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Introduction

I. Incentives, Institutions, and Change in African Agriculture

What are the main factors influencing production incentives for African farmers? Many economic analysts have argued that providing price incentives to farmers is essential for agricultural development in Africa. An influential report by the World Bank (World Bank 1981, p. 55), for example, states that “insufficient price incentives for agricultural producers are an important factor behind the disappointing growth of African agriculture.” The cure for the ills of African agriculture prescribed by many mainstream economists, including those working for the World Bank, was the correction of macro-level distortions, such as overvalued currencies, in order to provide proper incentives to farmers and so increase agricultural production.

Similar emphasis on the importance of price incentives in explaining production outcomes can be seen in the literature on cocoa production in Ghana. The stagnation of cocoa production in the 1970s has been attributed mostly to the low producer prices set by the government, and the subsequent upward production trends in the 1980s and 1990s have been explained mainly by the change in price structures associated with the structural adjustment programs (World Bank 1984, p. xx; Bateman et al. 1990; Asenso-Okyere 1990, pp. 76–80; World Bank 1991b, p. 3; World Bank 1991a, p. vi; Armstrong 1996, p. 81). The same emphasis on price structures can be found in other economic research (Frimpong-Ansah 1991, pp. 119–42; Hattink, Heerink, and Thijssen

1998). The proposition behind these studies is clear: African farmers are responsive to price, and providing farmers with adequate price incentives is a prerequisite for a production increase.

Although this aspect of incentives is important, regarding price as the sole explanatory factor is far from satisfactory in understanding the complex realities of agricultural production in rural Africa. As the proponents of the New Institutional Economics (NIE)¹ have emphasized, “*markets interact through many channels besides prices and incomes*” (Hoff, Braverman, and Stiglitz 1993, p. 17; italics in original). Many non-price market interactions such as informal land markets governed by customary law and exchanges based on various social networks are also important in understanding the actual transactions we observe in rural societies. This is not to deny the importance of price incentives. But such incentives need to be placed in wider incentive structures embedded in the complex interactions among local institutions.

The first purpose of this book is to clarify how various non-price factors, such as indigenous land tenure systems and gender relations, influence the production incentives of individual farmers. Based on the data derived from fieldwork in the 1990s, the study argues that the role of price incentive in agricultural production needs to be reconsidered by placing it in wider incentive structures embedded in local institutions.

The second purpose of this book is to contribute to an understanding of historical changes in cocoa production by Ghanaian smallholders. Cocoa production, which is a century-old industry in Ghana, was the subject of numerous pioneering studies between the 1940s and the early 1970s (Beckett 1944, 1945, 1972; Benneh 1970; Hill 1956, 1963, 1970, 1975; Kotey 1972; Okali 1975, 1983; Okali and Kotey 1971; Adomako-Sarfoh 1974; Arhin 1986; Mikell 1984, 1989, 1994; Vellenga 1986). These early studies, especially those by Hill, showed that Ghanaian smallholders were “capitalistic” in their production behavior. For example, Ghanaian smallholders rapidly expanded the area under cocoa farming in response to the economic incentives provided by export crop production. This was possible because there were substantial areas of uncultivated land, and farmers were able to reinvest profits from cocoa to obtain new land. In the 1990s, however, the circumstances surrounding cocoa production have considerably changed. There is now little uncultivated land available in Ghana to expand the area of cocoa production, while the present production areas have increasingly come under pressure from population growth. The present study tries to clarify the way such changes have affected cocoa production by smallholders in the past fifty years.

The study focuses on the following three factors that influence cocoa production. The first is the conditions under which farmers gain access to produc-

tive resources. In particular I will examine who has rights over resources, how they acquire those rights, how such rights are exercised, and to whom they are transferred. The pattern of resource access and resource use by farmers may vary depending on the specific social circumstances of individuals, or may change over the stages of their life cycles. Clarification of such variation and change and the ways in which those resource access and resource use determine production strategies are essential to an understanding of wider incentive structures and related change in cocoa production in Ghana.

The second factor examined is the role of various institutions that affect the production behavior of smallholders. Following Nabli and Nugent (1989, p. 1335), an institution is defined here as a set of constraints which governs the behavioral relations among individuals or groups.² In the case of cocoa production in Ghana, the institutions that influence production by smallholders include various types of labor contracts, share contracts, intra-household gender relations, and indigenous land tenure systems. These institutions are closely linked to traditional political systems, kin systems, and inheritance systems. They also partially define the resource access and resource use of individual farmers. An important point here is that these institutions should be regarded not as fixed sets of rules and constraints but as dynamic ones, changing over time as individuals and groups alter their behavior in response to new socio-economic circumstances (Leach, Mearns, and Scoones 1999; Kikuchi and Hayami 1999). This book presents an analysis of institutions that influence the production behavior of Ghanaian smallholders under a changing socio-economic environment.³

The third factor is the power relationships involved in smallholder production. Production of cocoa by smallholders is influenced by a variety of power relationships among the actors involved, including relationships between genders, age groups, and social classes, as well as between landlords and tenants. Some of these power relationships are inherent in local institutions, while others are individual manifestations of the social and economic circumstances in which individuals are placed. In the context of production by smallholders, the relationships are also defined by social and cultural factors. For example, access to production resources may be granted to certain individuals for social reasons, as in the case of the control of family labor by male household heads. Conversely, people who have exclusive access to specific production resources, such as land, are able to use those rights to exercise strong bargaining power in relation to others. In this book I will focus on the role of these power relationships which are linked directly to resource access and resource use by smallholders.

This study takes the individual, not the household or any other social

groups, as the basic unit of analysis. Many previous studies have identified various social groups, such as household, kin group, gender, or class, as the starting point for analyses. While recognizing the importance of these groups, the present study does not assume that they are homogeneous categories. By further disaggregating the data and the analytical category to the level of individuals, the present study focuses on the variation and differences that exist within these categories. With this approach, a household, for example, is not treated as “a black box” that represents the smallest possible unit for analysis, but rather as a dynamic arena in which bargaining based on unequal power relationships among household members is taking place. Similarly, gender relationships are considered not only in terms of differences between males and females, but also from the perspective of differences in the social and economic characteristics of individuals within the category of “men” and “women.” Analysis of landlord-tenant relationships focuses not only on interaction between these two social groups, but also on interaction between individuals within specific contractual relationships, and on the strategies and characteristics of different types of landlords and tenants. By using the individual rather than the group as the starting point for the analyses, it becomes possible to explore the diversity of strategies employed by individual farmers.

The behavior of individuals is of course not isolated from the social relationships to which those individuals belong. The various social norms, behavior principles, and institutions specific to certain social groups play important roles in determining one’s behavior. Moreover, behavior of individuals must be viewed in the context of various interactions with other actors within the same social groups.⁴ Although the analyses in this book start from the individual, the importance of social groups is fully recognized, as is the importance of relationships and networks among the members of the social groups. The aim here is to explain behavior principles of individuals in the context of different interactions and networks with various members of social groups, and to clarify the similarities and differences that exist within social groups.

II. Methods and Study Locations

1. Selection of Study Locations and Survey Methods

To clarify the issues defined in the previous section, fieldwork was carried out in three cocoa-producing villages in southern Ghana. In selecting the study locations, efforts were made to include villages that met the following predetermined criteria. The first was that cocoa production must be the main economic activity of the village. The second was that the three villages must

have different geographical, historical and social backgrounds. Ghana's cocoa-growing area covers a wide area of the southern part of the country, and conditions in individual cocoa-producing communities widely vary. By ensuring that the diversity of the production areas was reflected as much as possible in the selection of villages, the present writer hoped to minimize the problem of representativeness inherent in the case study method. Also, the selection of multiple survey villages was seen as a way to identify both diversity and similarities in different cocoa-producing areas in Ghana. The third criterion was that the population of each village be small enough to allow all farmers to be interviewed during a limited survey period. The different pattern of resource access and resource use among farmers and its relation with various institutions and with power relations among individuals cannot be adequately analyzed from interviews with a few "typical" cocoa farmers or "key informants." For this reason, interviews should be conducted with all farmers, or with a number as close as possible to 100 per cent. It was therefore necessary to select survey villages with populations that were not too large to allow this approach.

The three locations chosen through the preliminary surveys based on these criteria were Bepoase in the Western Region, Nagore in the Ashanti Region, and Gyaha in the Eastern Region. Prior to the selection of survey villages, information was collected from various sources, including the Ghana Cocoa Board (COCOBOD), cocoa-buying companies and local government offices. In addition, numerous villages were actually visited during the preliminary survey before deciding the three locations. The periods for the intensive survey in each village were from September to November 1995 in Bepoase, from February to March 1996 in Nagore, and from July to August 1996 in Gyaha.

Interviews with farmers were made with the assistance of at least two local residents, male and female.⁵ All interviews were attended and checked by the present writer and also recorded by him. A prepared questionnaire written in the Akan language (Twi) was used during the interviews, and free discussion was encouraged whenever necessary. During the first week of the survey in each study site, a census of the village was conducted and the number of farmers⁶ was identified. Efforts were then made to interview all the farmers in each village. Where circumstances permitted, female farmers were interviewed without their husbands being present, and female research assistants were used.

The conventional method of interviewing "household heads" was deliberately avoided. This is because a household in southern Ghana does not always form a single economic unit (Abu 1983; Opong, Okali, and Houghton 1975; Clark 1994; Wilk 1989; Mikell 1989; Okali 1983). Husbands and wives (and

TABLE 1-1
VILLAGE POPULATION AND NUMBER OF FARMERS INTERVIEWED

Village	Population	Total No. of Farmers	No. of Farmers Interviewed			% of Farmers Interviewed
			Total	Male	Female	
Bepoase	243	87	87	55	32	100
Nagore	501	176	152	90	62	86
Gyaha	852	253	235	128	107	93
Total	1,596	516	474	273	201	92

sometimes their children) often have their own separate farms, thus forming separate production units. They do not pool their income or other household resources. The unitary household model, which assumes pooling of household incomes and sharing of common preferences among household members, is inadequate in conceptualizing the household in rural southern Ghana, and perhaps in some other African societies (Carter and Katz 1997; Guyer and Peters 1987; Evans 1991; Jones 1986; Udry 1996; Smith and Chavas 1997). Interviewing only one person (usually an eldest male) in the household may miss important information about other economic actors within the household, resulting in a misleading conclusion about the reality of rural life.

Initially it was planned to interview all farmers in each village. However, some farmers were not available for interviews due to illness, absence, or other reasons. With the exception of Bepoase, therefore, full coverage was not achieved. The percentages of farmers interviewed were 100 per cent in Bepoase, 86 per cent in Nagore, and 93 per cent in Gyaha. The total number of farmers interviewed in all three villages was 474 (Table 1-1).

2. Outline of Study Villages

All three villages selected for the study are located in forest areas that extend from central to southern Ghana. Climatic conditions in the three study villages are similar, with annual rainfall ranging from 1,500 mm to 2,000 mm. All three villages are migrant communities, and the majority of villagers belong to the matrilineal Akan. However, some migrants and their descendants are from ethnic patrilineal groups. There have been a significant number of marriages between people from different ethnic groups.

(1) Bepoase

The first study village, Bepoase, is located about 470 kilometers from the capital, Accra. In terms of government administration, it belongs to the Juabeso-

Bia District of the Western Region. Under the traditional political system, the village head (*odekuro*) and residents of Bepoase are subject to the traditional divisional chief (*ohene*) of Benkyemahene, who lives in the town of Benkyema. The Benkyemahene is in turn subject to the paramount chief (*omanhene*) of the Sefwi.

There were thirty-four compound houses and a population of 243 in Bepoase at the time of the survey. Bepoase is a typical migrant village in the sense that, although it is located in the Sefwi Traditional Area, there are no Sefwi residing in the village. The community is made up entirely of migrants from other regions and their descendants. Overall, 79 per cent of residents belong to the Akuapem and Anum/Boso ethnic groups. Inheritance is matrilineal in some ethnic groups and patrilineal in others. However, actual inheritance situations do not necessarily follow the two inheritance systems, and sometimes the two systems are combined.

The Western Region, in which Bepoase is located, has the highest cocoa production in Ghana. Cocoa growing began relatively late throughout the Western Region, and Bepoase is no exception. The first migrants settled and started cocoa production in Bepoase in the late 1940s, and some of the original settlers were still active in cocoa production at the time of the survey.

(2) Nagore

The village of Nagore is located about 340 kilometers from Accra. It is part of the Atwima District of the Ashanti Region. In terms of the traditional political system, Nagore is under the control of the Nyinahinhene, a divisional chief residing in the town of Nyinahin. The village head of Nagore is a relative of the Nyinahinhene and has held office continuously since the establishment of the village around 1950. Both Nagore and Nyinahin are located in an area that has traditionally been dominated by the Asante people, and ultimately both are subject to the paramount chief of the Asante (*Asantehene*). Villagers who were born in Nyinahin have the right to farm rent-free on the land under the control of the Nyinahinhene.

There were seventy-two compound houses in Nagore and a total population of 501 at the time of the survey. About 80 per cent of the village's population is matrilineal Asante. About one-quarter of Asante residents were born in Nyinahin, while the remainder are Asante migrants (and their descendants) from locations other than Nyinahin Traditional Area. In addition to the Asante residents, Ewe from eastern Ghana and Kurachi, Mamprusi, and Dagomba from the north each make up a few per cent of the village's population.

As in Bepoase, cocoa production began relatively late in Nagore compared with other parts of Ghana. The village was established around 1950 when

Asante people from Nyinahin and from areas outside the jurisdiction of the Nyinahينهene began to settle and grow cocoa in the surrounding area. Unlike the other two survey villages, the ethnic composition of Nagore is fairly homogeneous—being 80 per cent Asante. Another point of difference is the fact that Nagore is a predominantly Asante community situated on Asante land. As will be discussed in Chapter 3, this difference is reflected in differences in Nagore's land tenure system compared with the other two villages.

(3) Gyaha

The third study location, Gyaha, is located within the Akyem Kotoku Traditional Area in the Birim-North District of the Eastern Region. It is about 160 kilometers from Accra, and approximately 26 kilometers northeast from the city of Akim Oda, which is the administrative and commercial center of the area. Banks and other commercial facilities and local government offices are concentrated in Akim Oda. Villagers from Gyaha use the banks to cash the checks that they receive from the cocoa-buying companies in payment for their cocoa. An extension service officer from the government's Cocoa Service Division is stationed in the village.

Gyaha is a migrant community formed on land that was traditionally inhabited by the Akyem people. The area is under the jurisdiction of the Abenasehene, who resides in the town of Abenase.⁷ The first person to live in the area was the maternal uncle of the present village head. This person, who was from the Anum ethnic group, is thought to have settled in Gyaha around 1900. Initially there were only a few farm huts scattered across an undeveloped area, and it appears that the community did not begin to form in its present location until considerably later.

At the time of the survey there were 124 compounds in Gyaha, and the total population was 852. A variety of ethnic groups live in the village, including Akuapem (28 per cent), Fante (27 per cent) and Anum/Boso (20 per cent). Though Gyaha is situated in the Akyem Kotoku Traditional Area, Akyem people make up only 2 per cent of the village's population. In this sense, the ethnic composition is similar to that of Bepose but significantly different from that of Nagore.

In Ghana cocoa production flourished first in the Eastern Region, where Gyaha is located, in the early twentieth century. Gyaha therefore has a much longer history of cocoa cultivation than the other two study locations where cocoa production began around 1950. Because Gyaha was established many years ago, none of the first-generation settlers are present in the village today, and many of their descendants now live elsewhere. Most of the descendants of original settlers became absentee landlords who hold land near Gyaha but do

not live in the village. As will be discussed in Chapters 2 and 3, the large number of absentee landlords in Gyaha is reflected in the high proportion of tenants in the community.

As stated above, the three villages were deliberately selected to represent the geographical, historical, and social diversity of cocoa-producing areas in Ghana. The villages were chosen to reflect the geographical diversity of Ghana's extensive cocoa-growing areas, and care was taken to avoid a bias toward any particular region. To reflect historical diversity, care was also taken to choose villages that were established in different periods and with different positioning in the historical development of cocoa cultivation in Ghana. Social diversity was represented by choosing ethnically homogeneous and heterogeneous villages.

Notes

- 1 Economic analyses that take institutional issues into account focus on the role of institution in reducing the information cost and transaction cost. These factors have been analyzed from the viewpoint of economic efficiency. For in-depth discussion of this approach, see, for example, Eggertsson (1990), Lin and Nugent (1995), North (1990), Clague (1997), Harriss, Hunter, and Lewis (1995), and Acheson (1994).
- 2 Other scholars offer different definitions of institutions. For example, Hoff, Braveman, and Stiglitz (1993, p. 1) define an institution as "a public system of rules that define the kinds of exchanges that can occur among individuals and that structure their incentives in exchange," while Ruttan and Hayami (1984, p. 204) state that "institutions are the rules of a society or of organizations that facilitate coordination among people by helping them form expectations which each person can reasonably hold in dealing with others." As Nabli and Nugent (1989, p. 1335) argue, in any definition three characteristics of institutions are explicit. They are the rules and constraints, the ability to govern the relationships among individuals and groups, and the predictability of future situations.
- 3 The role of technology used in agricultural production is also an important research theme in relation to the production activities of smallholders (Ruttan and Hayami 1984). For example, analysis of the relationship between technology and institutions has been essential when studying the role of the "green revolution" and its effects on smallholders in Asian agriculture. Although recognizing its importance, the present study will not examine the relation between technology and institution in detail. One reason is that the technology used in Ghanaian cocoa production has not changed significantly for several decades. This makes the relationship between technological change and institution unclear. Cocoa produc-

tion by smallholders is almost entirely based on manual work, and the mechanization in production has not been introduced. Neither irrigation nor chemical fertilizers are used. An improved variety of cocoa is being used increasingly, but the introduction of the new variety has brought little change in production technology.

- 4 The work of Robert Bates (e.g., Bates 1981, 1983, 1989), whose approach is often referred to as rational choice approach, typifies the approach of methodological individualism. Bates' method is examined critically in Peters (1993) and Berry (1993b), which put greater emphasis on social networks.
- 5 In Bepoase the author was assisted by two males and one female. In Nagore there was no suitable female research assistant in the village, so a female assistant from outside was employed.
- 6 The term "farmers" in this study refers to those who operate farmland or gardens, including tenants, but not including agricultural laborers.
- 7 Abenase is a small town, about 10 kilometers from Gyaha.