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**著者職名** 研究員
**著者所属** 日本貿易振興機構（ジェトロ）アジア経済研究所
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INCENTIVES EMBEDDED IN INSTITUTIONS: 
THE CASE OF SHARE CONTRACTS IN GHANAIAN COCOA PRODUCTION 

TSUTOMU TAKANE 

I. INTRODUCTION 

PROVISION of price incentives to farmers is usually considered essential for agricultural development in Africa. An influential report of the 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.” 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 of price structures associated with the structural adjustment programs (World Bank 1984, p. xx; 1991a, p. 3; 1991b, p. vi; Bateman et al. 1990; Asenso-Okyere 1990, pp. 76–80; Armstrong 1996, p. 81). 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 incentive is important, regarding price as the sole explanatory factor is far from satisfactory in understanding the complex realities of agricultural production in rural Africa. By analyzing the share contracts widely practiced in southern Ghana, the present study argues that local institutions such as land tenure systems and agrarian contracts also provide strong incentives and disincentives to agricultural production. 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. 

An important insight made by writers on the economics of rural organization is

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that “markets interact through many channels besides prices and incomes” (Hoff, Braverman, and Stiglitz 1993, p. 17, original emphasis). They argue that non-price market interactions such as informal credit and informal land markets governed by customary law are also important in understanding the actual transactions we observe in rural societies. The present study also takes this position, but with more emphasis on sociological variables such as farmers’ life cycles.

The structure of the paper is as follows. The next section reviews the literature on the role of institutions in agrarian economies, with particular emphasis on share contracts. This is followed by a description of the fieldwork method and some characteristics of study locations. A number of labor arrangements in cocoa production are then discussed, followed by a detailed analysis of share contracts and incentive structures embedded in them. The concluding section offers a brief summary of the discussion.

II. INSTITUTIONS, SHARE CONTRACTS, AND COCOA PRODUCTION

An institution can be broadly defined as a set of rules and constraints which govern the behavioral relations among individuals or groups (Nabli and Nugent 1989, p. 1335). In recent years the importance of the role of institutions in understanding the development process has become widely recognized. A large body of studies on institutions comes from economists under the name of the “New Institutional Economics (NIE)” (Harriss, Hunter, and Lewis 1995; Bardhan 1989), but the role of institutions is also the main focus of analysis for political scientists (Bates 1981), economic historians (North 1990), and anthropologists (Ensminger 1992; Acheson 1994).

An important finding derived from the above studies is that institutions play a particularly important role in agrarian economies in which people confront imperfect markets. When market imperfection is prevalent, production and exchange may be constrained by various transaction costs caused by, for example, difficulty in contract enforcement, uncertain property rights, and imperfect and asymmetric in-

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1 Other scholars offer different definitions of institutions. For example, Hoff, Braverman, 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 the various definitions three characteristics of institutions are explicit. They are the rules and constraints, the ability to govern the relations among individuals and groups, and the predictability of future situations. Another important point is that an institution should be regarded not as a fixed set of rules and constraints but as a dynamic one, changing over time as individuals and groups alter their behavior in response to new socioeconomic circumstances (Leach, Mearns, and Scoones 1999; Kikuchi and Hayami 1999).
formation. Institutions in such a situation work as complements to the imperfect markets by providing rules under which the activities of others become more predictable, thus reducing transaction costs and facilitating production and exchange.

Among various institutions in agrarian economies, share contracts have attracted much attention in academic writing. At least three approaches to the study of share contracts exist. First is the neoclassical economist approach in which the share contract is analyzed from the viewpoints of efficiency, risk sharing, transaction costs, and imperfect information. In this approach the share contract is seen as providing a compromise between efficiency and risk in uncertain environments in agrarian economies. Given the uncertainty and the costs of landlord monitoring of tenants’ work, share contracts are seen as desirable despite the Marshallian inefficiency. In addition, the interlinkage of share contracts with other transactions is seen as providing the landlord with a means of overcoming inefficiencies and of reducing transaction costs associated with imperfect information. For example, the interlinkage of share contracts with consumption loans to tenants can be seen as the landlord’s means of inducing the tenant to work harder to repay the debt, thus reducing the cost to the landlord of monitoring and enforcing the tenant’s work. Similarly, the interlinkage with production loans can be the means of forcing the tenant to invest and innovate, which raises the marginal productivity of effort, resulting in both higher work incentives to tenants and greater efficiency. Thus interlinked contracts are interpreted as a response to imperfect markets by landlords to achieve greater efficiency (Stiglitz 1974, 1986; Braverman and Stiglitz 1982; Hoff, Braverman, and Stiglitz 1993).

Marxian economists offer an entirely different view of share contracts (Bhaduri 1973, 1986; Byres 1983). For them, the share contract is a particular method of surplus appropriation through which surplus is transferred from one class (the tenants) to another (the landlords). What is important is not allocative or production efficiency, on which neoclassical economists put so much emphasis, but “class efficiency for extracting surplus” (Bhaduri 1986, p. 268). The interlinkage of share contracts with other transactions from this viewpoint is seen as a means of improving the effectiveness of the process of surplus extraction. Furthermore, the arrangements represent inequality of access to the means of production and asymmetry of economic power between the contracting parties, forcing tenants to involuntarily participate in the process of exploitation. In this way, the tenants are caught in a nexus of “forced commerce” (Bhaduri 1986, p. 268) through which advantages are

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2 Otsuka, Chuma, and Hayami (1992) and Taslim (1988) provide critical assessments of this conventional view.
always given to the landholding class at the expense of landless tenants. An important point here is that the “class efficiency” argument of Marxian economists does not necessarily reject the validity of the neoclassical economists’ argument that the share contract contains various means of enforcement to make the tenant work harder to increase efficiency. Rather, such contract enforcement and the resultant efficiency can be a way to achieve effective exploitation by the landholding class. Therefore the exploitation hypothesis of Marxian economists and the efficiency hypothesis of neoclassical economists “are two sides of the same coin” (Ellis 1993, p. 159).

The third is a sociological approach in which share contracts are examined in relation to the lives of individuals, their relative importance in factor markets, and the economic history of a particular locality (Robertson 1980, 1982, 1987). The effect of time is the key in this approach, because share contracts are understood as a flexible and adaptable institution evolving over many decades, reflecting a complex and long-term relationship among local people. It is also argued in this approach that share contracts are not determined exclusively by custom, nor by a dialectical process between the two classes as Marxians suggest, nor by the short-run strategic choices of individuals as neoclassical economists do, but by combinations of all three. Furthermore, within the process involving the contract, “contracting parties seek security in institutions established over time, and transact ‘futures’ in the supply of land, labour and other resources” (Robertson 1987, p. 16, emphasis added).

Among these three approaches, the neoclassical and sociological ones have been the main perspectives taken in the empirical studies of share contracts in Ghana. A neoclassical perspective can be seen in the paper by Boadu (1992) in which, relying heavily on the earlier study of Hill (1956), he argues that the difference in the levels of risk and in transaction costs in production is the main reason for the existence of different contracts in different regions in Ghana. Robertson (1982), on the other hand, applies the sociological perspective and has examined Ghanaian share contracts with reference to the development of individual contracts, changing domestic circumstances of the farm owner and the farm worker, and their competing interests on a maturing cocoa farm. He also relates the changing interests of contracting parties and their negotiation to the macro processes of geographical expansion and the historical development of cocoa production in Ghana.

The present study, which adopts an approach similar to that of Robertson, contributes to the existing literature on share contracts in Ghana in two ways. First, by using the data derived from fieldwork in the 1990s, it highlights some recent changes in Ghanaian cocoa production in general and in share contracts in particular. Both Boadu and Robertson rely heavily on data collected in the 1950s and 1960s during which the situations surrounding cocoa production (for example, availability of uncultivated forest land) were different from those in the 1990s. The subsequent
changes, such as increased population and the resultant land scarcity, may have affected farmer production strategies and contract choices. Examining the share contracts practiced in the 1990s is important in this sense. Second, on the basis of empirical observation made in the fieldwork, the present study classifies share contracts in Ghana into two distinct types. Most literature on cocoa production in Ghana, including the two studies mentioned above, treat share contracts under the single category of *abusa* (division into three). This appears to be a serious deficiency because, as will be discussed in Sections V and VI, the contents of the two types, and the resultant incentive structures embedded in them, are very different. By clarifying the structure of the two distinct types practiced in the 1990s, the present study helps provide a clearer picture of share contracts in Ghana.

III. METHOD AND STUDY LOCATIONS

The fieldwork was undertaken in three cocoa-producing villages between September 1995 and August 1996 (Figure 1). In selecting the study locations, efforts were made to include areas with different historical, social, and geographical backgrounds to reflect the different conditions of cocoa production in the country. The first study village, Bepoase, a community with 34 compound houses, is located in Juabeso District in the Western Region. The Western Region is a relatively new cocoa-growing area, and Bepoase is no exception. The village is a typical migrant community in the sense that, although it is located in the Sefwi Traditional Area, there are no Sefwi residing in the village. The first migrants settled in Bepoase in the late 1940s, and some of the original settlers were still active in cocoa production at the time of the survey. The second study location, Nagore, is in Atwima District in the Ashanti Region. There were 72 compound houses at the time of the survey. People started inhabiting the village about 1950 at approximately the same time as Bepoase. Unlike Bepoase’s, however, Nagore’s population is mixed, including migrants as well as indigenous Asante (Ashanti). Most of the migrants are from other areas within the Ashanti Region. The ethnic composition of the village is therefore fairly homogeneous—80 per cent Asante. The third study location, Gyaha, is yet another migrant community; it is within the Akyem Kotoku Traditional Area in Birim North District in the Eastern Region. It has 124 compound houses. The region is the oldest cocoa-growing area in Ghana. The ethnic composition of the village is heterogeneous with very few indigenous Akyem inhabitants. The first migrants arrived in Gyaha probably in the early 1900s.

Interviews with farmers were made with the assistance of at least two local residents, male and female. All interviews were attended and checked by the present

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3 Much earlier, Ollenu (1962, pp. 79–83) suggested a similar classification as set forth in the present study, but most writers on the share contract in Ghana appeared to have ignored it.
Fig. 1. Ghana: Major Towns and Study Locations
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 farmers was identified. Efforts were then made to interview all the farmers in each village. Some farmers, however, were not available for interviews because of sickness or other reasons. The percentage of farmers interviewed in each village was 100 per cent in Bepoase, 86 per cent in Nagore, and 93 per cent in Gyaha. The total number of farmers interviewed was 474 (Table I).

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; Oppong, Okali, and Houghton 1975; Clark 1994; Wilk 1989; Mikell 1989; Okali 1983). Husbands and wives (and 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.

### IV. LABOR ARRANGEMENTS IN COCOA PRODUCTION

This section describes a number of labor arrangements in cocoa production. The aim is twofold. First, it is to provide information on labor deployment strategies of

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4 The term “farmers” in this study refers to those who operate farmland or gardens, including tenants, but not including agricultural laborers.
INCENTIVES EMBEDDED IN INSTITUTIONS

farmers, which helps in understanding the variety of agrarian contracts and institutions in Ghana. Second, it highlights the characteristics of labor contracts that are very different from those of share contracts described in the next section.

The types of labor used in cocoa farming can be classified into four categories: family labor, hired labor, communal labor, and labor exchange groups (*nnoboa*). Among these four types, family labor, especially that of spouses and offspring, constitutes the most important source of farm labor. Both male and female labor are used in all farm tasks, but the most strength-demanding tasks, such as initial clearing and tree-felling, tend to be done by males; female farmers are likely to use their husbands’ labor for these tasks, while husbands use their own. Unmarried young farmers, who have no access to their spouses’ or parents’ labor, appear to use their own labor for most farm tasks.

The types of hired labor used in the study villages are daily wage labor, task-contracted labor, and annual labor. Daily wage labor and task-contracted labor are frequently used for labor- and strength-demanding tasks such as preparing new farms and weeding. Although payment for task-contracted labor is subject to negotiation between farm owners and laborers, standard charges according to an indigenous measurement called *ahama* (rope) usually exist. Daily wage labor is used for all types of farm work; the wages vary depending on the type of work. Annual laborers are paid annually, and the employer provides shelter, farming tools, clothes, and medical care for the laborers. Because daily necessities are provided by employers, arrangements for annual labor contracts provide a favorable condition for new immigrant laborers who have no capital or relatives in the village. Amounts paid to annual laborers, however, are far less than those paid to laborers in other types of labor contracts. Therefore annual labor contracts rarely last more than a few years; most laborers enter other labor arrangements in which they are better paid.

Communal labor is a system of labor exchange in which farmers work on other farms on an ad hoc basis. The communal labor used in cocoa farming is highly task-specific. In most cases it is used for the tasks of breaking cocoa pods and carrying fermented cocoa to drying places. The number of participants varies (approximately from five to thirty) depending on the amount of cocoa harvested on the farm. The time required for each task is less than a day. No payment is provided to the participants, but food, and sometimes drink, is served after the work. Communal labor is loosely organized; there is no strict “membership” for the labor exchange.

In contrast to the loosely organized communal labor, the structure of labor exchange groups, *nnoboa*, is tight. The groups have clear memberships, usually two

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5 Hill (1956, 1963) reports another type of labor called *nkotokuano* where a worker is paid a fixed sum for each load of cocoa he harvests. This type of labor was not found in the three villages surveyed in the present study.
to five people, and labor is exchanged on a rotating basis. The labor is used for all types of farm work, but most commonly for weeding. Although no payment is made for the labor, food is often served by the farm owner. Gender and age play important roles in the structure of nnoboa groups. There is a strong tendency for men and women to form separate nnoboa groups. This is probably because physical strength is different between male and female, and the labor exchange becomes unequal if the members are gender-mixed. In addition, younger people appear to be more likely than their older counterparts to form nnoboa groups. This perhaps stems from the fact that younger farmers have both less capital to use hired labor and less access to family labor, and thus supplement these with the labor of nnoboa groups.

V. TWO TYPES OF SHARE CONTRACTS

Share contracts are widely practiced in cocoa farming in all three villages studied (Table II). Most literature on share contracts in Ghana treats them under the single category of abusa (division into three). In the study locations, however, two distinct types of share contracts are found and the contents of the two are very different. This section describes the two types of share contracts in detail.

A. Nhweesoo

In the first type of share contracts, often called nhweesoo (caretaking [of farms]), tenants manage already-established cocoa farms and in return get a share of the profit derived from the cocoa harvest (Case 1). Tenants are responsible for the weeding, spraying, and harvesting of cocoa. If the tenants employ farm laborers for these tasks, it is the tenants’ responsibility to pay for the laborers. If the farm owner asks the tenant to do farm tasks other than the aforementioned ones (such as establishing

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6 The difference between communal labor and nnoboa described here is similar to what Swindell (1985, pp. 130–32) called “festive labour” and “exchange labour.”

7 Some farmers refer to this contract as abusa or abehyem.
new farms), the tenant is remunerated for the additional work. Sharing arrangements of the profit between farm owners and tenants are usually *abusa*, in which the tenants take one-third. When the contracting parties are related (for example, a father and his son, or a wife and her husband), the sharing arrangements are often *abunu* (division into two). There is no fixed pattern of cost sharing of farm inputs between farm owners and tenants.

The majority of farm owners in *nhweso*o contracts are own-account farmers and reside in or near the study villages. If this is the case, decisions on farm management (for example, when to weed and spray insecticides) are mostly taken by farm owners, and the tenants’ work is closely supervised. Decisions on the selling of cocoa (the selection of buying centers and means of payment—cash or check) are also made by farm owners. The tenants do not usually have their own “farmer books,” in which records of cocoa sales are kept. The small proportion of management decisions on the tenants’ side makes *nhweso*o little distinguishable from the permanent labor contract in which a worker is remunerated by the share of output (Otsuka, Chuma, and Hayami 1992, p. 1966).

For *nhweso*o, no written agreement of the contract is prepared. The contracts cease when either party so desires or the tenant dies, and the use-right of land is not inherited by the deceased’s relatives. The majority of *nhweso*o contracts at the time of the survey lasted for one to six years, but some (21 per cent) of the contracts lasted more than ten years.

**B. Yemayenkye**

In the second type of share contracts, called *yemayenkye* (do and let us share), tenants are responsible for all the farm tasks (clearing land, establishing cocoa farms, weeding, spraying, and harvesting), and in return receive a half share of the cocoa harvest (Case 2). A critical difference between *nhweso*o and *yemayenkye* is that in *nhweso*o a landlord establishes cocoa farms either with his/her own labor or by employing hired laborers before handing over the established farms to tenants, while in *yemayenkye* a tenant establishes cocoa farms with his/her own labor and expenses. This means that the tenant in *nhweso*o obtains a share of the cocoa harvest from the first year of the contract, while the tenant in *yemayenkye* has to wait for several years (until trees start bearing fruit) before obtaining a share of the cocoa

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8 Some farmers call this contract *abunu* (division into two).

9 In Gyaha, however, some of the *yemayenkye* contracts concluded in early years were triplet division (*abusa*) in which tenants take two parts. Field (1948, pp. 75–76) reports that in Abenase (a town near Gyaha) the sharing arrangement between landlords and tenants were triplet division in which tenants took two parts. Ollennu (1962, pp. 79–83) also reports that when a tenant establishes a cocoa farm his share is two-thirds, while on an already-established farm he obtains a half share. These accounts seem to indicate that sharing arrangements have been shifting during the past forty years or so in favor of the landlords. This might be a result of increasing scarcity of land and the resultant stronger bargaining power on the landlords’ side (Amanor 2000, p. 28).
harvest. In *yemayenkye* the landlords often give instructions on which variety of cocoa to be planted and how often the farm should be sprayed. However, other decisions on farm management are left to the tenants. In addition, most tenants in *yemayenkye* have their own “farmer books” and make their own decisions on sales of cocoa. Costs of farm inputs, including labor costs, are borne by the tenants, but in some cases the landlords bear the cost of spraying. The contracting parties often prepare written agreements of the contracts.

Two important variations of *yemayenkye* exist concerning what is to be shared between landlords and tenants. The first variation is that, after the cocoa farm is established by the tenant, the cocoa trees on the farm, rather than the cocoa harvest, are divided into two equal parts, and each part is independently managed by the landlord and the tenant (Case 3). The second variation is that, from the very beginning of the contract or during the course of establishing the farm, the contracting parties agree to share the land when the establishment of the farm is completed and the cocoa trees mature (Case 4). The difference between the two variations is that in the first the land will be returned to the original landlord if all the trees die or the tenant abandons the farm, while in the second variation, once the land is divided, the original landlord has no right to reclaim the part of the land transferred to the tenant. In both cases, landlords and tenants share the cocoa harvest in an agreed proportion until the trees or the lands are divided.

The land-dividing *yemayenkye* mentioned above is less popular in Gyaha than in Bepoase and Nagore. This is probably caused by the different socioeconomic situations of the three villages. Bepoase and Nagore are located in a relatively new cocoa-growing area in which the first migrants settled in the 1940s and 1950s. On the other hand, Gyaha is located in the oldest cocoa-growing area where migrants started producing cocoa in the beginning of the twentieth century. Given the longer history of cocoa production and the resultant division of land among kin members through inheritance and gift over generations, the individual landholdings are smaller and the uncultivated land scarcer in Gyaha than in other two villages. This makes the landlords in Gyaha reluctant to alienate the land through land-dividing *yemayenkye*.

In *yemayenkye*, it is often the case that the contents of the contract are not clearly agreed at the outset by landlords and tenants. In some cases the landlord simply orders the tenant to start establishing the farm, and decisions on what is to be shared (harvests, trees, or land) and when are left to future negotiations. As a result, there are some cases in which landlords and tenants have different understandings of the outcome of the contracts (Case 5). This ambiguity has two implications. One is that it may increase the possibility of future disputes between the contracting parties.

10 As can be seen in Table IV, there are more landless tenants in Gyaha than in the other two villages. This also seems to be a result of the longer history of cocoa production and the resultant land scarcity in Gyaha.
Another is that it gives both landlords and tenants some degree of flexibility, allowing them to modify the contents of *yemayenkye* to be more favorable to them. For example, an absentee landlord who lacks information on the ability of a tenant may want to assess the quality of the tenant’s work before making final arrangements, thus avoiding “adverse selection.” A tenant, on the other hand, may want to postpone the final decision until he establishes the cocoa farm, because an already-established farm gives the tenant a degree of security of use-right on the land. The ambiguity in the outcome of *yemayenkye* thus constitutes both uncertainty and flexibility.

Empirical literature on share contracts in Asia reports that the contracts are often interlinked with credit and insurance contracts, which are often supported by patron-client ties between contracting parties. A landlord sometimes advances credits for his tenant or insures him against unexpected hazards by reducing rent, and the tenant in return provides loyal service to the landlord in many activities. Based on mutual trust and reciprocity, the interlinked contracts between the same parties continue for a long period, thus reducing a variety of transaction costs (Hayami and Otsuka 1993, pp. 16–18; Kikuchi and Hayami 1999, p. 380). Such interlinkage and patron-client ties are less remarkable in share contracts in Ghana. During the survey no case was found in which tenants obtained credit or advances from landlords. When necessary, tenants seek such assistance from relatives or from purchasing clerks in cocoa-buying companies. In both *nhwesoo* and *yemayenkye*, tenants do not provide additional services to landlords unless they are remunerated for the work (Case 1). When landlord supervision is weak, as in many cases of *yemayenkye*, underreporting of the harvest is common, and mutual trust between the contracting parties is not established.

### C. Relatives and Class

As can be seen in Table III, a number of share contracts are made between relatives or between husbands and wives. In such cases, mutual trust between the contracting parties may be stronger and various transaction costs can also be reduced (Sadoulet, Janvry, and Fukui 1997). On the other hand, as Robertson (1982, p. 468) suggests, *nhwesoo* and *yemayenkye* concluded between relatives or spouses may be better understood as a preliminary step toward inheritance of the farm or land than merely as an economic contract.

In Ghanaian share contracts, landlord and tenant are not clearly differentiated and cannot be regarded as distinct “classes.” As Table IV shows, some landholding farmers lease out land for share contracts while others lease in. Still others simultaneously lease out parts of their land, cultivate parts of it by themselves, and lease in land from others (Case 6). It is clear that those who lease in land under share contracts do not form a distinct class of landless tenants. Furthermore, as will be discussed below, tenants who are currently landless may become landholding farmers...
in the future through *yemayenkye*. Landlord and tenant are therefore neither categorically distinct nor unchangeable over time. In addition, landlords and landless tenants are not necessarily identical to rich and poor, respectively. In Bepoase I encountered one landless tenant who manages large cocoa farms under *nhweso* and *yemayenkye* from which he harvests over a ton of cocoa. When “wealth ranking” of the villagers (Grandin 1988) was conducted, he was classified as one of the richest in the village. On the other hand, there are some widowed old female “landlords” who inherited small plots of cocoa farms from their deceased husbands. Due to their physical weakness and lack of labor in their households, they often have no choice but to enter *nhweso* to obtain necessary labor. Thus for such old women,

### TABLE III

**SHARE CONTRACTS WITH RELATIVES OR SPOUSES**

<table>
<thead>
<tr>
<th>Village</th>
<th>Type of Contract</th>
<th>N</th>
<th>Cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bepoase</td>
<td><em>Nhweso</em></td>
<td>24</td>
<td>7</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td><em>Yemayenkye</em></td>
<td>21</td>
<td>8</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>45</td>
<td>15</td>
<td>33</td>
</tr>
<tr>
<td>Nagore</td>
<td><em>Nhweso</em></td>
<td>78</td>
<td>29</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td><em>Yemayenkye</em></td>
<td>52</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>130</td>
<td>37</td>
<td>28</td>
</tr>
<tr>
<td>Gyaha</td>
<td><em>Nhweso</em></td>
<td>46</td>
<td>8</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td><em>Yemayenkye</em></td>
<td>162</td>
<td>25</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>208</td>
<td>33</td>
<td>16</td>
</tr>
</tbody>
</table>

Note: *N* denotes the total number of cases for each contract type. “Cases” indicates the number of contracts made between relatives or spouses.

### TABLE IV

**CLASSIFICATION OF FARMERS BY TENANCY STATUS**

<table>
<thead>
<tr>
<th>Village</th>
<th>Cultivating Landlords</th>
<th>Pure Landholder-Cultivators</th>
<th>Landholder-Tenants</th>
<th>Cultivating-cum-Tenating Landlords</th>
<th>Share Tenants (Cocoa)</th>
<th>Other Tenants*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bepoase (N = 87)</td>
<td>7 (8)</td>
<td>33 (38)</td>
<td>13 (15)</td>
<td>5 (6)</td>
<td>14 (16)</td>
<td>15 (17)</td>
</tr>
<tr>
<td>Nagore (N = 152)</td>
<td>27 (18)</td>
<td>29 (19)</td>
<td>22 (15)</td>
<td>4 (3)</td>
<td>46 (30)</td>
<td>24 (16)</td>
</tr>
<tr>
<td>Gyaha (N = 235)</td>
<td>15 (6)</td>
<td>26 (11)</td>
<td>25 (11)</td>
<td>6 (3)</td>
<td>112 (48)</td>
<td>51 (22)</td>
</tr>
<tr>
<td>Total (N = 474)</td>
<td>49 (10)</td>
<td>88 (19)</td>
<td>60 (13)</td>
<td>15 (3)</td>
<td>172 (36)</td>
<td>90 (19)</td>
</tr>
</tbody>
</table>

Note: Figures in parentheses are percentage.

* Other tenants include fixed-rent tenants in food production, share tenants in orange or palm production, and tenants with other various arrangements.
“to be labourless is as much a disadvantage in production . . . as to be landless” (Robertson 1980, p. 420).

VI. INCENTIVES EMBEDDED IN SHARE CONTRACTS

In this section, a number of factors that provide incentives to both landlords and tenants are discussed. Such factors include, for tenants, access to land for food crops, stable use-rights, possibilities of becoming landholding farmers, and underreporting of harvest. For landlords the main incentive is the flexibility that allows them to choose contracts appropriate to their various socioeconomic situations. These incentive structures embedded in the share contracts may better elucidate the prevalence of share contracts in Ghanaian cocoa production than do the “efficiency” or “class” explanations.

An important incentive for tenants to enter nhweso or yemayenkye is that they can obtain use-rights of land to grow food crops. In both contracts landlords specify the type of farm (cocoa) to be managed or established. If tenants comply with this agreement, they are entitled to grow food crops at their own disposal on the same land. In nhweso, the tenant is allowed to use a part of the farm owner’s land (usually a part adjoining the cocoa farmland managed by the tenant) to grow food crops. In yemayenkye, the tenant enjoys the freedom to consume and sell food crops produced in the course of establishing the cocoa farm. Sharing obligations are usually restricted to those related to cocoa, and tenants enjoy a high degree of freedom in food production and its use. Such rights to food production cannot be obtained in other labor contracts described in Section IV, making land-demanding villagers more inclined to enter share contracts.

In yemayenkye there are a number of distinctive features that provide incentives to tenants. The first is that the tenant’s use-right of land is stable and inheritable. Once the cocoa farm is established, the tenant can continue farming on the land for life, as can descendants of the original tenant. Ownership of the farm remains in the hands of the landlord until he agrees to divide the land with tenant. However, the contract cannot be canceled by the landlord unless the cocoa farm fall into ruin or is abandoned by the tenant. Upon the death of an original tenant, his descendants are entitled to inherit the use-rights of the cocoa farm (Case 7). If a landlord agrees, a tenant, while alive, can transfer the use-right to his wife or children (Case 8). These transferred use-rights are often put in a written agreement signed by the landlord, the tenant, and their kin members. Because of the stable and inheritable nature of

11 When establishing new cocoa farms, food crops such as plantain and cocoyam are first planted, and later in between the food crops cocoa is planted. This is because food crops provide young cocoa trees with adequate shade.

12 There are a few cases in which food crops, usually maize, are subject to sharing arrangement, as in Case 3.
use-right under *yemayenkye*, many farmers refer to cocoa farms under this contract as inheritable “property” (*agyapade*).

The second feature is that *yemayenkye* provides an opportunity for landless farmers to become landholding farmers (Case 9). Either at the outset of the contract or after some long-term negotiations, the tenants may reach agreement with the landlord to share the land. The process of land transfer from landlord to tenant in this arrangement is slow, and most tenants spend five to twenty years obtaining the land. However, tenants need little capital in this process. What is required is continuous labor input by the tenant into the cocoa farm. In addition, tenants have access to means of subsistence until the contracting parties finally divide the land: while establishing new farms tenants are entitled to harvest food crops; when cocoa trees are mature, they can obtain a share of the cocoa harvest.

Still another feature distinctive to *yemayenkye* is the underreporting by tenants of the total harvest. Most landlords in *yemayenkye* are absentee landlords who come only during the harvest season to supervise the tenants and to collect their shares. As a result, landlord supervision of tenants in everyday farm work is weak, and there is large leeway for tenants to “cheat” landlords. In addition, because it is the tenants who establish the farm and make decisions on everyday farm management, while most landlords reside far away and are not experienced farmers, the landlords have much less information than the tenants on farm conditions and total harvest. The difficulty of contract enforcement and the information asymmetry between the contracting parties concerning farm conditions are thus two main factors that lead to the widely practiced underreporting of the total harvest.

The contract-breaching behavior can be reduced in a community where villagers are long-term settlers and people know one another well, and where information about contract-breaching is easily transmitted to other villagers. This is because a person’s reputation in such a community affects his future economic opportunities, thus reducing the incentive to breach the contract (Hayami and Otsuka 1993, pp. 56–58). In the three villages studied, however, reputation seems to play a less significant role in reducing the incentive to underreport the harvest. Three factors may explain the situation. First, all the study villages are migrant communities, the composition of village population is multiethnic, and the population is highly mobile. In such a situation village structures are not tight, and reputation plays only a limited role in reducing contract-breaching. Second, information about the total harvest of cocoa can easily be restricted to the tenant. As a result villagers cannot accurately know the total cocoa harvest and the extent of contract-breaching by the tenant. Third, as most landlords are absentee and have little interaction with villagers, there is no incentive for villagers to report breaching behavior to the landlords.

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13 Among those who are fifteen years old or over in the study villages, 74 per cent in Bepoase, 90 per cent in Nagore, and 91 per cent in Gyaha were born outside the villages.
As the result of widely practiced underreporting, *yemayenkye* constitutes a unique combination of production incentive and risk sharing that is somewhere between the share contract and the fixed-rent tenancy contract. Because a landlord does not have accurate information on the total harvest, a tenant can reduce the landlord’s share below the level agreed in the contract. This means that the production incentive to the tenant may be stronger than that in the share contract because, after the tenant gives the landlord an amount that satisfies the landlord, the tenant keeps all the extra output that any additional inputs on his/her part may yield. This incentive structure is similar to that of a fixed-rent tenancy. On the other hand, the risk sharing inherent in the share contract remains the same in *yemayenkye*: the tenant may reduce the amount paid to the landlord in a year of bad harvest. Therefore *yemayenkye*, together with the widely practiced underreporting, provides not only a production incentive higher than the ordinary share contract without underreporting but also an arrangement to share its risk.

*Nhwesoo* and *yemayenkye* are closely linked with a villager’s life cycle, in that the two types of share contracts provide an important step in a farmer’s career to acquire a more direct interest in land (Robertson 1982). A newly arrived immigrant who has no capital or relatives, for example, may first enter the annual labor contract in which daily necessities are provided by his employer. While he serves as an annual laborer, his employer may hand over cocoa farms to the laborer as *nhwesoo*, or the laborer may find somebody who wants a *yemayenkye* tenant (Case 10). A casual laborer or a *nhwesoo* tenant also typically tries to find better contracts (Case 11). The preferred contract from the worker’s point of view is *yemayenkye*, in which, as previously discussed, the tenant’s land right is stable and various other incentives are embedded. *Nhwesoo* comes next, because a tenant has a right to grow food crops. Other hired labor contracts such as task-contracted and daily-wage labor are considered inferior to the two share contracts, but in any case they provide important income opportunities for both landless and landholding villagers. Depending on their life cycle stage and socioeconomic background, villagers enter various contracts. In this way the two types of share contracts provide important steps of promotion in a farmer’s career.

A similar link between contract choice and farmer life cycle can be observed for landlords. In migrant cocoa-farming villages, such as the three villages studied, farmers typically migrate when young from their hometown to land-abundant forest areas to establish cocoa farms (Middleton 1979; Hill 1963). While developing his career as a cocoa farmer in the village, the migrant invests most of the profit from the farm(s) in educating his children or in building houses in his hometown. When the farmer becomes old and physically weak, he retires to his hometown. The two forms of share contracts provide a convenient arrangement for such retired farmers. If the retiring farmer has mature cocoa farms, he would enter a *nhwesoo* contract, from which regular income after retirement is guaranteed. In this case,
little information asymmetry concerning farm conditions exists between the con-
tracting parties, because the retired farmer has accurate information on the cocoa 
fmns that were established and managed by him until retirement. Therefore, al-
though the retired farmer (the landlord) resides far away from the farm, the tenant 
has little chance to underreport the total harvest. If the retiring farmer has an old 
cocoa farm whose yield is declining, he may enter a yemayenkye contract in which 
no labor input by the retiring farmer is required. In both cases the share contracts 
provide advantageous arrangements for retiring farmers.

Besides their advantages for retiring farmers, the two contracts provide conve-
nient arrangements for landlords who have various socioeconomic backgrounds. 
For example, a farmer who has established a first cocoa farm by his own labor may 
want to establish a second farm. Faced with a labor shortage, the farmer may choose 
to supplement his own labor by the labor of a tenant, and hand over the manage-
ment of the already-established farm to a nhweso tenant. Similarly, an old woman 
who inherited cocoa farms from her deceased husband but has no physical strength 
to work on the farms may also choose to enter a nhweso contract to acquire the 
necessary labor. On the other hand, for an absentee landlord who either inherited 
or purchased uncultivated land in the villages but has a full-time job in town, 
yemayenkye is a likely choice because the landlord can establish new farms with no 
input on his part. Thus the two types of share contracts provide flexibility to land-
lords, enabling them to choose contracts appropriate to their different socioeco-
nomic situations.

VII. CONCLUSION

This paper has analyzed two types of share contracts widely practiced in Ghanaian 
cocoa production. Drawing on a case study of three villages, it has attempted to 
explore the incentive structures embedded in this institution. The share contracts 
provide both landlords and tenants with various incentives that are often related to 
villagers’ life cycles. By entering either form of share contract, a tenant obtains 
access to land for food crops. A yemayenkye tenant acquires a stable and inheritable 
use-right of land, and may even have an opportunity to become a landholding farmer. 
When landlord supervision is weak, a tenant may underreport the total harvest, 
enjoying a higher production incentive and, simultaneously, a risk-sharing arrange-
ment with the landlord. On the other hand, the two types of share contract provide 
landlords with flexibility, allowing them to choose contracts appropriate to their 
different socioeconomic situations.

An important but far from clear-cut aspect of agrarian contracts in Ghanaian

14 Sharma and Dreze (1996, pp. 28–30) suggest that such “adjustment to labour endowments” is an 
important motivation behind tenancy contracts in Palanpur, North India.
cocoa production is the complex interaction between rights in trees (or farms) and rights in land. As the cases of yemayenkye show, once the farm is established and well-managed by a tenant, his landlord cannot easily challenge the use-right of the tenant. Continuing investment on the farm under yemayenkye could even lead to the transfer of land to the tenant. This means that tenant investment in cocoa, a perennial tree crop yielding for some forty years, is also an act strengthening tenant land rights. Similar patterns can be observed not only for tenants of share contracts but for own-account farmers. This is because in Ghana as in many farming communities in Africa, the existence of multiple and overlapping interests in land is prevalent, and investment in tree crops may act as a means of claiming and enhancing one’s land right (Besley 1995; Sjaastad and Bromley 1997; Okoth-Ogendo 1989; Bruce 1988; Berry 1988; Otsuka et al. 1998). Therefore, farmers’ investment behavior needs to be understood in terms of both short-term incentive to increase yield and long-term incentive to strengthen land rights.

The role of price incentive in cocoa production also needs to be reconsidered by placing it in wider incentive structures embedded in local institutions. Because maintaining cocoa farms is an important means of strengthening and securing farmers’ land rights, a fall in the real producer price of cocoa, as happened in the 1970s and the early 1980s, might have less effect on production behavior than is usually assumed. For a yemayenkye tenant, neglecting the cocoa farm or cutting down cocoa trees to replace them with more profitable crops means he loses long-term and inheritable use-right to the land. For a landholding farmer it means the loss of visible evidence that proves his investment on the land and his entitlement to occupy it. On the other hand, when the real producer price rises, as was the case in the late 1980s, the price incentive and other incentives embedded in local institutions may strengthen each other, resulting in a stronger production effect than the one caused by the price incentive alone. Furthermore, this “combined” incentive structure of price and institution favorable to production increase may be affected by the wider situation of increasing land scarcity. The decrease in forest land and the resultant difficulty in obtaining unoccupied land from local chiefs, a situation not very critical some decades ago, may encourage farmers to enter share contracts using landlords’ uncultivated land as an alternative means of obtaining land right. This would result both in more efficient use of otherwise uncultivated land and in production increase. The favorable price incentive in the late 1980s might have accelerated this process. These social and institutional aspects of incentives, and their interaction with other “pure” economic aspects such as price incentive, all constitute wider incentive structures that affect farmers’ behavior. The present study has been an attempt to reveal one aspect of such incentive structures by focusing on a notable local institution, the share contract.
REFERENCES


APPENDIX

EXAMPLES OF SHARE CONTRACTS

Case 1:  *A Female Nhwesoo Landlord*

Ama, a female Nhwesoo landlord, aged seventy, owns a cocoa farm inherited from her deceased husband in Bepoase. The farm is managed by a *nhwesoo* tenant whose tasks are the weeding, spraying, and harvesting of cocoa. The sharing arrangement of the harvest is *abusa* (triplet division), in which Ama takes two parts. The tenant occasionally employs hired labor to do the farm work, paying for this himself. When spraying insecticide, Ama is responsible for buying chemicals and hiring a machine. Ama often asks the tenant to work on her food farms, but this additional work is remunerated separately from the tenant’s work on the cocoa farm. Ama also provides the tenant with a room to stay in.

Case 2:  *A Cocoa-Sharing Yemayenkye Contract*

Kwabena is a male Yemayenkye tenant in Gyaha who started his contract in 1957 with an absentee landlord. He and the landlord prepared a written agreement of the contract in 1989. In this contract, according to the written agreement: (1) the contracting parties divide the cocoa and oil palm harvests equally; (2) food crops are divided into three parts, of which the tenant takes two; (3) the tenant is prohibited from selling or pledging the farm; (4) the contract ceases if the tenant steals the harvest; and (5) the land will be returned to the landlord if all the trees on the farm die. According to Kwabena, in spite of (2) above, he can dispose of all food crops harvested from the farm. In addition, he asserts that he and the landlord have agreed to divide the farm into two equal parts in the future, although no written agreement has been prepared on this.

Case 3:  *A Tree-Dividing Yemayenkye Contract*

Boateng, aged sixty, is a male Yemayenkye tenant who started his contract in 1977. He and his landlord prepared a written agreement of the contract which says that: (1) cocoa trees on the farm will be divided into two equal parts and shared by the contracting parties; (2) land will remain as a “bona fide property” of the landlord even after dividing the trees; (3) the contracting parties share the maize pro-

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a  All the names of the farmers have been changed to protect their anonymity.
duced on the farm on a fifty-fifty basis, but other food crops are for the tenant; (4) valuable trees such as mahogany on the farm should not be cut down without the consent of the landlord; (5) the landlord can cancel the contract if the tenant abandons the farm or steals the harvest; and (6) if the cocoa farm is in good condition, the tenant’s successor can inherit the use-right of the land.

Case 4: A Land-Dividing Yemayenkye Contract

Ben and his brother Kwesi together started a yemayenkye contract as tenants in 1979 in Gyaha. After completing the establishment of the cocoa farm, the landlord agreed in 1996 to divide the land into two equal parts, of which Ben and Kwesi jointly took one part. Ben and Kwesi further divided their part of the land into two equal parts, each taking one part. On dividing the land, they prepared a written agreement with the landlord which says that the kin members of the original landlord have no right to claim the part of the land which is now the “bona fide property” of Ben and Kwesi, and this also applies even if all the cocoa trees die in the future.

Case 5: Ambiguity in Yemayenkye Contracts

Kwabena, aged forty-five, is a yemayenkye tenant who started establishing a cocoa farm in 1977 and now divides the cocoa harvest into two equal parts with his landlord. Kwabena told the present writer that the landlord agreed to divide the land in the future. In a separate interview with the landlord, however, the landlord insisted that the contract is for dividing only cocoa and that he has no intention to divide the land with Kwabena. They prepared no written agreement of the contract.

Case 6: A Cultivating-Landlord Who Is Also a Tenant

Kwame, aged seventy-six, was one of the first settlers in Bepoase and is now a prominent cocoa farmer in the village. He owns six cocoa farms and manages three of them himself. Two of the other farms are managed by nhweso tenants, and the remaining one by a yemayenkye tenant. Besides these farms he leases in land and is establishing a new cocoa farm under a yemayenkye arrangement. Thus, he is simultaneously a landlord, an own-account farmer, and a tenant.

Case 7: Transfer of a Yemayenkye Contract by Inheritance

Owusu, aged fifty-five, is a yemayenkye tenant in Gyaha. The contract was started by his elder brother who died in 1993. Owusu inherited the contract and is now managing the cocoa farm established by the deceased brother. Owusu also allocated the remaining uncultivated land to the children of the deceased. In this way eight people are now working under the single yemayenkye contract, with Owusu playing a coordinating role.
Case 8:  *Transfer of a Yemayenkye Contract by Gift*

Yaa, aged fifty-five, had been helping her husband (a *yemayenkye* tenant) in establishing a cocoa farm for some years, and in 1993 her husband gave a part of the established farm to Yaa. On transferring the right of the farm, she and her husband went to their hometown to perform a “custom” during which Yaa gave a customary gift to her husband in front of the relatives of both sides. In this way she formally obtained the use-right of the farm and can bequeath it to her children.

Case 9:  *Yemayenkye and an Opportunity to Become a Landholding Farmer*

Sammuel was twenty-one years old when he came to Nagore in 1995 as a seasonal hired laborer. During the first seven months he engaged in daily-wage and task-contracted labor but soon found a landlord looking for a *yemayenkye* tenant. In 1996 he entered a land-dividing *yemayenkye* contract with the landlord and prepared a written agreement. According to the agreement: (1) the tenant has to complete the establishment of a new cocoa farm within six years; (2) after completion the tenant is entitled to all cocoa harvests for the subsequent five years; (3) the tenant sprays the farm three times a year, but the cost of purchasing insecticide is borne by the landlord; and (4) in the eleventh year after the commencement of the contract, the tenant and landlord will divide the land into two equal parts.

Case 10:  *From an Annual Laborer to a Landholding Farmer*

Amadu, aged fifty-two, was born in northern Ghana and migrated to Nagore in 1958 as a farm laborer. During the first six years he worked as an annual laborer and then entered a *yemayenkye* contract. In 1966 he purchased a parcel of land from a local chief using the money he saved during the first six years in Nagore. In addition, after twelve years of *yemayenkye* he and his landlord divided the land into two equal parts. Thus, a one-time landless migrant laborer is now an own-account farmer with two parcels of land.

Case 11:  *From a Nhwasoo Tenant to a Yemayenkye Tenant*

Patrick, aged thirty-five, got married in 1991 and now has two children. After his marriage he stopped several *nhwasoo* contracts he had been doing, and started three *yemayenkye* contracts with different landlords. The present writer asked him why he stopped *nhwasoo* and started new *yemayenkye* contracts. His answer was that because he is now married and has a wife and children he wants to leave some property (*agyapade*) to them. He further explained that, although the *nhwasoo* he did previously was profitable, the cocoa farm under *nhwasoo* cannot be inherited by his children. On the other hand, the cocoa farm he is now establishing under *yemayenkye* is an inheritable property as long as the farm is in good condition.