

Gendered and generational tensions in increased land commercialisation: rural livelihood diversification, changing land use, and food security in Ghana's Brong-Ahafo region

Article

Published Version

Creative Commons: Attribution 4.0 (CC-BY)

Open Access

Mariwah, S., Evans, R. ORCID: <https://orcid.org/0000-0002-4599-5270> and Antwi, K. B. (2019) Gendered and generational tensions in increased land commercialisation: rural livelihood diversification, changing land use, and food security in Ghana's Brong-Ahafo region. *Geo: Geography and Environment*, 6 (1). e00073. ISSN 2054-4049 doi: 10.1002/geo2.73 Available at <https://centaur.reading.ac.uk/83068/>

It is advisable to refer to the publisher's version if you intend to cite from the work. See [Guidance on citing](#).

To link to this article DOI: <http://dx.doi.org/10.1002/geo2.73>

Publisher: Wiley Online

including copyright law. Copyright and IPR is retained by the creators or other copyright holders. Terms and conditions for use of this material are defined in the [End User Agreement](#).

www.reading.ac.uk/centaur

CentAUR

Central Archive at the University of Reading

Reading's research outputs online

RESEARCH ARTICLE

WILEY



Gendered and generational tensions in increased land commercialisation: Rural livelihood diversification, changing land use, and food security in Ghana's Brong-Ahafo region

Simon Mariwah¹  | Ruth Evans² | Kwabena Barima Antwi¹

¹Department of Geography and Regional Planning, University of Cape Coast, Cape Coast, Ghana

²Department of Geography and Environmental Science, University of Reading, Reading, UK

Correspondence

Simon Mariwah
Email: smariwah@ucc.edu.gh

Funding information

Walker Institute for Climate System Research, Reading University, UK

Many smallholder farmers in Jaman North District, Brong-Ahafo Region, Ghana are shifting from food crop production to increased cultivation of cashew, an export cash crop. This paper examines gendered and generational tensions in increased commercialisation of land, livelihood diversification, and household food security in the context of globalisation and environmental change. Using qualitative, participatory research with 60 middle-generation men and women, young people and key stakeholders, the research found that community members valued the additional income stream. Young people and women, however, were apprehensive about the long-term consequences for food security of allocating so much land to cashew plantations. Young, middle, and older generations were concerned about their weak bargaining position in negotiating fair prices with export companies and intermediaries. Greater integration into the global economy exposed rural actors to multiple risks and inequalities, such as the uneven effects of economic globalisation, rises in food prices, hunger and food insecurity, growing competition for land, youth outmigration and climate change. The shift towards cashew cultivation appears to be exacerbating gender and generational inequalities in access to land and food insecurity and leading to exploitation within the global agri-food supply chain among already vulnerable rural communities in the global South. With stronger farmer associations and cooperatives, however, cashew farmers stand the chance of benefitting from greater integration into the global economy, through strengthened bargaining positions. Greater understanding is needed about the complex interactions between sustainable food systems, changing land use and gender and generational inequalities in rural spaces.

KEYWORDS

commercialisation of land, food security, gender and generational inequalities, Ghana, sustainable livelihoods, youth aspirations

This is an open access article under the terms of the Creative Commons Attribution License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

The information, practices and views in this article are those of the author(s) and do not necessarily reflect the opinion of the Royal Geographical Society (with IBG).

© 2019 The Authors. *Geo: Geography and Environment* published by John Wiley & Sons Ltd and the Royal Geographical Society (with the Institute of British Geographers).

1 | INTRODUCTION

Rural livelihoods in the global South are currently undergoing major structural changes, due to rising food prices, increasing integration into the global capitalist system and climate change (Nordic African Institute, 2015). Indeed, global concerns surrounding food security, economic globalisation, poverty alleviation, gender equality, land access, sustainable production and climate change relate to at least nine of the 17 Agenda 2030 Sustainable Development Goals.¹ Vulnerability to climate change is often studied in isolation from other stressors, including structural changes associated with economic globalisation (O'Brien et al., 2004). Yet these other risks and changes in livelihoods and land use may be regarded as of more immediate concern to rural farmers than longer term risks of climate change (International Federation of Red Cross and Red Crescent Societies, 2014).

Despite rapid urbanisation and economic transformation in many African countries, agriculture still remains the backbone of most African economies. Poor rural actors are often engaged in multiple economic activities, seeking to use land and other resources to minimise risks and ensure economic diversification to maintain or improve their livelihoods (Nordic African Institute, 2015). Access to, and ownership of land are key to ensuring food security and rural income generation (Winters et al., 2009). The United Nations Development Programme (2012, p. 137) acknowledged that secure access to land is an important prerequisite for achieving food security as well as protecting the rights of women and other vulnerable groups in terms of ownership and use of land.

While many African countries affirm women's equal rights to land ownership, in practice, customary land tenure systems often take precedence over statutory laws in post-colonial contexts of legal pluralism (Cooper & Bird, 2012). In most customary contexts, women do not have direct access to land but usually gain access through the rights of their male counterparts, be it their husband and/or father or other male relatives (Meinzen-Dick et al., 1997; Yngstrom, 2002). Several commentators acknowledge the complexity of land rights in many African contexts, which often involve "a series of overlapping claims, dependent on customary use, season and negotiation" (Berry, 1997; Toulmin, 2008, p. 12). While some point to the flexibility of customary land tenure systems to adapt to changing social and environmental conditions, others are more sceptical about relying on customary institutions to improve equitable land access and redistribute land to socially disadvantaged groups (Evans, 2016; Peters, 2009; Whitehead & Tsikata, 2003).

An established body of literature has shown that increased commercialisation and privatisation of land often consolidates men's control of land and may have detrimental impacts on household food security (Doss et al., 2014; Lastarria-Cornhiel, 1997; Yngstrom, 2002). Women are often responsible for household food production in many rural communities across sub-Saharan Africa, in addition to earning income from the sale of surplus food crops and providing unpaid agricultural labour on family members' (usually men's) cash crop fields or plantations (Koopman, 1997). Investment in alternative cash crop opportunities as part of livelihood diversification on family land may, therefore, have detrimental impacts on women's land access, incomes and household food security.

The effects of commercialisation on young people's future land access and opportunities in rural areas in the global South have received less attention in the literature to date than gender inequalities in land access. Amanor (2001, p. 121) observes of rural areas in Western Ghana that:

The future of the rural areas and their regeneration will not largely depend upon the creation of security in land but on creating security for the youth and opportunities for them to gain new skills to create new livelihood openings.

Higher levels of educational attainment among women and girls and their increased control of income, land, and other material assets have been shown to help prevent the intergenerational transmission of poverty, particularly when women are more able to invest in their children's education and healthcare (Cooper & Bird, 2012). Indeed, education and "investment in human capital" has been widely espoused by the World Bank, governments, NGOs and donors as a means of achieving both poverty alleviation and gender equality goals (Ansell, 2008; Jones & Chant, 2009). However, a growing gap has been observed between young people's hopes, expectations, and aspirations for future employment that are being raised through greater access to education, and the reality of unemployment and very limited job prospects in the formal sector (Jones & Chant, 2009; Locke & Te Lintelo, 2012). In this paper, we explore the role that livelihood diversification may play in increased investment in young people's education and the effects of this on rural communities, based on the views of younger and older generations.

Following this introduction to key debates surrounding land access, commercialisation and rural livelihoods from a gendered and generational perspective, we next discuss our conceptual approach to food security and sustainable livelihoods

and give an overview of the research methodology. We then present the key themes emerging from our qualitative analysis of the perceptions of community assets, livelihood strategies, and food security; gendered and generational tensions in the shift towards cashew cultivation; and global–local inequalities.

1.1 | Food security and sustainable livelihoods

Food security has been defined by the Food and Agriculture Organisation (FAO) as:

A situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life. (FAO et al., 2012, p. 57)

Despite the widespread acceptance of this definition, food security has been framed in numerous ways over time, underpinned by changing policy priorities and concerns. While dominant policy discourses emphasise productivism, technological solutions and sustainable intensification, food sovereignty has emerged as an important counter-narrative in recent years. Lang and Barling (2012, p. 313) have identified two main perspectives on food security: the first perspective is mainly focused on agriculture, with the primary aim of raising production as a panacea to under-consumption and hunger, while the second perspective is focused on the food systems approach, which emphasises that, to deal with food security issues, we need to address a complex set of problems, rather than just focusing on production.

The authors are of the view that while most reports have focused mainly on the first perspective (agricultural production), there is enough evidence that “even if one's focus is on farming, a supply chain or systems approach becomes essential” (Lang & Barling, 2012, p. 317). Since local farmers are generally the first link in a complex agricultural value chain, they are being brought into the global commodity production. Therefore, approaches of food sustainability tend to bring into sharp focus issues related to social justice, such as gendered and intergenerational equity as far as access to land and other natural resources are concerned. This paper adopts a “sustainable food systems” approach to understanding food security, in recognition of the complex relationship between socio-cultural, economic, and ecological factors as well as inequalities in access to land and other communal resources.

The Sustainable Livelihoods Framework (SLF) provides a useful conceptual framing to understand rural farmers' access to assets, processes of livelihood diversification and adaptation in order to alleviate poverty, and household food insecurity (Chambers & Conway, 1992). In general terms, assets are a form of capital, and may include physical, and material and environmental resources. Although the SLF has been widely adopted, it has been criticised for its tendency to ignore the role of politics and power, as well as processes of economic globalisation, and their impact on transformatory shifts in rural economies and hence the challenges of environmental sustainability (de Haan & Zoomers, 2005; Scoones, 2009). The framework is nevertheless helpful in understanding rural livelihood diversification and the risks facing farmers in our study. We seek to pay attention to power relations and analyse global–local inequalities in how differently positioned male and female farmers of different generations are tied into or may benefit from the global capitalist system.

The SLF regards rural livelihood diversification as a key process whereby households engage in different economic and social support capabilities to improve their standard of living (Ellis, 2000). In so doing, they improve their adaptation to livelihood vulnerabilities. Carr (2008a) observes that analysing livelihood adaptation through diversification can help to understand experiences of change in particular communities. This paper therefore provides a fresh gendered and generational perspective on livelihood diversification and sustainable food systems through investigating the shift towards export cash crop production in a rural community in Brong-Ahafo region of Ghana.²

1.2 | Research context

In Ghana, agriculture is the primary economic activity accounting for a third of the country's gross domestic product (GDP), and employing more than half of the labour force (Ghana Statistical Service, 2012), with over 70% of those employed in agriculture engaged in crop production (Ghana Statistical Service, 2015). Cocoa, livestock, fish, and forest products dominate Ghana's agricultural sector. Non-traditional export crops, such as pineapple, mango and cashew nuts, are, however, becoming increasingly important in the Ghanaian economy (African Cashew Initiative, 2010).

While some non-traditional export crops have received attention and investments over a long period of time, cashew production was not widely perceived as an economic opportunity by most Ghanaian farmers until recently. An estimated 18,000 metric tonnes of raw cashew nuts (RCNs) were produced in Ghana in 2011 (African Cashew Initiative, 2013). The

rapid increase in production reflects the crop's growing importance to farmers, sparked by increases in prices, which are triggered by increasing demand in global markets (African Cashew Initiative, 2010). Although Ghana's cashew sector is seen as a relatively small player in West Africa compared with Ivory Coast (Heinrich, 2012), the International Center for Tropical Agriculture (2011, p. 2) reports a growing global demand for RCNs, and comments that “the crop has the potential to reduce poverty among the rural poor” in Ghana and other African countries. Meanwhile, it is estimated by the International Center for Tropical Agriculture (2011) that by 2050, the climate change induced temperature rise will improve the suitability of most areas in Ghana and Ivory Coast that are currently involved in the cultivation of cashew.

The shift towards cashew cultivation in Brong-Ahafo region is influenced by the fact that many farmers living there also own cocoa farms in the Western region which have experienced a drastic decline in productivity in recent years (Dormon et al., 2004). The reduction in incomes from cocoa, alongside deteriorating climatic and soil conditions which impact on food crop productivity, have provided added impetus to the expansion of cashew cultivation in Brong-Ahafo region.

While cashew appears to offer a profitable alternative to food crops and helps to offset the declining productivity of cocoa farms, smallholder farmers who use increasing portions of their land to cultivate cashew become increasingly tied into the global capitalist system. Their livelihoods are consequently more vulnerable to price fluctuations in global markets – of both export crops, as well as of food prices, as they need to purchase more food than previously. As we show in this paper, farmers in Brong-Ahafo region who have shifted to cashew cultivation may improve their cash income and living standards in the short to medium term, but in the longer term, they appear to be exposed to multiple stressors, which may reduce their ability to safeguard household food security and limit the environmental capital they are able to pass on to future generations. We focus on the perceptions of young and middle-generation men and women regarding how the shift towards cashew cultivation affected their livelihoods, land access, and food security, and how it may affect these in future, based on thematic analysis of the qualitative data.

2 | RESEARCH SETTING AND METHODOLOGY

The primary site for this study was Seketia, a rural community in the Jaman North District (Figure 1), Brong-Ahafo region, which was selected due to its relatively recent involvement in cashew nut cultivation. Seketia and Jaman North District are located in the forest-savannah transitional zone of Ghana. This ecological region is ideal for the cultivation of cashew (Dedzoe et al., 2001; International Center for Tropical Agriculture, 2011). Approximately 70% of residents in the district are farmers (Jaman North District Assembly, 2014), and cultivate mainly food crops such as yam, maize, cassava, plantain, and cocoyam.

In terms of population, estimates of the Ghana Statistical Service (2012; 2015) indicate that there are 2,088 living in the village as of 2013. This comprised 240 households, with an average household size of 7.1, and composed mainly of Bonos (who are a sub-group of Akans) as indigenes, and other migrants such as the Dagartis from the Upper West Region of Ghana.

The community has serious infrastructural challenges, including inadequate water and sanitation facilities, a poorly resourced clinic, and a school. Subsequently, water and sanitation-related diseases (malaria, diarrhoea, and intestinal worms) were among the most reported cases in the district between 2007 and 2009 (Jaman North District Assembly, 2014).

A qualitative, participatory methodology was considered to be the most appropriate design for this exploratory study in order to investigate the views of a diverse range of men, women, and young people in the community and key local and national stakeholders.³

During Phase 1, we used snowball sampling to identify 60 community members of different genders, generations, and social groups who owned cashew plantations of varying sizes. The purposive sample aimed to capture the heterogeneity of the experiences of rural community members in growing cashew and enable us to analyse gendered and generational differences in their perceptions. Three focus group discussions were conducted with 24 participants (eight in each), made up of separate groups of middle-generation men, women, and young people (aged 14–25 years) to map access to land and other resources in the community and discuss perceptions of changing livelihoods and land access. In addition, we conducted semi-structured interviews with 26 participants, drawn from a diverse sample of 13 households who were engaged in cashew cultivation. Two participants of different genders and/or generations from each household were selected for qualitative interviews in order to highlight generational and gendered dynamics, and the impacts of changes for differentially positioned men, women, and young people, including widows and widowers, married couples, orphaned young people, migrants/newcomers to the area, older people caring for a grandchild, and those with larger/smaller farms with varying

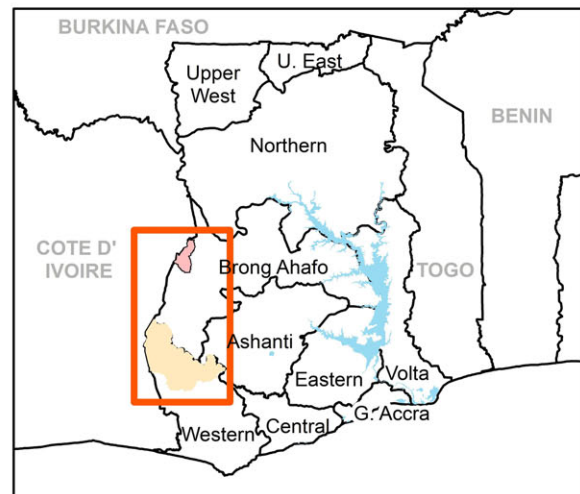
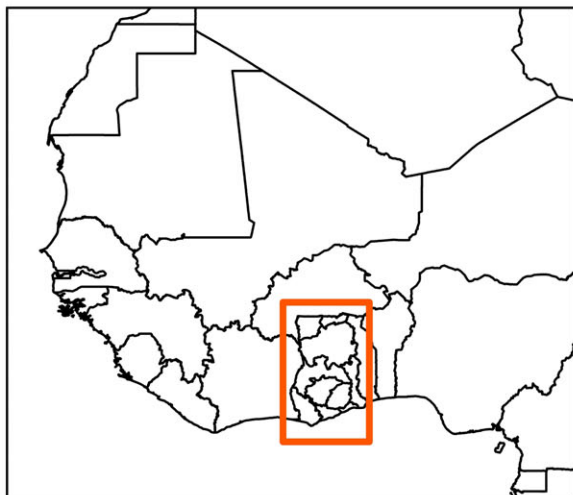
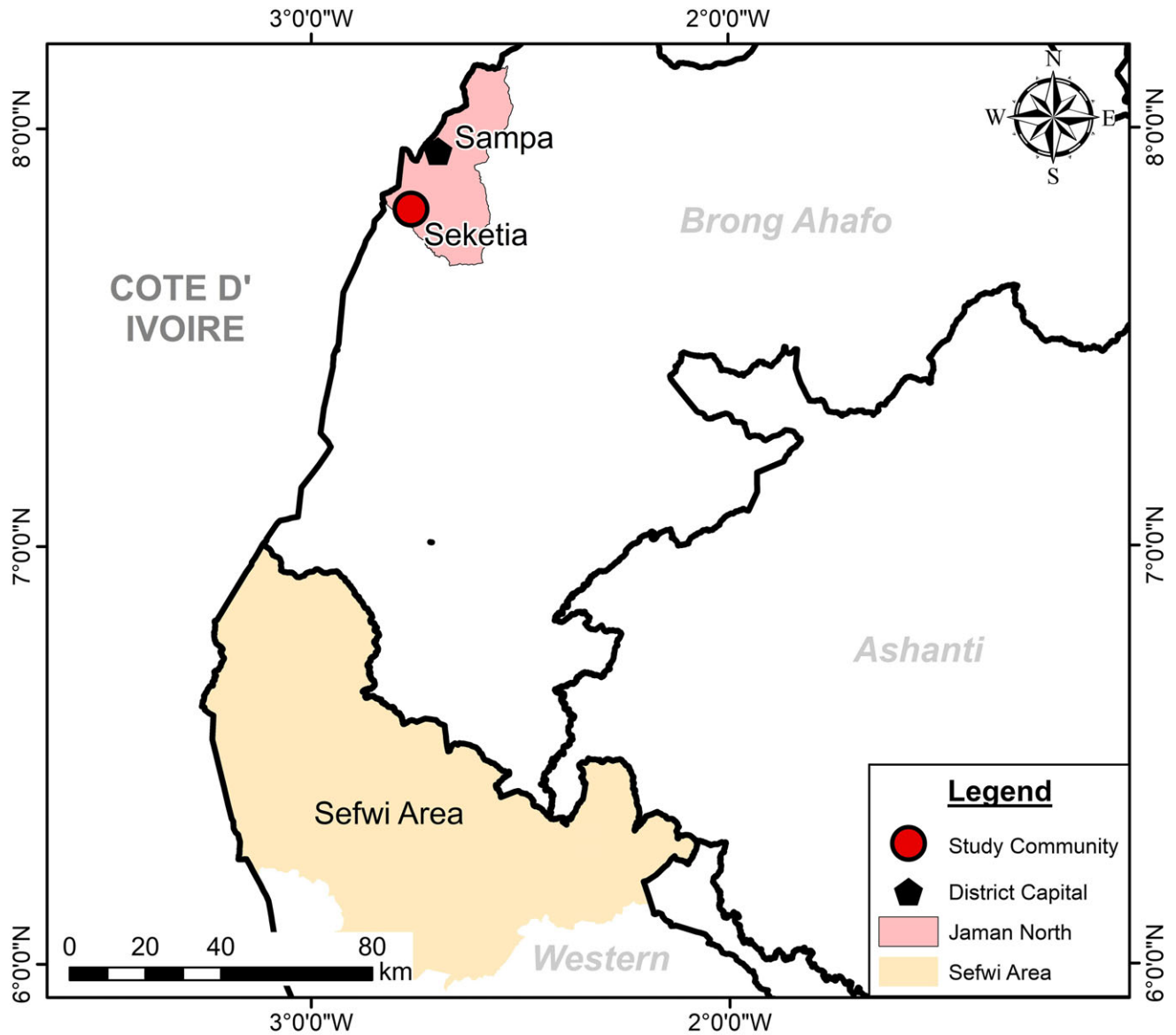


FIGURE 1 Map of Jaman North District showing the study community, district capital, and the Sefwi area, where most people have cocoa farms.

Source: Cartography and GIS Unit (University of Cape Coast)

TABLE 1 Characteristics of paired household interviewees

Relationship between interviewees	Number of paired interviews
Married couple	5
Widow and son	2
Widower and daughter	1
Mother and daughter	1
Uncle and nephew	1
Orphaned young man and adult relative	1
Older man and grandson	1
Older woman and grandson	1
Total households	13
Total interviews	26

TABLE 2 Research methods and number of participants by gender and age

Research method	No. of men (aged over 25)	No. of women (aged over 25)	No. of young men (aged 14–25)	No. of young women (aged 14–25)
Focus groups and community mapping	8	8	3	5
Household interviews	9	9	6	2
Key informant interviews:				
Village	5	1		
District	1			
National	3			
Total participants: 60	26	18	9	7

levels of cashew cultivation (see Table 1 for characteristics of paired household interviewees). Our interviewees were mainly Bonos, and were all Christians, who belonged to the Presbyterian, Roman Catholic, or Pentecostal Churches.

Finally, 10 key informants were interviewed: six at the village level, one at the district level, and three at the national level, including an international NGO. Table 2 summarises the characteristics of participants in focus groups and key informant interviews.

All interviews and focus group discussions were audio-recorded, and later transcribed into English. Interviews with household members were analysed using a template that drew on key components of the Sustainable Livelihood Framework, using the headings of biographical details, livelihood and division of labour, cashew cultivation, land access, food security, risks and barriers, services and support, and future aspirations. This enabled us to compare the views of men and women, young and older generations in the same household and to read across the household data thematically. Focus groups and key informant interview transcripts were also summarised and analysed thematically, using similar headings, to assist in identifying the overarching themes.

In Phase 2, we conducted participatory feedback workshops with 32 participants from the community, as well as national and international stakeholders, most of whom were part of Phase 1. The purpose was to discuss preliminary findings of our study, prioritise recommendations, and contribute to a short video to help generate discussion to inform policy and practice.⁴ We transcribed and analysed the workshop discussions and additional interviews which informed the final report (see Evans et al., 2014) and academic papers.

A limitation of the study, as we rightly acknowledge, is that the purposive sample is only drawn from one rural community in one district. However, since it was not our intention to map variability in terms of statistical representativeness, the heterogeneous sample and depth of participatory engagement with community members enabled us to provide rigorous qualitative insights into a diverse range of views of young people, middle-generation men and women, and key local and national stakeholders in a specific rural context. While we acknowledge that quantitative economic data on incomes, areas of land cultivated and so on could have added value to the findings and are often expected in research using the SLF, the

use of qualitative semi-structured interviews enabled us to engage in a more informal, flexible “conversation with a purpose” with research participants. This method enabled participants to engage in meaning-making about the shift towards cashew cultivation and express their perceptions and experiences in their own words in much more depth than is usually elicited through a quantitative survey. Participatory activities also provided an opportunity for participants to discuss and rank priorities for action, which a quantitative approach might have precluded. These exploratory findings may help to inform larger-scale mixed method or quantitative research in future.

3 | FINDINGS AND DISCUSSION

3.1 | Community assets, livelihood strategies, and food security

Access to environmental capital such as land, financial capital, human capital and social capital, community resources, and physical infrastructure is important in ensuring that people are able to develop sustainable livelihoods in rural areas (Ellis, 2000). Generally, lands in the Jaman North District can be classified as stool lands, that is, land communally owned by community members, and entrusted into the care of the community chiefs under the oversight of paramount chiefs (who are the highest authorities within the traditional set-up of Ghana; Amanor, 2001). Most farmers in the district are smallholders, with the average farm size approximately 2.5 acres, while an estimated 30% of women in the district have access to land (i.e., use of land without restrictions) for cultivation (Jaman North District Assembly, 2014). There were considerable variations in the estimated size of cashew plantations of participants, ranging from only two acres owned by a widow, to as large as 40 acres belonging to a middle-aged migrant, who had gained access to his wife's family land. Although increased cashew cultivation has increased the region's involvement in commercial export agriculture, we did not observe any large-scale cashew plantations in the community at the time of research. Large-scale land acquisition and loss of customary lands was thus not regarded as a potential threat by community members.

In participatory focus groups, we found that there were gendered and generational differences in the prioritisation of different community resources. While men were more focused on resources such as farms, schools, the clinic, and the roads, women gave priority to a wider range of community resources and basic infrastructure, including the local market where they sold their produce, the churches, the water sources where they collected water (and highlighted the problems caused by boreholes breaking down), in addition to their farms, the school, the clinic, and the roads. The young people, however, were more interested in the football field, and the roads, as a means of moving away from the community to either pursue employment opportunities or further education.

Such collective and family resources and assets increase people's personal and collective agency: the greater quantity and diversity of assets and resources to which an individual or group has access, the more leverage they have in social networks, transactions, and formal financial markets (Bird & Higgins, 2011). Participants' responses show how access to and control over land and community resources are often based on differential gendered and generational use of space.⁵

Like most rural communities in Ghana, farming was identified as the main economic activity for most community members. Major food crops cultivated included maize, yam, cocoyam, cassava, plantain, beans, okra, tomatoes, garden eggs (eggplant), and pepper, with cashew being the only tree crop cultivated in the community at the time of the research. Other non-farm economic activities engaged in included teaching, tailoring, carpentry, and trading, mainly in food crops and clothes.

Though most women had their own farms where they cultivated food crops, they also worked on their husbands' farms, which included cashew plantations. Cashew was regarded as more “men's work” than women's, with men responsible for preparing the land and pruning cashew bushes/trees, while women and children were responsible for planting, weeding and harvesting. As one widow explained, “Largely the cashew work is for men but for women like me who have lost my husband, I do the entire work.” In the focus group, women commented that the tomatoes, pepper, and garden eggs they grew for sale could be harvested each year, in contrast to the longer-term investment needed for cashew trees to become productive: “These are fast growing crops that bring income quicker than cashew which takes a long time to mature.”

One woman estimated that 60–100 GHS (equivalent to US\$20–33) could be earned each year from the sale of pepper. Women also cultivated yam, maize, and cassava, mainly for household food consumption, but one widow commented that these food crops could be sold when they faced financial pressures: “We produce the food crops basically for feeding but in times of difficulty we send some to the markets in Sampa and Drobo for sale.” Some women also set up small businesses, “chop bars,” selling cooked food or rice to earn an income to care for their children, as one mother explained:

I sell kenkey [local food made from maize] to the people to make money which I use to take care of my children, especially when my husband has run out of money.

The livelihoods of young and middle-generation men and women in the study community were characterised by multi-locality (de Haan, 2007), resulting in considerable household mobility and resource flows between regions, towns, and cities. It was found that most households interviewed (eight out of 13) had cocoa farms in Sefwi, Western region of Ghana (see Figure 1), which provided important sources of income and helped to spread the risk of reduced rainfall and other climate-related shocks that could affect food crop production in the study community. An older man reflected on how his livelihood activities had changed over time:

I began my farming career with cocoa farming. Though I earned a lot of money from working at the cocoa farms in Sefwi, I now earn substantial amounts from my own cashew farms, which helps me to take care of my family.

A middle-aged man echoed the experiences of many farmers in the study by emphasising how cashew provided a new income stream which complemented the cocoa income:

The income from cocoa comes during the first three months of the year while that of cashew comes in the fourth to fifth months. So we benefit from the two crops because we normally harvest cocoa before cashew. As a result, by the time you spend the income from cocoa, that of cashew follows suit. So if the yield of cashew is low it affects your income during that period, hence living conditions of the household become difficult if there is no help coming.

This highlights the importance of understanding the temporal, as well as the spatial dimensions of multi-local livelihoods. Men's incomes, gained predominantly from export cash crops, varied throughout the year depending on the season, the productivity of their cocoa and cashew plantations, and the prices obtained for the harvest. This contrasted with women's incomes, which were dependent on the sale of surplus vegetables and other food crops they produced on their farms and were highly vulnerable to insufficient rainfall and other climate shocks (Carr, 2008b).

These pressures, combined with the small-size farm structure, which is representative of agriculture in Ghana, where about 70% of all farms are three hectares or less (Chamberlin, 2007), push farming households into seeking alternative income sources. Thus, livelihood diversification is motivated by rural actors' efforts to avoid poverty and ensure food security for household members.

When asked about household food consumption, participants admitted varying the number of times they ate in a day (once, twice, and three times a day), depending on the period of the year and how affluent their family was. Money spent on food depended on the time of the year, ranging from less than 1 GHS (equivalent to US\$0.33) per day during the time of harvest, to as high as 10 GHS (US\$3.33) during the "lean season" (usually between May and July when most farmers have exhausted their food supplies, based on food crop cultivation on family farms, and are waiting for the new crops to mature). Certain households reduced the nutritional quality of food, and the number of times they ate in a day in an attempt to survive during the lean season. As a young man said:

Because of hardships in the lean season, we sometimes eat twice instead of the three times daily. As I am sitting here I have not eaten since morning [interview conducted in the afternoon], I am waiting for the evening meal.

Similarly, when talking about the "lean season," a young woman reported: "Even there are times when one square meal is difficult to get in a day." Thus, in view of the FAO et al.'s (2012) definition of food security, the food security of many households in the study community was often compromised at particular periods of stress during the year.

Participants were cognisant of the fact that food shortages resulted in lower nutritional intake and recognised that children were the most affected by food shortages, with negative impacts on their growth and development. During the lean season, food consumption of adult household members was reduced so that children could have enough to eat, as one middle-aged man explained:

I have three children and I cannot let them go hungry for a long time. So usually, I have to get *gari* [local food made from cassava] for them in the afternoon before we prepare supper in the evening. When you have children, it is impossible to skip meals so we have to struggle to ensure that they eat three times in a day. Sometimes we go out to buy cooked food such as rice for them.



FIGURE 2 A house being renovated with income from cashew.

Participants also reported that food shortages could result in poor health and that people visited the clinic more frequently in the lean season.

3.2 | Cashew cultivation, poverty alleviation and food security

Research suggests that rural households adjust their livelihood activities either to exploit new opportunities or to cope with livelihood risks (Barrett et al., 2001). Such adjustments tend to have vital socio-economic impacts on rural household livelihoods, including income generation, income distribution, and welfare (Ellis, 1998, 2000), and by extension, poverty alleviation and improved food security. Most participants were of the view that increased cashew production had improved their income levels and hence contributed to poverty alleviation, as the following comments illustrate:

At first, sometimes we don't get food to eat before going to school. Now that the cashew work is there, we get food to eat every day. We also get money to pay fees, and buy books and pens at school. (Young woman)

Previously, no one had a car in this town but now because of the cashew, some people own cars. Some also have been able to put up good buildings. (Middle-aged man)

Farmers who had not yet earned much income from cashew cultivation due to the immaturity of their trees at the time of the research regarded cashew as holding considerable promise of additional income in future. This confirms Ellis' (1998) assertion that income-source diversification is a key livelihood strategy for rural households. For participants, hopes of a future income stream from cashew were based on observing rising levels of income among those who had invested earlier in cashew and were already harvesting cashew nuts on their plantations in the community. In addition to having more income to pay for children's schooling, increased wealth and improved standards of living were evidenced in the construction of new houses and renovation of existing houses (Figure 2). As a representative of the District Agriculture Office summed up:

In fact, a lot of money comes into the pockets of the people during the cashew season. So long as one is strong and can do the work, one is sure of making some money out of the cashew business. [...] It has made a lot of the young guys able to do a lot of things. It has changed the life of so many of them.

As a tree crop with a long lifespan, planting a cashew plantation was regarded as a means of securing an individual's property rights (Evans et al., 2015), in a similar way to cocoa and other trees (Rocheleau & Edmunds, 1997; Quisumbing et al., 2001). A lack of property as collateral is often a major barrier for smallholder farmers in accessing formal credit schemes, which was often exploited by informal money lenders in the district (Mariwah, 2012). Although not specifically mentioned in the research, if a land title was acquired and properly documented, cashew plantations could potentially be used as collateral in accessing formal credit. This could boost farmers' ability to further invest in their cashew plantations and food crop cultivation, or invest in non-farm activities, which in turn could improve livelihood sustainability and food security.

While cashew cultivation had led to improvements in the income and wellbeing of community members, we also found that the changing land use had generated tensions between the younger and older generations, and between men and women. Most participants welcomed the new income stream, but were also worried about how the increased cultivation of cashew would affect household food security, due to the expansion of cashew plantations on family land formerly used for annual food crop cultivation. As a middle-generation woman commented:

We embraced cashew cultivation because of hardships, but we are becoming aware that in the future we will not get enough land to grow food crops, a situation that will have dire consequences for the future generations. On the other hand, if we stop cashew cultivation, we will not get money to pay for the education of our children.

Thus, the longer-term concerns of community members, especially women and young people, about the sustainability of environmental capital (the availability of land for food crop cultivation in future) conflicted with their more immediate attempts to diversify livelihoods and increase their cash income to pay for children's education and improve living standards. These tensions and the growing commercialisation of land in the community were reported to have resulted in increased land conflicts and encroachment onto neighbours' and other family members' land.

A female nurse at the community clinic highlighted the potential longer-term risks if farmers used all their land for cashew cultivation:

The life span of the cashew tree is about 50 years, and it monopolises the entire land which could have been used for other food crops for the next generation. It will get to a time when we won't have land for food crops because the income from the cashew will also be finished.

Concerns about insufficient land for food crop production in the community arose because mature cashew trees and plantations develop a dense shaded canopy that does not allow intercropping with food crops. The only way to revert to a pre-cashew mode of production on mature plantations would be through cutting down existing trees, which often left stumps and roots, and greatly reduced the soil fertility, posing significant problems for cultivating maize, yam, plantain, and other food crops. Therefore, land used for cashew cannot easily be re-converted for the production of food crops.

Almost all participants, in their quest to prevent intergenerational transfer of poverty, prioritised formal education, leading to formal sector employment. They therefore sought to use the income from cashew to invest in their children's education so as to enable them (children) to gain formal sector employment opportunities in the future, and in turn provide for their parents in old age, as part of the "intergenerational contract" (Kabeer, 2000). In the focus group, one middle-aged man commented: "Money from the cashew can help us to finance our children's education so that they can come and take care of us in the future." Indeed, many middle-generation community members' and young people's visions for the future anticipated that youth would not need to rely on land and agricultural livelihoods. This view was reinforced by the growing scarcity of land for food crop cultivation. Several young people shared women's views that cashew cultivation was leading to food insecurity due to insufficient land for food crops. A young woman observed:

Cashew helps to improve our standard of living in many ways but in terms of food, we are lacking because of too much concentration on cashew cultivation. In two years' time, we may not have anything to eat, even if we have the money to buy food.

In the focus group, young people said that land scarcity meant that they needed to rely on formal sector employment opportunities: “We don’t have enough land anymore so we need office jobs here.” A few young people expressed a view that farming was for those who had not studied or were not able to continue their education. Furthermore, some middle- and older-generation men and women perceived young people as “lazy” and not interested in pursuing agricultural livelihoods. For example, a middle-generation male farmer who had gained access to 40 acres of land through his wife thought that sufficient family land was still available for young people who wished to farm in the community:

I am a migrant but I managed to get land for farming. So, the young ones who are determined in the community can also get access to the land for farming. Others are lazy and do not want to make any investments in agriculture.

As Amanor (2001, p. 116) observes of cocoa in Ghana, when young people withdraw their labour from family farms, elders may begin to accuse them of moral misconduct and “disliking hard farm work.” Such generational tensions and lack of opportunities in rural areas could lead to youth outmigration and a generational gap in agricultural knowledge and investment in agricultural livelihoods. The views of some young people clearly refute negative perceptions of the older generation; they wanted to develop sustainable livelihoods through farming, but were concerned about whether they would inherit land suitable for food crop cultivation in future. While opportunities for young people may be improved with greater access to education and migration to cities, young people’s apprehensions about having to rely on the limited employment opportunities currently available and being unable to produce food in future, alongside their familial responsibilities to family members, suggest that their ties to the land and rural spaces may be deeper than is often assumed in the literature.

Some participants considered that the loss of land for food crop cultivation could be mitigated by using the new income stream to buy more food. As Adu et al. (2018, p. 2) observe, at the household level, access to food can occur not only through direct production, but also through purchases from food markets. Over-supply of cashew nuts may lead to reduced prices and hence increase the vulnerability of farmers to food insecurity if they are reliant on buying food (Amanor, 2012). Several community members thought that food prices would rise due to increased demand. As a middle-generation man explained:

It will bring about food shortages; on the other hand, when you get money you can buy food. But if all the people are cultivating cashew, then food shortages will come. Prices of food will go up and the money we have will not be enough to buy food. We should be very careful and leave some land for food production.

In the light of these tensions about food security, in the feedback workshops, young people and women in particular suggested that there was a need for greater land-use planning and dialogue between generations about the cultivation of cashew and food crops. They called for awareness-raising among family heads and farmers to make conscious efforts to reserve sufficient portions of family land for the cultivation of food crops.

A senior representative of the District Agricultural Office recommended that, to ensure intercropping with food crops, cashew trees should be planted at a distance of 10 m from each other. He regarded this as the key solution which would avert food insecurity in the future: “If they follow it and change their farming practices, I don’t think that there will be any serious problem with land, so far as other food crops are concerned.” However, a representative of the African Cashew Initiative (ACi) advised, that a 10 by 10 m distance was only a short-term solution, and recommended “alley cropping” of cashew trees planted at a 30 by 30 m distance, with food crops cultivated in between. This practice was found to be more effective in sustaining food crop production in the longer term.

This “alley cropping” approach was not mentioned by any of the cashew farmers, agricultural extension workers, or representatives of the District Agricultural Office. This suggests more awareness and training is needed on best agricultural practices to maximise the quality and quantity of cashew produced on existing land, rather than focusing only on the expansion of cashew plantations. While “alley cropping” may help to ensure food security in the medium to long term, its adoption may prove challenging in the face of farmers’ more immediate needs for a cash income and increased competition for land.

3.3 | Global–local inequalities

Having analysed the concerns of men, women, and young people about changing land use and the potential effects on livelihood sustainability and food security, this section discusses the power relations involved in smallholder farmers’ greater integration into the global capitalist system. Farmers’ concerns about food security were heightened by the unstable prices of RCNs paid by intermediaries and export companies. Thus, farmers are prone to unstable prices at the world

markets, as cashew prices could be very low at the beginning of the harvesting season and highest towards the end of the season, thereby making it very difficult for most farmers to estimate the income they would earn from the crop. At the time of fieldwork, farm prices obtained ranged from GHS 1.00 (US\$0.33) per kg to GHS 2.00 (US\$0.66), depending on the season and the quality of the nuts, which often declined as the cashew season progressed due to inadequate drying following rainfall. Intermediaries who buy the RCNs directly from farmers and sell them to export companies were perceived to be making large profits, while farmers felt that they were being “cheated” and earned little from the sale of cashew nuts. A representative of the Cashew Buyers Association commented:

We observe that middlemen [sic] are rather cheating us in some way because they come and buy the nuts in large quantities. They build houses and buy other things while the farmer who cultivated the cashew does not get any substantial profit. So the middlemen are the problems for the farmers.

Almost all participants (middle and younger generations) expressed such concerns about exploitation by intermediaries and a lack of transparency about cashew prices paid to farmers. As Amanor (2012, p. 742) observed in the case of cocoa production in Ivory Coast, intermediaries or “middlemen ... have captured increasing value from cocoa, while smallholder producers have seen their incomes decline, often below socially acceptable levels.” While we did not specifically seek the views of intermediaries (although some were involved in the feedback discussions), there was widespread mistrust among farmers of the “middlemen,” in addition to the export companies, who were perceived as profiting greatly from the global prices of cashew at farmers’ expense.

As observed during fieldwork, most of the intermediaries were wealthy Ghanaian residents. To expand areas of operation and increase profits, intermediaries often engaged the services of young men as purchasing agents and provided them with motorbikes to facilitate the purchase of RCNs from the villages and transportation to the district capital of Sampa or other urban centres. The purchasing agents were at liberty to reduce the purchase price further to make a profit from their activities, because they were often underpaid and worked on a commission basis (based on the number of bags purchased from the farmers).

These unequal power relations at each stage of the export supply chain highlight the barriers farmers may face in negotiating fair prices and the need for greater transparency about purchasing prices in global markets. As Chamberlin (2007, p. 32) comments, “access to markets is a key constraint to smallholder development.” While livelihood diversification has brought benefits to community members, it has also increased the risks that smallholder farmers face through greater exposure to price fluctuations in global markets and exploitation at the various stages of the agri-food supply chain.

Based on their previous experience of growing cocoa, where the government, through the Ghana Cocoa Board (also known as COCOBOD), offers a guaranteed price, both male and female cashew farmers prioritise the urgent need for government to establish a similar Board for cashew, in order to guarantee a stable price. A former community leader suggested that community members had lobbied the Member of Parliament for the area to petition the government to guarantee cashew prices. However, at the national stakeholder workshop, a representative of the Ministry of Food and Agriculture among others thought that it was highly unlikely for the government of Ghana to get involved at this stage, since cashew was still regarded as a relatively new export crop which was not yet significant enough to the economy to warrant government involvement. Furthermore, strategic stakeholders thought government involvement in buying cashew at a fixed price from small-scale producers could be counter-productive, since farmers would not be able to benefit from price increases in RCNs in global markets. They highlighted the fact that cashew farmers in Ghana generally received higher prices for their cashew in comparison with farmers in neighbouring Ivory Coast; the farm price of RCNs in Ghana in 2014 ranged from US\$0.52 to 0.62 per kg compared with US\$0.42 to 0.52 in Côte d’Ivoire (Anacarde.com, 2014). Strategic stakeholders saw market forces as the key means to regulate prices and enable farmers to earn more for their produce.

Given the fact that government intervention was unlikely, the need to develop strong cashew growers’ associations (and cooperatives) was identified by community members and strategic stakeholders as imperative to negotiate fair prices with export companies and buyers. Substantial evidence supports the benefits of associations, which include strengthening farmers’ negotiating position, gaining information and gaining leverage through representation among management, or by securing a profit share (Smalley, 2013). A representative of the Cashew Buyers Association considered that a stronger farmer association would have enabled the farmers to negotiate better prices directly with export companies:

Had the association been successful, we would have bargained the price straight away with the ‘whites.’ After the bargain, whether they would get middlemen to buy or not would not be our problem anymore. So, the association must stand firm so that we can negotiate with the ‘white men.’

The use of racialised language here to refer to export company business owners (which were reported to be Indian and Malaysian) can be seen as a way of community members “othering” those involved in exporting cashew (the intermediaries were usually Ghanaian) and resisting the sense of injustice and neo-colonial exploitation to which they felt subjected.

The African Cashew Alliance (ACA) and ACi also emphasised the importance of stronger farmer associations to lead the negotiation of prices for RCNs. They pointed out that improving the quantity and quality of RCNs would place them in a stronger bargaining position. As the ACA representative commented: “The better quality [of cashew nuts] ... the better their negotiating bargaining power.”

Although there have been some genuine efforts by farmers and Agricultural Extension Officers to establish an Association of Cashew Growers as well as an Association of Cashew Buyers in the community, with the aim of negotiating better prices with the agents and export companies, such efforts have failed due to farmers’ reluctance to make financial commitments to the association. The bargaining position of such associations is further worsened by “distress sales” of poorer farmers, who cannot afford to wait until the price of RCNs reaches the peak before they sell their produce. Associations have also been observed to be beset by problems of inefficiency and corruption in distributing payments (Kenya Anti-Corruption Commission, 2010). Even when strong associations exist, agribusiness companies may out-manoeuvre them by seeking alternative, weaker growers (Key & Runsten, 1999).

Furthermore, farmers’ associations are usually male dominated, as was observed in the study community, which creates further barriers for women in securing a fair price for RCNs, particularly for those who were widowed and/or were heading households without male relatives. Generational hierarchies also pose significant barriers for young people to participate meaningfully in farmers’ associations, since rural communities often emphasise respect for chiefs and elders, consensus-building and social cohesion (Evans, 2016; van der Geest, 2008).

4 | CONCLUSION

This exploratory study sought to examine gendered and generational tensions in livelihood diversification and changing agricultural land use in the shift from food crops to cashew, an export tree crop among community members in Jaman North District. We conclude that cashew cultivation in Brong-Ahafo region is here to stay, as farmers have started reaping the benefits of an additional income stream, improving living standards and investing in their children's education. Simultaneously, however, the increased cultivation of cashew has reduced the land available for food crop production, posing risks to household food security. Following this exploration of participants’ perceptions of the shift towards cashew cultivation in this rural community, further research in a range of rural communities in the region using a mixed-method approach could fruitfully investigate how families are adapting to this change over time. This would also enable quantitative data on incomes of different household members, size of cashew plantations and food crop fields and so on, to be gathered to complement the qualitative analyses.

This paper has nevertheless demonstrated how the conceptual approach of the Sustainable Livelihoods Framework can elucidate the multiple risks and benefits, power relations, and challenges facing differently positioned rural actors adopting a new cash crop and becoming increasingly integrated into the global economy in a particular place. Given the criticisms of the SLF regarding the limited analysis of “power and politics” (de Haan & Zoomers, 2005) and gender relations, we argue that this framework should be used flexibly as a conceptual tool to analyse the benefits and trade-offs of economic globalisation and changing land use, underpinned by a broader analysis of gendered and generational relations, and global–local inequalities. Geographers, in particular, can make important contributions to the literature on the SLF through the focus on intergenerationality and the temporal and spatial dynamics of poverty, land access, and sustainable food systems – dimensions which have often been overlooked in development studies approaches. Our research found that gendered patterns of responsibility for community assets and different crops and their associated incomes were evident, with men often controlling the majority of land used for cashew cultivation, a cash crop. This resulted in varying times of economic stress and different market and climate-related pressures for men and women (Carr, 2008b). Diversification of income sources was an important strategy adopted by many participants, particularly men, to spread risk and adapt to changing economic and environmental conditions, and hence may help to build resilience (Carr, 2008a; Knudsen, 2007; Wilson, 2010).

The research suggests, however, that women and youth may lack the financial, social, and environmental capital to take advantage of, and invest in, cashew cultivation or other new livelihood strategies. Women and young people needed to maintain good social relations with male family heads, elders, and relatives to secure usufruct rights to

family land. In terms of financial capital, women usually relied on income from horticulture and surplus food crop cultivation and were only allocated small portions of land for cashew cultivation, while men often controlled the majority of the land and the higher value export cash crop income gained from cashew. Thus, women's and young people's land access was more insecure than men's and they often lacked financial capital to invest in cashew as an alternative livelihood strategy, since as a tree crop, it could take several years before cashew became profitable.

The expansion of cashew plantations on family land may have particularly negative impacts on women's productive roles in earning income from the sale of food crops and horticulture, as well as on their reproductive roles in ensuring household food security. The general tendency for men to control land, and its associated cash crops and income (Lastarria-Cornhiel, 1997), and for women to be solely dependent on food crops, which are at a higher risk of climate-related shocks (Carr, 2008b), suggests that the growing use of family land for cashew may exacerbate gender inequalities in land access and food security in future.

Furthermore, the emphasis on education for young people as a “catch-all solution” to escape poverty and provide a route out of dependency on land and agricultural livelihoods in the study location, and elsewhere in many African countries (Ansell, 2008; Locke & Te Lintelo, 2012) was leading to youth outmigration, which could weaken economic and social capital and undermine the resilience of rural communities (Wilson, 2010). Employment opportunities for young people may be improved through greater access to education and migration to cities, which may benefit rural areas through remittances sent to older generations as well as potentially reducing the pressure on land, leading to larger farm sizes. Concerns about the quality of formal education and the limited vocational training and job opportunities available, however, raise questions about whether young people are being equipped with the knowledge and skills they need to develop sustainable livelihoods in future, be they in rural or urban areas.

Farmers' increased integration into the global economy results not only in “double exposure” to the risks associated with climate change and globalisation, but exposure to multiple risk stressors, which is a real concern, particularly in the global South, where “food security is influenced by political, economic, and social conditions in addition to climatic factors” (O'Brien et al., 2004, p. 303). Our research has demonstrated the importance of analysing global–local power imbalances in protracted agri-business supply chains. Smallholders' “increasingly perilous position” in such global agri-food chains (Amanor, 2012, p. 744) is a consequence of wider structural inequalities which are central to the 2030 Agenda for Sustainable Development. These include the uneven effects of economic globalisation, persistent poverty, rises in food prices, hunger and food insecurity, growing competition for land, global–local power imbalances, gender and generational inequalities, as well as climate change and threats to agricultural sustainability. Stronger farmer associations and cooperatives, through which cashew farmers can strengthen their bargaining position, are an important strategy that may enable rural actors to benefit from greater integration into the global economy.

Given the power of large-scale global agri-business and increasing land commercialisation in many African countries, many advocate that greater efforts are needed to safeguard the land rights of smallholder farmers, address gendered and generational inequalities in the control of land and other natural resources (Amanor, 2001; Doss et al., 2014; Evans et al., 2014), and ensure that a good balance is maintained between cash crop and food crop production so that food security is not compromised (Landesa, 2012). Indeed, many of the Sustainable Development Goals will only be met if there is greater understanding about the complex interactions between sustainable food systems, changing land use, global–local inequalities, and how they intersect with gender and generational relations in rural spaces. Understanding how gender and generational relations, global–local power imbalances, and socio-ecological risks and vulnerabilities intersect and shape rural actors' ability to develop financial, social, and environmental capital – key assets needed to support sustainable livelihoods (Evans et al., 2015; de Haan & Zoomers, 2005; O'Brien et al., 2004; Wilson, 2010) – both in the present and in future, has never been more important.

ACKNOWLEDGEMENTS

We are grateful to the University of Reading and Walker Institute for Climate System Research for funding this study. We would like to thank Dauda Suleman, Yvonne Ami Adjakloe and the Department of Geography and Regional Planning, University of Cape Coast, for research assistance. We are grateful to the elders and community members of Seketia, Jaman North district and other research participants for their contributions to the research process. We also thank the University of Reading, University of Cape Coast and University of Ghana Advisory Group members, and Giuseppe Feola, Sophie Bowlby, Pdraig Carmody and the anonymous reviewers for their valuable comments on earlier drafts of this article.

END NOTES

- ¹ Most notably: SDG 1: No Poverty; 2: Zero Hunger; 3: Good Health and Well-being; 5: Gender Equality; 8: Decent Work and Economic Growth; 10: Reduced Inequalities; 12: Responsible Consumption and Production; 13: Climate Action; 15: Life on Land (United Nations, 2016).
- ² See Evans et al. (2015) for a more in-depth discussion of gendered and generational power relations regarding land access, property rights, and intra-household decision-making processes.
- ³ This collaborative research project was funded by the Walker Institute for Climate System Research, University of Reading, UK. Ethical approval for the research was granted by the University of Reading Research Ethics Committee.
- ⁴ The accompanying video is available online: <https://www.youtube.com/watch?v=KqZLMwK3LM&feature=youtu.be>.
- ⁵ While gender and generation influenced people's mobility within and beyond the rural community, this theme emerged in our study predominantly in relation to the multi-locality of livelihoods (de Haan, 2007). Space does not permit further discussion of mobility in this paper.

ORCID

Simon Mariwah  <https://orcid.org/0000-0003-0803-9746>

REFERENCES

- Adu, M. O., Yawson, D. O., Armah, F. A., Abano, E. E., & Quansah, R. (2018). Systematic review of the effects of agricultural interventions on food security in northern Ghana. *PLoS ONE*, 13, e0203605. <https://doi.org/10.1371/journal.pone.0203605>
- African Cashew Initiative (2010). *A value chain analysis of the cashew sector in Ghana*. Eschborn, Germany: Deutsche Gesellschaft für Technische Zusammenarbeit GmbH (GTZ), February 2010.
- African Cashew Initiative (2013). *Ghana-country report*. Accra, Ghana: African Cashew Initiative
- Amanor, K. S. (2001). *Land, labour and the family in Southern Ghana*. A Critique of Land Policy under Neo-Liberalisation, Research Report No 116, Nordiska Afrikainstitutet, Uppsala.
- Amanor, K. S. (2012). Global resource grabs, agribusiness concentration and the smallholder: Two West African case studies. *The Journal of Peasant Studies*, 39, 731–749. <https://doi.org/10.1080/03066150.2012.676543>
- Anacarde.com (2014). *Informations et conseils sur le marché de l'anacarde*. Retrieved from <http://anacarde.com/blog/anacarde/>
- Ansell, N. (2008). Substituting for families? Schools and social reproduction in AIDS affected Lesotho. *Antipode*, 40, 802–824. <https://doi.org/10.1111/j.1467-8330.2008.00638.x>
- Barrett, C. B., Reardon, T., & Webb, P. (2001). Nonfarm income diversification and household livelihood strategies in rural Africa: Concepts, dynamics, and policy implications. *Food Policy*, 26, 315–331. [https://doi.org/10.1016/S0306-9192\(01\)00014-8](https://doi.org/10.1016/S0306-9192(01)00014-8)
- Berry, S. (1997). Tomatoes, land and hearsay: Property and history in Asante in the time of structural adjustment. *World Development*, 25, 1225–1241. [https://doi.org/10.1016/S0305-750X\(97\)00039-9](https://doi.org/10.1016/S0305-750X(97)00039-9)
- Bird, K., & Higgins, K. (2011). *Stopping the intergenerational transmission of poverty: Research highlights and policy recommendations*. Working Paper No. 214. Chronic Poverty Research Centre. Retrieved from www.chronicpoverty.org
- Carr, E. R. (2008a). Between structure and agency: Livelihoods and adaptation in Ghana's Central Region. *Global Environmental Change*, 18, 689–699. <https://doi.org/10.1016/j.gloenvcha.2008.06.004>
- Carr, E. R. (2008b). Men's crops and women's crops: The importance of gender to the understanding of agricultural and development outcomes in Ghana's Central Region. *World Development*, 36, 900–915. <https://doi.org/10.1016/j.worlddev.2007.05.009>
- Chamberlin, J. (2007). *Defining smallholder agriculture in Ghana: Who are smallholders, what do they do and how are they linked with markets? GSSP Background Paper 6*. Washington, DC: IFPRI.
- Chambers, R., & Conway, G. (1992). *Sustainable rural livelihoods: Practical concepts for the 21st century*, IDS Discussion Paper No. 296, Brighton: IDS.
- Cooper, E., & Bird, K. (2012). Inheritance: A gendered and intergenerational dimension of poverty. *Development Policy Review*, 30, 527–541. <https://doi.org/10.1111/j.1467-7679.2012.00587.x>
- Dedzoe, C. D., Senayah, J. K., & Asiamah, R. D. (2001). Suitable agro-ecologies for cashew (*Anacardium occidentale* L.) production in Ghana. *West African Journal of Applied Ecology*, 2, 102–115. <http://doi.org/10.4314/wajae.v2i1.45566>
- de Haan, L. (2007). Studies in African livelihoods: Current issues and future prospects. In P. Chabal, U. Engel, & L. de Haan (Eds.), *African alternatives* (pp. 59–72). Leiden, the Netherlands: Koninklijke Brill. <https://doi.org/10.1163/ej.9789004161139.i-185>
- de Haan, L. J., & Zoomers, A. (2005). Exploring the frontier of livelihoods research. *Development and Change*, 36, 27–47. <https://doi.org/10.1111/j.0012-155X.2005.00401.x>
- Dormon, E. N. A., Van Huis, A., Leeuwis, C., Obeng-Ofori, D., & Sakyi-Dawson, O. (2004). Causes of low productivity of cocoa in Ghana: Farmers' perspectives and insights from research and the socio-political establishment. *NJAS-Wageningen Journal of Life Sciences*, 52, 237–259. [https://doi.org/10.1016/S1573-5214\(04\)80016-2](https://doi.org/10.1016/S1573-5214(04)80016-2)
- Doss, C., Summerfield, G., & Tsikata, D. (2014). Land, gender and food security. *Feminist Economics*, 20, 1–23. <https://doi.org/10.1080/13545701.2014.895021>

- Ellis, F. (1998). Survey article: Household strategies and rural livelihood diversification in developing countries. *Journal of Agricultural Economics*, 51, 289–301.
- Ellis, F. (2000). *Rural livelihoods and diversity in developing countries*. Oxford, UK: Oxford University Press.
- Evans, R. (2016). Gendered struggles over land: Shifting inheritance practices among the Serer in rural Senegal. *Gender, Place and Culture* 23, 1360–1375. <https://doi.org/10.1080/0966369X.2016.1160872>
- Evans, R., Mariwah, S., & Antwi, K.B. (2014). Cashew cultivation, access to land and food security in Brong-Ahafo Region, Ghana: Preventing the intergenerational transmission of poverty. Research Note 6. *Walker Institute for Climate System Research, University of Reading*, Retrieved from www.walker-institute.ac.uk/publications/research_notes/WalkerInResNote6.pdf
- Evans, R., Mariwah, S., & Antwi, K. B. (2015). Struggles over family land? Tree crops, land and labour in Ghana's Brong-Ahafo region. *Geoforum*, 67, 24–35.
- FAO, WFP & IFAD (2012). *The State of Food Insecurity in the World 2012. Economic growth is necessary but not sufficient to accelerate reduction of hunger and malnutrition*. Rome, Italy: FAO.
- Ghana Statistical Service (2012). *2010 Population and housing census: Summary report of final results*. Accra, Ghana: Ghana Statistical Service.
- Ghana Statistical Service (2015). *National employment report*. Accra, Ghana: Ghana Statistical Service.
- Heinrich, M. (2012). *Lessons from working with new and multiple partners – Emerging results: Case study of the African Cashew Initiative – Focus: Ghana: Donor Committee for Enterprise Development (DCED)*. Retrieved from http://www.value-chains.org/dyn/bds/docs/824/DCED_ACiGhana_July2012.pdf
- International Center for Tropical Agriculture (2011). *Predicting the Impact of Climate Change on Cashew Growing Regions in Ghana and Cote d'Ivoire. Final Report*. Decision and Policy Analyses Program, CIAT, Managua, Nicaragua, September, 2011.
- International Federation of Red Cross and Red Crescent Societies (2014). *World Disasters Report 2014 Focus on culture and risk, IFRCRCs*, Retrieved from <http://www.ifrc.org/Global/Documents/Secretariat/201410/WDR%202014.pdf> (accessed 15 December 2016).
- Jaman North District Assembly (2014). *Jaman North District Medium Term Development Plan (2014-17)* Unpublished Jaman North District Assembly.
- Jones, G., & Chant, S. (2009). Globalising initiatives for gender equality and poverty reduction: Exploring 'failure' with reference to education and work among urban youth in The Gambia and Ghana. *Geoforum*, 40, 184–196. <https://doi.org/10.1016/j.geoforum.2008.07.008>
- Kabeer, N. (2000). Inter-generational contracts, demographic transitions and the "quantity-quality" trade-off: Parents, children and investing in the future. *Journal of International Development*, 12, 463–482. [https://doi.org/10.1002/\(ISSN\)1099-1328](https://doi.org/10.1002/(ISSN)1099-1328)
- Kenya Anti-Corruption Commission (2010). *Review of the policy, legal and regulatory framework for the sugar sub-sector in Kenya: A case study of governance controversies affecting the sub-sector*. Retrieved from www.eacc.go.ke/docs/sugar-report.pdf.
- Key, N., & Runsten, D. (1999). Contract farming, smallholders and rural development in Latin America: The organization of agro-processing firms and the scale of outgrower production. *World Development*, 27, 381–401. [https://doi.org/10.1016/S0305-750X\(98\)00144-2](https://doi.org/10.1016/S0305-750X(98)00144-2)
- Knudsen, M. (2007). Making a living in the cocoa frontier, Western Ghana: Diversifying incomes in a cocoa economy. *Geografisk Tidsskrift-Danish Journal of Geography*, 107, 29–44. <https://doi.org/10.1080/00167223.2007.10649567>
- Koopman, J. (1997). The hidden roots of the African food problem: Looking within the rural household. In N. Visvanathan, L. Duggan, L. Nisonoff, & N. Wiegiersma (Eds.), *The women, gender and development reader* (pp. 132–141). London, UK: Zed Books.
- Landesa (2012). *Land rights and agricultural productivity*. Issue Brief retrieved on 6 January 2017 Retrieved from <https://www.landesa.org/wp-content/uploads/Landesa-issue-brief-on-land-rights-and-agricultural-productivity.pdf>
- Lang, T., & Barling, D. (2012). Food security and food sustainability: Reformulating the debate. *The Geographical Journal*, 178, 313–326. <https://doi.org/10.1111/j.1475-4959.2012.00480.x>
- Lastarria-Cornhiel, S. (1997). Impact of privatization on gender and property rights in Africa. *World Development*, 25, 1317–1333. [https://doi.org/10.1016/S0305-750X\(97\)00030-2](https://doi.org/10.1016/S0305-750X(97)00030-2)
- Locke, C., & Te Lintelo, D. (2012). Young Zambians 'waiting' for opportunities and 'working towards' living well: Lifecourse and aspiration in youth transitions. *Journal of International Development*, 24, 777–794. <https://doi.org/10.1002/jid.2867>
- Mariwah, S. (2012). Shylock vs. Antonio: Informal money lending in rural communities in the Jaman North District, Ghana. *Journal of Sustainable Development in Africa*, 14, 150–161.
- Meinzen-Dick, R., Brown, L., Feldstein, H., & Quisumbing, A. (1997). Gender, property rights, and natural resources. *World Development*, 25, 1303–1315. [https://doi.org/10.1016/S0305-750X\(97\)00027-2](https://doi.org/10.1016/S0305-750X(97)00027-2)
- Nordic African Institute (2015). *Agrarian Change, Property and Resources*. Retrieved from http://www.nai.uu.se/research/agrarian_change/
- O'Brien, K., Leichenko, R., Kelkar, U., Venema, H., Aandahl, G., Tompkins, H., Javed, A., Bhadwal, S., Barg, S., Nygaard, L., & West, J. (2004). Mapping vulnerability to multiple stressors: Climate change and globalization in India. *Global Environmental Change*, 14, 303–313.
- Peters, P. (2009). Challenges in land tenure and land reform in Africa: Anthropological contributions. *World Development*, 37, 1317–1325. <https://doi.org/10.1016/j.worlddev.2008.08.021>
- Quisumbing, A., Payongayong, E., Aidoo, J., & Otsuka, K. (2001). Women's land rights in the transition to individualised ownership: Implications for tree-resource management in Western Ghana. *Economic Development and Cultural Change*, 50, 157–182. <https://doi.org/10.1086/340011>
- Rocheleau, D., & Edmunds, D. (1997). Women, men and trees: Gender, power and property in forest and agrarian landscapes. *World Development*, 25, 1351–1371. [https://doi.org/10.1016/S0305-750X\(97\)00036-3](https://doi.org/10.1016/S0305-750X(97)00036-3)
- Scoones, I. (2009). Livelihoods perspectives and rural development. *Journal of Peasant Studies*, 36, 171–196. <https://doi.org/10.1080/03066150902820503>

- Smalley, R. (2013). *Plantations, Contract Farming and Commercial Farming Areas in Africa: A Comparative Review*. Land and Agricultural Commercialisation in Africa (LACA) working paper 055.
- Toulmin, C. (2008). Securing land and property rights in sub-Saharan Africa: The role of local institutions. *Land Use Policy*, 26, 10–19.
- United Nations (2016). *Sustainable Development Knowledge Platform*. Retrieved from <https://sustainabledevelopment.un.org/?menu=1300>
- United Nations Development Programme (2012). *Africa human development report 2012. Towards a food secure future*. New York, NY: Regional Bureau for Africa, UNDP.
- van der Geest, S. (2008). Wisdom, an intergenerational gift? Notes from Kwahu-Tafo, Ghana. In E. Alber, S. van der Geest, & S. Reynolds Whyte (Eds.), *Generations in Africa* (pp. 381–398). Berlin, Germany: Lit Verlag.
- Whitehead, A., & Tsikata, D. (2003). Policy discourse on women's land rights in Sub-Saharan Africa: The implications of the re-turn to the customary. *Journal of Agrarian Change*, 3, 67–112. <https://doi.org/10.1111/1471-0366.00051>
- Wilson, G. (2010). Multifunctional 'quality' and rural community resilience. *Transactions of the Institute of British Geographers*, NS, 35, 364–381. <https://doi.org/10.1111/j.1475-5661.2010.00391.x>
- Winters, P., Davis, B., Carletto, G., Covarrubias, K., Quinones, E., Zezza, A., Azzarri, C., & Stamoulis, K. (2009). Assets, activities and rural income generation: Evidence from a multi-country analysis. *World Development*, 37, 1435–1452. <https://doi.org/10.1016/j.worlddev.2009.01.010>
- Yngstrom, I. (2002). Women, wives and land rights in Africa: Situating gender beyond the household in the debate over land policy and changing tenure systems. *Oxford Development Studies*, 30, 21–40. <https://doi.org/10.1080/136008101200114886>

How to cite this article: Mariwah S, Evans R, Antwi KB. Gendered and generational tensions in increased land commercialisation: Rural livelihood diversification, changing land use, and food security in Ghana's Brong-Ahafo region. *Geo: Geography and Environment*. 2019:e00073. <https://doi.org/10.1002/geo2.73>