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LONG-TERM CHANGE AND AGRICULTURAL COMMERCIALISATION IN GHANAIAN COCOA

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ACRONYMS

APRA	Agricultural Policy Research in Africa
CHED	Cocoa Health and Extension Division
CMB	Cocoa Marketing Board
CMC	Cocoa Marketing Company
COCOBOD	Ghana Cocoa Board
CPP	Convention People's Party
CRIG	Cocoa Research Institute of Ghana
ERP	Economic Reforms Programme
FOB	Free on Board
GDP	Gross Domestic Product
IFPRI	International Food Policy Research Institute
IIED	International Institute for Environment and Development
IITA	International Institute of Tropical Agriculture
ISSER	Institute for Statistical, Social and Economic Research
KIT	Royal Tropical Institute
KNUST	Kwame Nkrumah University of Science and Technology
LBC	Licensed Buying Companies
MIT	Massachusetts Institute of Technology
MoFA	Ministry of Food and Agriculture
NDC	National Democratic Congress
NPP	New Patriotic Party
ODI	Overseas Development Institute
PBC	Produce Buying Company

PNDC	Provisional National Defence Council
QCC	Quality Control Company
REDD	reducing emissions from deforestation and forest degradation
SPD	Seed Production Division
UNRISD	United Nations Research Institute for Social Development
WACRI	West Africa Cocoa Research Institute

ABSTRACT



This study examines the main features that have defined commercialisation within the cocoa sector in Ghana, and how the characteristics of commercialisation have changed over time, through a review of the literature on cocoa. This documents the main changes from the late nineteenth century when cocoa cultivation began, to the present era. The main factors shaping these changes are the decline of the forest frontier and the transformation of cocoa from a crop associated with pioneer frontier cultivation and the capture of a forest rent, to one based on the intensive use of inputs and hybrid seeds in secondary bush.

The initial impetus for the development of cocoa grew out of a longer history of capital accumulation in wild rubber and oil palms that enabled wealthy entrepreneurs to invest in purchasing large tracts of forest land for cocoa cultivation. These wealthy farmers involved their extended kin in this process, creating opportunities for the participation of smallholders as well. The availability of a large labour force drawn from migrants from savanna areas enabled the rapid expansion of cocoa cultivation.

The study examines how the decline of the frontier has transformed the relationship between hired labour and family labour. This has resulted in increasing numbers of farmers who cannot rely on their families for access to land, and who become involved in contractual and sharecropping arrangements that involve forms of dependency, or are transformed into labourers, or move into other livelihoods. The study examines changing gender relations and intergenerational relations within this process, and the nature of uptake of inputs by farmers as a characteristic of commercial production.

1 INTRODUCTION

Agricultural export crops in Ghana have a long history dating back to the early nineteenth century when palm oil was exported to Europe. Exports of wild rubber were also important in this period. By the mid-nineteenth century, both these crops declined as their production was taken up in other localities in the world economy with which Gold Coast producers could not compete. Cocoa then emerged as the new export crop on the Gold Coast in the late nineteenth century, and by the 1920s, the Gold Coast was the largest producer of cocoa in the world. Currently, it is the second largest producer to Côte d'Ivoire. However, cocoa is now produced under quite different conditions from those that prevailed at the beginning of the twentieth century. This paper examines how these changes have influenced the process of agricultural commercialisation within cocoa.

Ruf (1995) argues that cocoa is essentially a pioneer frontier crop whose producers benefit from a forest rent. Cocoa thrives in forest conditions. However, with prolonged cultivation and the removal of the forest environment, it becomes highly vulnerable to diseases, which badly affects yields and results in the necessity of using agrochemicals, chemical fertilisers, and in higher expenditures of labour in weeding. As a result of this vulnerability, cocoa is often produced along a shifting forest frontier, which displaces older areas of production, since good quality cocoa can be produced much cheaply. Thus, cocoa shifted from Central American production in the nineteenth century into Africa, and subsequently has moved to new frontier areas within West Africa.

In Ghana, cocoa production shifted from the Eastern Region into the Ashanti Region during the 1920s to the 1940s, and from the 1940s into the Western Region. From the 1960s, the main cocoa frontier began to gravitate towards Côte d'Ivoire, and subsequently from southeast Côte d'Ivoire into the west. However, in contemporary times, there are very few new frontier areas for cocoa, and increasingly cocoa farming is based on the use of technology to compensate for the decline of forestland. This includes the use of new hybrid varieties, synthetic fertilisers, and a large array of agrochemicals. These not only compensate

for a decline in yields through deforestation, but are also able to boost yields and intensify production on an area of land, reducing the need to further expand areas of cultivation.

Ruf (1995) argues that in the Côte d'Ivoire, the nature of cocoa farming has been transformed from an enterprise carried out by large absentee farmers on relatively large plots in new forest frontiers, to one in which relatively poor migrants from Sahelian countries acquire small plots of one to two hectares and farm them intensely with much larger inputs of labour for weeding and clearing land than were used in the past. There are no specific studies that detail similar recent changes in Ghana so clearly, but a number of studies present a complex set of changes within the techniques of production, the social relations of production, and the techniques of cultivation, including investments in land, changing tenure relations, changing labour relations, and the use of family, hired, and sharecrop labour.

This study examines the processes of commercialisation in the cocoa sector in the Agricultural Policy Research in Africa (APRA) framework. APRA examines agricultural commercialisation as a process of structural transformation characterised by processes of accumulation and investment (stepping up), but also of people struggling to survive (hanging in), and transitioning into other livelihoods or into destitution (stepping out). This study examines the different processes of transformation that have occurred and are occurring within the cocoa sector, and the extent to which as forested lands disappear, farmers are transitioning out of cocoa or adopting new technologies and ways of producing cocoa. It also examines the extent to which the growing scarcity of land affects rural households and the changing terms on which people gain access to land, as it becomes a scarce commodity.

Access to land and the availability of land also affects labour relations and the ability and willingness of household members to work on family farms, which may not be able to provide a livelihood for all members of the family. Faced with uncertain futures,

many members of households (including youth and women) may search for alternative livelihoods or work as labourers, effectively removing labour from the lineage. Under these conditions, labour may become another major constraint or barrier to the effective commercialisation of agriculture. Thus, it is important to understand the relationship between access to land, hired labour, and family labour, and the relationship between investments in acquiring land, labour, and technology for effective cocoa production, or how the relative scarcity of different factors of production affects production and commercialisation.

This study is based on a review of the literature. To gain insights into the process of commercialisation and structural transformation within cocoa, this study begins by taking five studies, carried out at different periods and with different disciplinary backgrounds, and explores the ways in which they frame transitions within cocoa and view the process of commercialisation within cocoa. These studies include: Beckett (1944) *Akokoaso: A Survey of a Gold Coast Village*; Hill (1963) *The Migrant Cocoa Farmers of Southern Ghana: A Study in Rural Capitalism*; Okali (1983) *Cocoa and Kinship in Ghana: The Matrilineal Akan of Ghana*; Austin (2005) *Labour, Land and Capital in Ghana: From Slavery to Free Labour in Asante (1807–1956)*; and Arhin (1988) 'Economic Differentiation Among Ghanaian Migrant Cocoa Farmers'. These studies make important contributions to understanding processes of agricultural commercialisation and identifying significant factors within those processes. They are also important in revealing structural changes within particular periods. This includes the relationship between hired labour, sharecropping, and family labour in production, and the relationship between labour, technology, and land, including deforestation and the farm ecology of production.

Section 2 of this paper provides a background to the history of cocoa in Ghana. This is followed by an analysis of the different ways in which agricultural commercialisation has been framed historically within the cocoa industry in Section 3. Section 4 analyses cocoa production trends, and Section 5 discusses the relations of production including family labour, hired labour, and sharecrop labour arrangements. Section 6 examines changing land tenure relations including the purchase of land, inheritance, and sharecropping. Section 7 explores government policies and support to the cocoa industry. Section 8 examines the changing nature of production and market within Ghana and the relationship between state and market. Section 9 examines changes in farm technology and the use of inputs. Section 10 concludes.

2 THE ORIGINS AND DEVELOPMENT OF COCOA PRODUCTION IN GHANA

The development of cocoa production in Ghana is rooted in two processes:

1. Internal processes of agricultural accumulation in the Gold Coast (Ghana) and the emergence of a class of farmer traders, who initially accumulated capital within kola, oil palm, and rubber in the early nineteenth century. They moved into cocoa during the second half of the nineteenth century as prices for cocoa became more favourable in the face of deteriorating prices for oil palm and rubber.
2. Shifts in global production markets, as oil palm was transferred from West Africa to production on large estates in Southeast Asia, against which West African producers could no longer compete, and as cocoa production was transferred from Central America to West Africa.

The opening up of export agriculture in West Africa originated with the end of the Atlantic Slave trade and the declaration of US independence. These events meant that Britain could no longer depend upon the US as a supplier of staple agricultural commodities for industrial processing, and began to search for alternative supplies of agricultural commodities in Africa. Gold Coast traders began to invest in agricultural production and natural resources. The two most important commodities were rubber (which was collected from forested areas) and oil palm estates (Arhin 1980; Johnson 1964, 1965). Oil palm production originally grew in the context of the expansion of regional trade on the Volta River. With the rise of a European market for palm oil, this was exported from oil palm-growing districts near the coast in the Akuapem and Krobo areas (Johnson 1964, 1965; Hill 1963; Amanor 1994). Significant capital accumulation occurred, which supported investments in cocoa. By the 1860s, the opening up of oil palm production in Southeast Asia undermined West African production, which could not compete against the lower production prices. Producers began experimenting with alternative export crops including coffee and cocoa, of which cocoa was the most promising.

Cocoa production was initially centred on Central America and the Caribbean. By the early nineteenth century, the centre of production had shifted to large European plantations on the Portuguese colonial islands of São Tomé and Príncipe off the coast of Central Africa, as a result of disease and pest problems in the original centres of production. Cadbury, the leading cocoa processor and cocoa manufacturer in Britain, gained 45 per cent of its supply from these islands. However, these islands were notorious for their use of slave labour recruited in Angola, as a result of which Cadbury sought to find alternative supplies of cocoa, which in the late nineteenth century it began to source from the Gold Coast (Off 2006).

Commercial cocoa production on the Gold Coast is reputed to have largely originated from *amelonado* cocoa seeds acquired from Fernando Po in 1879 by Tetteh Quashie, a master blacksmith from the Gold Coast (Amoah 1995). Tetteh Quashie successfully established a plantation in Akuapem. Entrepreneurial farmers, many of whom had accumulated capital within the oil palm and rubber sectors previously, rapidly took up cocoa cultivation, in spite of the high costs of seeds. From the Akuapem area, the farmers moved into the high forests of Akyem and purchased land from chiefs. Cocoa then rapidly spread throughout the forest areas into Ashanti by the 1920s and into the Western Region by the 1950s. Cocoa cultivation developed along a moving frontier, and was often carried into new localities by migrant farmers, who purchased lands from chiefs. However, its development encouraged many smallholders to take up cocoa. Cocoa was successfully adapted to local farming conditions by these farmers rather than disseminated by European experts. As Off (2006: 98) comments:

The British government for its part hardly seemed to know that cocoa was growing in its colony until the trees were mature and Cadbury came along... Once they became involved British bureaucrats railed at the farmers for what they considered to be sloppy and inefficient agricultural practices. They insisted that the farmers raze the existing forest to create large plantations, then plant their

trees in long, neat rows and scrupulously weed and ditch to create dry and tidy fields, clear of all unattractive debris. The farmers argued that the trees required disorder – the shade of other trees and plants, the tangle of weeds and mulch.

The cocoa industry of the Gold Coast developed independently of official policy interventions and largely on the initiatives of Ghanaian farmers. As a consequence, little was known of the nature of its development within the colonial administration and the serious collection of data on the industry only began in the 1930s.

Cocoa farmers reinvested their profits back into cocoa, frequently migrating to new frontier areas characterised by an environment of mature high forest. Under these conditions, cocoa thrived, and the forested environment required fewer labour inputs than in secondary fallow land. In contrast, in the old frontier areas, cocoa was often vulnerable to diseases and pest infections including capsid and swollen shoot disease, which became a major problem in the pioneer frontier areas of the Eastern Region in the 1950s. Cocoa was also much harder to replant in the old areas of cultivation, which are characterised by an invasion of herbaceous and grassy weeds and lower soil fertility. Because of this, in the older cocoa areas, many farmers have shifted back to food crops and oil palm cultivation. The main areas of production have shifted from the Eastern Region, which was dominant during the 1920s, to the Ashanti Region, which became the dominant centre of production in the 1940s, and then to the Western Region, which became dominant from the 1960s. Currently there is no new frontier land to which cocoa farmers can move. This had led to accusations that cocoa farmers are colonising the remaining forest reserves. By the 1970s, the forest frontier moved out of Ghana into Côte d'Ivoire, and the migrant Sahelian labourers who had been the dominant labouring force relocated to Côte d'Ivoire.

Migrant labourers usually prefer to farm in new frontier areas because the labour requirements are less intensive and yields are higher. They often gain higher remuneration in these areas than in older frontier areas where farmers gain lower yields. From the 1970s, as labour relocated to Côte d'Ivoire, there has been a structural change in labour markets in Ghana. Sahelian migrants have been replaced by local labour, and by the growth of casual daily labour. Labour has become an increasingly scarce resource resulting in higher costs for labour than in the past.

From the 1950s, swollen shoot became a major problem in the Eastern Region, resulting in government campaigns to cut out infected trees. This has also resulted in the creation of new varieties that are more tolerant of dry conditions. However, this has not solved the problem of disease. Swollen shoot continues to be a major problem and black pod disease also plagues cocoa farmers, particularly in the Western Region. As a consequence of this, modern cocoa production requires the use of large numbers of agrochemicals to protect cocoa from pests and diseases and also the use of synthetic fertilisers. The high cost of production with inputs has become a problem for farmers and the industry, as many farmers are unable or unwilling to afford these costs and fail to follow the recommendations.

3 THE FRAMING OF COMMERCIALISATION WITHIN THE LITERATURE ON COCOA

This section focuses on studies that have contributed important insights into the structure of the Ghanaian cocoa industry in different periods. These works are chosen to reflect distinct concerns in particular policy periods, approaches rooted in different disciplinary backgrounds, but also a range of different types of social and economic issues that have confronted researchers in different periods, but which reflect key elements in the process of agricultural commercialisation.

3.1 Beckett and the expansion of cocoa among smallholders in a village economy

Beckett (1944) conducted the earliest social survey of cocoa production in 1932–5, which was subsequently published in 1943. This provides a detailed study of a single village, describing the village, its housing, the occupation of the inhabitants and the economic activities, land tenure, methods of cultivation, the yield of cocoa, and earnings and costs of production. Akokoaso was a dominantly Akyem village with a population of about 1,000 people, in which about 15 per cent of the population consisted of migrants. Migrants originating from other colonies included ‘Lagosians’ and ‘French Togolese’ and the ‘Northern Territories’, which possibly included migrants from Upper Volta, Mali, and Niger. Eighty-two per cent of the population were engaged in cocoa farming, including 56 per cent of adult females. About 80 per cent of farmers hired labour, drawn from migrants from the Northern Territories.

The majority of farms were small; only 67 farmers had more than ten acres of land, of which four had between 30–40 acres and one farmer 95 acres. An area of about 850 acres had been sold to a group of farmers from Anum and Boso. The major social focus of the work is on indebtedness among the population, which is attributed to land litigation and the extortionate interest of money-lenders. These were dominant themes in agricultural policy in those days and reflected the colonial interest in promoting the development of agricultural cooperative societies. The work does not investigate the origins of cocoa farming and how cocoa farming spread among farmers. The

assumption is that this was an activity promoted by the Agricultural Department to which small farmers were receptive. Beckett was an agricultural officer and his study is important for being the first empirical study of a village economy, with detailed collections of data concerning labour inputs, yields, and cost/benefit analysis. However, reviewers of the time noted the absence of detailed sociological data. For instance, Noon (1945: 616) commented:

The author has been content to provide a minimal analysis of the society in terms of the grouping of the primary and extended family units and the educational attainments of the villagers. No attempt has been made to balance analysis with synthesis and thereby depict the dynamic aspects of the society in terms of role, status, class and political structure.

3.2 Hill and the migrant cocoa capitalist production

The limitations of Beckett’s approach influenced the research of Polly Hill, in the large number of research monographs produced at the Economic Department of the University of Ghana, which formed the basis for her publications of *Gold Coast Cocoa Farmer* in 1959 and *Migrant Cocoa Farmers of Southern Ghana* in 1963. In contrast with Beckett’s work, Hill focuses on the social dynamics of production, and in the process she converted from being an economist to becoming an economic anthropologist. Hill eschews a statistical survey approach rooted in a single representative settlement (such as Akokoaso), or a limited number of settlements,¹ and uses what she terms an extensive approach of tracing the economic history of the development of the original cocoa frontier in the Eastern Region through exploring oral and family histories of the migration. The study focuses on a number of farm maps, compiled by government services during the swollen shoot epidemic. Hill uses these maps to identify farmers and trace the origins of their movements along the original cocoa frontier, the transfer of cocoa plantations and land from one generation to the next, and subsequent investments of profits in new land. Hill (1963: 7) comments:

While the atmosphere of 'progress' and 'expansion' conveyed by this book is unfortunate and absurd, considering that most of the farmers lost nearly all their cocoa trees, the farmers themselves (now that their initial shock has been sustained) have settled down into taking such a long view that they will understand, if others do not, that the misfortunes of the past twenty years seem but a passing phase. The migration has been slowed down by this catastrophe but not stopped.

Hill argues that from their inception in the late nineteenth century, the migrant cocoa farmers in southeast Ghana essentially constituted a class of agrarian capitalists. They invested in the purchase of land, the hiring of labour, and reinvesting their profits in expanding their investments in land in new areas. Hill contrasts these farmers with those in Beckett's Akokoaso, and seeks to challenge the dominant assumptions of the period, which were of 'the myth of the sedentary peasant farmers who, though unfamiliar with the cash economy, nonetheless succeeded in the space of 20 years in transforming the economy of Ghana' (Hill 1963: 11). But Hill further adds the caveat that 'the migrant cocoa-farmer of southern Ghana is not *the* typical Ghanaian cocoa-farmer, for no such person exists' (p11). Hill identifies other categories of cocoa farmers (p11):

There are the native Akim farmers, nearly half of whom are women farmers in their own right, who live in small towns such as Akokoaso, Asafo, Maase and Apapam, whose farms, of which they ordinarily own several, are usually about one to three acres, the women's farm being somewhat smaller than the men's: these farmers never in any circumstances, even if all their cocoa dies from swollen shoot, contemplate migrating outside their own state. Then in some Akim districts, especially the Anyinam/Kwabeng area of northern Akim Abuakwa, there are native farmers who operate on a larger scale. Further west, on land which though little affected by swollen is nowadays often marginal for cocoa-growing, are many Fanti, Awutu, Agona and other farmers, some of whom have bought their own land, many of whom are natives.

Hill traces the origins of capital investments in cocoa to the oil palm and wild rubber trades of the nineteenth century. As prices for oil palm declined as a result of competition from European-owned plantations established in Southeast Asia, and as West African producers found it difficult to compete on the world market, producers shifted their investments to cocoa,

which began to make inroads into the Akuapem area in the late nineteenth century. According to Hill, Akuapem farmers became interested in the commercial possibilities of cocoa during the 1890s, but lacked sufficient land for cultivation. By the 1890s, these farmers had moved into low populated areas of the dense forests of Akyem Abuakwa, where they acquired large areas of land, sometimes over several square miles in extent.

These lands were largely unfarmed by the Akyems and were mainly used by hunters. Since these lands were underutilised, the chiefs were glad of the opportunity of selling them outright to migrant farmers. After 1900, the lucrative nature of cocoa farming resulted in a scramble for lands within Akyem, and many of the early purchasers of land resold some of their surplus land. The earliest purchasers of land were farmers from Aburi and Akropong. The land purchasers comprised a number of related rich individuals who invited members of their matrilineage to settle on the land and gain user rights, but retained large portions of the land for their own use, which they subsequently passed on to their heirs.

After 1900, these pioneer farmers were joined by smaller farmers from patrilineal Akuapem, Krobo, Shai, and Ga towns. In contrast with the large Aburi and Akropong farmers, the farmers from patrilineal societies organised land-purchasing companies, in which the purchased lands were divided into strips from a baseline, according to the contribution paid towards the purchase of the land. This has resulted in distinct land use patterns within the cocoa belt of the Eastern Region, consisting of mosaic-like patterns of small and large holdings among the matrilineal farmers from Akuapem, and horizontal strip formations among the company-based farmers.

According to Hill, the earliest farmers depended upon family labour, drawn from extended kin. Later on, as the migratory process expanded, they were able to draw upon hired labour. This included four forms of labour:

1. Annual labour, in which the labourer was paid at the end of a year's contract, and was given land on which to farm to feed themselves during the year, or fed;
2. The *abusa* caretaker sharecropping system, in which the labourer was rewarded with a third of the crop for looking after the farm, weeding it, and harvesting the cocoa;
3. The *nkotokoano* system, which was used for harvesting cocoa, in which the labourer was

- remunerated with a fixed sum of money for every bag of cocoa harvested;
4. Casual labour, hired on a daily basis.

Hill suggests that by 1910, a labour market had emerged in the cocoa-producing districts in which there were as many labourers as farmers. The early labourers were drawn from the Ewe areas, east of the Volta, and later joined by migrants from Northern Ghana and Sahelian countries.

Hill argues that the cocoa frontier involved a constant balancing of forces of capitalist enterprise with lineage solidarity. Assets from lineages were used to finance the purchase of land, and land was distributed to extended family members in reciprocal exchange for labour services. Family labour was used to minimise the use of hired labour, and profits were ploughed back into the purchase of new land on which family members were deployed and recruited to clear and plant under cocoa. Profits were reinvested in house building in hometowns, the education of children, and lorry ownership, but a large proportion was reinvested in the expansion of cocoa plantations and the purchase of new land.

3.3 Okali and changing family and labour relations

Okali's work on cocoa was undertaken during the 1970s, a period of increasing recession in Ghanaian cocoa. This recession arose from relatively low world market prices, the increasing extraction of surplus by the government marketing board, the decline of new frontier areas in which to move, the higher costs of replanting and rehabilitating cocoa in existing areas of production rather than moving into new frontiers, and increasing costs of labour. During the 1970s, the higher cost of labour resulted in the competition of Côte d'Ivoire for migrant labour and the more favourable terms offered to migrants in Ghana. The Aliens Compliance Act of 1968, which expelled many migrants from Ghana, exacerbated this. Although not intended to affect farm labour, this rapidly extended to the farm labour sector at a time when Sahelian migrants were beginning to relocate from Ghana to Côte d'Ivoire.

In the 1970s, Beckett returned to Ghana and revisited Akokoaso with Christine Okali, then based at the Institute for Statistical, Social and Economic Research (ISSER) at the University of Ghana, where she was a Research Fellow. Okali and Kotey (1971) then carried out a short resurvey of Akokoaso after Beckett left. The resurvey also conducted interviews with ten farmers

on ten farm holdings in which Beckett had earlier conducted interviews. Between 1933 and 1960, there had been a 60 per cent increase in the population of the village, but also a significant migration of Akokoaso people to Accra – a town association of Akokoaso people living in Accra had a membership of 750, about one third of the size of the existing resident population.

The population of migrants had also significantly changed as a result of the Alien Compliance Act. Some of the descendants of early migrants had been absorbed into the village through migration. The migrant labourers from the 'Northern Territories' had largely been replaced by Fanti migrants from Swedru. There was also growing land shortage, some residents complaining that they could no longer get virgin forest in which to plant cocoa. The creation of two forest reserves, the first gazetted in the 1930s and the second in 1954, exacerbated land shortage at Akokoaso. A significant area of the land acquired by Anum and Bosu farmers was not actively farmed since it was deemed to be of poor quality. Land sales to migrants had ceased to exist. These had been replaced by sharecropping arrangements, in which a third of the crop was paid annually by the migrants to the landlords for access to the land. During the 1960s, this system had been phased out by government and replaced by an annual rent paid directly to government, of a significantly lower amount than the third share taken by the stool.² However, migrants continued to lease land from individual farmers on a share agreement, but for small areas of land.

Okali's most significant output from this period is *Cocoa and Kinship* (1983). This is based on further detailed research carried out at Akokoaso, and a study at Dominase in the Brong Ahafo region. As noted by Hill, in the cocoa settlements dominated by smallholders, as at Akokoaso, significant numbers of women participated in cocoa. Okali's work draws attention to the importance of family and gender relations in cocoa production. Okali argues that cocoa production transformed economic relations among kin but that these changing relationships are expressed within kinship rather than the disappearance of extended kin groups by nuclear families integrated into the market, as has often been assumed in modernisation theory.

Okali argues that kinship covers a range of multiple interests in assets and enterprises (land and cocoa farms) in which different members claim rights on the basis of membership of corporate groups and of individual contribution. Thus, wives and children may claim rights in a cocoa farm on the basis of their labour on the farm, while other members of the matrilineage

may claim rights on the basis that the cocoa farm had been established with the land of the matrilineage or with other assets and capital belonging to the matrilineage. Okali provides a wealth of case study material that examines patterns of farm ownership, the domestic units and members of domestic units involved in production, the histories of investments of labour and capital in farms by different farm members, inheritance and the allocation of land to family members through gifts, and disputes about rights in property. Relatives that helped establish and maintain a cocoa farm expected some future return, often an allocation of a portion of land for farming or a share of the cocoa plantation.

However, during the period in which Okali carried out her research, there were often conflicts between members of the matrilineage, such as farmers' sisters and wives over inheritance, with members of the matrilineage articulating their demands in the context of the contribution of the matrilineage to the land or wealth of the farmer, and wives and children who were not members of the matrilineage, in terms of their contributions particularly in labour to the development of the farm. This contrasts with the matrilineal family lands described by Polly Hill (1963) in which the original land purchasers distributed land between matrilineal kin and their children, often allocating children larger portions.

For instance, at Kofi Pare, many matrilineal relatives were allocated small parcels of land while sons inherited the larger portion. The sons also became the Gyasehene of the settlement, its effective chief. However, Okali does not address the issue of the extent to which these disputes were new, a consequence of the decline of the frontier, and increasing scarcity of land in a period of economic downturn. Douglas (1969) has suggested that matrilineages often work well in times of economic expansion in which labour is scarcer than land, and in which members of the matrilineage can provide avenues for their kin to gain a livelihood while they accumulate profits. As opportunities for economic expansion decline, matrilineages become subject to conflicts, and rifts and tensions between the matrilineal and domestic units.

3.4 Austin and changing factors of production during a period of expansion

Austin's (2005) study of cocoa in Ashanti takes place in the period of economic liberalisation and is heavily influenced by the new institutional economics of the period, focusing on the relations between institutions

and factors of production. Although writing at a later date than the other three writers, Austin takes his analysis back the furthest into the nineteenth century, since it is a work in economic history. However, he does not carry it into the recession years of the 1970s or the decline of the frontier.

Austin argues that the domination of the Asante state was achieved by establishing a monopoly over the 'forest rent' from the forest zone, which enabled it to influence and control labour over a wide geographical area and deploy it to extract surplus from the forest. This control over 'forest rent' established a regime of control over 'use rights' and 'surface rights', which enabled stools to control land but opened up use of land to a wide range of people in exchange for payment of substantial rents. During this period, although land was readily available, it was a relatively scarce factor/resource, since the ability to convert it into farmland required considerable labour resources. Without a readily available labour market, and the ability of landowners to pay labour a living wage (above the rate at which they could produce on their own subsistence initiatives), this was largely in the form of unfree labour that was extracted through conquest and tribute over neighbouring people. From the abolishment of the transatlantic slave trade in 1807, producers and traders in Asante were able to complement household labour with slaves and pawns to expand the production of kola and rubber. By the late nineteenth century, cocoa emerged as the dominant produce. While cocoa originally developed with the use of slaves and household labour, the high returns to cocoa and the availability of labour in the savannah regions to work within cocoa smoothed the transition to a wage economy.

Land remained abundant in relation to capital and labour during this period. As a result, farmers attempted to clear as large an area as possible and augment household labour with hired labour. Labour continued to be a scarce resource, and given this scarcity northern labourers were able to win concessions for themselves, of which the major one was the replacement of wages by sharecrop arrangements, in which the labourers received one third of the crop. Austin suggests that the transition to sharecropping occurred as a result of labourers' reluctance to accept annual labour contracts, because of a failure of many farmers to honour the obligations to provide the wage at the end of the year. Austin comments that 'sharecropping gave labourers a greater opportunity to enforce the payment which was due to them. Like annual wage labourers, they were there at the harvest; unlike them, the sharecroppers were directly entitled to a part of it' (Austin 2005: 416).

Austin argued that by the 1950s, many of the *abusa*-labourers had grown in prosperity, which enabled them to be able to marry and support families in the cocoa belt. The labour of the sharecropping tenant thus came with conjugal support, enabling them to manage the farm more effectively, which increased their bargaining power. Many landowners looked for sharecroppers who were married. Austin argues that there has been a further development of labourers' negotiations for successively more favourable terms with the appearance of the *yemayenke* (*yemayenkye*: 'we give and share' – also referred to as *dibinamenibi*: 'eat some and I eat some'³), which is described by Takane (2002). Under this arrangement: 'the landlord-employer gives half the cocoa trees, or the general use rights over half the land, in return for the tenant labourer conducting all phases of farm work, from clearing and planting through to harvesting' (Austin 2005: 423). Austin (2005: 424) comments:

The emergence of such an arrangement suggests even greater bargaining power for labour than was the case in the last 20 years of colonial rule. On the other hand, a departure from the trend examined in this chapter is the fact that many of the tenants (it is not clear how many) are Akan rather than northerners, to judge from their names.

Austin sees the *yemayenkye* sharecropping system originating in the 1960s, but this is a much older system which is documented by Polly Hill (1956) in Akyem. Hill differentiates between the '*abusa-tenant*' and the '*abusa-labourer*' system. The *abusa-tenant* obtains land directly from the chief and is not assisted in any other way by the chief: 'He paid one third of the proceeds of the cocoa to the chief when the farm came into bearing and retained two thirds for his own use' (Hill 1956: 13). Hill comments that the *abusa-tenant* system arose to circumvent the transfer of land to migrant farmers without alienating it:

As the stool owner of all the lands, so it was that the stool could grant land to strangers. While many Akyem Abuakwa chiefs abused their powers and some of them from the earliest years sold lands, often in large blocks, outright to strangers, there were other chiefs who favoured the *abusa* system which effectively transferred 'ownership' without alienating the land. (ibid: 13)

The *abusa-tenant* system is the same system as described by Okali and Kotey (1971) for Akokoaso, in which land sales had ceased to exist and were replaced by sharecropping arrangements in which the tenants paid a third share of their proceeds to the chiefs, before

this system was made illegal by the Convention People's Party (CPP) government and converted in annual land leases. However, with the overthrow of the Nkrumah government, these sharecropping arrangements made a comeback under the presidency of Busia, and are prominent in the present day.

In contrast with the *abusa-tenant*, the *abusa* caretaker, a labourer/caretaker, looks after a cocoa plantation that has been established by the farmer, and is responsible for watching over the farm, harvesting the cocoa and weeding. The caretaker gets a third share of the annual harvest for their labour. Unlike the *abusa-tenant*, they do not invest capital in the creation of the farm. Thus, there are two distinct circuits of capital and labour, and it is highly unlikely that the *yemayenkye* system evolved as a further strengthening of labourers' rights. It is more likely to represent a weakening of land purchasers' rights and the conversion of land sales into sharecropping arrangements.

Austin argues that the cultivation of cocoa generated important capital resources through the conversion and realisation of the 'forest rent'. Initially, the political forces controlling the forests extracted this surplus through the use of slave labour and the abolishment of the Atlantic slave trade facilitated the use of slave labour in agriculture within the forest zone. Slave labour was also complemented by the use of pawns, and the alleviation of debt through a system of pawning members of lineages until debts were repaid. This provided the initial labour beyond lineage labour for export crop production. The realisation of capital through cocoa farming enabled the pledging of cocoa farms to increasingly replace the pledging of people, and also the capitalisation of land through land sales, resulting in the development of land and labour markets. The capital realised by cocoa enabled labour relations to be transformed. Given the scarcity of labour, labourers were able to renegotiate more favourable terms. Scarcity of labour also led to a renegotiation of labour arrangements from monetary wages to sharecropping arrangements, which were favoured by both labourers and landlords.

Austin (2005) argues that women had less opportunity than men to participate in the cocoa economy. Although the openness of access to land did not prevent women from gaining land, the lack of access to capital and demands upon women to provide domestic labour and labour on their cocoa plantations often limited women's ability to establish cocoa farms in their own right. However, by the mid-twentieth century, as a result of the surpluses generated by cocoa a 'significant minority of women have managed to begin to improve

their access to productive resources within the rural economy' (Austin 2005: 445). Austin's work is important in analysing the importance of the contribution of the 'forest rent' to the development of cocoa farming, and the significance of the relative factors of production (the ratios between scarcity of land and labour) in changes within cocoa farming. However, although writing in the 2000s, Austin does not reflect on how the decline of the frontier and the rise of increasing scarcity in both land and labour reflect on the social and economic conditions of cocoa production.

3.5 Arhin and declining conditions for migrants and labourers

Arhin (1988) provides a much bleaker assessment of the cocoa industry in more recent times by tracing the fortunes of 814 migrant cocoa farmers to the Western and Central regions. Most of these had migrated into the Western Region from the 1950s as a result of the high prices for cocoa during this period. Forty-one per cent of the migrants had been cocoa farmers in the areas they migrated from, while 35 per cent were food farmers, and 24 per cent were involved in the cultivation of other tree crops including coconut, citrus, oil palm, cola, and coffee. While lands were available for purchase during the period in which they migrated, Arhin comments that only a few of the migrants were able to purchase land outright and the majority accessed it on sharecropping terms or had to pay ground rent to their landlords (*nto*) which was taken as a percentage of the crops arbitrarily decided by the landlord.

The main obstacles to land purchase was a growing unwillingness of landlords to alienate land outright and an inability of migrants to pay the going price. Arhin (1988: 13) argues that these tenure systems turned the migrant into a dependent labourer of the landlord and created tenure uncertainty in two different contexts:

The landlord could vary the terms of holding to an extent unacceptable to the tenant so that either he quit the farm or took to litigation; and it was never clear to the tenant that his heirs could inherit his farms. Landlords were very much inclined to take advantage of migrants.

The majority of farmers lacked the capital to set themselves up as independent farmers and 'their status was only slightly above labourers' (Arhin 1988: 13). Most of these farmers were also not in a position to hire labour. Hired labour usually occurred on the larger farms, where after purchase the farmers needed to clear the land relatively quickly to ensure that it

would not be given out to someone else. Sixty-seven per cent of farmers used family labour or family labour with work parties, while 33 parties also used hired labour. However, 61 per cent of farmers also hired out their labour to deal with financial hardship. Although the government provided subsidised inputs during this period, most farmers experienced difficulties in gaining access to inputs, and 84 per cent of farmers considered the provision of inputs unsatisfactory. Arhin estimates that only five per cent of the migrant farmers corresponded to Hill's criteria of capitalist farmers, with their own property, who hired labour and were able to use inputs. In contrast, 67 per cent were dependent farmers largely working on tenancies, who were semi-labourers.

From this review of the literature that touches upon the structure and structural change within cocoa, it can be seen that the essential elements in the commercialisation of cocoa production revolve around: access to land and the nature of investments in land; access to labour and the relationship between commoditised labour and farm labour; and the relations between the ecology of farm production and the substitution of forested conditions by the use of inputs and seeds. Earlier phases of cocoa production benefited from forests and the rents that farmers could capture from forests. This facilitated the movement of a labour force from outside of the forest into the forest, whose labour within the forest could generate a significant surplus to fuel a process of accumulation. This labour did not replace family labour but supplemented it.

Kin played a central role in creating cocoa plantations which was then placed under the care of hired labour, enabling capital to be conserved for land purchase and subsequent investments in creating new cocoa plantations. This led to the rapid colonisation of the forests, and the development of land markets and new frontiers. However, the rapid expansion of cocoa also created ecological problems manifest in the decline of the forest and the emergence of disease epidemics in old production zones. This intensified the movement to new frontiers, but farmers moving to these new frontiers were often handicapped by the decline in the older frontiers and lack of capital.

By the 1970s, as the limits of new frontier areas were reached, the cocoa industry was beset by a lack of new land to expand into and declining conditions of production within existing areas of production. This led to the relocation of migrant Sahelian labour to the new cocoa frontier areas in Côte d'Ivoire, resulting in both a scarcity of land and labour within Ghana. This scarcity has transformed the institutional flexibility and

innovations that developed during the expansion of the cocoa industry into insecurity. This insecurity is manifest in both the conditions under which migrants gain access to land and the rights of family members to land in which they have expended much labour in transforming into cocoa farms. The high costs of production and access to land now act as a barrier for many farmers to enter cocoa production in their own right, and increasingly they enter into cocoa within dependent contractual relations that are intermediate between autonomous smallholder production and labouring, and which are often expressed as sharecrop tenancies. The next sections of this paper explore in more detail the changing access to land, labour relations, family relations, and the access of women and youth to cocoa plantations and land, and access to inputs.

4 COCOA PRODUCTION TRENDS

The volume of cocoa produced in Ghana has gone through several twists and turns (see figures 4.1 and 4.2) in line with external factors and changing government policies. Until 2020 when six new regions were created, cocoa was produced in six of the ten administrative regions in Ghana. According to scholars such as Löwe (2017), and Kolavalli and Vigneri (2011), cocoa production has gone through four major phases. The first phase which is known as *exponential growth* (1888–1937), was the period when commercial cocoa production started in the Eastern Region and spread rapidly to other regions. The volume of cocoa produced and exported rose rapidly during this period (Figure 4.1). Ghana started exporting cocoa in 1885 and exports reached substantial proportions (1,000 tonnes) by 1900. The country became the world's leading cocoa producer in 1910/11 and held this position until 1976/77. The high volume of cocoa produced between 1888 and 1937 was facilitated by the construction of roads and rail networks coupled with fairly effective organisation of cocoa marketing by Ghanaian middlemen. As suggested already, a decline in the world market price of palm oil also accounted for the increased output of cocoa, as farmers turned to the production of cocoa as an alternative export crop.

The second phase was the *stagnation and post-independence growth* period (1938–64). The cocoa industry remained stagnant from 1938 until 1960. The slow growth was largely caused by a decline in the price of cocoa on the world market. Another factor that contributed to the poor performance of cocoa during this time was an outbreak of diseases and pests, especially the swollen shoot virus (Frankel 1974). The cocoa sector, however, began to recover in 1960, when Ghana became a republic. Output increased tremendously to 581,000 tonnes in 1964 (Kolavalli and Vigneri 2011). Although the Ashanti Region was the leading producer of cocoa during this time, the increased total output in Ghana was largely accounted for by increased production in the Western Region (see Figure 4.2) which became the latest cocoa frontier. This post-independence growth was attributed to effective marketing by the Cocoa Board which was given a monopoly in 1947, as well as the cyclical nature of production from earlier planting (Kolavalli and Vigneri 2011).

The third phase, referred to as the *downturn* (1964–82), was characterised by a decline in output of cocoa and a near collapse of the cocoa industry (Manu 1974). As shown in Figure 4.1, cocoa output declined significantly after reaching a peak of 581,000 tonnes in 1964 to about 168,100 tonnes by 1983. The downturn was partly caused by a consistent decline in the world cocoa prices since 1965. COCOBOD reduced the producer price and farmers responded to this situation of lower returns by reinvesting less in cocoa production (Löwe 2017). The spread of diseases and pests also accounted for the drastic decline in cocoa output during this period. According to Amoah (1995), while government scientists had proposed the cutting down of cocoa trees affected by swollen shoot virus as a way of containing the disease in 1960, farmers chased state officials engaged in the exercise with guns and machetes because they (farmers) were not satisfied with the compensation paid for each tree cut.

The programme was suspended in 1962. As a result of the failure of this programme, the disease assumed alarming dimensions by 1968. Amoah (1995) further reported that the Cocoa Services Division diseased-tree-cutting scheme was only reintroduced in 1969 under a new programme known as 'Plant-As-You-Cut' whereby all treated farms were immediately replanted with high-yielding hybrid cocoa. He noted that since farmers were not actively involved in the replanting exercise, most of them could not maintain their farms in the manner in which the Cocoa Services Division staff did. Consequently, the Plant-As-You-Cut programme was also not successful. Political instability and mismanagement of the Ghanaian economy by successive military governments also accounted for the poor performance of the cocoa sector during this period.

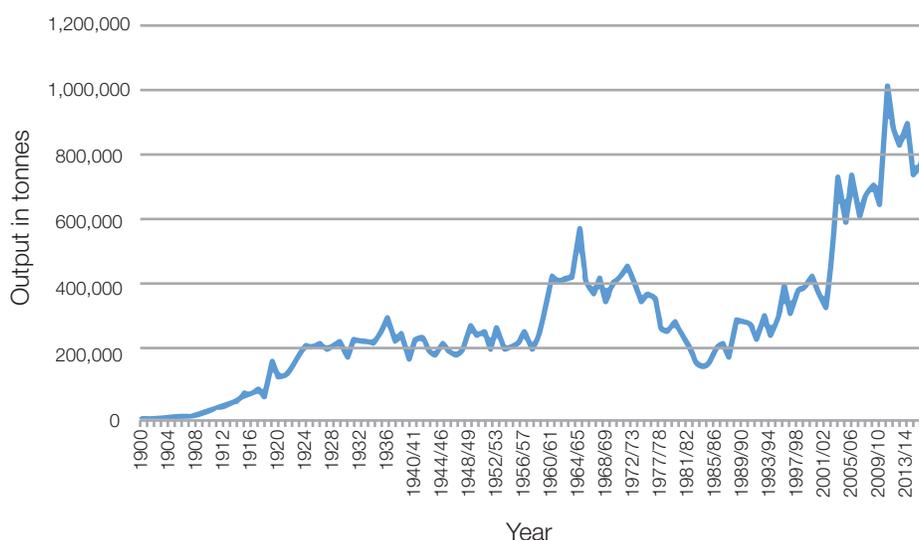
As the name suggests, the last phase, referred to as the *recovery and second expansion* (1983–present), was characterised by recovery of the cocoa sector followed by increased output. These changes were caused by the implementation of the Economic Recovery programme in 1983, followed by structural adjustment programmes. The main elements of the structural adjustment programmes which contributed

to the recovery and growth of the cocoa sector were increased producer prices, development of infrastructure in cocoa-producing areas, reduction of implicit taxation of farmers, and improved extension services to farmers. Growth since the 2000s was also attributed to rising world market prices of cocoa and COCOBOD's input support to cocoa farmers, which includes mass spraying of cocoa farms and provision of high-quality fertiliser (Kolavalli and Vigneri 2011). Since the mid-1980s, output in the Western Region in particular, has continued to increase rapidly.

cocoa by 1910, Ghana witnessed a significant decline in cocoa production in the 1970s and 1980s when the cocoa industry nearly collapsed. The cocoa sector recovered again in the early 1990s after the country adopted structural adjustment programmes. With an average total annual output of about 800,000 metric tonnes, Ghana is currently the world's second highest producer of cocoa, after the Ivory Coast (CRIG 2017). Although cocoa's contribution to gross domestic product (GDP) has declined in the last three decades, cocoa is still the most important commercial crop in the country (Roldan, Fromm and Aidoo 2013), contributing 3 per cent on average to GDP (MOFA 2016).

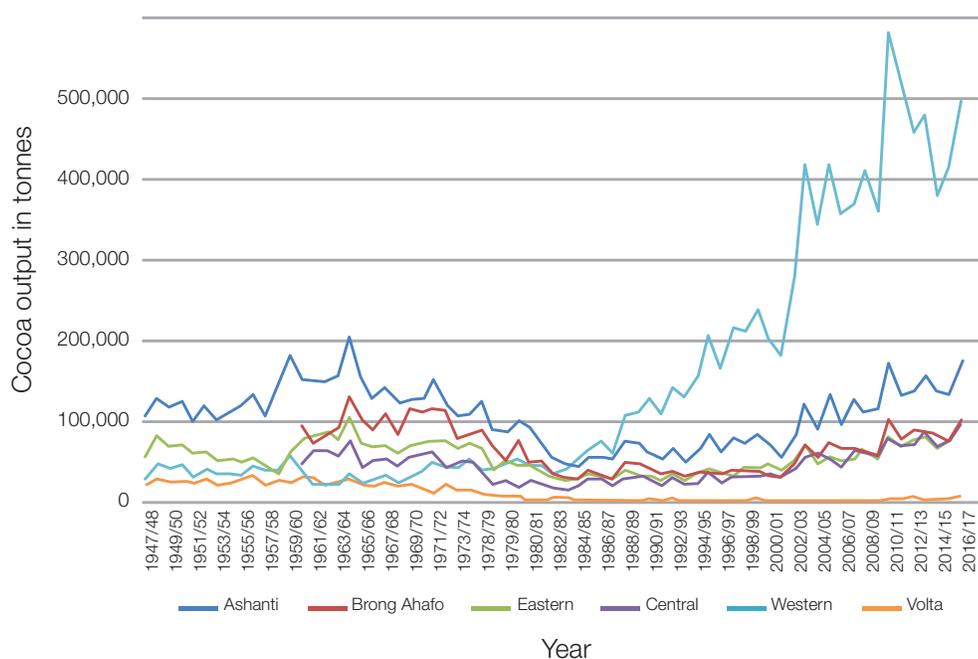
The preceding discussions in this section show that having emerged as the world's largest producer of

Figure 4.1 Annual total cocoa output in Ghana in tonnes (1900–2016)



Note: sources of data for 1900–1938: Hill (1956); for 1939/40, 1947/48, and 2016/17: Kotey, Okali and Rourke (1974). Source: www.factfish.com/statistic-country/ghana/cocoa+beans,+production+quantity.

Figure 4.2 Annual cocoa output per year and region



Source: Ghana Cocoa Board (2020).⁴

5 LABOUR AND FAMILY RELATIONS OF PRODUCTION

Labour and family relations in cocoa production are intimately connected with the land, in that access to land is embedded in reciprocal relations of production and reproduction in which male youth provide labour to their seniors, with the understanding that they will in future inherit or that their children will inherit. Women's participation is also reflected in their access to land from their husbands, or in their children's access to the land (Okali 1983). Thus, it is important to understand lineage production within the context of intergenerational and gender relations. However, family relations are also influenced by the commodification of labour, which enables landowners to access labour outside of the family and for youth to gain sustenance from labour and withdraw labour services from the family. This section explores how the relationship between hired labour and family labour has changed through time, and the main significant directions of change in the present context.

According to Austin, in the precolonial era, wage labour was available but its use in agriculture was limited, since the price of labour was relatively high in relation to its productivity and did not enable the hirer of labour to gain a significant return to the investment in wages. The dominant form of extra-household labour was domestic slavery. Slaves were absorbed into lineages over generations, expanding their sizes. During the early colonial economy, slave labour was replaced by migrant labour drawn from north of the forest, and the forest rent, the higher productivity of agricultural production within the forest as compared to the savanna, enabled large numbers of migrants to be incorporated into cocoa production as migrants. The early forms of labour were based on money wages, of which the dominant form was the annual labour contract, in which the labourer was paid after harvest for the whole year and provided with food or access to a farm to cultivated food by the landlord. This was later replaced by sharecrop contracts, in which the labourer received a third of the proceeds of an established cocoa farm for weeding, tending, and harvesting the cocoa.

Although there was a rapid expansion of cocoa production in the early twentieth century, capital was

scarce, and the larger commercial farmers sought to maximise returns by investing in purchasing new lands and minimising investments of capital in labour. A mixture of deploying extended family labour and hired labour achieved this. Hill (1963) shows that the large cocoa farmers bought large plots of land, which were acquired in the early days of cocoa at cheap prices. They cultivated the larger portions of these lands, but gave out small plots to lineage members, which assured them access to free family labour in their endeavours to open up new lands for cocoa cultivation.

The male youth labour of extended families was largely deployed in the new frontier areas, in the heavy labour tasks of clearing forest and creating cocoa plantations, while established mature cocoa plantations were given out to migrant sharecroppers as 'caretakers', who received one third of the harvest (Amanor 2005a).

As cocoa production matured, these arrangements entered into crisis. In old production districts, cocoa became susceptible to diseases, such as swollen shoot, and declining productivity from senescence. Cocoa required replanting, but the cost of replanting was much more difficult in old cocoa plantations than in new frontier districts (Ruf 1995). Success rates of replanting were lower and required much more labour in clearing weeds than in forest undergrowth. As a consequence of higher labour requirements and lower yields, migrant labour gravitated towards the new frontier areas. Farmers increasingly converted old frontier lands to food crops rather than spending increasing amounts of capital in replanting.

According to Konings (1986), it was mainly medium-scale farmers who converted from cocoa to food crops. This was exacerbated in the 1970s by declining international prices for cocoa, and attempts by the Ghanaian state to maintain revenues from cocoa exports by increasing rent extractions through a decrease in farmgate prices. As a consequence of these factors, profit margins in cocoa farming decreased significantly during the 1970s (Bates 1981). The declining productivity of cocoa in old frontier districts resulted in a shift in cocoa production to new frontiers areas in the Western Region. By the 1970s, this westward shift came to an end, as new

frontier land was no longer available in Ghana. During the 1970s, there was a pronounced shift in migrant Sahelian labour out of the forest region of Ghana into Côte d'Ivoire (Amanor 1994; Amanor 2005b).

As a result of the lower productivity and higher labour requirements of old frontier districts, migrant Sahelian labour became scarce. Land shortages experienced by youth in the Eastern Region resulted in local youth turning to labouring as a source of income. Unlike the Sahelian migrants, local youth sought employment on a short-term daily basis, or as a job contract, a fixed sum for clearing a particular area of land that could be one acre or a measurement of a number of armspans, such as ten by ten. By the late 1970s and early 1980s, there were significant changes in labour relations, which was manifest in the decline of the migrant caretaker sharecrop labourer, and the emergence of daily hired labour drawn from the local farming population. The general impoverishment of cocoa farmers in the 1970s and movement of farmers experiencing hardship in old pioneer districts into new frontier districts, without sufficient means to establish their own cocoa farms, increased the availability of casual labour. The increasing movement of male youth into casual labour as Sahelian migrants relocated from Ghana also made male youth more autonomous and undermined the ability of lineage elders to draw upon extended family labour, since male youth increasingly worked as labourers.

The shortage of land in lineages also led to increasing squabbles among family members over the inheritance of land and the intergenerational transfer of land (Amanor 2001) and to different categories of relatives. In the early twentieth century, migrant cocoa farmers from matrilineal societies purchased large tracts of land in their own right and transferred it to a wide array of relatives, including matrilineal relatives and their own children (Hill 1963). By the 1970s, as land became scarcer, the transmission of land to wives and children became increasingly contested within matrilineal families. Mikell (1984) argues that while many Brong women were successful farmers in the earlier part of the twentieth century, by the 1970s, when she conducted her research, women had largely retreated from cocoa production and the only women who possessed cocoa farms were elderly women who had acquired it in earlier times.

In the earlier period, women were able to pass on land to daughters as female property. As land became increasingly scarce, the matrilineage-claimed female cocoa farms came to be administered by male heirs. Duncan (2010) describes reciprocal norms between

conjugal couples in the Western Region, where in exchange for assistance on her husband's land the wife was entitled to a third of the land. In contrast if a husband assisted a wife on her land he was entitled to a half of the land, since men were thought to contribute more physical labour to their wives' farms than wives contributed to their husband. However, Duncan (2010) found that, during the period in which she conducted research, husbands frequently postponed the granting of land to wives; and providing education for children was increasingly being accepted by wives as a substitution for grants of land.

As land became scarcer, sons and wives who had helped their fathers or husbands to establish cocoa farms now found themselves ejected from the farms as powerful matrilineal relations began to attempt to gain control over the land (Okali 1983; Amanor 1999, 2001, 2010). As a result of these kind of disputes, many sons sought to gain access to land through other routes than helping lineage relatives in exchange for expectations of future access to land. Equally, lineage elders have attempted to redefine the labour of family youth as 'service' on their farms, a criteria for allocating land to junior relatives.

As a consequence of these disputes, the general reciprocity that once governed family farming relations has been increasingly replaced by more formal arrangements. Sharecrop contracts are now common among relatives in the Eastern Region of Ghana (Amanor and Diderutuah 2001). Close relatives now sharecrop land and arrange sharecrop contracts with each other, in which land is given out on condition that the relative develops a portion of the land under cocoa, and then this is shared between the lineage elder (as representing the interests of the lineage) and the individual farmer. These contracts often provide the lineage member with a more favourable share than that prevailing under 'market'-based sharecropping, where the relative receives two thirds of the land or crop, while on the market the dominant sharing arrangement is a half share between the two parties (Amanor 1999).

These relations reflect the growing scarcity of land and inability of all farmers to gain access to land from their lineages. As family land becomes scarce, it increasingly becomes allocated to select family members on the basis of their ability to provide surplus production for the lineage and its social reproduction. However, it is not only the land-hungry that enter into sharecropping arrangements with their families. Amanor (1999) describes cases of matrilineal elders who both give out the matrilineal land they control to sharecroppers while entering into sharecrop arrangements with

other landlords. Sometimes matrilineal elders secure land from their fathers' lineages on a favourable third sharecrop tenant arrangement. The land which they convert into cocoa plantations is shared with the lineage, the farmer gaining two thirds, which he can then pass onto his children. It is not clear from the literature whether this kind of arrangement can also be used to pass on land to wives.

Although many women farm cocoa in their own right, many male cocoa farmers depend upon wives and children to aid them in cocoa farming. This tends to limit the access of women to land in their own right. There are also tensions between women who make claims (and claims on behalf of their children) to land that they helped their husband to convert into cocoa plantations, and women lineage members who gain land through matrilineal rights, and see the alienation of children and wives from the land by men as a threat to women of the lineage. Hill (1963) and Amanor (2001) also document cases of matrilineal women who farm with mothers and daughters, who maintain a category of women's land that is transmitted from mothers to daughters. Growing land shortages can also result in daughters pressuring their mothers not to allocate land to their sons, since the sons will only allocate it to their own wives and children, resulting in the decline of matrilineal land (Amanor 2001).

Family labour has also been disrupted by government and donor campaigns over the last 20 years to halt child labour and encourage school enrolment in rural areas. Allegations of the use of 'child slave labour' in cocoa plantations became prominent in the early 2000s, following the release of the documentary film *Slavery: A Global Investigation* (Woods and Blewett 2000), which investigated young exploited labourers from Burkina Faso and Mali, working in cocoa farms in the Côte d'Ivoire (Off 2006). This led to the Harkin Elgin Protocol in the US, which threatened to boycott Ivorian and Ghanaian cocoa and chocolate products, unless the governments of both countries worked with the cocoa multinationals in eradicating child labour (Off 2006; Amanor 2011; Abenyega and Gockowski 2003). In 2001, the International Institute of Tropical Agriculture (IITA) carried out a major review of cocoa and identified the hazardous usage of pesticides as a major threat to youth working on cocoa farms (Abenyega and Gockowski 2003). This has resulted in initiatives to discourage youth of 17 and under working on cocoa farms, and the development of cocoa tracking systems that will in future enable producers using child labour to be excluded from marketing chains.

These initiatives on child labour are likely to result in a decline of household labour and an increasing shift

out of agricultural production as farming youth become less familiar with practical agriculture and focus more on education. However, these trends are likely to be already well established within cocoa-growing areas, as wealthier cocoa farmers have long invested profits in the education of their children. This movement can relieve increasing land pressures as family members take up alternative livelihoods. It can also lead to the emergence of an urban-based landowning class hiring out land to rural farmers and transforming their extended kin into labourers and tenant farmers. However, a similar trend can emerge among poorer farmers who lack household labour and suffer from insufficient capital to hire labour. They are most likely to lease out part of their land on sharecrop tenancies to gain some income from the land, above what they can exploit with their available household labour. At present, there is a lack of empirical studies on these types of dynamics.

There has been a decline of large-scale labour migrations into the forest zone and their replacement by casual daily labour, complementing family labour. However, declining access to land and labour in some areas has also led to the allocation of land to family members on a sharecrop basis, as the area of lineage land fails to meet the needs of the majority of family members. Land becomes allocated to those most able to create a surplus, which can also create capital and investments in farms for the lineage. There is likely to be a diversity of trends occurring in the present day, reflecting differing access and availability to factors of production, including the smaller-scale autonomous family production of cocoa, supplemented by hiring daily labour, and a movement out of cocoa into other crops and livelihoods.

6 LAND AND COCOA PRODUCTION IN GHANA

Land has been the central factor in cocoa development as access, control, and ownership relations are transformed temporally in accordance with the changing context of labour availability, technology, capital investments, markets and land laws, and local land rules. The changes in land relations in turn have also impacted on cocoa commercialisation, and social relations of production in communities and households. Land relations in the cocoa belt have changed due to the commodification of land and labour and its impacts on social relations and inheritance systems (Amanor 2001). State policies have played a considerable role in reshaping land relations in Ghana through a range of incentives in trade and legislations. Different historical phases in pioneer frontier development reflect the changing trends in international trade and land legislation which are translated into changes in local land rules and practices, enabling, in particular, migrant farmers to have different forms of access to land (Boni 2005; Chauveau and Richards 2008).

6.1 Land and cocoa in the colonial era

According to Polly Hill (1963), most of the cocoa produced in southern Ghana in the early 1900s was produced by migrant farmers who purchased land on outright terms for cocoa farming. These migrants could be described as 'capitalists' who had dealings with the cash economy and who had accumulated wealth from the previous cultivation of oil palm. Direct land purchase was the most important mode of acquisition by these prominent migrants in response to economic demand for cocoa in the colonial economy as defined by external trade (Hunter 1963). The practice of selling and buying land in Akwapim (the origin of the original migrants) was possible since land ownership was not vested in the stool, thereby enabling individual transactions in land.

The initial development of cocoa in the Akwapim forest areas led to the development of strong economies in towns on the ridge which attracted migrants from other places, leading to scarcity of land. The land scarcities led to mass re-migration onto Akim lands across the river Densu from 1892 to buy forest lands (Hill 1963). For farmers and merchants familiar with oil palm and

coffee farming in the 1800s, the transition to cocoa farming involving the same commercial logic enabled purely capitalist norms of ownership, profits, and wealth accumulation. The resulting transformations in land markets can justifiably be ascribed to external pressures from international trade, capital investment, and processes of capital accumulation (Amanor 2001). M.J. Field (1943: 60) states that the Krobo 'are quite content to spend every penny of their considerable savings in buying new lands'. Polly Hill (1963: 13) concludes that the significance of these land purchases was evidence against conventional wisdom that land could not be alienated in Africa and that Africans were not economically minded.

Sharecropping was an important means for poorer farmers to gain access to land that they could not afford to buy. Richer migrant capitalist farmers bought vast lands which they in turn exchanged through sharecropping for labour from poorer migrants. Similarly, rich landowning indigenes also relied on sharecropping arrangements to meet their labour needs. Sharecropping by virtue of its practical nature allowed landowners access to labour and migrants access to land that they did not have cash to purchase. Hill (1959) states that sharecropping was a disguised form of land sale and an important means of transacting land by those without chiefly titles. Such arrangements were used by poorer small farmers without the capital to purchase land or who arrived when most land was already sold. This was useful in navigating bans by paramount chiefs and the state on sales of land, ensuring uninterrupted transfers and transmission of land for cocoa cultivation and the overall growth of the industry. Daaku (1974) reports that one third of the share of crops was paid to chiefs in the Western Region in the early part of the twentieth century when cocoa was being introduced to the Sefwi area.

The colonial period was one where land availability interacted well with wealthy migrants' quest for further accumulation of wealth using a new crop, cocoa. Land sales and sharecropping as dominant access paths to owning land led to the colonisation of huge parts of Akim lands which represent the old cocoa core region. An important driver of the process was

the accumulated wealth of migrants which enabled them to purchase these lands. This was aided by the lack of capital by land owners and their poor familiarity with cocoa farming. A second most important driver was the role of labour exchanged for land using the sharecropping system for migrants without the capital to invest in land purchases. A third driver was the inability of the paramount chiefs to control the explosive land sales by their sub-chiefs, in addition to the clever mechanisms put in place by sub-chiefs in obviating controls by the paramountcy. Certainly, the wider economic situation of the global economy and local measures to anchor and orient the colonial economy to the needs of the metropolitan economy provided the meso-level incentive structure for these investments in land for cocoa production. Local land tenure rules were very flexible in accommodating the growing demands of the cocoa sector.

6.2 Land and cocoa in post-colonial Ghana

The post-colonial era was associated with a growing scarcity of land in the new but expanding frontiers. Land sales to migrants had ceased to exist in both the old frontier and Ashanti. The post-colonial state hinged the new developmental effort on the extraction of cocoa rents for its planned grand development project. In all the major cocoa areas except the Western Region, the 1960s experienced a predominance of sharecropping as a major mechanism for accessing land for cocoa production (Okali and Kotey 1971). Sharecroppers received cocoa farms which they expend their labour developing, against a payment of a third of the crop annually to the landowner. Also, in the 1960s, government legislation by the socialist regime of Nkrumah attempted to replace sharecropping with annual rents to be paid directly to government. This measure was aimed at reducing the cost of accessing land and also the assumed exploitation inherent in sharecropping. Though this worked with stool lands, it was impossible to control land that was already in the hands of individual families. The overthrow of the socialist government saw a re-emergence and prominence of sharecropping as a predominant mode.

By the 1970s, land became scarcer, with only the Western Region being the last remaining frontier with a few virgin lands which were depleted by the end of that decade. The land scarcity has mainly also been exacerbated by the creation of forest reserves in the Western Region. Sharecropping remained the dominant mode also in this decade in the older frontiers. By the end of this decade, a plurality of modes of access to land co-existed such as sharecropping, renting, and

sales. Land rentals enabled landowners ownership rights over the land while exacting rents from its use. Increasing production in the face of reducing family labour and rising labour cost encourages this trend.

The relations between labour and land is a reflection of the struggle between migrants and landowners. As labour became scarce, landowners were willing to transition from abusa-labourers to abusa-tenants which makes land available to migrants and even indigenes. The *yemayenke* system (Takane 2002) which transfers half of the cocoa farm to the labourer in exchange for labour services on the entire farm reflects gains by labour against landowners and capital. In the colonial era, sharecropping was mainly a migrant route to accessing land, but in the post-colonial era even indigenes with less land rely on this route to acquiring land.

It is important to note that the rules and conditions of use vary spatially and between migrant and indigene status. In older cocoa zones, most sharecroppers had better conditions regarding their control over the land and the length of contract time, than new frontiers where sharecropped land had specific expiry dates which coincide with the lifetime of the cocoa trees. However, indigenes tend to receive favourable terms on land, especially when lands are stool lands, which grants them ownership rights.

The dynamics of land tenure in the new frontier, the Western Region, were different since the land rush for cocoa began seriously from the 1960s, even though cocoa farms were established way back in the 1930s. Back then, the Sefwi were content with gaining a livelihood through subsistence agriculture as they considered standards of living of cocoa farmers to be very low in the early days (Hill and McGlade 1957). According to Boni (2005), chiefs in Sefwi granted vacant virgin lands to migrant farmers for a fee (*aseda*) as a chiefly prerogative, while indigenes or subjects of the Sefwi stool were granted free access to agricultural lands. Therefore, two agricultural titles to land emerged as the chief could sell the right of cultivation to an immigrant while his subjects could cut down trees and acquire a perpetual title.

In contrast to other cocoa-growing regions, very limited early land is matrilineally owned. Rather, the vast clearing of the forest in the boom days from the 1950s onwards consisted largely of individually managed titles. However, due to increasing land scarcity in the late 1970s, the chiefs decreed their agricultural prerogatives over the tracts of remaining virgin forest (Boni 2005: 76), thereby cutting off the rights of

indigenes to clear and establish their title to land. The right to sell land was not only a chiefly prerogative, as Sefwi commoners who already established their agricultural right through forest clearance could sell their parcels, which made land sales an important mode of land acquisition for migrant farmers. After paying the *aseda* price for the land, immigrant cocoa farmers are required to pay a yearly one tenth cocoa tribute to the chiefs, but not the Sefwi farmers.

Upon the adoption of *neoliberal structural adjustment policies* from the early 1980s, cocoa experienced a recovery and expansion due to the export-led development strategy advocated. The introduction of the Economic Recovery Programme's neoliberal practices, institutional reforms, and new legislations, especially in relation to land, sought to revamp cocoa production and the private sector generally. The structural adjustment programme provided incentives for the geographical expansion of cocoa via extensification and intensification, with ramifications for changes in access to land and modifications to land tenure systems at different frontiers. Land scarcities are very high due to the increasing commercialisation of agriculture in general in the country, for both food and commercial crops.

Sharecropping remained an important conduit to land access for cocoa farming in the neoliberal era of the 1980s. Berry (2009) describes how farmers avoided the high cost of labour by adopting sharecropping and other informal labour groups known as *nnobo*. By so doing, less land was granted to migrants under less favourable conditions. For instance, both migrants and indigenes without land in the Western Region where secondary virgin lands were available in pockets, used sharecropping *abunu* arrangements to access land. *Abunu* means 'that which is divided in two'. Under an *abunu* system, the tenant clears secondary forest, then plants and maintains the plantation until it starts yielding. At this point, the 'land is divided into two and the tenant receives his half as his own for an agreed period of time equivalent to the lifetime of the trees or longer' (Knudsen 2007: 36).

In the Sefwi area of the Western Region, the nature of cultivation titles acquired began to change under the huge demand for land in the neoliberal era. Beyond paying consideration money for the land, the annual 10 per cent rent was enforced for both migrants and indigenes who acquired stool lands. Also, virgin lands were no longer to be occupied by indigenes but now became property of the chiefs. The period also marks great land insecurities for migrants whose lands were now under threat of reinterpretations of cultivation

rights, forcing many to seek re-documentation from higher chiefs involving more cost. The length of tenure which initially was in perpetuity once annual rents were paid is being altered, with varying and reducing length over time especially on land acquired through sharecropping (Boni 2005).

The scarcity of land therefore meant that local youth could not find land for cocoa, which created a triangular dispute between commoners, the chiefs, and migrant farmers (Boni 2005). Boni (2005) notes that most large cocoa farms in the western frontier belonged to chiefs and wealthy landlords, whilst the majority of indigenes own smaller sizes similar to that of migrants, of between one to five acres. The ramifications of the changing land relations are not limited to the social reproduction of a stratified society along existing inequalities, but as Amanor (2010) argues, it also leads to social conflicts between autochthones and migrants, chiefs and commoners, youth and elders, and between family members. The result has been that the commodification of land and labour relations in an era of intense competition for scarce or expensive resources reduces kin to strangers as moral norms change.

The generational transmission of land has always been along the lineage systems of either matrilineal or patrilineal. However, similar to conditions described by Hill (1963) for the colonial period, the contributions of family members on cocoa farms are rewarded with land grants where the land in question was acquired by the individual outside the main lineage land. Following the passage of Succession Law (PNDC Law 111) in 1985, wives and children can now acquire at least three quarters of the man's personal property, with the remainder devolving to the extended family. Inheritance systems for migrants have been more straightforward as the lands in question are owned by the migrant farmer rather than being part of a family pool. For most migrants of the patrilineal system, it is the sons and uncle caretakers who inherit lands. Matrilineal indigenous groups have a more complicated system as nephews inherit property. Husbands therefore need to make conscious land grants to wives and children while alive. Generally, male kin play the land-allocating role in both matrilineal and patrilineal societies (Bukh 1979; Grier 1992).

Amanor (2010) states that under the new conditions of land scarcity, the youth are increasingly dependent upon elders for land, while elders compete among themselves for control of land and family labour. Both youth and women/wives are no longer guaranteed easy access to land and the operation of 'fair traditional

inheritance'. The increasing use of caretaker tenant labourers on existing farms, and sharecroppers on new farms with fixed leased terms became fashionable on the neoliberal cocoa farm (Amanor 2001, 2005b). Crook (2001) makes the assertion that Ghana's colonial past, which supported customary law, made chiefs exercise considerable control over access to land and regulation, and that this is continuous in contemporary neoliberal Ghana, where land administration reforms and the constitution of the Republic of Ghana tends to enhance chiefs' influence and power.

7 GOVERNMENT POLICIES AND SUPPORT TO THE COCOA INDUSTRY

As suggested previously, the development of the cocoa industry in the colonial period was largely promoted by individual farmers with very little support from the state. The only notable impact of the colonial regime in the initial period was the importation of cocoa pod from São Tomé and planting them at the newly established botanical garden at Aburi. This initiative which was supported by Sir William Brandford Griffith, the then governor of the Gold Coast, contributed to the spread of cocoa, as the seedlings produced at Aburi were subsequently distributed through the local chiefs and Basel missionaries to farmers in areas suitable for cocoa production (Amoah 1995).

Since the 1930s, however, the colonial government made efforts to promote the production of cocoa through research and extension services. One main research institute which contributed to the development of the cocoa industry in Ghana is the Cocoa Research Institute of Ghana (CRIG) at Tafo. The institute was first created in 1938 as a Research Unit of the Gold Coast Department of Agriculture and mandated to carry out research on pests and diseases. In 1944, the unit was expanded to form the West Africa Cocoa Research Institute (WACRI), with a substation at Ibadan, Nigeria. After both Ghana and Nigeria obtained independence in 1957 and 1960 respectively, WACRI was dissolved, giving birth to CRIG which was mandated to carry out research in all aspects of the cocoa crop. The rapid and sustained growth of the cocoa industry in the early period of expansion was also attributed to the provision of extension services and inputs to cocoa farmers by the Ministry of Agriculture. In order to ensure that farmers obtained information on cocoa production, the government of the then Gold Coast, in 1950, established the cocoa division in the Ministry of Agriculture, and mandated it to disseminate information on effective techniques of cocoa cultivation to farmers. The division had stations in the various cocoa-growing areas in the country. In 1972, the cocoa division was absorbed into the Ghana Cocoa Marketing Board, together with CRIG and the Produce Inspection Division as a division of the Board.

As a way of producing raw materials to feed new industries, the production of tree crops, namely

cocoa, oil palm, tobacco, and rubber was actively promoted by the first post-colonial government led by Nkrumah. Although Nkrumah's government supported large-scale state plantations in the forest zone on the grounds that small-scale agriculture was difficult to modernise (Yaro, Teye and Torvikey 2017), cocoa was still largely produced by individual farmers. While cocoa production declined during the 1970s, the government has adopted several strategies to revamp the cocoa industry since the late 1980s. As part of the Economic Recovery Programme, the government of Ghana sought to revamp cocoa production through a rehabilitation of the sector. These came in the form of greater use of technological inputs such as fertilisers, chemicals for spraying diseased plants and pests, and above all, the introduction of hybrid cocoa (Gockowski and Sonwa 2011; Teal, Zeitlin and Maamah 2006; Vigneri 2008).

As a way of increasing output of cocoa in the 1990s, the government made efforts to increase the producer prices for cocoa for farmers and this achieved good results (Koning 2002). The desire to add value to cocoa and other export crops also led to the introduction of incentives to entice foreign firms to establish agro-processing firms in Ghana. Other measures adopted by successive governments to boost cocoa production include extension services and efforts to control pests and diseases. Certain challenges have, however, continued to affect cocoa production negatively. Apart from pests and diseases, the withdrawal of government subsidies on input is a challenge to production. Also, farmers sometimes complain that the producer price is low and profitability on cocoa farming is increasingly declining. Anecdotal evidence suggests that in recent years, some traditional authorities have started cutting down cocoa trees to cultivate rubber because they think cocoa production is not very profitable.

It is also important to note that since the 1990s, the desire to increase export earnings made export crop diversification a key policy goal of commercialisation initiatives. Various institutional arrangements have been made to facilitate the marketing and export of non-traditional export commodities, which includes mango, pineapple, coconut, pawpaw, kola nuts,

orange, grape, ginger, banana, avocados, and guava (Ampadu-Agyei 1994; Teye and Torvikey 2018). A Tree Crop Policy formulated in 2012, for instance, emphasises the development of other crops in addition to cocoa.

8 CHANGES IN COCOA MARKETING ARRANGEMENTS

Cocoa marketing arrangements in Ghana also went through several changes. In the early stages of the cocoa industry in the mid-1880s when Ghana started exporting cocoa, foreign firms relied on middlemen (i.e. mainly big farmers) to buy cocoa from farmers. Foreign companies controlled the local cocoa market through local agents, many of whom were not employees of the firms but who were connected to them through advances and commissions (Beckman 1976). Occasionally, local farmers made attempts to organise themselves to bypass foreign companies to secure higher prices, but these efforts were not successful.

In 1937, foreign firms entered into a partnership agreement in order to reduce competition and ensure low prices of cocoa. The farmers responded to these attempts to offer them low cocoa prices by withholding their produce from the market and boycotting imported goods (Frankel 1974). As a way of resolving the farmers' hold-up of sales, the colonial government set up a Commission to investigate the concerns raised by the farmers. Based on the finding that farmers were actually being exploited by foreign firms and local middlemen, the Commission recommended that the government should establish a cocoa marketing board. Partly in line with this recommendation and cocoa supply concerns during the Second World War, the colonial administration established the West African Produce Control Board in 1940 and mandated it to fix cocoa prices for all West African countries (Williams 1953; Bauer and Yamey 1968). This Board was dissolved shortly after the Second World War (Frankel 1974). Based on experience gained from running the West African Produce Control Board, the Gold Coast Marketing Board, also known as the Cocoa Marketing Board (CMB), was established in 1947, for the purpose of marketing cocoa and stabilising its prices.

8.1 Patronage networks and exploitation of cocoa farmers in the early post-independence era (1957–1980)

At the time of independence in 1957, there was a struggle for a monopoly of the cocoa sector. The cocoa trade within the country was still largely controlled by foreign firms, while the Cocoa Marketing Board

maintained a monopoly over export of the produce. However, as a result of farmers' agitations against monopolistic practices by foreign firms, subsequent public financial support to cooperatives, and the state Cocoa Purchasing Company which was established in 1952, the market share of foreign firms declined from about 100 per cent before the Second World War to 57 per cent in 1959/60. The market share of the cooperatives and the Cocoa Purchasing Company increased gradually, reaching 24 per cent and 17 per cent respectively in 1959/60. In the same year, the Farmers' Association purchased only 3 per cent of the cocoa produce (Beckman 1976).

The early post-independence era witnessed complaints of corruption and neopatrimonialism in the cocoa sector. To address these concerns, the military government established a Committee to investigate the internal marketing of cocoa in 1966. The Committee also considered various alternative models for purchasing cocoa in Ghana. One model was a competitive market whereby any Ghanaian firm could participate in the marketing of cocoa. A second model was a farmer-based cooperative marketing arrangement, while a third model was based on direct state participation which would simply mean an extension of the export monopoly of the Cocoa Marketing Board. The third model was adopted by successive governments, as it gave them the opportunity to control cocoa revenue (Beckman 1976). Consequently, the CMB has, historically, been responsible for controlling the purchase and export of cocoa in Ghana. A state Produce Buying Company buys cocoa from farmers at fixed prices.

While the main justification for establishing a state-controlled marketing board was stabilisation of cocoa prices, some scholars have argued that the early post-independence governments have exploited cocoa revenue to support patronage networks (Frimpong-Ansah 1991; Woods 2004). The Marketing Board, in the early post-independence era, overtaxed farmers by fixing cocoa prices far below world market price (Bates 2005). During the tenure of the first post-independence president of Ghana, Kwame Nkrumah, over-taxation of the cocoa industry was justified in terms of socialist

ideologies which suggests that the wealth from any resource should be used to promote socioeconomic development for the entire nation (Frimpong-Ansah 1991). After the overthrow of Nkrumah in 1966, successive governments continued to overtax the sector and this means that farmers did not benefit adequately from their labour (Deaton and Miller 1995).

Available figures show that, from 1957 to the early 1990s, cocoa farmers in the country received only 30 to 50 per cent of the Free on Board (FOB) price. This is far lower than the producer prices of between 60 and 80 per cent of the FOB price which was offered to cocoa farmers in other cocoa-producing countries such as Brazil, Malaysia, and Côte d'Ivoire (Dzorgbo 2001; Bullř 2002). While over-taxation was supposed to provide surplus revenue for stabilising prices whenever world market prices declined, the surpluses were rarely used for this purpose. In most cases, the cocoa tax revenues were used to fund development projects in urban areas and also as patronage resources for the ruling governments (Bauer and Yamey 1968; Bates 2005). The Ghanaian Cocoa Marketing Board became a tool for collecting and distributing patronage resources (Hubbard and Smith 1996). Jobs in the cocoa marketing sector were also generally offered to political party supporters (Herbst 1993: 63).

As a result of over-taxation and corruption in the cocoa sector, the producer prices declined continuously and this partly contributed to declining output. In the 1983/84 season, for instance, farmers received only 29 per cent of the FOB price and this coincided with a record low production of 159,000 tonnes (Woods 2004). While crop diseases and weather conditions contributed to the declining output, many observers believed that the low prices offered to farmers, inadequate supply of input, and poor infrastructure were the major factors that resulted in low cocoa output in the 1970s and 1980s (see Amoah 1995; Dzorgbo 2001; Woods 2004). Apart from declining production, cocoa produced in some parts of the country could not be transported to collection points. The state Produce Buying Company could not make prompt payment to cocoa farmers. As a result of declining cocoa prices in Ghana, some farmers smuggled their produce to neighbouring Côte d'Ivoire. By the early 1980s, Ghana's cocoa industry was on the brink of collapse.

8.2 Economic reforms and liberalisation of the cocoa marketing sector

As a way of dealing with the economic challenges that confronted the Ghanaian economy in the 1970s and the early part of the 1980s, the government of

the Provisional National Defence Council (PNDC), headed by Jerry John Rawlings, adopted an Economic Reforms Programme (ERP) in 1983. This was followed by structural adjustment programmes which Hutchful (1995) claimed significantly enhanced the economic performance of the Ghanaian economy. As part of the reforms, the Cocoa Marketing Board was restructured and renamed the Ghana Cocoa Board (COCOBOD). A major outcome of the restructuring was a reduction in the number of employees of the COCOBOD by 90 per cent (Kolavalli and Vigneri 2011; Kumi 2016).

The second reform entails a liberalisation of the internal cocoa marketing sector during the 1992/93 season, through an introduction of private Licensed Buying Companies to compete with the state-supported Produce Buying Company (PBC), which operated as a monopolist for about 15 years (Shepherd and Onumah 1997). Under the current marketing system, farmers sell their produce directly to Licensed Buying Companies (LBCs) who purchase cocoa at a guaranteed nationwide price fixed by the government. The LBCs transport the cocoa they purchased to 'takeover points' to sell at a fixed price to the COCOBOD, which is responsible for exporting the produce. Given that the LBCs cannot vary the producer price given to farmers, they generally only compete by offering services and inputs to farmers (Laven and Boomsma 2012).

While the Ghana COCOBOD has created a hybrid system whereby about 25 private companies buy cocoa alongside the state-supported PBC, the state-supported COCOBOD still controls the cocoa industry through its five subsidiaries: namely, the Cocoa Marketing Company (CMC), the Cocoa Quality Control Company (QCC), the Research Institute of Ghana (CRIG), the Seed Production Division (SPD), and the Cocoa Health and Extension Division (CHED) (Kumi 2016). Although private participation in the sector is still quite limited, the Economic Reforms achieved some good results as production increased significantly. Additionally, the 'producer price' given to farmers has risen significantly since 1980 and it has always been above 70 per cent of the FOB price (Bullř 2002).

Although the government of Ghana does not engage in explicit price stabilisation, the prices offered to farmers have usually been quite high in recent years. According to Teye and Torvikey (2018), both the political parties, the National Democratic Congress (NDC) and the New Patriotic Party (NPP), which have governed Ghana since the re-introduction of democracy in 1992, tend to use cocoa pricing to solicit political votes from farmers. The governments are more likely to increase cocoa producer prices in the year preceding election or during

the election year (Teye and Torvikey 2018). These kind of cocoa politics ensure that farmers continue to get good producer prices even when world market prices keep on changing.

9 TECHNOLOGY OF PRODUCTION AND INPUTS

Cocoa has historically been a new frontier crop. It thrives when planted in cleared mature forest and yields favourably with little usage of inputs. As cocoa plantations become old, they begin to encounter disease problems and a significant drop in yields, which can only be remedied through replanting. But replanting in old forest areas is expensive and requires much larger outlays in labour, and also in fertilisers to combat declining soil fertility, and in pesticides and fungicides to manage losses from pests and diseases. This gives rise to a 'differential forest rent' (Ruf and Zadi 1998) which results in cocoa cultivation historically shifting to new frontier areas. With the decline of available forestlands in Ghana since the 1980s and 1990s, the main emphasis is now on replanting and the use of inputs and fertilisers to improve productivity. There are few estimates of the costs of planting cocoa in mature forest environments and degraded forests in Ghana. However, Ruf and Zadi (1998) estimate that in Indonesia, the costs in inputs and labour of replanting in established cocoa areas or degraded land rises by over 30 per cent.

From the 1950s, new hybrid varieties of cocoa have been created and distributed to farmers. Current hybrids fruit early and are much higher yielding. They are more tolerant of less shade and drier conditions. However, they are dependent on the use of fertilisers, and are vulnerable to a number of diseases unless agrochemicals are applied. The trees require much more regular harvesting than do the old varieties as the ripe pods are vulnerable to infections. The new hybrid varieties are less robust than the older varieties, and while the old Amelanado varieties could last at least 30–40 years without significant reductions in yield, many farmers experience problems with hybrid varieties within 15 to 20 years, requiring further cycles of expensive clearing and planting (Ruf and Zadi 1998; Gockowski *et al.* 2013). As a result of this, farmers often prefer growing the older varieties or mixtures of varieties accessed from their own farms rather than hybrid seedlings.

Surprisingly little data exist on the rates of uptake of hybrid seeds among farmers. Vigneri (2005) suggests that in the early 2000s, about 57 per cent of farmers

in the Eastern, Ashanti, and Western regions were growing hybrid trees. Bymolt, Laven and Tyszler (2018) suggest that farmers grow a mixture of varieties that are usually accessed through informal seed systems or their own seed stocks.

Data on the use of inputs by farmers also suggests fairly low usage. Kolavalli and Vigneri (2011) estimate that fertiliser usage in Ghana increased from 9 per cent in 1991 to 47 per cent in 2003. However, based on a survey of 3,000 cocoa farmers throughout the forest area, Hainmueller *et al.* (2011) found that only 21 per cent of farmers applied fertiliser and 37 per cent used agrochemicals. Fertiliser usage was lowest in the Eastern Region where it was used by only 9 per cent of farmers. Bymolt *et al.* (2018) report that in their survey of the Eastern, Ashanti, and Western regions, 39 per cent of farmers used applications of granular fertiliser, 53 per cent liquid fertiliser, 88 per cent pesticides, 74 per cent fungicides, and 51 per cent herbicides. The higher usage of agrochemicals probably reflects spraying campaigns carried out by government in the main cocoa-producing districts.

In contrast with this, Ruf and Bini (2011) suggest that 75 per cent of farmers in Ghana use fertilisers as compared to only 15 per cent in Côte d'Ivoire, and this has resulted in much higher yields in Ghana than in Côte d'Ivoire. However, these figures appear to be on the high side and are inconsistent with the huge efforts of private corporations, NGOs, and government to encourage uptake of fertilisers with subsidies. However, more pertinent is the admission of Ruf and Bini (2011) that there is a wide range of success rates of fertiliser use across regions which explains differences in farmers' practice, and that while experiments with the use of fertilisers combined with pesticides and pruning in new frontier districts in Nzima could yield 4,000kg of cocoa per hectare, similar applications of fertiliser on old plantations in Ashanti without pesticides yielded around 1,000kg per hectare.

Hainmueller, Hiscox and Tampec (2011) also suggest a wide variation in yields of about 1,000kg per acre with hybrids and modern cultivation techniques, to averages of around 300–400kg per acre. Odijie (2018)

reports that when the government withdrew support for the spraying of farms in 2014, cocoa yields dropped by 18 per cent, prompting the re-introduction of the programme. The fact that there is only a significant uptake of seeds and inputs when they are provided freely or at highly subsidised prices underlies the difficulties that farmers experience in meeting the rising expenditure on production, and offsetting this against their returns. Odijie (2018) argues that the expenditure of government in Ghana in subsidising inputs to encourage the uptake by farmers, has not resulted in them benefiting from the increase in yields and proceeds from the sale of cocoa on international markets.

The early experiments in hybrid cocoa occurred in the context of the vulnerability of cocoa to dry conditions as mature forest was removed. The early hybrids were bred to adapt to drier conditions and were vulnerable to disease in moist conditions. As a consequence, most of the cultural preparation took place around removing shade trees and planting cocoa under zero shade (Ruf and Zadi 1998). This led to the perception that growing cocoa under partial shade made the crop more susceptible to disease and resulted in lower yields. Extension agents encouraged farmers to remove shade trees. However, this perception has been challenged in recent years by researchers working on cocoa agroforestry systems (Gockowski and Sonwa 2011). They argue that comparisons between zero shade and shaded cocoa are not commensurate since they compare zero shade cocoa grown with high usage of inputs with shaded cocoa with low inputs. With the use of increased fertiliser and pesticides, comparable yields can be achieved when cocoa is grown in 30 per cent shade (Asare et al. 2019; Gockowski and Sonwa 2011; Ruf and Zadi 1998). In addition to the yield from cocoa, farmers can also benefit from the value of timber and non-timber forest products, and the trees also provide valuable environmental services enhancing the biodiversity of agricultural land and making a potential contribution to REDD+ initiatives (Asare, Afari-Sefa and Muilerman 2018; Gockowski and Sonwa 2011; Ruf and Zadi 1998; Ruf and Schroth 2004).

Odijie (2018) has argued that the emphasis on inputs detracts from the rationality of growing cocoa when the mature forest environment in which cocoa thrives no longer exists. Under these conditions, it makes more sense to shift into the production of other crops that require less inputs and are less vulnerable to changes in the agrosystem. He argues that the provision of free and subsidised inputs reflects a desperate attempt by government and transnational corporations to keep farmers in cocoa production, when increasing

numbers of them are abandoning cocoa for rubber and oil palm cultivation, which require much lower applications of fertilisers and inputs. Odijie argues that the government spends considerable amounts on the subsidisation of inputs for cocoa, which when taken into consideration with all the costs of managing cocoa, means that 'the government spent almost all of the revenue it obtained from taxing cocoa on assisting the sector' (Odijie 2018: 12). He argues that very little of the value of cocoa trickles down to farmers who are increasingly impoverished. This does not, however, take into account the potential of creating much more diverse agroforests based on cocoa integrated with a range of other forest products.

10 CONCLUSION



The major transformation in cocoa production over the long term has been from a pioneer frontier crop to a crop farmed in secondary bush with the intensive use of inputs. In earlier periods, farmers continually moved to new frontier areas since old production zones were characterised by disease problems, declining yields, and higher labour demands in weeding. It was cheaper to acquire new forest land and convert this to cocoa plantation rather than rehabilitate old plantation. The old cocoa economy in the colonial period benefited from forest rent and also by the creation of labour reserves in the interior of West Africa which created a plentiful supply of cheap migrant labour. As new frontier land became scarce, migrant Sahelian labour relocated to the new frontier districts in Côte d'Ivoire, resulting in both scarcities of land and labour in Ghana. The decline of cocoa in the old frontier areas, however, meant that many farmers from these areas moved into the newer remaining frontier areas in Western Ghana.

However, they lacked the capital to establish themselves as independent farmers, and often took positions as casual labourers and sharecrop tenants. These two categories have become dominant in many cocoa-producing areas. This has also redefined family relations in cocoa production, whereby lineages can no longer provide sufficient land-growing numbers of lineage members, farmers gain access to land as sharecrop tenants, hire out their labour rather than work for family elders, or move into other livelihoods. Sharecropping has also become a relationship between family members. More women prefer to run their own farms, rather than work on cocoa farms belonging to male relatives since they have less secure rights to land now. Thus farmers rely less on family labour than in the past and spend more of their capital on hiring labour.

Land pressures also result in growing insecurity in land ownership, as traditional authorities attempt to gain new rents from land by reinventing customary tenures. Inputs have become important in recent years, as declining soil fertility requires the use of fertilisers, and as increasing vulnerability to disease makes use of agrochemicals critical. The ability to afford inputs and new seeds has become an important criterion defining the commercial viability of farmers, and their ability to

produce competitively. For many farmers, the cost of hiring labour and of inputs is a critical problem, which may result in farmers abandoning cocoa.

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ENDNOTES



- 1 This is a theme she expands upon in *Development Economics on Trial* (Hill 1986), in which she is fiercely critical of the trend to present statistical data that covers up a lack of understanding of context, that in economics too much research is conducted to test models rather than explain what is occurring, that sophisticated statistical analysis is often seized upon to present without examining the problems of collecting information from farmers, and that the problem of collecting information is far more important than mere mathematical processing.
- 2 The institution of chieftaincy – equivalent to throne.
- 3 See Hill (1956: 15).
- 4 See https://cocobod.gh/weakly_purchase.php.

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