment reported the best levels of food security, indicating that livelihood flexibility and diversification is an important response to commercialisation. Perhaps surprisingly, casual workers with their own farms and some time for diversification are more likely to experience better livelihood outcomes than permanent plantation workers.

In the mango commercial farming area, the growing situation of landlessness especially among the younger, poorer families explains the conditions of food insecurity among these groups. By contrast, better off farmers earn good incomes to enable them meet their cost of living. While livelihood diversification is a common feature of all farmers in this area, investments in non-farm enterprises are higher among richer farmers. For example, the vice president of the Somanya Mango Growers Association has invested his earnings from mangoes in constructing a fuel station and a restaurant. Poorer farmers diversify into seasonal wage earning jobs and petty trading. Similar to the plantation, many of the farm workers in the commercial farming area reported poorer food security outcomes due to low purchasing power of wages, poor access to land and lack of time to work on their own farms. Even though some labourers are allowed to cultivate on the mango farms, this access is declining over time as commercial mango production squeezes out workers' food crops. Again, casual and seasonal farm labourers who combine wage employment with their own food crops had better food security outcomes than workers relying wholly on wages, although this varies with size of farms, and level of investments in farm inputs and labour.

The food security situation is relatively positive in the outgrower area, both for those involved in outgrowing and those who are not involved. Outgrower farms involve both food and cash crops, and outgrowers with smaller farms grow more food crops, while the bigger outgrowers earn substantial amounts from contract crops. An integrated food-cash crop livelihood strategy is key. A small-scale male food crop farmer stated that '[Farming] is better because we do not buy foodstuffs since we are able to get some from the farm'. The nature of the crops in the outgrower area, mainly pineapples and papaya, which are high value with high yields per hectare, does not require huge lands to generate commensurate incomes for wellbeing. Hence, even 2- to 5-ha farms produce good returns compared to oil palm and mangos, which require twice that area for similar returns. Hence, the wide range of possibilities, including own farming, contract farming, wages from contract farms, non-farm activities, and factory employment, affords households in the outgrower area better livelihood security.

Livelihood outcomes across the commercialisation case studies are varied. However, a number of trends are apparent. Low wages and the casualisation of labour are major challenges to livelihoods. Flexible casualisation as found on outgrower farms and commercial mango farms is a better option to farm workers than working for fixed hours daily on plantations, big farms and factories. Flexible casualisation enables small farmers to combine their food crop farming with non-farm wage employment on new commercial farms.

Accumulation by some leads to dispossession for others, and this is very apparent in the commercial farming area and also in the plantation area (by big farmers – not only the

plantation), where investments in mango, oil palm and rubber plantations are leading to accumulation of land and other assets, thereby resulting in increasing marginalisation of poorer local farmers, youth and women. Mixing livelihood strategies for poorer people is essential, with a flexible response to on- and off-farm activities sustaining livelihoods. Yet for many this is a marginal and vulnerable existence, as petty trade, casual work and farming of small plots offer few opportunities for accumulation. In all sites, there is a growing pattern of social differentiation, with richer elites accumulating land, resulting in a progressive proletarianisation for others.

These dynamics are highly gendered and age dependent. Women consistently lose out from processes of commercialisation across our sites. The best jobs, and indeed most permanent jobs, at the plantation and on the commercial farms are for men, while women have limited access to land as a pre-existing social condition which pushes them into casual labour. The best opportunities for women are through wage employment at the Blue Skies processing plant, although women are not by and large the dominant players in production of contracted products in the outgrower farms, and land pressures have resulted in an increasing contraction of women's land in these areas. Young people are losing out in all areas. Unable to gain access to land through inheritance (or often only very small parcels), young men and women seek casual employment in the commercial enterprises, often with very low wages. The dynamics of the outcomes are intertwined with the relative contribution of urban-based incomes to livelihoods. While participants in these models invest on farms using urban-based savings, incomes and remittances, the profits from farm investments also went into urban-based investments such as trading, restaurants, real estate and many others (reported in all FGDs and in experiences of individuals). The deagrarianisation discourse (Bryceson 2002) points to the importance of urban-based activities in absorbing falling-out poor and aspiring rich, while a 'reagrarianisation' (Goody 1980; Yaro 2006) is experienced in commercial agriculture by returnees, absentee farmers and remittance supported ventures; both show the role of urban-based incomes as a driver of social differentiation, land-access changes and livelihood outcomes.

The importance of scale to both the outgrower and the mango commercialisation model is relevant in showing the variations in processes and structures. Small and large producers are differently integrated which leads to different benefit streams, labour and land relations, and livelihood outcomes. The preexisting socio-economic conditions act as prisms through which the models' defining forces permeate society. We argue that the livelihoods and economic conditions are due to the combined effects of the economic processes brought about by the models, the preexisting conditions and the structure of the Ghanaian economy. Preexisting conditions define to a large extent how people get integrated into the models via land or labour, or other social capital. A neoliberal Ghanaian economic policy creates mainly opportunities for owners of capital to appropriate both land and labour from poorer segments of the population. Gender-blind policies tend to perpetuate the male domination of productive activities and therefore inequality in access to resources and better paid employment.

6. Local economic linkages

The existing literature suggests that outgrower schemes create more dense and strong local economic linkages than plantations and commercial farms due to the configuration of input and output markets, as well as uses of services and patterns of consumption expenditure (Delgado, Hopkins, and Kelly 1998; Haggblade, Hazell, and Brown 1989; Maertens 2008). Such an assessment is too simplistic, however, since different models create

economic linkages via different pathways. We examined local economic linkages in terms of expenditure patterns and the diversification of and investment in the local economy. The majority of households in all three farming areas ranked food as their most important expenditure item. Health, savings and agricultural inputs were other important sources of expenditure across the sites. For those in the commercial farming area and outgrower samples, between 78 and 90 percent purchased their first item of expenditure (mostly food), within the immediate locality, less than 10 km away. By contrast, only 50 percent of those households with members working on the plantation purchased their first item of expenditure locally, with many travelling farther afield. Permanent plantation workers are likely to purchase their needs from large markets, rather than locally, and do so monthly after pay day.

All three case study areas are close to large cities, so richer farmers buy their main farming inputs there. This has affected the growth of small-scale businesses that sell farm inputs. However, in both the commercial farming and outgrower areas there is a growing demand for chemical inputs, as fruits have to be sprayed regularly, and this has led to the springing up of agro-chemical shops, which generate local employment. In the plantation area, which is dominated by oil palm, this demand is less evident, and most farmers source materials from the plantation and big city.

Different models also create different forms of diversification in the local economy. Agro-processing is more common in the plantation case study area because palm oil has historically been produced by women in their homes. Unlike the fruits grown in the commercial farming and outgrower areas, palm oil is not perishable and can be processed and stored at home. In the commercial farming area, trading of mangoes is an important enterprise for women, and this is important for the diversification of the rural economy and generation of off-farm incomes. Profits from commercial farming are also invested in local economic development. In all areas, there has been an expansion of small shops and restaurants, as well as service-based businesses, ranging from transport to construction, tailoring and hairdressing. These all provide opportunities for employment in the locality. NORPALM and Blue Skies have both invested in basic infrastructure in their areas of operation, including in roads, schools and clinics, while in the commercial farming area, richer farmers are investing in improving the road infrastructure. All these investments help to support the local economy, and are examples of how commercial agriculture can have positive spin-offs.

7. Conclusions

Agricultural commercialisation in Ghana is transforming capital, land and labour relations, leading to significant changes in livelihoods and agrarian relations. The inflow of both international and local capital in rural agriculture is increasingly monetising land and other transactions, changing the rural moral economy. Processes of social differentiation – resulting in both accumulation for some and dispossession for others – is occurring, with significant gender and age dimensions. The increasing incidence of land concentration in the plantation and commercial mango area has transformed both land and labour relations, leading to social differentiation. Outgrower systems concentrating on high-value intensive fruit crops are not as disruptive as the other two models and are likely to produce broader opportunities for many poorer families. Medium-scale farms tend to produce the same problems as the plantation, especially for communities in their immediate environments.

This dynamic is resulting in a growing inequality in land ownership in the commercial farm area especially, and a pattern of semi-proletarianisation in the villages around these

farms. The outgrower area sees a less dramatic effect, as farmers contract less of their land, but there is nevertheless increasing differentiation in the area, with women and youth in particular losing out. The NORPALM plantation has long been established, and has not resulted in new landlessness, but deprives communities whose lands were taken from expanding their farms and also from enjoying the market opportunities created by the company's processing facilities. Rather, communities far from the plantation have seen the emergence of medium-scale farms in response to the company's demand for oil palm. Based on pre-existing patterns of inequality, richer families tend to take advantage of the new forces/opportunities while poorer ones are squeezed out and forced to rely on increasingly casualised, temporary employment opportunities.

For all the models, the skilled, better paid jobs across the case study sites are only available to a few, and very often taken up by outsiders with the requisite skills. The majority of jobs generated across the cases are, however, low paid, casual and temporary. The agro-processing plant at Blue Skies and the mill at NORPALM employ by far the majority of workers, with more women employed at Blue Skies and more men at NORPALM. However, part-time work may not be bad, if people also have access to land. Straddling between wage employment and farming is an important livelihood strategy for many poorer people, and showed the best food security outcomes, compared to only low-paid permanent employment or only farming on very small plots. Flexible casual labour on farms is important for sustainable livelihood outcomes in rural communities as it enables poorer families to combine wage income with own production, which study shows as key to food security.

Assessing the pros and cons of different agricultural commercialisation models thus must take into account the wider livelihood context, and the impacts that go beyond the individual household to the wider economy. Relationships between own farm production, livelihood diversification opportunities and wage employment are key. Of our three cases, the most equitable dynamic of development was occurring in the outgrower area, where food insecurity, land alienation and processes of proletarianisation were less. Farm production was also flexible, with a mix of cash and food crops, and a certain autonomy around price negotiation and reliance on contracts. There were also growing income diversification and trade opportunities being generated by the growth of commercial agriculture. However, here, just as in the other cases, there are winners and losers, and a growing pattern of social differentiation.

The findings show that differences in households' economic indicators are defined by the type of and nature of integration into the model as labourers, small or medium outgrowers, medium or big commercial farmers, and non-involved but living in the communities. However, the relative benefits and losses to these households are reflective of pre-existing social inequalities and predominant economic structures. In thinking about pathways to agricultural commercialisation, it is these complex trade-offs and contextual factors that must be taken into account. Policy-making must become more sophisticated than suggesting an 'ideal type' model, as each combines attributes of other models and therefore has different impacts for different people in different contexts.

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