

**Land Tenure and Land
Use in Southern Togo:
Description of a Farm
Household Survey**

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Three supporting annexes are available from IIED's Environmental Economics website at http://www.iied.org/enveco/publications/pub_pie.html (Annex 1: Tables; Annex 2: Questionnaire; Annex 3: Response codes)

Introduction

This paper presents a case study of land use, land tenure and adoption of soil conservation measures by farmers in southern Togo. It describes a survey of 99 rural households carried out in mid-1990 and presents descriptive statistics of the data collected along with preliminary tests of association between several variables, with particular emphasis on the differences between tenants and owner-occupiers.

Section 1 describes the research context, including an overview of the natural and historical setting with more detail on the study site itself (at the time of the survey). Section 2 outlines the process of field research, including the identification of the study site, the implementation of a preliminary census and the main survey. Section 3 summarises the results of the census from which the final survey sample was drawn. Section 4 comprises the bulk of the chapter, presenting basic statistics and preliminary analysis of the data gathered in the main survey. Section 5 summarises the findings of a brief return visit to the study site, in May 2000. Finally, section 6 offers a summary of the findings. Supporting tables are provided in Annex 1.¹

1 Research Context²

Togo is among the smallest West African nations, occupying a narrow strip of land (just 120 km at its widest point) running from the Atlantic coast northwards to the Sahel, a distance of some 600 km. The country is bounded to the west by Ghana, to the north by Burkina Faso and to the east by the Republic of Benin. This study focuses on the coastal (Maritime) region of Togo, dominated by the capital city, Lomé.

Figure 1: West Africa



Figure 2: Map of Togo (US Government 1983)

¹ Annexes 1, 2 and 3 are available at http://www.iied.org/enveco/publications/pub_pie.html

² Except where indicated, information presented in this section is drawn from websites maintained by the UN Food and Agriculture Organization (FAO), The World Bank, UNICEF and the US Government.

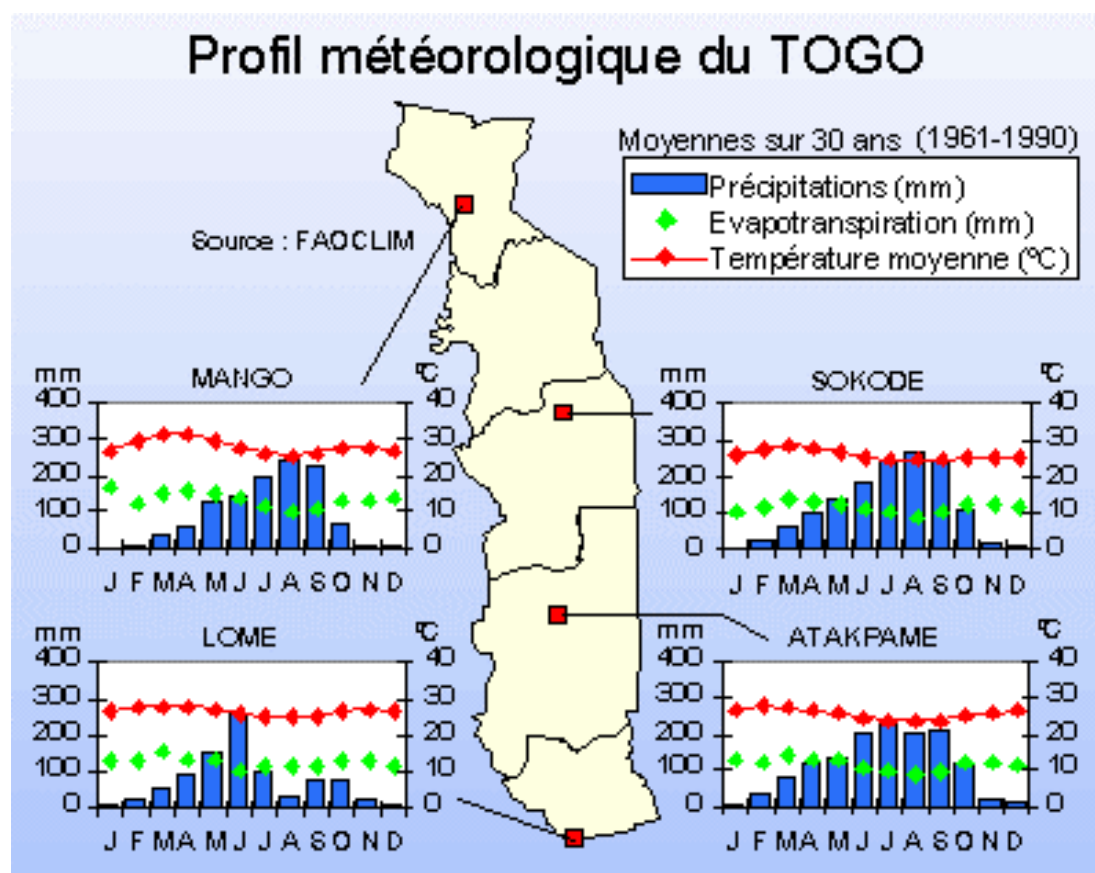


Source: http://www.lib.utexas.edu:80/Libs/PCL/Map_collection/africa/Togo.GIF (8 June, 1999)

1.1 Geography, climate and vegetation

The Togolese landscape is defined by a range of hills running southwest to northeast, splitting the country into two regions of savannah plains. Maximum elevation of 986 meters above sea level is found at Pic Agou, in the Plateau region.

Figure 3: Meteorological Profile of Togo (FAO 1999)



The climate in Togo is tropical, ranging from hot and humid in the south, to semiarid in the north. Average annual precipitation for the country as a whole is about 1200 mm/yr (FAO 1995). Three main climatic zones can be distinguished:

- *Southern*: mean annual rainfall 900-1,200 mm/yr in two seasons (March-July and September-November); average temperature range 24° to 30°C;
- *Central*: mean annual rainfall 1,400 mm/yr (up to 1,600 in mountainous areas to the West); average temperature range 20° to 33°C; and
- *Northern*: mean annual rainfall 900-1,100 mm/yr in one season (May-October); average temperature range 18° to 38°C.³

Most soils in Togo derive from thoroughly weathered parent materials, are highly leached and moderately fertile. Land considered suitable for agriculture is estimated at 3.6 million hectares (ha), or about 64% of the total land surface area (DESA 1993). The area under cultivation in 1990 was estimated at 2.6 million ha, almost all rainfed (*ibid.*).⁴ Natural forest and woodland accounted for 18%

³ A downward trend in annual rainfall and a rise in average temperature are apparent over the period 1961-90 (MEPF 1999). It is not clear if this reflects a permanent change in climatic conditions.

⁴ Estimated area under cultivation in 1990 includes pasture (200,000 ha), food crops (550,000 ha), cash crops (210,000 ha), coconut plantation (150,000 ha) and fallow land (1,500,000 ha or 57% of the total). A more recent estimate of the area under food crops is 842,000 ha in 1996 (DSID 1998). Analysis of data published by FAO and others suggests a ratio of about 2:1 between fallow and cultivated area in 1990, compared to almost 5:1 in 1961.

of total land area in 1990 (DESA 1993).⁵ About half of this was official (government managed) forest reserves, with the rest mostly secondary regrowth on abandoned farmland.

1.2 Socio-economic setting⁶

Encompassing more than a dozen linguistic and ethnic groups, the area known as Togo today was at the edge of several early African empires, notably the Ashanti Empire to the West (in present-day Ghana) and the Kingdoms of Dahomey and Benin to the East (in Benin). These different African cultures all left their mark, as have also the Portuguese, Germans, British and French at different times. The first Europeans to venture into the area were Portuguese traders, at a time when the coastal region was a major source of gold, ivory and, especially, slaves.

Togo is one of the few areas of West Africa in which Germany had a significant influence. In 1884 a German diplomat, Gustav Nachtigal, signed a treaty with King Mlapa III (chief of Togoville) establishing Togoland as a German protectorate. German Togoland was an imperial colony for 30 years until August 1914, when, in the first Allied victory of World War I, the British and French took it away. The country was divided between the two victorious powers under a League of Nations mandate, splitting many indigenous communities. A 1956 plebiscite settled the borders when the western, or British, third of Togoland joined Ghana. The French part, modern-day Togo, achieved independence in 1960.

The Republic of Togo enjoyed strong economic growth during the first 15 years following Independence (World Bank 1996). High prices for the main export commodities during the mid-1970s led to boom in public investment, followed by massive government borrowing when export prices collapsed a few years later. This led in turn to fiscal crisis when interest rates peaked in the early 1980s. After a brief period of structural adjustment, economic growth resumed at a steady, albeit modest, pace during the latter half of the 1980s.

Togo in the 1990s

In 1990 Togo had an estimated population of 3.5 million (DESA 1993). By 1997 this had increased to 4.3 million (Anipah *et al.* 1999), implying an annual growth rate of about 2.9%.⁷ Population growth was higher in urban areas, with estimates of about 4.5% during the late 1980s (CIESIN 1999). Rural to rural migration has also been significant in recent years, generally involving migration from north to south (Anipah *et al.* 1999).

In 1990 Togo recorded a Gross Domestic Product (GDP) of US\$1.65 billion or about US\$430 per capita (CIESIN 1999; DESA 1993). At this point the positive economic trend of the late 1980s was interrupted by political and civil unrest, leading to violent confrontations between the population and the government, widespread strikes and heightened ethnic tensions.⁸ The result was a dramatic economic downturn. GDP fell 17% between 1990 and 1993, while government revenue was halved (World Bank 1995). By 1996 per capita income had declined to US\$310 (World Bank 1996). Growth resumed during the latter half of the 1990s, stimulated in part by a 50% devaluation of the CFA Franc in 1994, and a somewhat calmer political situation.

Turning to other indicators of social development, we find that life expectancy at birth in 1998 was estimated at 57 years for males and 61 years for females (CIA 1999), up from 49 and 51 years, respectively, in 1981 (Akata 1992). For the population as a whole the figure was 55 years in 1992

⁵ In contrast, FAO (1999a) reports 23% of land area in Togo under 'forest' in 1995, using a slightly different definition of land cover. FAO also reports an annual deforestation rate of 1.4%.

⁶ The early history of Togo presented here is adapted from Excite Travel (www.excite.com) 14/03/1999.

⁷ Other estimates of population growth in Togo range from 2.9% in 1981 (Akata 1992) up to 3.5% in 1998 (CIA 1999). These are among the highest rates of growth reported for any country.

⁸ Togo has been governed since 1967 by President Gnassingbe Eyadema, who came to power as a young army officer after overthrowing the civilian government in two violent coups. Despite periods of unrest during the early 1990s and several contested elections, Eyadema has maintained his grip on power.

(CIESIN 1999), suggesting a long-term improvement in general health conditions. It is not clear whether the recent spread of HIV infection has reversed this trend, as in some other African countries.

Data on child health are less encouraging. For example, infant mortality was reported as 80 per thousand live births in 1988 (CIA 1999), 85/1,000 in 1992 (CIESIN 1999), and 80/1,000 in 1998 (Anipah *et al.* 1999). Worse, while 45% of infants under 12 months were reported as fully immunized in 1989 (CIESIN 1999), only 31% of infants of 12-23 months old were found to be completely vaccinated in 1998 (Anipah *et al.* 1999). Similarly, 24% of children under five years old were considered malnourished in 1988 (CIESIN 1999), while 25% of children under three years old were reported as underweight in 1998 (Anipah *et al.* 1999). The apparent lack of improvement in the health condition of children may reflect the economic downturn experienced during the early 1990s.

Access to clean water and education are important determinants of health status. A survey of over 7,500 households throughout Togo in 1998 revealed that about half had access to clean drinking water (Anipah *et al.* 1999), but only 12% of households had access to personal improved latrines and 15% had electricity (2% in rural areas, in the latter case).⁹ Finally, while two-thirds of adult males (aged 15 and over) were classed as literate in 1995, only 37% of adult females could read and write (CIA 1999).

The agriculture sector in Togo

A key feature of the Togolese economy is the significance of farming in national income, employment and exports. During the 1990s some 70% of the population lived in the countryside, most of them engaged in labour-intensive and relatively unproductive farming (Anipah *et al.* 1999; CIESIN 1999; DESA 1991a; FAO 1995). The agriculture sector as a whole accounted for 33% of GDP in 1990, while food crops contributed 22% (CIESIN 1999; DESA 1991a; 1993).¹⁰ The share of agriculture in national income rose dramatically during the early 1990s, due to the severe recession in the urban and formal sectors, and agriculture still accounted for 40% of GDP as recently as 1997 (Anipah *et al.* 1999).

The staple food crops of Togo include roots (yam, manioc), maize, millet and/or oil palm, depending on the region. Coffee and cocoa are grown as cash crops in suitable areas, while cotton has increased in importance since the late 1980s (MEPF 1999).¹¹ The most important food crops in terms of cultivated area are maize (46%), sorghum (15%), groundnut (9%), yam (8%), millet (6%), haricot bean (5%) and manioc (4%), based on data from the 1996 agricultural census (DSID 1998).

Total output of food crops lagged behind population growth over the period 1961-89, growing at about 2.5% and 2.9% per annum respectively (DESA 1991a).¹² Overall, between 1965 and 1990, per capita food production fell by 25% (CIESIN 1999). Nevertheless, at the end of the 1980's Togo remained roughly self-sufficient in terms of food production, at a national level (*ibid.*).¹³

⁹ Potable water sources include piped – private or public – pump, or protected well (Anipah *et al.* 1999). Others report both higher and lower estimates of access to potable water, e.g. 61% of rural households and 100% of urban households in 1991 (CIESIN 1999), 41% and 82% respectively (UNICEF 1999), and 41% overall (World Bank 1996).

¹⁰ The balance included cash crops, forestry, fishing and livestock production (DESA 1991a).

¹¹ Togo's other main export product is phosphate, for use in the chemical and fertilizer industries.

¹² While growth in cereals production matched or exceeded population growth, output of legumes did not keep up and root crop production (e.g. yams, manioc) declined from 1961-89 (DESA 1991a). Average yields of the main staple crops changed little during the 1980s (DESA 1993). Taking a longer view, FAO (1999b) reports a decline in average yields of manioc, groundnuts and beans over the period 1961-98, while mean maize yields increased very slightly over the same period, from about 900 to 1,000 kg/ha.

¹³ Togo imports significant quantities of rice, wheat, meat and fish, which are not produced locally in sufficient volume to meet demand (DESA 1993; World Bank 1996). The country also receives some food aid. Total expenditure on food was estimated at 34% of GDP in 1990 (CIESIN 1999).

Low agricultural productivity is partly due to limited use of modern inputs, particularly chemical fertilizers. CIESIN (1999) reports that fertilizer applications in the late 1980's were about 5 kg/ha on average. DESA (1993) reports that about 17% of all cultivated land (excluding pasture and fallow) received chemical fertilizer applications in 1990, of which roughly half was land under cotton. The 1996 agricultural census found that just 12% of the total area devoted to food crops received chemical fertilizer, while about 3% of this area was planted with 'improved' crop varieties (DSID 1998). Use of organic fertilizers was even less common (*ibid.*). Prevailing levels of chemical fertilizer use are considered insufficient to compensate for declining natural soil fertility (André 1990).

Similarly, there is little use of modern farm equipment in Togo. FAO (1999a) estimated an average of 20,500 ha under cultivation for each tractor in use in 1990. Animal traction is also undeveloped, as many areas of Togo are inhospitable to livestock. Lack of animal or mechanical traction remains a major barrier to improving agricultural productivity in Togo.¹⁴

Despite its economic significance the agricultural sector in Togo has not been a major focus of government investment. Just 2.5% to 3.0% of the national budget was devoted to agriculture between 1988 and 1991 (DESA 1993). Investments in agriculture during the same period were mainly funded from external sources, i.e. grants and loans from foreign donors and lenders (*ibid.*). Public investment and aid both declined drastically following the political turmoil of 1991-93, and have not since returned even to the modest levels recorded in 1990 (World Bank 1996).

1.3 The study area

The study site for this research was the village of Agbantokopé and its environs in Vo Préfecture, in the Maritime Region of Togo. Perched on the southernmost edge of the continental plateau, the study area faces the Gulf of Guinea across a shallow lagoon and littoral no more than 5 km wide. The area extends north to the outskirts of Vogan, an important market town and administrative centre, west to the ancient seat of traditional power at Togoville, and east to the Zowla lagoon (at the mouth of the Boko river).

The landscape is flat (average 2% slope) with an elevation of 5-20m above sea level (Addra *et al.* 1987; MEPF 1999). The climate is humid (about 80% year round) and warm (25-29 °C), with mean annual precipitation over the period 1961-1990 reported as 1,024 mm at the nearest weather station in Aného (MEPF 1999; Telouh and Sivakumar 1996). Soils just inland from the littoral are generally deep, sandy and well drained, and naturally fertile (*Ferralitic* in the FAO classification system). Soil erosion by rainfall is not a major problem in the area, given the relatively gentle slopes and low rainfall (Janssens 1991). On the other hand, soils are drought-prone and highly degraded in long-settled areas, with organic matter content below 1% (Akata 1992; Addra *et al.* 1987; Adou Rahim Alimi *et al.* 1999; Deffo *et al.* 1999; Saragoni *et al.* 1992).¹⁵ The natural vegetation comprises woody savannah, thick shrub and occasional forest 'islands' (Addra *et al.* 1987; MEPF 1999), although in the study area this has been almost entirely replaced by agriculture.

The study site forms part of the hinterland of Aného, an important administrative centre during the colonial period and bustling border town today. This is one of the oldest and most densely settled areas in West Africa, although the population of the study zone remains overwhelmingly rural. About 10% of the total population of Vo Préfecture is classed as urban, while average population density in rural areas exceeds 200 inhabitants per km² (Addra *et al.* 1987; MEPF 1999). Estimates for some

¹⁴ The disease *Trypanosomiasis* is a barrier to animal husbandry throughout coastal West Africa. Naturally resistant small livestock are common (e.g. sheep, goats and fowl), but cattle and other vulnerable draught animals are rare outside major towns and cities (Hendrickx and Napala 1999).

¹⁵ The colloquial term for these soils is 'terres de barre' derived from the Portuguese '*barro*' signifying clay (Marquette 1986). Accounting for 39% of the area of the Maritime Region, they occupy a strip of land 30-50 km wide just north of the littoral (Deffo *et al.* 1999).

areas around Vogan are as high as 500 hab/km² (Akata 1992; Calon 1990).¹⁶ Extreme land scarcity is reflected in the lack of officially protected areas or forest reserves in the vicinity (MEPF 1999).

Access to the non-farm economy

A relatively dense road network in the Maritime Region – about 40% paved – provides good links to external markets (Addra *et al.* 1987). The study area itself enjoys direct access to the international coast highway, linking Togo with countries to the east and west, as well as the deepwater port and international airport at the capital, Lomé. Proximity to the capital (about 60 km by paved road) implies relatively good access to off-farm employment opportunities.

Public services are also close at hand (e.g. education, health, financial, legal) although the quality is rudimentary and supply is strictly limited. Perhaps because of its high population density and rural character, Vo Préfecture in the mid-1980s had below average coverage in terms of the number of health facilities and personnel per resident, compared to the rest of Togo (Addra *et al.* 1987). Poverty is widespread, with over 60% of all rural households relying on unprotected water sources (traditional wells, rivers, lakes or dams), 70% without adequate sanitation, less than 8% reporting any type of motor vehicle (mainly two-wheelers) and more than three-quarters of the population living in mud-brick houses.¹⁷

Proximity to Lomé has stimulated relatively high rates of rural-to-rural and rural-to-urban migration. The net result is that Vo Préfecture has exhibited a relatively low rate of population growth in recent decades (about 1% per annum), as migration out of the area – mainly to Lomé – has offset immigration and natural increase (Addra *et al.* 1987; Calon 1990; MEPF 1999). Another result of recent migration is increasing ethnic diversity. The dominant ethnic groups in Vo Préfecture in 1981 were the Watchi and Ewe, accounting for 72% and 21%, respectively (Addra *et al.* 1987).

In addition to farming and the urban economy, one of the most important activities in the region is the production of calcium phosphate from open cast mines, located about 20 km north of the study area. Phosphates accounted for 40% of Togo's total export earnings in 1988.¹⁸ The mines are a major contributor to air and water pollution as well as land degradation (MEPF 1999).¹⁹

Agriculture in the study area

The total area entering into the cultivation cycle is estimated at over 80%, with little fallow land (Akata 1992; Addra *et al.* 1987; Adou Rahim Alimi *et al.* 1999). Land degradation due to continuous cultivation and low fertilization has been considered a major problem for many years (Lamouroux 1969) and is still ranked among the top environmental concerns in the study area (MEPF 1999; World Bank 1996). Surveys suggest that local farmers likewise perceive a long-term decline in land availability, soil fertility and other environmental conditions (Coffi and Foli 1995).

Most farmers cultivate two crops per year, profiting from the two distinct rainy periods (March-July and September-November). However, a combination of low rainfall, poor soil fertility and limited use of modern inputs means that agricultural productivity is generally low even by Togolese standards.

¹⁶ Compare to 62 hab/km² for Togo as a whole in 1990, or 29 hab/km² in 1965 (CIESIN 1999). Anipah *et al.* (1999) report an average population density of 75 hab/km² in 1997. For West Africa as a whole the average in 1990 was 32 hab/km² (World Bank 1996).

¹⁷ Data are from the national agricultural census, for rural households in the Maritime Province in 1996 (DSID 1998). Note that households in Vo Préfecture had relatively good access to potable water and electric power, compared to residents of other parts of the Maritime Region (Addra *et al.* 1987).

¹⁸ André (1990) notes that virtually all phosphate production is exported and suggests that more be made available to local farmers. However, Togo phosphate rock has limited potential as fertilizer in its natural state due to low solubility (Marquette 1986; Mokkwunye & Pinto-Toyi 1991). Others note that potassium is more often the limiting nutrient for maize production in Togo (Akata 1992; Deffo *et al.* 1999).

¹⁹ Akata (1992) states that about 3,000 ha of arable land had been destroyed by phosphate mining, based on the analysis of satellite images dating from May 1990.

Average yields of maize (the staple crop) are well below one tonne per hectare, or less than half the mean yield in other regions (Adou Rahim Alimi *et al.* 1999; André 1990; DESA 1991a; DESA 1993; FAO 1999b; Marquette 1986; Saragoni *et al.* 1992).²⁰ Low productivity combined with small land holdings mean that few farmers are able to grow enough food to meet their needs, and most rely on a range of non-farm activities to supplement their income (Calon 1990).

Plate 1: Staple foods on sale in Vogan market



Staple crop prices are about a third higher in the Maritime Region than elsewhere in Togo.²¹ Lomé is a major source of demand, with a total population estimated at 900,000 in 1997 (Anipah *et al.* 1999). However, despite its proximity to Lomé and good trade links, the study area is not immune from wide seasonal variation in crop prices – a feature of the agriculture sector throughout Togo (World Bank 1996). For example, in Vo Préfecture the price of the staple crop (maize) fell from a high of 115 FCFA/kg in July 1990 to its lowest value of 42 FCFA/kg immediately after the harvest in August (DESA 1991b). Those who are unable to produce all of the food they require (including many farmers!) can face serious hardship during the months leading up to the harvest.

Local farmers have good access, in principle, to technical information and the latest extension messages, due to the presence of an agricultural research station at Glidji (Agboméjé), approximately 10 km from the study area. The station was established in 1982 and has conducted numerous trials of improved crop varieties, chemical fertilizer formulations, alley-cropping and green manures, etc. However, agricultural research in Togo has a relatively poor record of outreach and extension (Akata 1992). Moreover, low rainfall in the area rules out cultivation of Togo's main export crops (i.e. coffee, cocoa and cotton), excluding local farmers from the main thrust of government funded

²⁰ Low yields are exacerbated by post-harvest losses estimated at 14% on average (Deffo *et al.* 1999).

²¹ The difference in food crop prices was calculated using un-weighted regional data on the mean prices of maize, sorghum, haricot, groundnut, manioc and yam in 1990 and 1991 (DESA 1993).

agricultural extension and support programmes (Calon 1990; Deffo *et al.* 1999).²² In addition, land scarcity and endemic disease limit the practice of animal husbandry on any significant scale.

Plate 2: Selling coconut and processed manioc (gari) on the highway



Land tenure in the study area

As in most rural areas of Togo, the use and transfer of land is regulated by local custom with little reference or recourse to legal texts except in cases where disputes cannot be resolved by customary authorities (Coffi and Foli 1995; World Bank 1996). Traditional tenure systems grant indefinite use and limited transfer rights to families, and to their descendants, on the basis of the earliest known settlement and clearing of an area (Stienbarger 1990). Superimposed onto this tradition is a modern legal framework which since 1974 has permitted the State to appropriate and dispose of 'idle' land. Such action has been rare in practice due to delays in conducting land surveys and strong opposition from indigenous populations (Coffi and Foli 1995). More recently, land shortages and migration (both inward and outward) have led to the emergence of informal markets in farmland, and a creeping individualization of land tenure, alongside which persist earlier, collective forms of land management.

The result is an unusual diversity of land tenure arrangements, and widely ranging degrees of security, access, and use rights, even among the different fields of a single family. Land tenure insecurity and, in particular, high levels of tenancy have been repeatedly identified as significant constraints on agricultural development and soil conservation in the study area (Calon 1990; Deffo *et al.* 1999; Janssens 1991; MEPF 1999; World Bank 1996).

2 Implementation of the Field Research

²² Farmers in the study area thus missed out on real increases of 20-29% in export crop prices during the early 1980s (World Bank 1996). Moreover, prices of major food crops declined by 12-24% in real terms during 1985-90, while local farmers also suffered from cutbacks in subsidies for agricultural inputs (*ibid.*).

Field research for this case study was conducted over a period of eighteen months, from July 1989 through December 1990. The period from July 1989 to February 1990 was spent settling in Togo, conducting background research, developing links with local agencies, selecting the study site, preparing a questionnaire, and recruiting an interpreter/assistant. Data collection in the field took place between March and October 1990, including an initial comprehensive census from which the sample population was drawn, followed by pre-testing and administration of the main household survey. Initial verification and coding of the survey data was completed by December 1990.

2.1 Case study site and collaboration with FAO

The case study location was selected on the basis of literature review and discussions with government officials and representatives of donor and technical agencies active in Togo at the time. These contacts led to a collaborative agreement with the resident mission of the Food and Agriculture Organization of the United Nations (FAO) in Togo, under which the research would focus on farmers living near one of the sites of a nation-wide soil conservation project and an agro-forestry project that FAO was implementing on behalf of UNDP and the Togo government.²³ Managers and technical staff of the two projects expressed a need for more socio-economic information, particularly concerning land tenure arrangements in the project sites, and the possible effects of indigenous land tenure on the adoption by farmers of technical innovations promoted by the projects.

The geographic boundaries of the study coincided with those used by the government of Togo to demarcate the base level unit for agricultural extension activities in the area, i.e. the sub-sector of Badougbé, in Vo Préfecture, under the Regional Direction for Rural Development (DRDR). The sub-sector was one of several intervention sites in Togo for the FAO projects with which this study became associated.²⁴ The coincidence of the study area and survey period with the location and peak period of intervention by FAO is a possible source of bias, insofar as all farmers within the area were encouraged at the time to adopt certain conservation practices. In practice, however, only a small minority of farmers adopted the technical packages being promoted, as discussed below.

2.2 Preliminary census and detailed survey

The sample population was identified on the basis of a comprehensive census of all 312 households found to be residing within the boundaries of the project intervention area at the time (mid-March to mid-May 1990). The total area was approximately 250 ha (Janssens 1991). To ensure that all households were accounted for, systematic transects on foot and bicycle were undertaken to identify isolated hamlets, some comprising a single household.²⁵ The census results are reported below, in section 3.

Following the census, a sub-sample of 100 households was drawn at random from the entire census population for in-depth interviews. Thirteen additional households were selected at random from lists compiled by FAO project staff, comprising farmers in the study area who were involved in the production of tree seedlings or who had adopted alley-cropping, live fencing, woodlots or other agro-forestry activities promoted in the area. This was to ensure that the sample included more than a handful of tree planters.²⁶

Households participating in the FAO agro-forestry project received free planting material (seeds or seedlings) and food rations to encourage them to plant trees, while those involved in setting up and

²³ The two projects were: *Conservation et Aménagement des Sols* (UNDP/FAO/TOG/89/001) and *Reboisement et Aménagement Forestiers* (UNDP/FAO/TOG/87/001). Summary reports are provided in Janssens (1991) and FAO (1993). See also Akata (1992) and Mutumba (1990). Both projects ended in 1991-92. Follow-up activities were deferred due to the unstable political climate in Togo at the time.

²⁴ The next closest (and subsequent) intervention site was at Anfoin, about 10 km away (Janssens 1991).

²⁵ Both the census and the main survey were conducted by a Togolese national fluent in the local languages. Mr Yawo E. DOUVON, a graduate of the University of Benin in agricultural economics with previous experience of household surveys, resided in the study area throughout the survey period.

²⁶ In some of the analysis that follows these households are singled out to avoid potential bias.

managing a local tree nursery at Agbantokopé received food rations and equipment as well as training and a cash payment for each seedling used (Mutumba 1990). The nursery was set up in 1988 (Janssens 1991), and in 1989 the 39 local ‘members’ received rations worth more than FCFA 441,000 as well as FCFA 1.7 million in cash for 143,000 seedlings sold to FAO, equivalent to over US\$160 per member after deducting the cost of inputs (Mutumba 1990).²⁷ Despite such incentives it was difficult to persuade people to participate in the work of the nursery (*ibid.*). In 1990 the number of seedlings produced declined to 100,000 and by 1991 the nursery was already in danger of being abandoned in favour of an alternative site (Janssens 1991).

The survey straddled the two agricultural seasons (June to October 1990), when more people tend to be present in rural areas in order to engage in farming.²⁸ Most households received several visits, not only because of the length of the questionnaire, but also in order to clarify or correct ambiguous and inaccurate entries.²⁹ Completed questionnaires were checked throughout the course of the survey, in order to ensure full and accurate responses (Annex 2). Where necessary, the list of response codes was amended to include additional categories (Annex 3).³⁰

Of 113 households selected for in-depth interviews, 99 questionnaires were completed. The data was encoded in Lotus 1-2-3/WK1 format and verified against the forms. The entire dataset was reviewed, cleaned and re-verified against the original questionnaires in mid-1998 in preparation for this analysis. It was subsequently compiled in MS/Excel format and converted to SPSS/SAV format for statistical analysis.

3 Census Results

The preliminary census employed a simple questionnaire to minimise the time spent with each household. Information gathered included household-level data on:

1. Place of residence;
2. Ethnic affiliation;
3. The age, sex and origin of the household head;
4. Number of spouses (wives);
5. Number of adult household members (over 12 years of age);
6. Number of children (under 12 years of age);
7. Tenancy status, i.e. use of plots belonging to someone outside the household (and their name and place of residence);
8. Landlord status, i.e. making plots available to someone outside the household;
9. Member of the civil service (household head only); and
10. Planter status, i.e. FAO-sponsored agro-forestry adopted on one or more plots.

The definition of a household can be problematic. People move frequently due to marriage, separation, change of employment, death, etc. Children may be sent to live with relatives for short or long periods. Young adults may continue to reside with their parents after marriage, and may or may not claim separate household status. Several related households living in the same area may manage some of their land and labour resources in common. Domestic servants or tenants unrelated to any member of the household may share living quarters and/or meals with other members. And so on.

²⁷ Group members were also able to use the nursery and its equipment between July and January, when trees were not being grown, to cultivate vegetables for home consumption or for sale (Janssens 1991).

²⁸ Farming households often shed labour during the off-season, as casual workers are laid off and younger family members migrate to the cities in search of temporary wage labour.

²⁹ The original questionnaire is 19 pages long. Supplementary sheets were used to accommodate households with more than eight members and those cultivating or renting/lending more than five fields.

³⁰ These annexes are available at http://www.iied.org/enveco/publications/pub_pie.html

For both the census and the main survey, the definition of the household was determined by respondents themselves, who identified a head of household (*chef de ménage*). The latter individual was usually but not always an older male sharing the same hut or semi-enclosed compound with several other people (most related by birth or marriage). As the main informant for both the census and the main survey, this individual effectively determined who was or was not considered a member of the household.³¹

On this basis 312 households residing in 38 villages and hamlets within the study area were identified, for a total population of 1,997 individuals.³² Households comprised an average of 6.4 individuals, although size varied widely (maximum 28, minimum one).³³

Children under 12 years of age comprised 41% of the population. This is comparable to figures recorded in the official 1981 census of the Maritime Region as a whole (Addra *et al.* 1987).³⁴ Note that children were not equally distributed among households. Seventy-three respondents (23%) reported no children under 12 years of age while one household reported a maximum of 14 children!

The census revealed widespread polygamy. Eighty-five per cent of male heads of household reported at least one wife among the members of their household, while 40% of married male household heads claimed more than one spouse. Men in polygamous relationships reported an average of 2.6 wives each. The maximum number of wives reported by any one male head of household was six.

Women comprised 20% of all household heads (and none reported a resident spouse).³⁵ In general, female heads of household were older than average (55 years compared to 50 years for the group as a whole) and their households were smaller (3.7 residents on average, as opposed to 6.4). On the other hand, female household heads were no more likely than men to have moved to the study area from another place, nor to use fields belonging to someone else, nor to have lent or rented their own fields to others.

Almost two-thirds (63%) of respondents had moved to their current place of residence from some other (named) location. Most of these had not come from very far. Fifty-three per cent came from one of four large villages or small towns located to the north of the study area (maximum 20 km distance). Five households had moved from one place in the study area to another.

A small proportion (less than 3%) of household heads were employed in the civil service, all male, and with an average age of 39 years.³⁶ Most would have been employed as school teachers or health clinic staff, or perhaps agricultural extension agents. Apart from government, there was and still is little formal-sector employment in most rural areas of Togo. Off-farm income from other (informal) sources was common, however, as will be seen from the results of the main survey (section 4).

³¹ Every copy of the questionnaire included a written definition of the household, as a reminder to the enumerator. This defined the household (*ménage*) as a unit of production comprising all members of a family group sharing a single kitchen, in which the eldest member is responsible for ensuring the collective welfare by allocating a part of his/her income, in exchange for contributions of labour from other members. The definition allowed for unrelated members (e.g. domestic servants) as well as individual pursuits, but assumed that all able-bodied members contribute in some way to household needs. A similar definition was used in the 1996 national agricultural census (DSID 1998).

³² Some households resided outside the 250 ha intervention site targeted by FAO. However, even if 50% of the census population resided outside this area, the implied population density is almost 400 hab/km².

³³ Compare to a mean household size of seven reported in the 1996 national agricultural census (DSID 1998), or an average of 5.6 for rural households in 1998 (Anipah *et al.* 1999).

³⁴ For Togo as a whole, Anipah *et al.* (1999) report that 48% of the population was under 15 years old, while only 4% were 65 or older.

³⁵ Compare to 22% of female-headed households reported for Togo as a whole by Anipah *et al.* (1999).

³⁶ Compare to about 5% of 'active' men (12-60 years old) in rural areas of the Maritime Region reporting salaried employment in 1981 (Addra *et al.* 1987).

3.1 Predominance of tenant farming by immigrants

A striking result of the census is the large proportion of respondents (60%) who claimed to cultivate at least one field that did not belong to any member of the household. In other words, they were borrowing or renting land belonging to someone else. Of those who admitted cultivating other people's land, more than 90% were immigrants, i.e. they had moved to their current place of residence from outside the study area.

The census further revealed the names and place of residence of 79 individuals from whom households reported having acquired one or more fields for agricultural use. All but three of these 'landlords' resided within the study area. Twenty-one landlords were identified by two or more households as having made fields available to them. Six landlords residing in Djankassé – one of the largest villages in the study area – were identified by ten or more households.³⁷

Only 32 respondents (10%) reported making some of their land available for use by other households, less than half the number reported by tenants. In other words, either some respondents were reluctant to admit their status as landlords, or perhaps the question was interpreted differently depending on which side of the transaction one was on. For example, some respondents may have admitted landlord status only if they charged rent for fields made available to other households, but not when they provided land for free, whereas households admitting the use of fields belonging to others may have included both types of transaction.

Self-professed landlords were generally older than average (60 years rather than 50) but their households were about the same size as the average. Not surprisingly, admitted landlords were far more likely to be from the study area; only one claimed not to come from the village in which she was then residing (Djankassé), having moved from the nearby town of Anfoin. Finally, none of those who made land available to others claimed to be a 'tenant' on someone else's land.

Only one civil servant admitted to using a field belonging to someone else, even though most civil servants originated from outside the study area. This may reflect their non-participation in agriculture or, alternatively, the use of Government land. It is not likely to reflect the outright purchase of farmland by such outsiders, as rural land sales were almost unheard of in this part of Togo at the time of the survey.

3.2 Limited adoption of improved agro-forestry practices

Few respondents (just over 2%) reported having adopted at least one of several agro-forestry measures promoted by FAO in the area. These included alley-cropping, windbreaks, live fencing and private woodlots, among other practices.³⁸

None of these 'planters' were landlords or civil servants, nor did any of them admit to farming land belonging to someone else. All had lived in the village of Badougbé their entire lives; all were older, married men (minimum 56 years of age), and they were disproportionately polygamous (5 out of 7, compared to 34% of all male heads of household). The implication is that project participants were well-established members of their community and perhaps a bit better off than most (hence their multiple wives).

3.3 Tenants live in hamlets; landlords in larger villages

³⁷ The most frequently named landlords were: Kuegoudo Folly (named 25 times); Tchanka Messanvi (15 times); Ayeboua Kponyo (13); Golo (12); Dovi Agbui (10) and Akadjé (10).

³⁸ The form of alley-cropping promoted by FAO in southern Togo during the late 1980's consisted of leguminous trees (mainly *Leucaena leucocephala*) planted in parallel rows 4-5 metres apart, across the slope, and separated by rows of annual crops (Janssens 1991; Tossah *et al.* 1995). Alley-cropping in this form was intended to reduce soil erosion, increase rainfall infiltration, reduce the need for fallowing or fertilizer to improve soil fertility, and also help to satisfy local demand for wood and fodder.

The census population was concentrated in a few large villages. In this part of Togo most villages are densely packed agglomerations of family compounds, each comprising one or more single-story buildings and a court yard, typically enclosed by a mud-brick wall. The largest village was Agbantokopé, with 59 households accounting for 17% of the total population in the study area. About 40% of the population resided in 31 small hamlets, including 12 named locations comprising just one or two households. There is a strong correlation between residence in these hamlets and tenant status; 98% of those residing in the hamlets were using land that did not belong to them.³⁹

Those who admitted to being landlords resided disproportionately in two villages: 15 in Djankassé and 14 in Akoda, out of 32 self-professed landlords in total. No landlords lived in any of the 31 small hamlets in the study area. This division is also apparent when we examine the place of residence of the 79 landlords identified by their tenants. The latter include 141 references to 28 different landlords said to reside in Djankassé, 46 references to 30 landlords resident in Akoda, and 27 references to 21 landlords in five other villages. The dominance of Djankassé and Akoda may reflect the relative age of these settlements, and thus their respective claims to land.

3.4 Majority ethnic group is immigrant, tenant population

One hypothesis is that households' ethnic affiliation is a predictor of social status, access to land, income and official support, and thus the adoption of modern farming technologies and conservation measures. Hence the census also sought information on the ethnic affiliation of household heads.

The most numerous ethnic group was the *Watchi*, accounting for over half of all households.⁴⁰ Immigrants from outside the study area generally called themselves *Watchi*; likewise 95% of household heads residing in the small hamlets professed to be *Watchi*. In contrast, none of the 32 admitted landlords called themselves *Watchi*. They belonged instead to several smaller ethnic groups, notably *Tougban* from the village of Djankassé, and *Kéta* from the village of Akoda (nine individuals each).

This ethnic mix and the association between *Watchi* membership and immigrant status is consistent with historical evidence that the study area was 'originally' settled by groups that relied mainly on fishing for their livelihood, with the more agricultural *Watchi* peoples arriving at a later stage (MEPF 1999). The historical home of the *Watchi* ethnic group lies just north of the study area (Lamouroux 1969; MEPF 1999; World Bank 1996).

4 Survey Questionnaire and Results

The main survey questionnaire was adapted from a previous study of the relation between land tenure and agricultural productivity in Ghana, Kenya and Rwanda (Blarel 1989; Migot-Adholla *et al.* 1989; Place and Hazell 1993). The questionnaire went through several drafts, pre-tests and revisions before being finalised, along with a separate list of response codes (see Annexes 2 and 3).⁴¹

4.1 Structure and scope of the questionnaire

The final questionnaire is divided into 19 sections, as follows:

1. Household members and their relations
2. Education, training and activities of household members
3. Socio-economic profile of the head of household

³⁹ In a case study in western Togo, Antheaume (1984) similarly finds more traditional, collective land management dominating in the vicinity of well-established settlements, with greater individualisation and commercialisation of agricultural land occurring on the periphery of the village 'territory'.

⁴⁰ Compare to 72% of the population of Vo Préfecture classed as *Watchi* in 1981 (Addra *et al.* 1987).

⁴¹ In June 1990 a draft version of the questionnaire was tested on five households drawn from among those identified in the preliminary census. These test households were eliminated from consideration when drawing the final sample population to avoid possible biased responses.

4. Machinery and equipment
5. Inventory of fields cultivated by the household
6. Payment for and improvement of fields
7. Rights of land use, exclusion and transfer
8. Inventory of fields managed by the household but cultivated by others
9. Payment for fields cultivated by others
10. Improvement of fields cultivated by others
11. Rights of use, exclusion and transfer over fields cultivated by others
12. Use of fields cultivated by the household
13. Input use during previous main growing season
14. Labour use during previous main growing season
15. Land use conflicts
16. Household debt
17. Accommodation and Buildings
18. Animal husbandry
19. Suggestions and comments

The questionnaire pays considerable attention to the level of land tenure security enjoyed by each household, measured indirectly in terms of the specific rights and obligations claimed for each plot of cultivated land.

The questionnaire did not solicit information on crop yields, unlike the model from which it was adapted. The main reason for this omission is the wide range of crop combinations found on farms in southern Togo. These include single, double and triple combinations of annual crops, often but not always in association with perennial (tree) crops of different maturities. The result of such diversity is that yield data for different plots are not readily comparable on a *per hectare, per year* basis. Another reason for not collecting yield data is that farmer responses were not considered reliable, based on the results of pre-tests. This reflects a widespread reluctance of farmers to reveal their output, perhaps due to fear of increased taxation by Government or increased rent demands (for tenants).

Without yield data, of course, it is not possible to evaluate the impact of land tenure security or other factors on agricultural productivity directly. Instead, we focus on differences in crop choice, conservation improvements and the use of inputs (labour, capital, chemical fertilizer, etc) on different plots. These differences can be used to define categories (or levels) of effort to maintain or enhance productivity on each field, in the short- and long-term. On this basis we aim to establish relationships between tenure security and the effort invested by farmers to maintain or improve land productivity.

4.2 Summary statistics and analysis

Summary statistics based on the survey data are presented and discussed in the following pages. This presentation follows the structure of the questionnaire, beginning with the name of the household head and place of residence, before turning to a description of all household members, land tenure, land use and other information. Relevant data from other sources is used for validation or comparison, where available.

Basic data: name and place of residence

Out of 99 households for which the data are complete, two respondents shared both their first and family name (Agbekponou Hodehomé) and place of residence (Agbantokopé). In most other respects, however, these two households were no more alike than any other pair in the survey. Overall there were 17 common family names (i.e. names shared by two or more households), of which the most frequent were Laté (8 households), Amekuvo (5) and Anyram (5).

Twenty-nine places of residence were identified by respondents.⁴² Place names and family names were often related, reflecting the fact that new settlements are typically named after the first (known) family to reside there. This was most apparent in smaller settlements. Thus we observe five Amekuvo households residing in a place called Amekuvo, three Geti families living in Geti, two members of the Zugbédé families in Zugbédé, and so on.⁴³

Compared with the results of the preliminary census, the survey population exhibits a slightly narrower range of household sizes (1-19 versus 1-28 reported above), and a correspondingly lower average size (5.8 versus 6.4 in the census). We also observe a slightly different occupation of space. Nevertheless, as in the census, most (65%) of the survey population resided in a few large villages, with the balance scattered among 22 smaller hamlets.⁴⁴

Section 1. Household members and their relations

This section of the questionnaire lists the members of the household, including their names, ages, ethnic affiliation, clan (lineage), relation to the head of household, sex, marital and health status. A total of 573 household members were recorded, ranging in age from infancy (one month) to 100 years. The mean age of all household members was 24.3 years. The average age of household heads (both male and female) was 50 years. Stated ages were not verified and may be approximate.

The age structure of the sample conforms to that of a young, fast-growing population. Females accounted for 50.1%. Children under 12 years of age accounted for 36.5% of the sample or 2.1 per household on average – slightly less than in the census. There are however anomalies in the data. In particular, the youngest cohort (0-5 years) is smaller than expected, teenage girls are under-represented, and the ranks of middle-aged men (20-55 years) seem thin compared to the number of females of the same age groups.

These anomalies are consistent with the official 1981 census results for the Maritime Region, which also revealed under-reporting of infants, teenage girls and men aged 20-40 (Addra *et al.* 1987). There are several possible explanations. The apparent lack of infants and toddlers may reflect systematic exaggeration of children's ages, or the fact that information on household members was provided mainly by the head of household. In most cases this was a man, who may have neglected to recall every child in the family. This is not unusual in demographic surveys of societies with large families, particularly where polygamy is prevalent.⁴⁵ The lack of teenage girls may have a similar explanation, if they are less likely to participate in agriculture. Alternatively, some girls may have left to seek work (e.g. as domestic servants) in nearby towns and cities. The under-representation of adult males may also reflect emigration in search of jobs outside the study area, with 'surplus' women representing wives in polygamous marriages.

Ethnic affiliation was not reported for all household members. Based on those for whom it was specified we again observe the predominance of the *Watchi* group (40% of valid responses), followed by the *Kéta* (17%), with the *Péda*, *Mina* and *Tougban* groups accounting for 11-12% each. The remaining 9% of the population fell into eight other ethnic groups. This distribution is roughly

⁴² In some cases different names may have been used to describe the same general location, possibly reflecting a distinction between neighbourhoods or 'quarters'.

⁴³ The proximity of so many households sharing the same names raises questions about the validity of the 'household' as a unit of analysis. Many households were closely related by blood and/or marriage. While respondents had no difficulty distinguishing members of their own household from others, some households may have managed at least part of their land, labour resources and other assets in common.

⁴⁴ Place names given in the census and those used in the main survey are not always identical, although a match can usually be found. The largest villages were Agbantokopé, Akoda, Badougbe, Djankassé, Geti-kopé, and Laté-kopé (the latter is sometimes called Laté-kondji, Laté-Tomekossou or Laté-Lo).

⁴⁵ The 1996 Togo agricultural census likewise found that 64% of household heads reported fewer household members when asked during a preliminary census, compared to their responses during follow-up visits (DSID 1998). This may also reflect seasonal migration.

comparable to the census data, in which the top four groups accounted for 83% of the population. About half of all household heads (both male and female) were *Watchi*.

Clan affiliation (or lineage) was more diverse. All but four household heads reported a lineage, which in most cases matched their family name. The most widely shared lineage was *Saba*, with six heads of household, all of them members of the Anyram family and *Watchi* ethnic group, and all living in Laté-kopé. Two other common lineages were the *Laté* (five household heads) and *Gbagba* (four). Clan affiliation was not routinely reported for other members of households, although most spouses (wives) were assigned a lineage. Again these were very diverse.

Direct descendants of household heads, including adult children and grandchildren, accounted for most (60%) of the sample. Spouses (wives) accounted for another 20%, with heads of household making up most of the remainder (17%). Only one person was reported as unrelated to the household head, being described instead as a domestic servant. The true number of domestic servants employed by households was probably greater, but may have been under-stated by respondents confusing household 'membership' with family ties.

Marital status was recorded for all household members. For household heads, marital status varied depending on whether the individual was male or female. There were 16 female heads of household, eleven of them widows. No female heads of household reported a spouse present, although four reported being married.⁴⁶ As for the 83 male household heads, most were married (76 or 92% of male household heads) and 30 men (39% of married men) had more than one wife. Men in polygamous relationships reported an average of 2.6 wives between them, with a maximum of five wives in two cases. These figures are close if not identical to the preliminary census results.

For the sample as a whole, 37% were reported as married. A further 4% were reported as divorced, separated or widowed, leaving just under 60% single (mostly children). The proportion of married household members seems consistent with the total number of household heads and spouses, except when we note that 15 heads of household were not married (being either divorced, separated, widowed or single). The implication is that just 2% of household members were married but were not themselves heads of household, nor were they married to the head of their household. In other words, as in many other societies, marriage is the precursor to the creation of a new household. Hence most married couples (or polygamous *ménages*) considered that they formed a separate household.

Finally, health status was also recorded for all household members. Three simple and very subjective categories of health status were used: 'good', 'partly disabled', and 'disabled'. On this basis, 98% of the sample population was reported to be in 'good' health. Six household heads reported themselves as partly disabled; two individuals were reported as fully disabled, and no health status was reported for four individuals.

The self-reported robust health of the survey population is impressive, but probably more indicative of a cultural reluctance to complain rather than truly excellent health. Human populations in this region of West Africa suffer from a wide range of communicable diseases, notably malaria and gastro-intestinal disorders. Child mortality is high and life expectancy among the lowest in the world. It is unlikely that the survey population was exceptional in this respect.

Section 2. Education, training and activities of household members

This section of the survey provides further information about household members, including their schooling and other training, main activities, extent of participation in agriculture, recent periods of absence and main activity while away.

⁴⁶ Women accounted for 15% of household heads in the Maritime Region in the 1996 agricultural census, compared to 9% nationally (DSID 1998). The difference may reflect migration of male household members in search of non-farm employment.

Educational attainment was generally low. Even after excluding 106 children aged six years or less, who had not yet attained school age, over half (52%) of the remaining sample reported no formal education whatsoever.⁴⁷ Forty-two per cent of those aged over six years reported some primary education; 5% had attended secondary school; and only eight individuals reported schooling at tertiary level, i.e. *Lycée* and above. Males were more likely to have attended school than females, and completed higher grades.⁴⁸

Among heads of household the story was similar: 61 reported no formal education; 28 had some primary education; three had attended secondary school; and seven reported tertiary schooling. The male bias in education also applied to heads of households.

Educational attainment was higher among younger age groups. Out of 205 children between the ages of seven and 18, about 70% had completed at least one year of primary school. However, 26% had received no formal schooling, and a strong sex bias is apparent. Thus while 86% of boys between the ages of seven and 18 had completed at least one year of primary school, only 57% of girls in the same age group had done so.⁴⁹

Other forms of training included apprenticeship in a range of craft and service industries. Non-academic training was recorded for just 38 individuals, of whom 28 were heads of household. It is possible that other household members had received such training as well, but were not reported as having done so. The most commonly reported apprenticeship was in carpentry, accounting for almost one-third of cases. Other forms of specialist training reported more than once include mechanics, masonry, typing, painting, traditional crafts and hairdressing.

Up to three main activities, in descending order of importance, were recorded for each household member. For household heads, the first and most common activity reported was agriculture (80 cases), followed by fishing (six), commerce (three) and the civil service (three). Altogether 16 household heads reported some form of non-farm employment as their primary activity, while 40 identified non-farm employment among their primary or secondary activities.⁵⁰ Fourteen described farming as a secondary or tertiary activity.

Although most household heads considered themselves farmers first and foremost, there are clear distinctions between men and women in terms of the relative importance of different activities. In particular:

- Men tended to specify only two main activities, whereas many women included a third (usually commerce, agriculture or animal husbandry);
- Studying was always a primary activity and more than twice as common for males as for females;
- Commerce was more frequently conducted by women than men, either as a primary or tertiary activity (commercial activity consisted mainly of small-scale trading of foodstuffs and other domestic items in local/weekly markets);

⁴⁷ Compare to 62% never having attended school among the entire agricultural population of Togo, including young children (DSID 1998).

⁴⁸ Similarly, Addra *et al.* (1987) report that illiteracy was more prevalent among women (70%) than men (35%) in the Maritime Region in 1981. The situation had hardly improved by 1998, when Anipah *et al.* (1999) found for Togo as a whole that 45% of adult males (15-59 years old) had attended primary school, compared to just 19% of adult females. Forty per cent of adult females were classed as illiterate.

⁴⁹ Addra *et al.* (1987) report that 58% of children of school-age in the Maritime Region were attending school in 1984/85, with the highest attendance in coastal areas such as Vo Préfecture. They also report a ratio of about 625 girls for every 1000 male students attending primary school, with an increasing sex bias at higher grades. In 1998, for Togo as a whole, Anipah *et al.* (1999) found that 75% of school-age boys (6-12 years old) were attending school, compared to 64% of girls.

⁵⁰ Compare to 42% of farmers in northern Togo reporting some form of off-farm employment (Acheampong *et al.* 1996).

- Agriculture was more often a primary activity of females than males, while the latter were more likely to mention agriculture as a secondary activity;
- For females, domestic chores took second place at 54%, while very few men listed domestic chores among their top three activities;
- ‘Not specified’ and ‘inactive’ were significant categories for both males and females, accounting for 57% and 43% respectively. Much of this can be accounted for by small children and elderly people, but it is interesting to note that females were more likely to be considered active.⁵¹

Additional information was sought on the extent of participation in agriculture. For each household member, involvement in farming was qualified as ‘regular’, ‘occasional’ or ‘never’. We find that females were more likely to engage in agriculture on a regular basis, whereas males considered farming an occasional activity. This is consistent with the responses reported above and the results of other studies (e.g. Deffo *et al.* 1999).⁵²

Among individuals reported as ‘never’ participating in field work, more than half were children under 12 years of age. No responses were recorded in 124 cases, of which 95% were likewise children under 12 years. Heads of household were more likely to report regular involvement in field work (72% compared to 36% of all household members, or 56% of adults over 12 years of age).⁵³ Only two heads of household reported never participating in field work: a 65 year-old retired civil servant and a 75 year-old woman in poor health.

Finally, information was recorded for each household member on whether they had been absent during the previous 12 months, the duration of absence and their main activity while away. Only eight individuals were reported as absent; four were heads of household and the maximum duration was three months. Reasons given for absence included commercial activity (two individuals), holiday (two) and medical consultation (two). Two heads of household were ‘inactive’ during their absence.

Section 3. Socio-economic profile of the head of household

This section describes the origins, previous places of residence and/or extended absences of household heads. It also explores their involvement in collective activities and group savings schemes, as well as the value of their savings and debts.

The survey population was welltravelled, even though 63 household heads were born in the same village in which they resided at the time of the survey.⁵⁴ Of these, 40 reported spending more than one year in 11 different places. Thirty-one individuals spent all or part of this time in locations outside Togo, including four West African cities (Abidjan, Accra, Kumasi and Lagos). The most common destination was Ghana (13 cases). No one reported spending time outside Africa, although seven individuals spent significant periods in more than one other country.

Durations away ranged from one to 55 years. The most common period was three years (seven cases); half of all individuals reported spending ten years or less away from home. The most common activities while away were salaried employment in the private sector (12 individuals), followed by crafts (eight) and apprenticeships (five). The main reasons given for returning to the study area were ‘rejoining/following the family’ (12 cases), ‘misadventure/expulsion’ (11), and retirement (ten).

⁵¹ The 1996 agricultural census likewise found that females in the Maritime Region were more likely to be among the ‘active’ agricultural population, defined as those over 15 years old who were involved in farming on a full or part-time basis, but excluding students (DSID 1998).

⁵² Calon (1990) finds that the proportion of women reporting non-farm activities in addition to farming increases with the extent of land degradation, suggesting that declining soil fertility leads women (and perhaps also men?) to seek alternative employment.

⁵³ Compare to 53% of the ‘active’ population in the Maritime Region who were involved in farming, in the 1996 agricultural census (DSID 1998).

⁵⁴ This contrasts with the census results, where 63% of households reported moving to or within the study area. The discrepancy probably reflects the addition of tree-planters to the survey sample.

As in the census, a significant proportion of households were immigrants, albeit not from very far away. The 36 heads of household not born in their current place of residence reported 12 different previous residences. Thirty-three immigrants came from nearby towns and villages in Togo, most located within a few kilometres of the study area (one individual had moved within the study area). Only two individuals had moved to the study area from other countries (Ghana and Nigeria). The most common previous activities were agriculture (21 individuals) and 'inactive' (ten). The two main reasons given for moving to the study area were non-availability of land in the previous place of residence (19 cases), followed by marriage (seven). Dates of immigration ranged from 1918 to 1989, with a slight increase in the pace of immigration apparent during the post-war years (1945-55) and around 1980.

Turning to household heads' involvement in collective activities, we observe that the most popular initiatives were locally organised, rather than government-sponsored activities. Thus over 25% of household heads were members of local labour exchange schemes,⁵⁵ and almost as many participated in local credit unions.⁵⁶ A smaller number participated in revolving funds (*Tontines*).⁵⁷ Slightly higher participation rates for informal credit schemes are reported by Calon (1990), in a similar setting.

Two household heads participated in all three of these local schemes. However, in general members of *Tontines* did not participate in credit unions, suggesting that these were alternative rather than complementary schemes. Seven *Tontines* members also participated in labour exchange agreements, as did 11 credit union members.

Individual contributions to *Tontines* ranged from FCFA 100 to 600 per week (i.e. US\$ 0.30 to 2.00), with payouts on each member's turn ranging from FCFA 12,000 to 52,400 (US\$40 to 175), and averaging \$90. Local credit unions were similarly modest in scale; participating heads of household reported total savings ranging from FCFA 2,400 to 125,000 (US\$8 to 415), with an average value of \$76. Slightly more than half of all participating household heads reported total savings of \$40 or less, and the majority of household heads reported no financial assets whatsoever.

In contrast to these local initiatives, few household heads were involved in government-sponsored collective activities. The most well subscribed official activity was support from agricultural extension services, mainly for cotton production. Under such schemes farmers obtained access to seed, fertilizer, pesticides and in some cases agricultural equipment, often on generous credit terms. Nevertheless, only a small number of farmers (17 individuals) participated in these schemes, despite the presence of an extension agent residing in the study area, in the village of Badougbé.⁵⁸ The low rate of participation may reflect the infrequency of cotton production, due to low rainfall, and a lack of extension messages appropriate to farming practices in the area (Calon 1990).

Section 4. Machinery and equipment

This section of the survey records the machinery and equipment owned by households, including agricultural implements, vehicles and other items (e.g. electric appliances). For each item, household heads were asked how many units they possessed, how they were acquired, their estimated

⁵⁵ Labour exchange schemes are informal arrangements under which two or more households take it in turns to help each other carry out certain agricultural operations, typically more onerous tasks such as land clearing, preparation and weeding. Meals may be provided, but normally no fees are paid.

⁵⁶ Local credit unions are informal savings and loan schemes of limited duration (usually one year), which collect regular payments from, and lend small sums to, their members. At the end of the year members' debits and credits are reconciled, outstanding balances paid, and the scheme is wound up.

⁵⁷ *Tontines* are simple revolving funds. Members contribute a uniform sum on a regular basis over a fixed term, usually weekly for one year. They take it in turns to receive the sum of contributions at each payment interval, until each member has received contributions from everyone else.

⁵⁸ Compare to 12% of rural households receiving extension support in Maritime Region (DSID 1998). Mutumba (1990) notes the presence of an officially-supported farmers group in Agbantokopé from 1980.

replacement cost (at 1990 prices), and their current condition. Three hundred and thirty-three items of machinery and equipment were recorded in this way. In 18 cases, no information on current condition was recorded, while two household heads did not report any equipment at all.

Most households reported very little, machinery and equipment of high value. Basic hand-held agricultural implements such as the machete and hoe accounted for over half of all items reported. The next most common items were fishing equipment (all types taken together), bicycles and radio/cassette players. Very few households owned any type of motor vehicle and none reported ploughs or other animal traction equipment, let alone tractors.⁵⁹

Almost all equipment was purchased outright (96%). In a few cases equipment was inherited, borrowed or received as a gift. Items not purchased included agricultural implements, electronic appliances and, in one case, an inherited motorcycle. Most equipment was reported as being in 'good' condition (86% of valid responses). Items in medium or poor condition included most types of equipment, with the notable exception of four motorised grain mills, which were all in 'good' condition. Multiple units of the same item were frequently reported for basic agricultural implements (machete and hoe) and fishing equipment (nets and traps). For most other equipment, few households reported more than a single unit.

Prices (i.e. unit replacement costs) were reported for 321 items (96%). Prices were consistent for the most common items, but varied for unusual ones. For example, the most commonly quoted price of a machete was FCFA 1,200 (about US\$4 in 1990), while a hoe cost FCFA 500. The most expensive item was a motorised grain mill, for which stated prices ranged from FCFA 400,000 to 1.2 million (i.e. US\$1,300 to \$4,000). One household head reported a car worth FCFA 600,000 (US\$2,000).

An estimate was made of the current (1990) value of all machinery and equipment reported by each household, based on the number of units and their replacement costs, weighted by their reported condition. A weight of unity was ascribed to items in 'good' condition; items described as 'more-or-less good' were valued at one-third of their replacement cost, and items described as in a state of disrepair were valued at 25% of cost. Where the household head considered that only one unit of several identical items was in good condition, only the single unit was included in the estimation and valued at its full replacement cost.

On this basis, the total (1990) value of machinery and equipment reported by the sample population was FCFA 7.08 million (about US\$24,000). The implied average value per household is FCFA 71,500 (US\$238) but this is heavily biased by a few high values. Excluding six households who reported equipment worth FCFA 400,000 or more, the average value per household falls to FCFA 27,800 (US\$93).⁶⁰

Aside from an automobile, another good indicator of wealth was ownership of a motorised grain mill. Such equipment is almost always used commercially and is an important source of income for those who can afford to buy one, or have access to sufficient credit to finance the purchase. Four motorised grain mills were recorded.

Section 5. Inventory of fields cultivated by the household

This section and the following two describe the fields used by each household, including land owned by household members and land borrowed or rented from others. Land owned by household members but cultivated by others is described in sections 8-11.

⁵⁹ The 1996 agricultural census reports that 98% of farmers in the Maritime Region used only manual labour (i.e. no animal or motorised traction), compared to 89% nationally (DSID 1998).

⁶⁰ Reported material assets may be compared to the poverty threshold for Togo as a whole, estimated at FCFA 35,600 per person per annum in 1987-89 (World Bank 1996). Forty-five per cent of the rural population of the Maritime Region fell below this threshold, according to the same source.

The survey distinguished ‘fields’ from ‘plots’ of land. A field was defined in terms of tenure status, i.e. as a contiguous area over which someone holds uniform rights (in the local language *anyigba*). In contrast, a plot was defined by the way it was used in a given period, i.e. as a contiguous area in which a single homogeneous crop or other use can be identified (in the local language, *azigbé* or *agblé*). A single field may contain one or several plots, but each plot is associated with no more than one field.⁶¹ Plot-level information is described in sections 12-14.

Section 5 lists all fields cultivated by the household, including:

- The name or other designation used by the household to refer to each field;
- Whether the field belonged to a member of the household, or to someone else;
- In the case of fields belonging to someone outside the household, their name and place of residence;
- The surface area and unit of measure of each field;
- The distance of each field from the household compound, expressed as the number of minutes required to walk there;
- A subjective assessment of current soil quality (good, mediocre or poor); and
- Mode of access, including the year of first access, how the field was acquired, who acquired it and from whom.

Two hundred and thirty-six different fields were identified in this way. The majority (192 fields or 81%) were acknowledged by their 70 users to belong to someone else. Just 44 fields (19%) were owned by their current users (30 households). Four households reported no fields under cultivation at all.⁶²

Most other surveys in the same area of Togo indicate slightly lower levels of tenancy. The 1996 agricultural census found that 48% of cultivated area in the Maritime Region belonged to someone outside the household, and that 66% of households in that region cultivated some land that did not belong to them (DSID 1998). Calon (1990) reports that 58% and 43% of households surveyed in Vo and Lacs Préfectures, respectively, cultivated some land that did not belong to them. A study in the same area by Adou Rahim Alimi *et al.* (1999) reports that 55% of households surveyed were owner-occupiers, 30% rented their land and 15% acquired it under long-term leases. Ayeboua (1993) found that 72 of 102 plots cultivated by 58 farmers in the village of Vo-Koutimé (about 10 km from the study site) were cultivated by tenants. The higher proportion of tenancies encountered in the current study seems atypical, but it may also anticipate future trends in land tenure as the population grows and migration increases.

Letting out land was common practice in the study area. Tenants identified some 100 different landlords.⁶³ One individual (Dovi) was identified as the owner of at least 19 fields cultivated by 13 households, while another (Akouté Kuévi) was identified as the owner of 13 fields cultivated by seven households. As observed in the preliminary census, most landlords were reported (by tenants) to reside in Djankassé (46% of rented fields) and Akoda (24%). Nineteen per cent of tenant fields were owned by landlords in Badougbe and 4% by landlords in Agbantokopé, with the remainder split among eight other locations.

⁶¹ DSID (1998) used a similar distinction between fields and parcels in the 1996 agricultural census.

⁶² The total (104) exceeds the sample size (99) because five households cultivated both their own and others’ fields. Household heads reporting no fields (nos. 67, 70, 73 and 78) were landlords with between two and four fields rented out each. Three were widows aged 65 or older. Two lived alone.

⁶³ Tenants used various names to refer to the same landlord, making precise identification difficult.

A third of all households cultivated just one field, while a minority (eleven households) reported five or more fields. The mean was 2.38 fields per household.⁶⁴ Fields cultivated by households averaged 0.87 ha in size, with a wide range from 0.1 up to 6.0 ha.⁶⁵ The total area of all fields recorded in section 5 was 206 ha, implying an average of just over two ha per household or 0.36 ha per resident.⁶⁶ The latter figure is close to the threshold value of 0.4 ha per adult that has been estimated as the minimum needed to meet basic food requirements in a 'good' year, given the prevailing climatic conditions and typical production technology (Calon 1990).

Fields cultivated by tenants were slightly smaller than those cultivated by owner-occupiers, on average, but the difference is not significant (respectively 0.87 and 0.90 ha). On the other hand, tenants report significantly more fields and a larger total area under cultivation in 1990, compared to owner-occupiers. Households that acquired their fields free-of-charge cultivated 1.1 ha on average in 1990, compared to 2.6 ha for those who acquired fields under commercial tenancies (better than 1% significance).

Perceived soil fertility also varies with tenure status. Soil fertility was described as 'good' for 20% of tenant fields, with 36% described as mediocre and 44% as poor. The fertility of owner-occupied fields was more likely to be described as mediocre (68%), with fewer 'good' or 'poor' responses (9% and 23% respectively). Tenants were thus more likely to hold strong opinions about the fertility of the fields they cultivated, positive or negative.

Most households did not reside on the land they cultivated. On average, fields cultivated by the household were 15 minutes' walk from their place of residence. The maximum distance was 100 minutes, while two-thirds of all fields were within 30 minutes' walk.⁶⁷ No relation was observed between field distance and tenancy, or between distance and perceived soil fertility.

Two-thirds of all fields were acquired in 1980 or later. The earliest date of acquisition was 1930. Tenants generally acquired their fields more recently, and rented them on an annual basis (86%), while 44 owner-occupied fields were mostly inherited (91%) and dates of acquisition were more evenly spread over time. Less common modes of access included borrowing (free-of-charge), sharecropping, long-term leases, pledges and gifts.⁶⁸ No one reported purchasing land outright.⁶⁹

⁶⁴ DSID (1998) reported 1.97 fields per household, on average, in the Maritime Region. Some suggest that land fragmentation is increasing and constitutes a serious obstacle to agricultural development, but empirical evidence is scarce (e.g. Addra *et al.* 1987; Coffi and Foli 1995; World Bank 1996).

⁶⁵ Respondents expressed the surface area of fields they cultivated in *catis*, a local unit of measure most commonly defined as a square with each side equal to 12 times the distance between the outstretched finger-tips of a tall man. The standard conversion is 16 *catis* per hectare, hence one *catis* equals 0.0625 ha (Douvon, pers. comm.). The implied distance between the finger-tips of the apocryphal 'tall man' is 2.1 metres. Reported field areas were not verified independently and may not be reliable.

⁶⁶ Compare to 1.96 ha per household nationally and 1.31 ha per household in the Maritime Region, on average, reported in the 1996 agricultural census (DSID 1998). Calon (1990) reports larger mean farm sizes in highly degraded areas of Vo Préfecture (2.6-3.0 ha), and suggests that this is due to emigration by marginal farmers allowing those who remain behind to acquire more land.

⁶⁷ DSID (1998) reports that 52% of fields in the Maritime Region were less than 2 km from the residence.

⁶⁸ Modes of land acquisition are not reported on a regional basis in the 1996 agricultural census, but may be derived from other data (DSID 1998; see p. 41 and Table A-18). Thus 38% of cultivated area in the Maritime Region was inherited, 17% purchased outright, 11% borrowed free-of-charge, 24% rented with payment in cash or in kind, and 6% pledged, with the remaining 4% acquired by other means.

⁶⁹ In contrast, 28 out of 100 households surveyed in Vo and Zio Préfectures in 1995 claimed to have purchased their land (Coffi and Foli 1995). The authors report that another 50 households inherited their land and four received land as a gift, with the remainder (18 households) acquiring use rights only, by borrowing (free-of-charge), renting, share-cropping or pledge. Less than 10% of households surveyed claimed to hold legal title to their land, partly due to the complexity and cost of obtaining it (*ibid.*).

Most fields were acquired by the current head of household (72% of tenants and 93% of owner-occupiers). In the case of rented fields, a significant minority (20%) were acquired by an ascendant (parent or grand-parent) of the household head. Tenants acquired their fields mainly from non-relations (95%), while owner-occupiers acquired most of their fields from patrilineal ascendants (64%) or through marriage (18%).

Other differences between tenants and owner-occupiers

It is instructive at this point to review the household-level data described above (sections 1-4) in terms of differences between tenants and owner-occupiers. We can distinguish households by how their fields were acquired, i.e. on a commercial basis or free-of-charge.⁷⁰ The former includes all fields acquired under share cropping arrangements, fields rented on an annual basis or leased for several years at a time, and land pledged indefinitely subject to repayment of a loan. The latter includes fields acquired through direct inheritance or as permanent gifts, fields borrowed free-of-charge on a temporary basis from relatives or friends, and a few fields made available to civil servants by their employers for the duration of their appointment. On this basis we observe that 76% of fields cultivated in 1990 were acquired commercially. Two-thirds of all households engaged in farming in 1990 (64 out of 95) reported making cash payments for at least one of their fields.

Based on this distinction in the mode of acquisition of land, we find some significant differences between commercial tenants and other households. Starting with the place of residence, we note that households residing in smaller hamlets were all tenants, while those who acquired their land free-of-charge lived in four large villages.⁷¹ This is consistent with the findings of the preliminary census.

Tenant heads of household are younger than their owner-occupier peers: 46 years of age versus 55 years on average, respectively (5% significance). Tenant households are also larger than owner-occupier households (10% significance). In terms of ethnic affiliation, as we saw in the census, owner-occupiers never identify themselves as *Watchi*, while over two-thirds of tenants do. On the other hand, there is no association between land tenure status and the sex of the household head, or between tenure and marital status.

Turning to the education, training and activities of household members, we find that owner-occupiers are more likely to have attended public schools, and to report apprenticeship in a trade such as carpentry, masonry, mechanics, etc., compared to tenant heads of household. Similarly, owner-occupiers are more likely to identify something other than agriculture as their principal activity (e.g. fishing, salaried employment, retired), and to describe their involvement in farming as occasional or infrequent.⁷² All of these differences are significant at the 10% level or better. In short, although tenants are 'landless' they depend more on farming than most landowners!

Almost all owner-occupier heads of household were born locally, compared to half of all tenants. Moreover, among those household heads born locally, tenants were less likely to have lived outside the study area for extended periods. This may be important when we consider that those who reported such absences were mainly engaged in non-agricultural activities in urban areas, implying that tenants were less likely to have learnt a trade other than farming.

⁷⁰ Most households reported only one or the other category of fields. Three households reported both commercially acquired fields and land acquired free-of-charge, a smaller proportion than reported in some other studies (e.g. Calon 1990; DSID 1998).

⁷¹ One of the larger villages in the study area (Laté-kopé) was occupied mainly by tenants. This may be one reason why it does not appear on official maps of the area!

⁷² Janssens (1991) states that residents of Agbantokopé – mainly owner-occupiers – had 'almost entirely' abandoned fishing in favour of agriculture, as over-exploitation and increasing salinity had reduced the productivity of the lagoon fishery. Repeated attempts to introduce fish farming in the area have been unsuccessful (MEPF 1999).

Differences are also apparent with respect to participation in certain collective activities. While only two owner-occupiers belonged to local labour exchange groups, and none of them participated in informal revolving funds (*tontines*), about one-half and one-fifth of tenant household heads were involved in these activities, respectively.⁷³ The association between tenancy and labour exchange groups may reflect the greater reliance of tenant households on farming, and perhaps also less ability to employ hired labour (see section 14). The link between tenancy and participation in revolving funds may reflect a lack of alternative saving and investment schemes for poorer households.

The relation between tenancy and the value of machinery and equipment is masked by extreme variance in the data, i.e. a few very large values (automobiles and motorized grain mills). However, if we exclude seven households (including four tenants) reporting equipment worth more than FCFA 150,000 (about US\$500 at the prevailing exchange rate), we find a strong *negative* relation between tenancy and the value of machinery and equipment (better than 1% significance). In short, the average value of equipment reported by most tenants is less than half the value reported by most owner-occupiers.

Section 6. Payment for and improvement of fields

This section records payments made (if any) for fields cultivated by the household, the duration of rental contracts and other contributions to landlords. Information was also collected on improvements to fields, including agro-forestry measures promoted by FAO as well as other permanent improvements.

Eighty-nine per cent of tenant-occupied fields were rented on an annual basis with payment in cash, a practice that is common in southern Togo but rare in northern regions (DSID 1998). Only 5% of these fields were obtained on the basis of a 'one-off' payment, which meant that they had been leased for several years' duration, or pawned indefinitely.⁷⁴ Forty-four owner-occupied fields did not require any payment and their tenure was not time-limited.

The average land rent paid was about FCFA 6,100. For those fields rented on an annual basis, where both the amount of rent and the surface area were specified, an annual rent per hectare may be calculated. These range from as little as FCFA 400 up to 20,000 per hectare per year, with an average of around FCFA 6,500 (US\$22/ha).⁷⁵ Sixty-three households paid land rent, spending an annual average of FCFA 12,709 (US\$42/yr).⁷⁶

Potential determinants of land rent (per unit area) were examined using multiple regression analysis. Field area (-) and duration of tenure (-) were both significant at the 1% level, implying that unit rent declines with the area rented, and also that rents charged to long-term tenants are not revised upwards to current market levels. Field distance (+) and the total number of plots cultivated in 1989 (+) were also related to unit rent, albeit less robustly (5% level). The place of residence of the landlord is significant, with the highest rents paid to landlords in Agbantokope and Badougbe. Other variables tested were not significantly related to unit rent, including perceived soil fertility.

⁷³ Tenants are also more likely to participate in informal credit unions, and less likely to benefit from official agricultural extension support, although the latter associations are not statistically significant.

⁷⁴ Pawning or pledging (in the local language *woba*) involves ceding certain use rights over a field as security for a loan. Pledged land reverts to the debtor when the debt is repaid or cancelled, but may become the property of the creditor in the event of default (Coffi and Foli 1995). The practice is less common outside of the Maritime Region (DSID 1998).

⁷⁵ Ayeboua (1993) reports average land rents almost twice as high (FCFA 12,560/ha) for the nearby village of Vo-Koutimé in 1991. Mutumba (1990) reports that FAO paid a rent of FCFA 16,000 per annum for a plot of 1.5 ha in the village of Agbantokopé which was used to set up a tree nursery.

⁷⁶ For all households together the average was FCFA 8,087 per annum. Compare to an average rent of FCFA 5,885 paid by all households in the Maritime Region in 1996 (DSID 1998). The difference may reflect higher levels of tenancy in Vo Préfecture generally and in the sample population specifically.

In addition to cash rent, tenant households contributed both labour and part of their harvest to landlords in 46% and 81% of cases, respectively. Contributions of output may include token gifts of a few kilos, although in eight cases respondents specified that their landlords received fully one-third of the harvest. The latter were pure sharecropping arrangements (one year contracts) in which no cash rent was reported.⁷⁷

Agro-forestry practices were widespread in the study area, although not in the sense of alley-cropping, windbreaks and other 'modern' practices promoted by FAO or other public agencies. Nevertheless, many households integrated trees into their farming practices. Fully 98% of all fields had one or more trees on them, almost always pre-existing at the time the field was acquired. These trees were often employed by land users and landlords as markers to delimit field boundaries.

In addition to such 'marker' trees, many fields contained fruit-bearing species, especially coconut and oil palm but also mango, mandarin and others.⁷⁸ Slightly less than half of all owner-occupied fields contained one or more fruit trees, compared to 62% of rented fields. Fruit-bearing trees were often already established when the field was acquired (40% of tenant fields).⁷⁹ Landlords were most frequently named as having decided to plant fruit trees, followed by the head of household.

Plate 3: Eucalyptus plantation alongside dirt road

⁷⁷ This type of arrangement is relatively widespread in southern Togo (Kenkou 1990). Coffi and Foli (1995) describe a range of different share cropping systems in Togo for both food and cash crops.

⁷⁸ Janssens (1991) notes the presence of small 'sacred forests' in low-lying areas, as well as various useful trees in agricultural fields, e.g. Baobab, Kapok, Neem, Mango, etc.

⁷⁹ One possibility is that households with surplus fields rented them out during the early stages of establishing orchards, before the trees matured sufficiently to yield fruit (or to crowd out annual crops). Janssens (1991) reports food crops cultivated under oil palm for 4-7 years after the trees were planted.



Non-fruit-bearing or timber trees were also mentioned frequently, occurring on 57% of rented fields and 64% of owner-occupied fields. These were mainly isolated, self-seeded trees rather than dense plantations, although some farmers planted stands of Eucalyptus for poles (Janssens 1991). Such plantings generally occurred after the field was acquired (33% of rented fields, 55% of owner-occupied), at the decision of the head of household. There is a strong positive association between the presence of fruit trees planted by the household or relatives and planting of timber trees (1% significance).

With respect to agro-forestry improvements promoted by FAO, rates of adoption were low. Only 15 fields (6%) contained alley-cropping, of which 11 were owner-occupied. Many reasons were given for not adopting alley-cropping, but in 36% of all cases (fields) farmers simply 'did not want' it or were 'not interested'. In 25% of cases, respondents claimed not to be informed. In about 10% of cases no reason was given, while in another 10% respondents claimed their field(s) were too small to permit alley-cropping. Other reasons included fear of the landlord and lack of rights. Windbreaks were equally uncommon (7% of all fields), and in most cases respondents claimed that they had been imposed by the State.⁸⁰ Only one case of live fencing was recorded.⁸¹ Note that fields with alley-cropping were about 50% larger, on average, than all fields together, while fields with windbreaks were about half as large as the average. Alley-cropping was positively associated with planting of fruit and non-fruit trees by the household (1% significance), and also with windbreaks (5%).

⁸⁰ FAO planted windbreaks alongside several roads and pathways in the study area, as part of efforts to demonstrate the benefits of trees (Mutumba 1990). Windbreaks were planted on the borders of existing fields, with farmers given little choice in the matter. Those who attempted to remove these trees were fined in some cases (*ibid.*). Most such trees were neglected and did not survive (Janssens 1991).

⁸¹ Janssens (1991) states that live fences were sometimes planted around fields to keep out livestock, especially in the vicinity of villages, but that the practice was declining in the study area.

Plate 4: View across footpath and fields



The low level of adoption of alley-cropping and other agro-forestry practices contrasts starkly with claims made by FAO and others promoting these technologies at the time. For example, Janssens (1991) states that by early 1990 the FAO agro-forestry project could not keep up with the demand from farmers for *Leucaena* seedlings for alley-cropping. With equal enthusiasm, Tossah *et al.* (1995) report the results of alley-cropping trials with maize at the nearby agricultural research station in Glidji, stating that the practice significantly increased maize yields, both with and without chemical fertilizer. They also claim that alley-cropping has a benefit-cost ratio of 4:1, although it is unclear if this estimate includes the full costs of planting and maintaining trees. Janssens (1991) notes that the seedlings alone cost FCFA 80,000 (US\$267) per hectare, based on 4,000 trees per ha.

Looking at some characteristics of households that reported planting trees on their land (as opposed to trees planted by the landlord or another person), we observe that those who reported *alley-cropping* were significantly younger, relatively well-educated, less dependent on farming, with less land per resident but more per labourer, and therefore heavily reliant on hired farm labour (see section 14). Households planting their own *timber trees*, on the other hand, were older, larger and more likely to be polygamous, heavily involved in farming, with greater labour and land resources but also rich enough to spend more than the average on hired labour. Those planting *fruit trees* were less likely to participate in collective activities and had less land than the average, but in other respects appear to be similar to timber planters. All of these differences are significant at the 10% level or better.

Section 7. Rights of use, exclusion and transfer

This section describes the various rights associated with each field, who holds them and, in the case of transfer rights, to whom the land may be transferred. Twenty-five categories of person (or combinations of people) were considered in determining who held specific rights. In general, land use and transfer rights differ significantly between tenants and owner-occupiers, although there are some interesting exceptions.

With respect to the right to choose which crop is planted on a field, a distinction was drawn between annual and perennial crops. Whatever the tenure status of fields, the choice of annual crops was generally the prerogative of the head of household (91% of all fields), although in 7% of cases a (female) spouse decided. A handful of cases was decided by the head of household and his spouse together, by their children, or by the head of household with the approval of the landlord.

Perennial crops were a different story. For owner-occupied fields, the household head decided whether to plant or harvest tree crops in 93% of cases, with the remainder decided by a spouse. For tenant fields, on the other hand, the landlord alone decided in 56% of cases, and had exclusive right to the harvest in 44% cases. Tenant households could plant perennial crops with the permission of the landlord in 35% of cases, and could harvest them on the same condition in 26% of cases. Only in a minority of cases (15%) did tenants claim exclusive or prior rights to harvest perennial crops on the fields they cultivated. This is consistent with other studies suggesting that tenants are restricted from planting or harvesting perennial crops on rented or borrowed land (Calon 1990).

Turning to other land uses, we again observe that rights varied significantly depending on whether fields were reported as owner-occupied or rented. In the case of owner-occupied fields, most land use rights were claimed by the household head exclusively (more than 80% of fields). Two exceptions were the right to bury a deceased person, which was limited to the vicinity of the household residence for 57% of fields, and the right to collect fuel wood, which was attributed equally to all household members in 77% of cases.⁸²

The attribution of use rights over rented fields was less consistent. While tenant heads of household asserted most rights they frequently qualified their claims by stating that permission from the landlord was required. In other cases the landlord alone was considered to have exclusive rights. Use rights for which the landlord's permission was required or which landlords alone enjoyed included the right to:

- construct permanent buildings (91% of fields);
- plant trees (91%);
- dig a well (86%); and
- implant a fetish (72%).⁸³

Use rights which tenant households claimed for themselves most of the time included the right to:

- cut trees (although landlords had exclusive rights for 21% of fields);⁸⁴
- collect fuel wood (with landlords granted equal rights in 35% of cases);
- graze livestock (landlords had equal rights in 26% of cases);
- forbid the grazing of livestock;
- forbid the cutting of trees; and
- place a gri-gri in the field.⁸⁵

Burial of deceased persons was generally thought by tenants to be forbidden by law (65% of cases), or the exclusive right of landlords (30%). In a few cases, tenants claimed that landlords had to seek their permission before engaging in certain uses of the land (notably grazing livestock). This was more common among older tenants, who also claimed greater autonomy for most uses of the land.

⁸² Most households used biomass fuel for cooking, some of it imported from up to 500 km away due to limited local wood supplies (MEPF 1999). Crop residues are also used when available (Janssens 1991).

⁸³ The dominant religion in the study area is animist, accounting for more than 80% of the population (Addra *et al.* 1987), although many households also profess Christian and/or Islamic beliefs. Animist practices often include the construction of small semi-permanent 'fetish' monuments made of mud, stone and other materials. They are used in various ceremonies and embody significant spiritual power, hence their construction is not a trivial matter.

⁸⁴ The cutting of trees was the only use right reported to be in dispute in this section.

⁸⁵ A *gri-gri* is a kind of good-luck charm, less powerful than a fetish and less permanent.

With respect to land transfer rights, the distinction between owner-occupied and rented fields is even stronger. One exception is the right to lend land, which both tenants and owner-occupiers claimed in over 80% of all cases. Such loans were restricted, however, to members of the family (heirs), and this restriction applied equally to owner-occupied and rented fields.

Other forms of land transfer (i.e. to rent, pawn, sell or give it away) were generally not possible for tenants, who attributed these rights to landlords in over 90% of cases. For owner-occupied fields, household heads claimed exclusive rights to rent in 71% of cases. They acknowledged the need to seek permission from heirs in 21% of cases, and noted that fields could be rented only to people outside the family (98% of cases).

Pawning, giving and selling land were even more restricted. Heads of household claimed exclusive rights over 50% of owner-occupied fields, but admitted the need to seek permission from heirs in almost 40% of cases. Such fields could be pawned or sold only to outsiders, and could be given outright only to heirs. Note that tenants often reported the same restrictions when describing rights held by their landlords. Note also that older owner-occupiers were more likely to claim exclusive transfer rights, i.e. less need to seek permission from heirs.

Section 8. Inventory of fields managed by the household but cultivated by others

This section and the following three (9, 10 and 11) describe fields which households claimed to own or manage, but which were cultivated at the time by people outside the household (tenants). Questions asked were similar to those posed in sections 5-7 for fields cultivated by the household.

Information was recorded on a total of 63 such fields reported by 14 households. All of these fields were made available to other households on an annual basis, subject to payment of cash rent or a sharecropping arrangement. The maximum number of such fields managed by any one household was 15. Section 8 recorded information on:

- The name used by the household to refer to fields cultivated by others;
- The name of the current tenant farmer and their place of residence;
- In the case of fields belonging to someone outside the household, their name and place of residence;
- The surface area and unit of measurement of each field;
- The distance of each field from the responding household's compound, expressed as the number of minutes required to walk there;
- Mode of access, including the year of first access, how the field was acquired, who acquired it and from whom.

Tenants were reported to reside in a range of different locations. The most frequently reported location (25% of fields) was the general category of 'hamlet or on the field.' In several cases tenants appeared to reside in locations outside the study area.⁸⁶

Eight households who reported making fields available to others appear to be mentioned as landlords by several other tenant households, although it is not always clear due to the use of nicknames and abbreviations. However, in only three cases were we also able to match the names of tenants reported by these same landlords with the names given by tenants themselves.

A minority of tenants (14% of fields cultivated by others) were reported to reside in some of the larger villages in the study area, mainly in Djankassé (8%), which also had the highest concentration of

⁸⁶ Place names of the smallest hamlets were not always consistent, hence it is not easy to determine whether a particular named location fell inside or outside the study area.

landlords. No tenants were reported to reside in Agbanto-kopé, despite its status as the largest village in the study area. In 13% of fields, no place of residence was indicated.

The majority (95%) of fields cultivated by others belonged to a member of the responding household. Two households reported acting as ‘intermediaries’ for three fields, i.e. they had received the land from someone outside the household and had transferred it to another person, also outside the household. In these cases, however, the land was managed on behalf of an absent relation.

The average surface area of fields cultivated by non-household-members was 0.97 ha, slightly larger than the mean area of fields cultivated by respondents themselves.⁸⁷ The total area of fields cultivated by others (including the estimated area of fields for which no data was recorded) was 61 has, implying an average of 4.4 ha for each household managing such fields. The maximum combined area of fields managed by a single household (and cultivated by others) was 13 ha.

We saw above that tenants cultivated more than twice the area reported by owner-occupiers, on average (section 5). When both fields cultivated by the household and fields made available to others are included, a rather different picture emerges. In this case we find that owner-occupiers report *more* land, on average, than tenants (10% significance).⁸⁸ Whereas tenants cultivate all of the land they rent, owner-occupiers as a group lend or rent out more than half their holdings. Taking all fields together, i.e. land used by households reported in section 5 and land made available to others reported in section 8, we obtain a total of 299 fields or about 267 ha. No more than 15-17% of this area was cultivated by its owners.⁸⁹ In other words, almost all land in the study area was cultivated under some kind of tenancy arrangement.

Not surprisingly, fields made available to others tended to be further away than those cultivated by households themselves (average 28 minutes’ walk compared to 15 minutes for fields cultivated by households). The maximum distance was 45 minutes.

The most common date of acquisition of fields made available to others was 1970. Most of these (15 out of 18 fields acquired in that year) belonged to a single household (no. 297) which acquired them all at the same time. Other households generally reported more recent acquisition, in keeping with the findings of section 5.

The dominant mode of acquisition of fields made available to others was inheritance (95% of cases). As noted above, three fields were reported as being managed on behalf of absent family members, specifically, the brothers of two household heads. In these cases, the fields were also originally inherited from a patrilineal ascendant. This was the most common source of fields made available to others, accounting for 59% of cases. Interestingly, fields acquired by marriage were more often made available to others (40% of cases) than cultivated by households themselves (18%).

In addition to the differences between tenants and owner-occupiers noted above, we find significant differences between households that rented out land and other landowners. Thus while tenants reported the most area under cultivation, landlords cultivated more than other owner-occupiers. Moreover, when fields rented out are included in estimates of total land resources, we find that

⁸⁷ No area was reported for 27 fields rented out by nine landlords. We assume these fields are the same size, on average, as fields rented out for which area was reported (0.97 ha).

⁸⁸ As noted in section 5 we also see a positive association between total land holdings and the age of the household head. A similar relation is reported for the Maritime Region as a whole (Addra *et al.* 1987).

⁸⁹ Some fields may have been reported both by landlords and their tenants. Eliminating duplicate fields is difficult due to inconsistent use of place names and infrequent use of full names to identify landlords and tenants. However, at least eight heads of household who made fields available to others appear to be mentioned as landlords for 32 fields reported by 21 tenants (out of a total of 99 landlords identified by tenants). For three of these fields, the tenant named by the landlord matched the name given by the tenant.

landlords reported almost twice as many fields as tenants, on average, and about four times as many fields as those owner-occupiers who did not rent out their land (better than 1% significance).

The same ranking holds when we examine total land area *per resident* (2.0 ha each for landlord households, 0.4 ha for tenant households, and 0.2 ha for non-landlord owner-occupiers). On the other hand, there is no significant difference in the area cultivated in 1990 *per agricultural labourer*, for any indicator of tenure status at household-level. In other words, tenants and owner-occupiers (and landlords) all apply roughly the same amount of labour per unit area: about 1.0 ha per full-time equivalent agricultural labourer, on average.⁹⁰

Comparisons of average land holdings conceal large differences between households, both within and across tenure categories. The top twenty land holders, including both fields acquired under commercial tenancies and free-of-charge, reported 56% of the total reported surface area, while the bottom twenty households reported just 2.1% of total area. Fourteen landlord households accounted for 31% of total land area, and 82% of the area acquired through inheritance or gift.

In general, land holdings were somewhat more equally distributed among tenants than among owner-occupiers. Out of 35 households that acquired all of their land free-of-charge, the top fifth (seven households) claimed 64% of the total area, including all borrowed and inherited land plus the estimated area of fields lent or rented out, while the bottom fifth reported 1.1% of total area. For comparison, among 64 households that acquired one or more fields under commercial tenancies, the top fifth (13 land users) reported 52% of total area, including some borrowed and inherited land but mostly commercial tenancies, while the bottom fifth reported 4.0% of total area.

Most households thus had very little land at their disposal. Among households that acquired all of their fields free-of-charge, non-landlords reported an average of 0.81 ha (range 0.13 to 3.38), compared to an average of 5.8 ha reported by landlords. Among households which acquired one or more fields under commercial tenancies, the bottom half reported an average area of 1.1 ha (range 0.25 to 1.9), while the top half reported 4.1 ha, on average.

In summary, landlords are relatively land-rich but labour-poor. Tenants occupy second place, followed lastly by non-landlord owner-occupiers with the lowest ratio of land to resident labour. On the other hand, non-landlord owner-occupiers are not noticeably poorer than other households, in terms of their livestock holdings, reported machinery and equipment, or spending on hired labour. They are however more likely to report non-farm employment as the main activity of the household head.

Section 9. Payment for fields cultivated by others

Like the first part of section 6, this section examines payments (if any) for fields made available to other households, the duration of rental contracts and other contributions. No landlords paid rent for the fields they made available to others since, as noted above, all such fields belonged either to a member of the household itself or were managed on behalf of a close relative.

All fields made available to others were rented on an annual basis, and in 92% of cases a cash rent was specified. In four cases no cash rent was mentioned, but the household (no. 297) reported receiving one-third of the harvest. Annual rental income ranged from FCFA 2,500 to 20,000 depending on the size of the field. Total rental income reported by all landlords was FCFA 413,100 (US\$1,377). Almost a quarter of this sum went to a single household (no. 258 with ten fields rented out).

For those fields where both surface area and cash rental income were specified, an annual rent per hectare may be calculated. The results range from FCFA 3,200 to 16,000 per hectare per year, with an

⁹⁰ This excludes hired labour, however, which owner-occupiers use most heavily (see section 14). In terms of total labour inputs, therefore, owner-occupiers appear to use land more intensively.

average of FCFA 7,750 (US\$26). This is slightly more than the average per hectare rent reported by tenants in section 6 (US\$22).

Landlords managing several fields appeared to charge consistent rents for their land, on a per hectare basis. On the other hand, rental rates charged by different landlords varied widely. For example, household no. 251 charged between FCFA 3,200 and 4,000 per hectare for the seven fields it rented out. Household no. 297 charged between FCFA 4,800 and 6,400 per ha for its eleven fields. At the top of the range, household no. 258 charged between FCFA 10,000 and 16,000 per hectare per year.⁹¹

Landlords also reported contributions of labour from tenants in 32% of cases, and some portion of the harvest in 87% of cases. The latter may have been token gifts (e.g. a few kilos of grain) rather than explicit sharecropping arrangements. Contributions of labour from tenants to landlords were not defined, but may reflect a more profound 'host-client' relationship than a simple rental contract would suggest.

Section 10. Improvement of fields cultivated by others

This section describes improvements to fields made available to other households, including agro-forestry measures promoted by FAO as well as other improvements. In general, households were less well informed about improvements to fields rented to others than improvements to fields they cultivated themselves.

As in the case of fields cultivated by households themselves, the boundaries of fields made available to others were demarcated by pre-existing trees (98% of cases). On the other hand, landlords were less likely to report the presence of trees on land made available to others than were tenants with regard to the fields that they cultivated. For example, while 35% of fields cultivated by others were reported by landlords to contain fruit-bearing species, tenants reported fruit-bearing trees in just 62% of cases (section 6). Similarly, non-fruit-bearing trees were reported in 48% of fields rented to others, compared to 57% of tenant fields cultivated by households themselves. In most cases (41%), landlords reported that non-fruit-bearing trees had been planted by the tenant.

Agro-forestry improvements promoted by FAO were reported on fields rented to others even less frequently than on fields cultivated by households themselves. No windbreaks or live fences were reported at all, and just one field made available to another household was reported as being alley-cropped (at the behest of the owner, not the tenant). The most common reason given for the absence of alley-cropping on these fields was that the tenant did not want it (29%). In 21% of cases the landlord saw no benefit from alley-cropping, while in 44% of cases no reason was given.

Section 11. Rights of use, exclusion and transfer over fields cultivated by others

We turn now to rights of use, exclusion and transfer over fields rented to others. The claims of landlords in this section may be compared to the rights asserted by tenants in section 7.

Tenants were universally acknowledged to have the exclusive right to choose which annual crops were grown on fields rented to them. This is consistent with information reported by tenants themselves. With respect to perennial crops, on the other hand, landlords claimed the right to plant and harvest in over 90% of cases. In just one case was the tenant considered to have some right to plant or harvest perennial crops, and even then only with the approval of the landlord! This may be compared to reports by tenants, where the right of landlords to plant and harvest perennial crops was acknowledged but many claimed to have some input to the decision (section 7).

Land uses which landlords generally reserved to themselves included the right to construct a house or to plant a tree. Tenants were acknowledged to have these rights in a minority of cases, and in some cases only with permission. This may be compared with reports by tenants themselves, who more

⁹¹ If the relatively high rents charged by household no. 258 are excluded, the mean rental rate falls to about FCFA 5,700 (US\$19) per hectare, just below the average rate declared by tenants in section 6.

often than not claimed such rights, while admitting that permission from the landlord was generally required.

With respect to burial rights, the most common response from landlords was that this was forbidden by law (44% of cases). Landlords attributed this right to tenants (again subject to permission) in just 5% of cases.

Tenants were considered to have an exclusive right to cut trees on 18% of fields rented out. However, more often this right was shared with the landlord (23%) or conditional on the landlord's permission (31%). In 28% of cases landlords claimed exclusive rights to cut trees. All told, landlords asserted the right to cut trees in 82% of cases, and at least equal rights to prevent the cutting of trees in 67% of cases.

The right to gather fuel wood was assigned to tenants alone in 48% of cases, with landlords claiming equal rights in all other cases. On the other hand, tenants were generally acknowledged to have exclusive rights to graze livestock, to prevent the grazing of livestock by others, and to place a *gri-gri* in the fields they cultivated. Rights to dig a well or to implant a fetish were more strictly controlled.

When we compare the use rights asserted by landlords with those claimed by tenants in section 7, we see similar patterns and concentrations. In short, landlords and tenants tended to assign use rights in similar ways. Nevertheless, we also observe that tenants were more liberal in claiming exclusive rights, while landlords more often asserted equal use rights, as well as the right to refuse certain uses of their land.

Turning to transfer rights over land cultivated by other households, we observe more-or-less the mirror image of rights attributed by tenants in section 7. Thus landlords claimed exclusive rights to rent, pawn, give away or sell their land, although more often than not they must first obtain permission from their heirs. Land may be given away (for free) only to heirs, while any remunerative transfer was restricted to people outside the family.

Landlords acknowledged the right of tenants to lend land without first seeking their permission in about half of all cases. This may be compared with tenants' assertion of the same right more than 80% of the time (section 7). In several cases (14% of fields cultivated by others), landlords went on to assert that loans of fields by tenants could be extended only to members of the tenant's family. Landlords claimed an exclusive right to lend land cultivated by others in just 13% of cases.

In conclusion, landlords tended to claim more rights for themselves, and attributed fewer or more restricted rights to tenants cultivating their fields, than tenants asserted on their own behalf when reporting the fields they cultivated (see Section 7).

Section 12. Use of fields cultivated by the household

This section describes the crops grown on fields cultivated by households (not on fields rented out). Information was collected on annual and perennial (tree) crops for the three major growing seasons of 1988, 1989 and 1990, and for one second or 'minor' season (1989).⁹² A total of 57 different crops and crop combinations were recorded.

As noted above, a distinction was drawn between fields and plots of land. Plots were characterised by a uniform crop or management regime, while fields were characterised as a contiguous piece of land subject to homogenous tenure. Fields may contain one or several plots, depending on what use was made of the land in a given year.

⁹² Rainfall in 1989 and 1990 was average for the Maritime Region of Togo (DESA 1991a; Tossah *et al.* 1995). Maize yields in 1989 and 1990 were also typical, while yields in 1988 were about 50% higher than those recorded over the ten year period from 1982 to 1991, mainly due to an exceptional second season (DESA 1993).

The number of plots varied over the four seasons of recorded use, from a minimum of 274 plots during the minor season of 1989, to a maximum of 324 plots in the major season of 1990. With a total of 236 fields reported in section 5, this implies a range of 1.2 to 1.4 plots per field, on average.⁹³ With 2.4 fields per household (see section 5) and 1.3 plots per field, on average, we obtain an estimate of about three plots per household.⁹⁴ The total area varied from 178 to 186 ha, depending on the year.⁹⁵ Individual plots varied in size from 0.6 to 6.0 ha, with an average of 0.66 ha. The maximum number of plots in a single field was four, in 1989.

Maize (*Zea mays*) is the staple grain of southern Togo and was the most commonly recorded crop grown in the study area. Farmers typically cultivate two maize crops each year, from April to July and from September to December, corresponding to the major and minor rainy seasons (Addra *et al.* 1987).

Plate 5: View across fields (maize lower right, fallow lower left)



In all three major growing seasons reported in the survey (1988, 89 and 90), maize was recorded on over 90% of plots by area, usually in combination with other annual crops.⁹⁶ Pure stands of annual crops were less common during the three main growing seasons, accounting for 7-11% of total area and consisting mainly of maize.⁹⁷ Maize was also the dominant crop during the minor season in 1989,

⁹³ Compare to 1.56 parcels per field, on average, for the Maritime Region as a whole (DSID 1998).

⁹⁴ Compare to 3-5 plots per household reported by Calon (1990) for similar areas in Vo Préfecture.

⁹⁵ The total area of fields reported in Section 5 was 206 ha. The difference of 20-28 ha reflects fields for which rights and improvements were recorded in Section 5 but no cultivation was reported in Section 12, or for which only partial plot-level information was available.

⁹⁶ Compare to 96% of total cultivated area devoted to maize (72% in combination with other crops) in Vo Préfecture in 1990/91 (DESA 1991c).

⁹⁷ MEPF (1999) report that 5% of cultivated area in Vo Préfecture was devoted to pure crops in 1982/83, compared to 9-30% in the rest of the Maritime Region. The difference is attributed to greater land scarcity in Vo

accounting for 77% of total area and in this case grown mainly as a mono-crop. Plots and fields with pure annuals were larger, on average (5% significance).

Other common field crops include manioc (*Manihot utilissima*), pulses and groundnut, which are often grown for sale (Akakpo-Drah 1992; Calon 1990; Deffo *et al.* 1999). Manioc cuttings are typically planted shortly after the first sowing of maize, in April, and harvested the following year, while other field crops are sown and harvested during the main growing season (Addra *et al.* 1987). Plots with no maize at all comprised 3-6% of cultivated area (a doubling over the period 1988-90 is probably not significant). Cotton and vegetables accounted for about half of this, or 2-3% of cultivated area. Note that home gardens may have been under-reported, particularly by male respondents who were less likely to grow 'kitchen' vegetables for domestic use or for sale.

An indication of the intense land pressure in the study area is revealed by the very small proportion of arable land not cultivated. Fallow and uncultivated land accounted for less than 2% of total plot area during each of the three main growing seasons, and only 3% in the minor season of 1989. Taking all three main growing seasons together, however, we find that fallowing was reported on over 7% of all plots at least once. These figures may understate the true extent of idle land, given the focus of the survey on agricultural land use and practices. For example, land not cultivated for a long time may not always have been included in the list of households' fields, even if it belonged to them.

As noted in Section 6, agro-forestry practices were widespread, but not in the forms promoted by government and development agencies. About 6% of total cultivated area contained combinations of annual and perennial (tree) crops, usually maize with other annual crops under coconut trees or oil palm, with the latter grown as cash crops.⁹⁸ A further 1% of area consisted of pure stands of coconut, oil palm or other non-fruit-bearing trees.⁹⁹ Calon (1990) notes that oil palm is less common in more densely settled areas; the same may be true of other perennial crops.

The area devoted to traditional tree crops or to combinations of annual and perennial crops did not change significantly over the three years 1988-90. On the other hand, alley-cropping increased during the three years for which information was recorded, rising from under 1% of total area in the main growing season of 1988 to over 4% in 1990. This trend does not appear to have continued in subsequent years (see section 5).

A more traditional method of restoring or enhancing soil fertility is the cultivation of Nitrogen-fixing legumes. The most common leguminous species cultivated in the study area was haricot bean (*Phaseolus vulgaris* or *niébé* in the vernacular), followed by groundnut (*Arachis hypogea*) and, very rarely, pigeon pea (the latter was promoted by the FAO project).¹⁰⁰ Out of 57 crop combinations recorded in the survey, 20 categories include legumes (haricot bean or groundnut), either alone or in combination with other crops. Cultivation of legumes increased slightly over the period 1988-90, from about 18% to 23% of total area.¹⁰¹ Legumes were reported on 46% of all plots at least once

Préfecture. Ayeboua (1993) similarly reports 5.5% of cultivated area (out of 59 ha total) devoted to pure maize among a sample of 58 farmers surveyed in the nearby village of Vo-Koutimé.

⁹⁸ Coconut was an important cash crop during the colonial era but had declined in importance since then due to the spread of disease (Janssens 1991). Oil palm (*Elaeis guineensis*) was cultivated both for its fruit – a source of edible oil – and for the production of palm wine and distilled liquor (*Sodabi*).

⁹⁹ Trees of all kinds were more frequently reported in section 6 than section 12. This may reflect a distinction between the presence of a few individual trees along field boundaries or in a small part of a field, and the more systematic cultivation of tree crops throughout a plot of land. It may also reflect the fact that section 12 focuses on the crops cultivated by the household, whereas section 6 considers all land improvements including trees planted by the landlord and others.

¹⁰⁰ Calon (1990) suggests that pulses are grown as a form of 'insurance' against crop failure.

¹⁰¹ Compare to 38% of cultivated area devoted to haricot bean and 11% devoted to groundnut (both mainly as secondary crops) in Vo Préfecture in the 1990/91 season (DESA 1991c).

during 1988-90. Legumes were almost always grown in combination with maize, and rarely observed during the dry season.¹⁰²

Plate 6: Agro-forestry: manioc growing amongst oil palm



While the area devoted to legume-maize combinations increased slightly over three years, the area occupied by manioc-maize combinations declined, from about 65% to 53% of total area. It is not known whether these shifts were permanent or temporary, nor whether they reflected responses to declining soil fertility, changing crop prices or other factors, such as the relative proportions of owner-occupied and rented land in each year (see below). During the main rainy season, manioc was almost always cultivated in combination with other crops, usually maize but rarely legumes. Pure stands of manioc were more common in the dry season, presumably reflecting its relatively long growing cycle and the prior harvest and removal of maize and other crops grown in combination with it. About 70% of plots had manioc on them at least once during 1988-90.¹⁰³ Manioc was more likely to be grown on fields of 'poor' soil fertility (10% significance), possibly reflecting its use as a 'backstop' crop in the event that low rainfall reduces maize yields (Calon 1990), or as the terminal crop in traditional rotations.¹⁰⁴ The latter interpretation may explain a significant positive association observed (better than 1%) between manioc cultivation and the number of years since the field was acquired.

Because individual plots were distinguished by name, we can observe changes in use over the three years from 1988-90. Perhaps due to the short time series of observations, there is little evidence of consistent crop rotations, in the sense of fallowing or switching among crops in order to optimise the use of soil nutrients or to reduce pest infestations. Fully 44% of plots had exactly the same crop (or combination) in all three major seasons. Significant changes in land use over the period 1988-90 were

¹⁰² Inter-cropping or rotating maize with legumes can significantly improve maize yields (Hårdter 1989). Similar benefits have been observed when maize is intercropped with manioc (Schmidt *et al.* 1989).

¹⁰³ Compare to 63% of cultivated area devoted to manioc (mainly as a secondary crop) in Vo Préfecture in 1990/91 (DESA 1991c).

¹⁰⁴ Some claim that manioc degrades soils more than other crops (Addra *et al.* 1987), while others single out maize as a very 'heavy feeder' (Calon 1990).

recorded on 37% of plots, including planting of trees, switching between maize-based and other crop combinations, or cultivation of land not previously farmed by the household. The latter accounted for 19% of plots and included the cultivation of previously fallow land as well as the acquisition of new land (e.g. new tenancy agreements) during the three-year period.

Disaggregation of plot-level information by tenure status reveals some differences in crop choice between owner-occupiers and tenants. Over the three main growing seasons (1988-90), about 80% of total area was rented, with the remainder reported as owner-occupied. During the same period, the area devoted to tree crops and alley-cropping averaged 28% for owner-occupied land, compared to 5% for rented plots.¹⁰⁵ Moreover, as seen in sections 6 and 7, even when trees were reported on rented fields they were most often pre-existing (i.e. established by landlords rather than by tenants), and only a minority of tenants asserted the right to harvest tree crops.

Another contrast between owner-occupied and rented plots relates to the prevalence of soil-enhancing legumes. On average over the three main growing seasons, beans and groundnuts were cultivated on 35% of the total area of owner-occupied plots (4.6% in pure stands, 30.1% in combination with maize). The same crop combinations accounted for less than 20% of the area of plots acquired under commercial tenancies (1.0% in pure stands; 18.4% with maize).

Owner-occupied plots were also more likely to be left idle. This may reflect a lack of pressure on owners to generate income from the land, or stronger incentives to conserve soil fertility through fallowing (Calon 1990). On the other hand, a significant *negative* association between fallowing and the number of years since the field was acquired suggests that much uncultivated land was recently inherited and simply not yet used to grow crops.

The area devoted to manioc – grown both as a ‘cash crop’ and for home consumption – likewise varied depending on whether plots were cultivated by their owners or tenants. Thus we find manioc reported on about 67% of rented area, on average over the three years (0.7% in pure stands, 65.9% in combination with maize), compared to 37% of the area of owner-occupied plots (0.8% pure, 36.3% with maize). This may reflect greater efforts on the part of tenants to maximize cash income from the land, through cultivation of manioc for sale.

Finally, maize-based crop combinations were slightly more common on rented plots in 1989, while non-maize-based crops were rare. The reverse was true of owner-occupied plots. There was no significant difference in the prevalence of pure annuals (no trees) between owner-occupied and rented plots, or in mean plot size.¹⁰⁶

¹⁰⁵ In contrast, in section 6, fruit-bearing trees were more frequently reported on rented fields than on owner-occupied fields (see above).

¹⁰⁶ Similar differences between owner-occupied and rented plots were observed during the second (minor) season of 1989, with the exception that legumes were equally uncommon on both types of plots.

Plate 7: Agro-forestry: maize, manioc and haricot bean under coconut palm



Differences in crop choice are also apparent when we group households in other ways besides their tenure status. For example, heads of household who *cultivated legumes or fallowed* their land at any time during 1988-90 can be described as:

- Less likely to be polygamous, with fewer resident household members;
- More likely to identify something other than agriculture as their principal activity, or to describe their involvement in farming as 'occasional' or 'infrequent';
- Having less land overall and cultivating a smaller area; and
- Keeping fewer livestock (see section 18).

Those who left land idle (fallow) also appear to be somewhat better educated, perhaps echoing their better access to non-farm employment. In contrast, heads of household who *cultivated manioc* during 1988-90 were:

- More likely to be polygamous, with more resident household members;
- Less likely to have spent extended periods outside the study area;
- More likely to identify agriculture as their principal activity;
- Kept more livestock;
- Had more land overall, cultivated a larger area, and had more total and cultivated land per active farm worker (again excluding landlords);
- Acquired their first field longer ago than the average; and
- Spent more per hectare on hired labour (among tenants only).

No significant differences in crop choice were observed between male and female (or married and unmarried) heads of household, although female heads of household seem slightly more likely to report pure stands of annual crops.

The above differences are all statistically significant at the 10% level or better. Taken together, they suggest that households cultivating *manioc* were older professional farmers, with large families, relatively large land holdings and plenty of livestock. Households reporting *legumes or fallowing* but not manioc were smaller and more likely to be part-time farmers, with relatively few livestock and less land under cultivation.

The negative relation between total land holdings and fallowing is unexpected. Normally one thinks of fallowing as a practice that land-rich households can most easily afford. In this case, however, off-farm employment may allow relatively land-poor households to practice fallowing, and may even dissuade them from engaging in farming at all. In other words, land may be left idle not as a means of restoring fertility for future agricultural production, but simply because there are better opportunities to earn a living elsewhere.

Some differences in land resources are only apparent when landlords are excluded from the analysis. Hence a further disaggregation was performed by focusing on those plots cultivated by households that also made land available to others. Fourteen landlords reported cultivating 26 plots between them, averaging just over one hectare each (about 50% larger than the mean for the sample as a whole). In terms of their choice of crops, landlords were similar to other owner-occupiers, although they devoted slightly more area to legumes and slightly less to manioc. Landlords also reported more idle land.

Section 13. Input use during the previous main growing season

This section describes the use of non-labour inputs on plots cultivated by households during the 1989 main growing season. For each plot, information was recorded on the use of 'selected' or improved seed, chemical fertilizers, pesticides, rented equipment and other non-labour inputs. For all but seed, information was also collected on the type of input used, unit of measure and unit price. The key decision-maker with regard to non-labour inputs was also identified.

In general, households in the study area made little use of ‘modern’ inputs. Chemical fertilizer (mainly Urea, a Nitrogen-based compound) was the most commonly reported purchased input, applied by 29 households to 60 plots (21%) in 1989.¹⁰⁷ Fertilizer was most often applied to maize cultivated in combination with manioc, with 56% of total applications (which matches the share of total area devoted to this crop combination). The price of Urea was consistently reported as FCFA 3,250 for a 50 kilogramme sack (about US\$217 per tonne).¹⁰⁸ Most farmers purchased fertilizer individually, paying cash on delivery.¹⁰⁹

The quantity of fertilizer applied ranged from 12.5 kg to 300 kg per plot, with an average of 72 kg. Based on the mean plot size of 0.66 ha, this translates into an average rate of 116 kg per hectare where any fertilizer was applied at all (and quantity was reported), equivalent to US\$25/ha at 1990 prices.¹¹⁰ Akakpo-Drah (1992) reports lower average applications of 61 kg/ha of chemical fertilizer (NPK and/or Urea) by farmers in roughly the same area. Ayeboua (1993) reports that farmers in the nearby village of Vo-Koutimé spent between FCFA 3,100 and 6,000 per hectare on fertilizer (i.e. US\$10-20/ha) in 1991, with more used on multi-cropped plots. These figures may be compared to recommended doses of 200-300 kg/ha or more for maize (Akata 1992; André 1990; Deffo *et al.* 1999; van Beek 1997).¹¹¹ The highest dose was recorded for maize grown in pure stands, with an average of 260 kg per hectare. André (1990) reports that fertilizer applications in this range generate a yield increase of about 3 kg maize (grain) for each kg of fertilizer, under typical conditions in Togo, implying a benefit-cost ratio of about 2:1 at the prices prevailing in 1989/90.

Turning to other non-labour inputs, households reported using selected or improved seed on 11% of plots, while pesticides were applied to just three plots (1%).¹¹² No other non-labour inputs were mentioned by households. Decisions about purchased inputs were made by the head of household in 69% of cases (i.e. plots cultivated in 1989), and by a spouse in 22% of cases. No decision-maker was identified in 7% of cases.

Some differences were observed between owner-occupied and rented plots, in terms of non-labour inputs and decision-making. Thus we find that chemical fertilizer was applied *more* often on rented plots (25% compared to 7% of owner-occupied plots), while improved seed was used *less* often on rented plots (8% versus 21% respectively). Moreover, decisions about inputs on rented fields were

¹⁰⁷ Compare to 6% of cultivated area receiving chemical fertilizer in the Maritime Region as a whole, according to the 1996 agricultural census, versus 12% nationally (DSID 1998). André (1990) cites figures as low as 2% of cultivated area receiving fertilizer in southern Togo. Calon (1990) attributes low rates of fertilizer use in the study area to low and unreliable rainfall, and states that farmers dislike the ‘improved’ maize varieties that respond best to commercially available fertilizer formulations. Deffo *et al.* (1999) note that Urea is the only form of chemical fertilizer that can be purchased in local markets.

¹⁰⁸ This was the official retail price in 1989/90 including a Government subsidy for Urea estimated at about 31% for the Maritime Region (Dahoui 1990; Dahoui and André 1992).

¹⁰⁹ When this study was carried out, official credit for fertilizer purchases was restricted to groups of cotton growers who adopted a ‘package’ of recommended inputs (and sold their output to the State). There are reports of some farmers growing cotton simply in order to obtain fertilizer for use on their other crops (World Bank 1996).

¹¹⁰ Quantities were not recorded for eight plots, and no information was collected on other soil amendments (e.g. manure). DSID (1998) reports that just 1.6% of cultivated area in the Maritime Region received organic fertilizer (manure) in 1996. Crop residues are generally removed as fuel (Deffo *et al.* 1999).

¹¹¹ Fertilizer requirements may be reduced by using other soil conservation measures, e.g. composting, green manures, alley-cropping, turning under crop residues, etc. On the other hand, up to 50% of the fertilizer applied is often lost, mainly due to leaching to the sub-soil (Deffo *et al.* 1999).

¹¹² Akakpo-Drah (1992) reports 58% of households using improved seeds and 13% using pesticides, but this may reflect the way the sample was drawn, based on lists of farmers compiled by the local extension services. Others report much lower use of improved seed and pesticides in Vo Préfecture and/or the Maritime Region as a whole (André 1990; DESA 1991a; DSID 1998).

more likely to be made by a spouse (25% versus 7% of owner-occupied plots).¹¹³ It is not clear to what extent these differences reflect the tenure status of the land, or other factors.

Household heads reporting the *use of fertilizer* also appeared to be significantly:

- Younger but more likely to be married, with fewer resident household members and (among tenants) fewer labour resources;
- More likely to be born locally, especially if tenant farmers, but also more likely to have spent extended periods outside the study area;
- Less well educated but (among tenants) more likely to report vocational training;
- More likely to identify agriculture as their principal activity and to characterise their involvement in farming as ‘regular’;
- More likely to participate in local labour exchange groups;
- Kept more livestock (see section 18); and
- Had slightly less total and cultivated land area and, among tenants, less land per resident household member.

These differences are all significant at the 10% level or better. On the other hand, no difference was observed between male- and female-headed households with respect to fertilizer use.¹¹⁴ In summary, those who used chemical fertilizer were young, committed farmers with small families and relatively small land holdings, but more than the average number of livestock.

Section 14. Use of labour during previous main growing season

This section records information on labour inputs for farming operations on plots cultivated by households during the 1989 main growing season. For each plot, the surface area was reconfirmed and information was recorded on total labour inputs for four different operations: 1) clearing/field preparation, 2) sowing, 3) planting manioc, and 4) weeding. Labour inputs were disaggregated into household members, labour-exchange groups and hired labour. In the latter case, the unit of measure and price paid (or compensation in kind) was also recorded.

In all cases labour inputs were expressed in terms of the surface area subjected to a particular operation, i.e. the unit of measure was the *catís* (0.0625 ha). This means, of course, that the relative effort involved in different operations cannot be evaluated. For example, although it requires greater effort to prepare one hectare for cultivation than it does to sow crops over the same area, the total labour input recorded for each operation would be the same, i.e. one ‘hectare of labour’. Dividing labour inputs into the four categories listed above, however, allows for some distinction between more or less onerous operations.¹¹⁵

This distinction is apparent in the allocation of different types of labour (household, group or hired) to different agricultural operations. Thus we observe that households provided about half of all labour inputs, for all operations combined, but that hired labour was disproportionately allocated to the more onerous tasks of land clearing/preparation and weeding (about 15% of total labour input in each case). Labour inputs of all kinds were disproportionately low for the planting of manioc. This simply reflects

¹¹³ This is consistent with other studies suggesting that female plot managers are more likely to have borrowed their land (Acheampong *et al.* 1996; Calon 1990).

¹¹⁴ This may be contrasted with findings from northern Togo showing that male farmers were more likely to use fertilizer than women (79% versus 29% respectively, according to Acheampong *et al.* 1996).

¹¹⁵ Other studies report labour inputs for different agricultural operations in ‘man-days’ per ha. Ayeboua (1993) reports 52-59 man-days/ha, of which three-quarters were provided by households themselves, with the remainder split between hired labour and labour exchange groups. Adou Rahim Alimi *et al.* (1999) give a breakdown of labour inputs on 20 fertilizer demonstration plots in Vo and Lacs Préfectures: 22 days for field preparation, ten days for sowing, 17 days for weeding, seven days for applying fertilizer, and seven days for harvesting, for a total of 63 man-days/ha. Deffo *et al.* (1999) cite much higher estimates of 97-144 man-days/ha for maize-manioc systems with and without ‘improved’ fallow using *Mucuna*.

the fact that other operations were carried out for all crops, while manioc was not reported on 100% of plots.¹¹⁶ Inputs from labour exchange groups were negligible for all operations.

The distinction between more or less onerous tasks is also apparent in the average wages paid for each operation.¹¹⁷ Thus we observe the highest average rate of pay for weeding (FCFA 9,451 per hectare or about US\$32/ha), followed by land clearing/preparation (FCFA 7,721/ha), planting manioc (FCFA 6,840/ha), and sowing (FCFA 3,471/ha).¹¹⁸ Summing across all operations and taking the mean for the 181 plots where hired labour was used in 1989, we obtain average expenditure of FCFA 14,763/ha (US\$49/ha).¹¹⁹

Spending on hired labour can be calculated for each household as well as for each plot. Sixty-seven households employed hired labour in 1989, spending an average of FCFA 35,126 (US\$117) each or FCFA 12,755 per hectare (\$43/ha) on all of the land they cultivated in that year.¹²⁰ More than two-thirds of all households spent less than the average, while eight households spent over FCFA 100,000 on hired farm labour in 1989.¹²¹

Spending on hired labour is thus more significant than average spending by tenants on land rent (\$22/ha) or by fertilizer users on Urea (\$25/ha).¹²² This remains true even if we included the minority of households that did not employ any hired labour. Similarly the 1996 agricultural census results for the Maritime Region (DSID 1998) show hired labour as the single largest expense item, accounting for 43% of total farming costs.¹²³

Analysis of labour allocation by crop category, for all plots together, did not reveal any preference for using particular kinds of labour (i.e. household versus hired) on specific crops. Likewise we found no association between crop choice and expenditure on hired labour *per hectare* in 1989, taking all plots together.

On the other hand, sources of labour vary dramatically between owner-occupied and rented plots. While both owner-occupiers and renters made liberal use of hired labour in their farming operations,

¹¹⁶ Manioc is singled out due to the greater effort required to establish it (Adou Rahim Alimi *et al.* 1999). Whereas most annual crops are sown directly from seed into lightly tilled soil, the cultivation of manioc requires the preparation of small mounds into which cuttings are inserted (Calon 1990).

¹¹⁷ Wages may also vary during the course of the agricultural season, with higher rates paid when labour is in peak demand, i.e. from March to June and again from September to October (Calon 1990). Adou Rahim Alimi *et al.* (1999) report an agricultural wage of 700 FCFA/day in 1998, in the study area. At a national level, the World Bank (1996) reports a 'typical' agricultural wage of 500 FCFA/day, and an official minimum wage of FCFA 13,757 per month. The same report cites estimated returns to labour in agriculture in 1990, ranging from 419 FCFA/day for groundnut up to 868 FCFA/day for manioc.

¹¹⁸ Compare to a range of FCFA 10,000 to 16,000 per ha for land clearing, reported in the agricultural census of 1996 (DSID 1998). Deffo *et al.* (1999) report labour costs for different farm operations, based on surveys conducted near the study area, as follows (in FCFA/ha): 10,000 for harvesting maize, 11,250 for sowing maize, 12,500 for weeding, and 25,000 for field preparation. The increase in rates relative to 1990 mainly reflects nominal price inflation of 55% in 1994 and 40% in 1995, following a devaluation of the currency in 1994; inflation during 1990-93 was virtually nil (Anipah *et al.* 1999; CIESIN 1999).

¹¹⁹ Including plots where no hired labour was used, the mean was FCFA 9,509 per hectare (US\$32/ha). The highest *per hectare* spending on hired labour on a single plot was FCFA 35,200/ha (\$117/ha).

¹²⁰ Including households that farmed in 1989 but did not employ any hired labour, the mean expenditure was FCFA 26,485 (9,644 per ha). Compare to average spending on hired labour of FCFA 27,943 per farming household in the Maritime Region, reported in the 1996 agricultural census (DSID 1998).

¹²¹ The 1996 agricultural census reports that farms in the Maritime Region employed 0.76 'occasional' labourers each, on average (DSID 1998).

¹²² Fertilizer users generally spent less than the average on hired labour, but even they spent more on hired labour than on fertilizer, in most cases (20 of 29 users).

¹²³ Additional expenses and their share of total farming costs in the Maritime Region include: purchase and care of livestock (14%), purchase of seed and other planting material (12%), purchase of other inputs (10%), land rent (9%), and equipment and other expenses (12%) (DSID 1998).

owners hired about five times as much labour as they provided themselves, for all operations except sowing crops. Households who cultivated both their own and rented fields used hired labour most intensively, followed closely by landlords. Hired labour accounted for about 75% of total land clearing and weeding effort in each case. Households cultivating only land that belonged to them relied on hired labour for almost half of their clearing and weeding operations, while households who cultivated only rented or borrowed land reported the least use of hired labour (about 35% of total clearing and weeding effort). All households relied mainly on their own labour to do the light work of sowing crops, and no one made much use of labour exchange groups.

On average, owner-occupiers spent almost twice as much *per hectare* as tenants (5% significance). The gap narrows but remains significant even if we consider only the 67 households that employed hired labour.¹²⁴ Among tenant farmers, we also observe a significant positive association (10%) between manioc cultivation and average spending per hectare on hired labour. Recall that tenant households cultivating manioc tend to be long-established farmers with more land and labour resources. While these households did not necessarily have more need of hired labour, they may have had greater ability to pay for it.

The determinants of hired labour use, expressed in terms of the share of total labour employed by each household in 1989, were examined using multiple regression analysis. For all plots together the key explanatory variables appear to be, in descending order of weight and significance, the age of the household head (+), the ratio of area cultivated to the household agricultural labour force (+), the weighted number of livestock (+), tenure status (owner-occupants employ hired labour more than tenants), and the sex of the household head (females rely more heavily on hired labour). Several other potential explanatory variables were tested and found to be insignificant. Similar results were obtained for tenant plots alone. In addition, more hired labour is used on rented or borrowed fields when agriculture is *not* the principal activity of the household head.

Section 15. Land use conflicts

This section records disputes about land ownership, conditions of tenancy or other rights on fields owned or used by the household, either at the time of the survey or previously. For each dispute recorded, the field in question was identified, along with the nature of the conflict, the category of person with whom the dispute arose and their place of residence, when the dispute first occurred, how long it lasted, the cost of resolving it, who arbitrated the dispute and what decision was reached (if any).

Twenty-nine separate disputes were reported, each by a different household head (i.e. nobody reported more than one dispute). In most cases the dispute concerned a field identified in sections 5 or 8 of the questionnaire. Most disputes concerned rights of ownership (11 cases), followed by disputes regarding a proposed increase in annual rent (eight cases) or the right to cultivate or harvest crops (six). Other disputes concerned the limits of field boundaries, a reduction in rental area, failure to exploit rented fields, or unspecified complaints.

Half of all disputes were with landlords. The remainder were with neighbours, other private individuals (non-relations), public authorities or relations outside the household. Landlords involved in disputes were mainly from the villages of Akoda and Djankassé. The year in which disputes originated ranged from 1884 to 1990, with most (20 cases) occurring since 1980. Durations were not always specified, although two disputes were resolved in under a month while three had lasted one to three years.

A financial cost was specified in only six cases, with penalties ranging from FCFA 4,000 to 100,000 (US\$13 to 333). One-third of all conflicts (12 cases) were resolved directly by the disputants. In five cases local (village) authorities helped to resolve disputes and seven cases went to court.

¹²⁴ Landlords spend more per hectare on hired labour than other owner-occupiers, on average, but the difference is not statistically significant.

As far as respondents were concerned, disputes were ‘unresolved’ at the time of the survey. Ten disputes had resulted in cancellation of rental agreements, loss of use rights or a rent increase. Six disputes were resolved to the satisfaction of the respondent. There was no apparent relation between satisfactory resolution and other features of the disputes, nor do households reporting land disputes appear to be distinctive in any way.

These results are similar to the findings of a nationwide survey of 500 farmers reported by Coffi and Foli (1995). They found that disputes over land were extremely common in Togo, with 68% of households reporting some kind of land dispute. This is attributed to the fact that most contracts over agricultural land in Togo are verbal. The authors further note that half of all reported land disputes involved conflicts with or between ‘outsiders’, with the other half reflecting disputes amongst the indigenous residents (‘autochtones’). They also report that 39% of recorded disputes concerned field boundaries, 27% arose from overlapping claims to land, while 28% concerned crop destruction by livestock. More than half of all disputes were resolved without recourse to the law, through mediation by local customary or administrative authorities. Nevertheless, the authors note that land disputes account for a significant share of the caseload of rural tribunals (up to 25% in some regions).¹²⁵

Section 16. Household debt

This section records information on household debt finance over successive years, including failed loan requests. For each loan (or request), information was sought regarding the year of the application, the intended purpose of the loan, type of creditor, amount requested and received, in what form the loan was received (cash or kind), the date by which the loan was to be repaid, the total amount payable (including principal and interest if any), any collateral pledged or other type of guarantee, and the balance due at the time of the survey.

Information was recorded for 29 separate loan applications by 21 households, of which 28 were approved. Eight households reported receiving loans in two different years. Most loans were received in 1989 and 1990. The main reason for seeking loan finance was to hire agricultural labour (83% of valid responses), with a handful of individuals citing the purchase of other agricultural inputs, food for immediate consumption, or payment of land rent.¹²⁶

Only two households reported seeking credit from official sources, such as the national agricultural bank (CNCA) or government development projects.¹²⁷ The vast majority of rural households would have been unable to meet the conditions imposed by formal bank lenders (World Bank 1996). Hence most loans came from informal sources, including relatives (10% of loans received), local moneylenders (7%) and, most importantly, local savings schemes (69%). The latter included both revolving funds (*Tontines*) and informal credit unions. Most loans were received in cash (93%), with the exception of two loans from development projects received ‘in kind’, i.e. in the form of commodities or equipment. The average value of all loans received was FCFA 25,400 (US\$85), compared to an average request of FCFA 41,500 (\$138).

¹²⁵ Coffi and Foli (1995) argue that agricultural development in Togo is hampered by tenure insecurity, arising partly from ambiguous claims of State ownership of all ‘unoccupied’ land, as well as widespread reliance on verbal contracts. They call for land registration using simplified procedures, combined with ‘disengagement’ of the State in favour of local administration by community-based land management committees. In their view, the State should limit its role to technical and legal support services (e.g. surveys and documentation, enforcement of locally-established by-laws and private contracts, etc.).

¹²⁶ In contrast, Calon (1990) states that informal credit is mainly used for ‘large incidental expenditures such as school fees, medical care and funerals’ (p. 22) and rarely for agricultural purposes.

¹²⁷ More recently there have been efforts in the study area to mobilise private saving and improve access to credit, often involving interventions by non-governmental organisations (Deffo *et al.* 1999).

Loans from local credit unions were generally for a single agricultural season and fell due at the end of the year (December).¹²⁸ The most commonly reported rate of interest on these loans was 10% per month (17 out of 20 cases), although in a few cases households benefited from a rate of 5% or less.¹²⁹ All loans were unsecured (no collateral). Only two out of 17 loans from before 1990 had not been repaid at the time of the survey.

For loans taken out in 1990, only one household reported having made some initial repayments at the time of the survey. The average value of loans taken out in that year was FCFA 31,800 (US\$106). Based on a typical monthly interest rate of 10% and assuming a maturity of 12 months (and also that no repayments are made before the loan falls due), the average borrower in 1990 could expect to repay FCFA 70,000 (US\$233). If we exclude the largest single loan in 1990 (FCFA 200,000) the average value received falls to FCFA 16,500 (US\$55) and the average amount payable, based on the same assumptions, declines to FCFA 36,000 (US\$121).

These results are similar to those reported for farm households in the Maritime Region in the 1996 agricultural census (DSID 1998). The latter found that 22% of households had obtained credit, of which about half (in value terms) was from private or 'informal' sources. Most debt was unsecured (60%) and short-term (47% with under 12 months maturity, typically payable after the harvest). The average value of the most recent loan was FCFA 27,777 (US\$93) and the average expected repayment was FCFA 44,360 (US\$148), implying an average rate of interest of 60% over the life of the loan.

Households seeking and receiving loans were more likely to be immigrants to the study area, and to rent fields from others rather than farming their own land, compared to the survey population as a whole. Landlords were under-represented among those seeking loans (perhaps because they had a reliable source of cash income from their tenants).

Information provided by households on their borrowing was corroborated by the managers of three local credit unions, who were interviewed separately (between 19 September and 15 October 1990). The interviews suggest that informal credit unions were relatively well-established in the study area, with common structures and practices. The oldest had been in continuous operation for 20 years under the same management, while the youngest was already four years old (having inherited the membership of an even older fund dating from the late 1970s). All three funds had a large management team (5-8 individuals) accountable to a general assembly of members. Women accounted for the majority of members while fund managers were generally (but not exclusively) male. The three funds were similar in size, with between 40 and 90 members each, most resident in the immediate vicinity. Civil servants were a small minority of members, and none were involved in fund management.

The three credit unions had similar rules. All operated on a 51 week cycle, starting in December (the only time when new members could join). All members were required to pay a weekly subscription of their choosing into the fund, ranging from 50-1,000 FCFA or more. The most common subscription was 100 FCFA/week, while the average was under 250 FCFA/week (based on records from 1989 and 1990). Some members paid their entire annual subscription in advance but the majority were frequently in arrears, incurring fines ranging from 10-50 FCFA/week (irrespective of the amount subscribed).

Most members also borrowed from their fund, often taking out several loans during the course of the year. Collateral was generally *not* required. One fund manager reported a maximum of FCFA 46,000 in four separate loans extended to one member in 1990, while another stated that the minimum loan in 1989 was FCFA 1,500. The most common uses of loans were to pay field rent and/or hire farm labour, with a smaller proportion of loans used to purchase fertilizer or engage in commerce. Two

¹²⁸ The prices of most cash crops are relatively low at this time of year, forcing farmers to sell more than they would otherwise need to pay off their loans (DESA 1991b).

¹²⁹ Akakpo-Drah (1992) reports a rate of 50% over eight months for credit from informal lenders.

fund managers stated that loans to purchase food were not allowed, although members could draw on their savings for this purpose (it was acknowledged that some borrowers used loans to purchase food anyway). The same restriction applied to loans for religious ceremonies, in one case. Other occasional uses included the payment of school fees, funerals and medical treatment. Loans were rarely extended to non-members, and these required either collateral or guarantee by a member.

The managers of all three funds reported that lending started as soon as each fund was 'opened' for the new year, with high demand for loans exhausting all revenue until late in the year (September to November) when repayments of capital overtook new lending. Accordingly, interest rates on loans were higher at the beginning of each lending cycle but lower towards the end of the year, presumably reflecting lower demand for credit after the first harvest. Each fund charged different rates of interest in different periods: one charged 2.5% per week during the first half of the year and 1.5% per week from June to December; another fund charged 1.25% per week from January to June and 0.625% from July to December; while the third charged 1.25% per week until October and 0% thereafter.¹³⁰ Interest was payable weekly, with fines of 15-25 FCFA/week for those who failed to keep up with their payments. One fund manager reported that most borrowers missed a few interest payments. Two managers reported that several members withdrew during the course of the year, presumably because they could not keep up with their weekly subscriptions, interest payments and/or fines.

All three funds were closed at the end of the year, and in each case the last week's subscriptions were paid to the managers as compensation for their efforts. All loans were called in and the balance of funds including interest and fines were paid out to members in proportion to their subscriptions. Assuming no major defaults by borrowers, members could expect to receive a return of 10-20% on the total value of their subscriptions.¹³¹ Presumably this final 'bonus' was less important to most fund members than their access to relatively cheap and flexible credit, bearing in mind that most farmers in the study area would not have had access to credit from formal lenders.

Section 17. Accommodation and Buildings

This short section identifies the owner of the building(s) in which the household resides, the monthly rent charged (if any), whether the head of household owned other buildings and, if so, where.

Seventy heads of household replied that their residence belonged to them. Most others attributed ownership to a parent (eight cases) or another family relation (17). Three heads of household (and their families) lived in buildings that did not belong to them, of whom only one paid rent (FCFA 5,000 per month). There was one non-response.

Twenty heads of household claimed to own other buildings, which were located in twelve different places. About half of these buildings were located in Lomé and other large towns, with the remainder in small villages mostly outside the study area.

Section 18. Animal husbandry

This section provides an inventory of livestock kept by households, including cattle, sheep, pigs, goats and fowl, as well as one case of rabbits. Livestock are typically kept as a form of savings, managed very simply, and are not well-integrated in crop production systems (Calon 1990; Deffo *et al.* 1999).

Cattle were rare in the study area.¹³² Only two households reported cattle, with four animals between them.¹³³ Pigs were slightly more common, with 18 households reporting up to ten pigs, giving a total

¹³⁰ Two fund managers reported that private money-lenders charged about 5% per week interest.

¹³¹ Two managers claimed that they had never failed to repay members their subscriptions plus interest, while a third stated that non-payment of loans by non-members had thrice bankrupted the fund!

¹³² This may be partly due to land pressure as well as limited availability of cattle breeds which can tolerate the endemic disease *Trypanosomiasis*, among other factors (MEPF 1999).

of 90 animals. Sheep and goats were even more common, with 197 and 243 animals reported respectively. Thirty households reported owning up to 30 sheep, and 52 households reported up to 16 goats. Most households reporting pigs, sheep or goats owned six animals or less.¹³⁴

Most common of all were fowl, mainly poultry but also Guinea fowl, ducks and geese. A total of 962 birds were reported by most (67) households. The maximum number reported by any one household was sixty, but most (45) households kept less than 15 birds.¹³⁵ Finally, one household reported owning ten rabbits.

In general, households renting fields were more likely to report livestock than owner-occupiers. For instance, tenants reported six times as many sheep and twice as many fowl, with other species also more common among renters than owner-occupiers. This may reflect the greater dependence of tenants on farming as their main source of income (see section 2). Note that household heads reporting 'regular' involvement in farming kept significantly more livestock, on average. Total livestock-related spending and revenue was not recorded, although other surveys suggest that the sums involved are significant.¹³⁶

Section 19. Suggestions and comments

The concluding section of the questionnaire offered respondents the opportunity to ask questions or to make specific suggestions. Responses were directed to staff of the FAO agro-forestry project in the area, but also included complaints and requests of a general nature. Up to three comments were recorded for each respondent. These were subsequently grouped into 21 different categories.

Most respondents (76) made at least one comment. Several household heads offered two comments (43 cases), and a handful made three suggestions (7), for a total of 126 comments in all. The most frequent comments (63%) were requests for agricultural credit. These may be further broken down into credit requests for the purchase of fertilizer or other non-labour inputs (17%), hiring agricultural labour (17%), land rent (6%), or unspecified agricultural purposes (23%).

The second most common category of comment included several complaints about the prices of agricultural inputs, notably the price of fertilizer (11%) and land rent (3%). A handful of respondents complained about agricultural commodity prices or the rates of interest charged by local credit unions.

The remaining 18% of comments related to a variety of requests and complaints, including difficulties in meeting household food needs in certain periods of the year, lack of access to farmland, requests for food aid, agricultural equipment, health and veterinary services, or credit for non-farm activities, complaints about crop damage by livestock, crop theft and disease, as well as one complaint about a landlord's refusal to permit permanent construction on a rented field.

Only three individuals specifically requested assistance to improve the fertility of their land. However, if we consider these together with requests for credit to purchase fertilizer and complaints about the price of fertilizer, we may conclude that 31% of all comments related in one way or another to the issue of soil fertility and productivity. This may be compared to 10% of all comments related directly or indirectly to the availability or (rental) price of land.

¹³³ Similarly, in the 1996 agricultural census, just 0.5% of households in the Maritime Region reported cattle, compared to 25% with sheep, 44% who kept goats, and 16% reporting pigs (DSID 1998).

¹³⁴ Compare to an average of 4.4 sheep, goats and pigs per household in the Maritime Region, reported in the 1996 agricultural census (DSID 1998). Annual off-take is reported at 20-30% of the total herd, depending on the species, and in all cases mainly for sale (*ibid.*).

¹³⁵ Compare to an average of 16 birds per household, in the Maritime Region, reported in the 1996 agricultural census (DSID 1998). Annual off-take is about 50% for chickens, with equal proportions going to domestic consumption and to market (*ibid.*).

¹³⁶ Average spending on the purchase and care of livestock in the Maritime Region was estimated at FCFA 9,172 (about US\$31) per farming household in 1996 (DSID 1998).

5 Updated Findings from the Field

Additional visits to Togo were made in 1995, 1999 and 2000, with the aim of collecting additional secondary data and updating the survey findings. A brief visit in August 1995 included discussions with staff of the National Soils Institute (INS) and local Peace Corps volunteers, who were working to develop and promote improved agro-forestry and soil fertility enhancement measures in the study area. They reported mixed results with local farmers and identified several constraints to the adoption of alley-cropping, including *land tenure insecurity*, labour availability for pruning trees, competition with food crops, and farmer error.¹³⁷ They also stressed the importance of ‘improved’ maize varieties and chemical fertilizer as a means of boosting agricultural productivity.

In May 2000 another visit to the study site was carried out, and semi-structured interviews were conducted with four key informants in and around the village of Agbanto-kopé. The aim of the interviews was, first, to identify the main changes in agriculture since 1990, and second, to explore in more detail the perceived determinants of chemical fertilizer use, tree planting on farmland, and the adoption of agro-forestry methods such as alley-cropping.

One of the four informants on this occasion was Mr Yawo Douvon, who had assisted the original survey and had worked in the same area more recently (on behalf of CARE International).¹³⁸ He also participated in the other three interviews, with:

- Mr KENOU, Adote Sabla – approximately 50 years of age; a long-term tenant farmer residing at Keta-Agbantokopé; previously trained as community-based extension agent hence knowledgeable about soil fertility management including fertilizers; fluent in French.
- Mr AGBANTO, Amouzougan – approximately 60 years old; farmer, fisherman, landlord and future village chief of Agbanto-kopé; managed tree nursery for the FAO agro-forestry project in 1988-91; poor French (Douvon translated).
- Mr AMOUZOU, Mawouna Azonmabou – 39 years old; agricultural extension agent based in the sub-sector of Badougbé since October 1991; fluent in French.

The views expressed by these four individuals were not entirely consistent, as might be expected. Not surprisingly, the extension agent asserted that many farmers had adopted ‘recommended’ inputs and cultural practices such ‘improved’ seed, row planting and precision application of chemical fertilizer.

Access to chemical fertilizer in the study area appears to have deteriorated, as it is no longer stockpiled locally by government and must be purchased in the nearby towns of Vogan and Aného. All four respondents noted that fertilizer prices had doubled, along with crop prices, agricultural wages and land rent.¹³⁹ Mr Douvon stated that despite the price increase the use of chemical fertilizer had increased in the study area, due to soil exhaustion, while Mr Kenou (tenant) claimed that use had declined. All agreed that fertilizer was mainly used on maize and cotton. Mr Agbanto (landlord) noted that new ‘short-cycle’ varieties of maize introduced to the area required fertilizer more than the traditional maize varieties.

¹³⁷ One INS technician revealed that he did not practice alley-cropping in his own maize-manioc field, stating that the labourers he employed to look after the crops could not be relied upon to do it correctly.

¹³⁸ Few original FAO project staff were still present, and none of the senior professionals encountered in 1990, but it was possible to consult relevant project documents in the FAO document centre in Lomé.

¹³⁹ The reported fertilizer price in May 2000 was FCFA 7,750 (US\$11) per 50 kg sack, or more than twice the price reported in 1990. However, after allowing for a 50% devaluation of the CFA Franc in 1994 and general inflation it is arguable that the real price of fertilizer has *declined* since 1990. One recent study concludes that fertilizer use (when combined with manure) is sustainable and economically viable under Togolese conditions, even without subsidy (Pinto Toyi *et al.* 1998).

Government has ceased providing agricultural credit. All four men described new savings and loan schemes supported by NGOs, which offer lower interest rates than traditional informal lenders.¹⁴⁰ Mr Douvon was enthusiastic about them. Mr Kenou (tenant) claimed that he was not eligible for the new credit schemes. Mr Agbanto (landlord) stated that he had borrowed from such a scheme the year before in order to purchase four bags of fertilizer, but that the repayment schedule was inconvenient and he did not intend to use the scheme again. Mr Amouzou (the extension agent) noted that loan repayment rates were not good and one local NGO credit scheme had ceased operation.

No significant changes in crop choice were noted. Mr Douvon stated that forest policy liberalisation in the early 1990s had led to increased cutting of trees on farmland. He also claimed that under the prevailing (customary) tenure system in the area, tenants could plant certain tree species but not others – he was however uncertain which species were easy or hard for tenants to plant. The reasons given for planting timber trees (mainly Eucalyptus) were to obtain poles for construction or fuel wood for sale. Mr Kenou (tenant) reported that he would not plant oil palm trees on his (rented) fields because they would belong to the landlord, who could cut/sell them at any time without compensation. Mr Agbanto (landlord) and Mr Amouzou (extension agent) both noted that few people planted oil palm in the area, due to land scarcity. Both also stated that oil palm was less compatible with annual crops than coconut, and that land with oil palm was therefore harder to rent out.¹⁴¹

¹⁴⁰ Interest rates charged by NGOs were quoted as 15-18% per annum, while informal savings and loan clubs were reported to charge 1.5-5.0% *per week*, depending on membership status. Other sources quote interest rates on loans from NGOs and development projects of 12-24% per annum (Deffo *et al.* 1999).

¹⁴¹ It was not possible to confirm these statements using the 1990 data, although it does appear that unit rents were slightly lower than average on tenant fields where oil palm was reported, and slightly higher than average where coconut palm was reported. The difference was not significant in either case.

Plate 8: Mr A. Agbanto in his fertilized maize field (May 2000)



All four respondents confirmed that alley-cropping was no longer promoted or practised in the study area.¹⁴² Mr Agbanto (the nursery man) explained that local farmers had been happy to receive tree seedlings for free when the FAO project was active, but that they were unwilling to pay for seedlings and therefore the tree nursery was currently defunct. Presumably the end of free food rations was also a factor! Mr Amouzou (the extension agent) stated that tenants were not allowed by landlords to plant trees for alley-cropping. As a result, government had begun to promote improved short-season fallow using the leguminous ground cover *Mucuna pruriens* var. *utilis*, based on promising results obtained in neighbouring areas and in Benin.¹⁴³

Mr Kenou (tenant) stated that immigration to the area had stopped due to land scarcity. On the other hand, Mr Amouzou (extension agent) claimed that immigration was on-going, with some people seeking better access to roads and other public services, others pushed out by phosphate mining, and yet others abandoning recently flooded areas.

Mr Douvon asserted that women had improved access to land, as in some cases they could now inherit land where previously this was unknown.¹⁴⁴ Mr Amouzou (extension agent) noted that the indigenous population was mainly involved in fishing rather than 'professional' farming. While they own the land, they generally prefer to rent it out rather than cultivate it themselves. He also said that landlords typically demand an up-front lump sum payment, in addition to annual rent.¹⁴⁵ The purchase of land for farming remains rare, but it is not unusual for people to buy lots near the larger villages in order to construct a private residence.

6 Conclusion

Official concern about the agriculture sector in south east Togo has focused on land scarcity, declining natural fertility and lack of investment in soil conservation, with some observers also pointing to high levels of tenancy and fragmentation of land holdings as important constraints on agricultural development. Some of these concerns were echoed by farmers interviewed in Vo Préfecture in 1990, although most put more emphasis on access to credit and agricultural input prices. Other data collected during the survey (and partly validated in 2000) highlight important distinctions between different groups of farmers in their land use and livelihood strategies.

The data reveals significant variation within the survey population. Important groupings include distinctions between male and female-headed households, immigrant versus indigenous household heads, landlords versus tenants, and annual versus perennial crops.

Key findings from a preliminary census include the following:

- children under 12 years of age were a significant minority (41%);
- 85% of men were married, and 40% of married men had more than one wife;

¹⁴² Research elsewhere suggests various reasons why farmers have been reluctant to adopt alley-cropping, including competition between the tree species typically used and food crops, high labour requirements for pruning and weeding trees, slow emergence of benefits, low economic returns relative to alternative technologies (e.g. chemical fertilizer), vulnerability to damage by livestock, problems with insect pests, etc. (Dzowela *et al.* 1998; Gutteridge 1998; Lal 1991; Lowe & Twumasi-Ankrah 1992).

¹⁴³ A recent initiative in Vo and Laes Préfectures involved demonstration plots to promote a 'package' of technologies (i.e. improved maize varieties, fertilizer, alley-cropping and *Mucuna*). Preliminary results suggest strong interest from farmers (Adou Rahim Alimi *et al.* 1999). Others caution that older farmers and those with limited land or insecure tenure are less likely to adopt *Mucuna* (Deffo *et al.* 1999). The latter authors further note that most packages involving *Mucuna* are incompatible with traditional crop associations, and that more substantial efforts will be needed to restore soils in highly degraded areas.

¹⁴⁴ This trend is also reported by Coffi and Foli (1995), who note that it is strongest in southern Togo.

¹⁴⁵ Land rent was quoted variously at FCFA 700-1000 per *catís* or US\$16-23 per hectare, i.e. about the same as in 1990. Tenants may give the landlord an annual gift of food and alcohol also.

- female heads of households were a significant minority (20%), slightly older and with smaller families, but otherwise typical;
- immigrants were a majority (about 60%) although few came from very far away;
- a majority of households (60%) exploited land that did not belong to them; 90% of immigrants were tenant farmers;
- residents of smaller hamlets (40%) were almost all members of the *Watchi* ethnic group who had immigrated from outside the area and cultivated land that did not belong to them;
- self-professed landlords (10%) were older non-immigrants, mainly members of the *Toughban* and *Keta* ethnic groups, and were concentrated in the villages of Djankassé and Akoda. The real number of landlords may have been twice as great.
- very few people (2%) had adopted the agro-forestry measures promoted by FAO (at the time of the survey); those who had were older, richer, non-immigrant men from the village of Badougbé.

Turning to the main survey results, we found in section 1 that the survey population was generally young, with a slight under-representation of infants, teenage girls and adult men. Most household heads were married men, while female heads of household were mainly widows. The largest ethnic group was *Watchi*, while clan affiliations were more diverse. Most household members were direct descendants of the household head (children and grandchildren). Aside from household heads and spouses, few household members were married and even fewer were non-relations. Almost everyone was reported as being in 'good' health. Compared to owner-occupiers, we found that tenant household heads were younger, with larger families, and more likely to be *Watchi*.

Section 2 revealed very low levels of educational attainment, particularly for females, although school attendance appeared to be increasing in younger age groups. Other forms of training were diverse but rarely reported. Tenants tended to report lower levels of education and training, compared to owner-occupiers. Agriculture was the principal activity of household heads, females and tenant farmers, while it was more likely to be a secondary activity for males and for owner-occupiers. Females were more likely to engage in commerce and undertake domestic chores. Few individuals were reported absent for any significant length of time during the preceding year.

Section 3 revealed that most household heads (and all owner-occupiers) were born locally, while half of all tenants were immigrants.¹⁴⁶ A significant minority of household heads had spent more than a year away from the study area, typically in salaried employment. Most immigrants came from nearby towns and villages in Togo, seeking land or through marriage. The most common collective activities were labour exchange schemes and local (informal) credit unions, mainly involving tenant households. A minority of household heads reported support from agricultural extension services, mainly for cotton production.

Section 4 suggests that the vast majority of households owned (or admitted owning) machinery and equipment worth very little. The most common items of equipment were the minimum required for labour-intensive farming and fishing, namely hand-held implements and simple nets/traps. Only a small minority of households were able to finance the acquisition of relatively expensive equipment, such as motorised grain mills, which could be used to generate cash income. Tenant households generally reported less valuable machinery and equipment than owner-occupiers.

Section 5 identified 236 fields used by households, 81% of them owned by someone outside the household. This is a higher proportion of tenancies than has been reported elsewhere. Four households rented out all of their land. One hundred landlords were identified, most of them resident in Djankassé and Akoda. Most households cultivated one or two fields. The total area cultivated was 206 ha, implying two ha per household or 0.36 ha per resident, on average. Fields with alley-cropping were larger than average while fields with windbreaks were smaller. Tenant fields were about the same size

¹⁴⁶ The addition of several tree-planters appears to have increased the proportion of locally born owner-occupiers in the sample, compared to the census results.

as owner-occupied fields and the same distance from the homestead. Tenants were more likely to hold strong opinions about the fertility of the fields they cultivated, positive or negative. Tenants also generally acquired their fields recently, renting them on an annual basis, while owner-occupied fields were mostly inherited from patrilineal ascendants or through marriage.

Section 6 revealed that almost all tenant fields were rented on an annual cash basis, with few long-term leases. Annual land rents varied widely but averaged FCFA 6,500 per hectare (US\$22). Most tenant households also contributed labour and a share of the harvest to landlords, although this was a token payment in most cases. Slightly less than half of all owner-occupied fields contained one or more fruit trees, compared to 62% of rented fields. These trees were often already established when the field was acquired.

Non-fruit-bearing trees were reported on more than half of all fields and were generally planted by the head of household after the land was acquired. Only 6% of fields had alley-cropping while windbreaks were equally uncommon. Those who reported alley-cropping were younger, relatively well-educated, less dependent on farming, with less land per resident but more per labourer, and used more hired farm labour. Households planting their own timber trees were older, larger and heavily involved in farming, with greater labour and land resources, and spent more than the average on hired labour. Those planting fruit trees were similar in most respect to timber planters but had less land.

Section 7 indicated that the choice of annual crops was the prerogative of the household, whatever their tenure status. On the other hand, tenants were not free to plant or harvest perennial crops in most cases. The distinction is less clear with respect to other land use rights, although tenants frequently qualified their claims by stating that permission from the landlord was required. In general, tenants claimed less autonomy with respect to 'permanent' land uses (e.g. construction, planting a tree, digging a well), as compared to 'temporary' uses (e.g. gathering fuel wood, grazing livestock). Even clearer distinctions were apparent with respect to land transfer rights, except for the right to lend land to a family member, which both tenants and owner-occupiers claimed in almost all cases. Tenants typically claimed no other transfer rights, while a significant minority of owner-occupiers acknowledged the need for permission from relatives before renting, pawning, giving away or selling their land. Older owner-occupiers were more likely to claim exclusive transfer rights, i.e. less need to seek permission from heirs.

Sections 8-11 described fields made available to other households. Fourteen landlords identified 63 fields made available to other households on an annual basis, subject to payment of cash rent or a sharecropping arrangement. When fields rented out are added to those cultivated by households (reported in section 5), we find that up to 85% of total area was occupied by tenants, with about 15% cultivated by owners. Land holdings were relatively concentrated, with 20 households claiming over half of all land, and another 20 making do with just 2% of the land. Fields rented out were slightly larger and more distant than fields cultivated by respondents, on average. Almost all fields made available to others were originally inherited. Rents reported by landlords varied widely but were slightly higher than those reported by tenants, on average. Landlords were less likely to report the presence of trees on land made available to others than were tenants with regard to the fields that they cultivated. Landlords and tenants tended to assign use rights in similar ways, but tenants were more liberal in claiming exclusive rights while landlords more often asserted equal use rights, as well as the right to refuse certain uses. Landlords claimed more rights for themselves, and attributed fewer or more restricted rights to tenants cultivating their fields, than tenants asserted on their own behalf when reporting the fields they cultivated. Landlords are of course land-rich, but also labour-poor. Tenants occupy second place, followed by non-landlord owner-occupiers with the lowest ratio of land to resident labour.

Section 12 identified 274 to 324 cultivation plots, depending on the year and season. Plots ranged in size from 0.6 to 6.0 ha, averaging 0.66 ha. Most households cultivated maize on almost all of their plots, usually in combination with other annual crops (manioc, haricot, etc.). Little arable land seems

to have been left uncultivated, and there was no clear rotation between maize-based and other crop combinations. Annual crops were occasionally grown under coconut or oil palm, although this accounted for just 6% of total area and was less common on rented plots.¹⁴⁷ Turn-over (exchange) of plots seems to have been fairly rapid, with about 20% of total area either newly acquired or lost during the three years 1988-90. Cotton and vegetables were reported only rarely, especially on rented plots.

Alley-cropping appears on a small proportion of owner-occupied plots, although the reported area increased significantly between 1988 and 1990. Manioc was almost twice as common on rented plots as on owner-occupied plots, while soil-enhancing legumes were less common on rented land. Those cultivating manioc were older professional farmers, with large families, large land holdings and plenty of livestock. Households reporting legumes or fallowing but not manioc were smaller and more likely to be part-time farmers, with few livestock and less land under cultivation. Landlords were similar to owner-occupiers in their choice of crops, but had larger plots and more idle land.

Section 13 revealed that households made little use of 'modern' farm inputs. Chemical fertilizer (Urea) was most commonly used but was applied to just 21% of plots in 1989 (mainly on maize). Quantities applied ranged widely but averaged 116 kg per hectare where any fertilizer was used at all and the quantity was reported. Households used 'improved' seed on 11% of plots, while pesticides were applied to just three plots. No other non-labour inputs were mentioned. Chemical fertilizer was applied more often on rented plots, while decisions about inputs on rented fields were more likely to be made by a spouse. Improved seed was used slightly less often on rented plots. Those using chemical fertilizer were young, committed farmers with small families and relatively small land holdings, but more than the average number of livestock.

Section 14 revealed no relation between land use and labour source (i.e. household versus hired), although sources of labour vary dramatically between owner-occupied and rented plots. On average, landowners hired five times as much labour as they provided themselves, for most operations. Households cultivating both their own and rented fields used hired labour most intensively, followed by landlords. Households cultivating only land that belonged to them relied on hired labour for almost half of their clearing and weeding operations, while households cultivating only rented or borrowed land reported the least use of hired labour. Use of hired labour is positively related to the age of the household head, land-to-labour ratios, and livestock holdings (agricultural wealth). Female-headed households relied more heavily on hired labour, as did household heads whose principal activity was non-farm employment.

Section 15 uncovered 29 land disputes, mainly concerning issues of ownership, the terms of rental agreements, or rights to cultivate or harvest crops. Half of all disputes were with landlords. One-third of all disputes were resolved by the interested parties, a third were resolved with the assistance of local authorities or the courts, and another third were 'unresolved' at the time of the survey. Households reporting land disputes did not appear to be distinctive in any way.

Section 16 identified 28 loans taken out by 21 households, mainly to hire agricultural labour. Tenants and immigrants were more likely to borrow, while landlords were under-represented. Sixty-nine per cent of all loans were obtained in cash from informal local savings schemes. The average value was FCFA 25,400 (US\$85). Loans from local sources were generally for a single season and subject to 10% interest per month in most cases. Repayment rates to informal lenders appear to be high. These observations were confirmed by interviews with the managers of three local credit unions.

Section 17 indicated that most heads of household owned their own house. A significant minority claimed to own other buildings, half of them in Lomé and other large towns.

¹⁴⁷ This probably understates the true extent of annual crops grown under trees, as this section of the questionnaire (12) focused on crops cultivated by the household and some respondents may have neglected to mention existing trees if they did not plant them or if they were few in number.

Section 18 revealed that most households keep a few poultry or other birds (14 per household, on average). Half of all households reported keeping goats, one-third reported sheep and one-fifth kept pigs (about half a dozen animals per household, on average). Two households reported four cattle between them. Tenants were more likely to report livestock than owner-occupiers, and reported more of each species.

Section 19 gave households an opportunity to make comments. The most common was a request for agricultural credit. Other frequent responses included complaints about the price of fertilizer, land rent or other agricultural inputs. Three individuals asked for help to improve the fertility of their land. Taking these together with requests for credit to purchase fertilizer and complaints about the price of fertilizer, we may infer that 31% of all comments related in some way to soil fertility and productivity.

Finally, interviews conducted on-site in 2000 suggest that relatively little changed in the study area over the ten years since the original survey was carried out. Nominal prices of crop inputs had roughly doubled, but were comparable in real terms. The state has cut some agricultural services (credit, fertilizer distribution), but others have stepped in to fill the gap (e.g. NGO credit schemes). Efforts to promote alley-cropping and other agro-forestry systems appear to have been abandoned, with new 'improved' fallow systems (e.g. *Mucuna*) taking their place in the menu of extension messages. Arable land remains scarce relative to demand, while the indigenous population retains its rights and prerogatives. Tenants still have limited land use rights, and yet migrants continue to move to the area seeking land to cultivate.

Most of the findings reported above are consistent with the results of other farm surveys in the area, except as noted.

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International Trade and Recycling in Developing Countries: The Case of Waste Paper Trade in India. Edited by Pieter van Beukering and Vinod Sharma. November 1996. 155 pages. £20

The importance of international trade in the global economy is expanding, not only for primary products but also for recyclable waste. The main objectives of this study were to determine the economic, social and environmental impacts of international trade of waste paper for recycling purposes in India. The report addresses three main sectors: (i) the world market for waste paper, (ii) the local waste paper market and (iii) the Indian paper industry. It also makes recommendations for policy makers at an international, national and local level: international agreements should distinguish between hazardous and non-hazardous waste; national trade barriers to waste imports should be eliminated; and existing local informal recovery sectors should be favoured over formal Western-style recycling systems.

Mangroves or Fishponds? Valuation and Evaluation of Alternative Uses of a Mangrove Forest in the Philippines. Ron Janssen and Jose Padilla. September 1997. 258 pages. £25.

One of the major threats to mangroves in the Philippines is the rapidly increasing aquaculture industry. This study includes a review of valuation methodologies and their application to the case study area of the Pagbilao experimental mangrove forest in the Philippines. Valuations of goods and services and environmental functions of the forest are employed to assess alternative management regimes using both cost-benefit analysis as well as a multi-criteria approach. Much depends on the management objectives: conversion to aquaculture is the most economically efficient management option. However, if equity and sustainability objectives are included, commercial forestry is the preferred alternative.

Incentives for Eco-Efficiency. Market Based Instruments for Pollution Prevention: A Case Study of the Steel Sector. Ritu Kumar, Nick Robins, A.K. Chaturvedi, R. Srinivasan and J. Gupta. December 1997. 96 pages. £20.

Mounting pressures on industry to reduce pollution, to remain globally competitive and to meet the requirements of international standards, require fundamental changes in government policy and corporate approaches to environmental management. This report presents the results of an international study assessing the potential for market-based instruments for pollution prevention in the steel sector in India. It recommends a set of policy measures to reduce discharge levels in the most cost effective manner, to induce firms to adopt cleaner technologies and to encourage firms to economise on energy and water resources. In this regard, the

importance of achieving coherence with existing policies, building trust among key stakeholders and gradually phasing in market-based instruments is emphasised.

Economic Incentives for Watershed Protection: A Case Study of Lake Arenal, Costa Rica. Bruce Aylward, Jaime Echeverria, Alvaro Fernandez Gonzalez, Ina Porras, Katherine Allen, Ronald Mejias. February 1998. £30.

Conventional wisdom holds that cutting down tropical forests for livestock production is not only bad business but bad for the environment. In particular, it is thought that conversion of natural forest to pasture leads to a rise in the sedimentation of waterways and resevoirs, increased risk of flooding and loss of dry season water supply. In the case of Lake Arenal, Costa Rica, this conventional view is stood on its head by research showing that ranching, dairy farming and associated downstream hydrological effects represent important positive values to the Costa Rican economy, values that significantly outweigh expected returns from reforestation.

Plastics Recycling in China: An International Life Cycle Approach. Edited by Pieter van Beukering. April 1999. £20.

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Annex 2: Questionnaire

PROJET PNUD/FAO TOG/87/001

RECHERCHE SUR LES RESSOURCES FONCIERES

DANS LA REGION MARITIME DU TOGO

QUESTIONNAIRE DE MENAGE

IDENTIFICATION:

1. Village:

2. Nom du chef de ménage:

3. Date d'enquête:

4. Etat final de l'interview:

1. Terminé

2. Non terminé (préciser)

(_____)

5. Date de vérification:

DEFINITIONSL'exploitation (le ménage):

L'exploitation agricole familiale (ou le ménage) est l'unité de production constituée par l'ensemble des membres d'un groupement familial qui partagent la même cuisine et dont l'aîné assure la charge en y affectant une partie de sa production en contrepartie du travail que lui allouent les autres membres du groupement. Le reste du temps de travail est utilisé librement pour cultiver sur les champs/parcelles disponibles au groupement, dont l'accès est géré par l'aîné, mais dont la production est appropriée individuellement.

Le Champ (domaine agricole, 'anyigba'):

Une superficie bien déterminée sur laquelle l'on exerce un droit de propriété ou un droit d'usage.

La parcelle ('azigbé,' 'agblé'):

Un espace faisant l'objet d'un mode homogène de mise en valeur.

INTRODUCTION

Remercier d'avance l'enquêté et l'assurer que tout renseignement qu'il nous fournira est confidentiel. Présenter l'objectif de l'enquête: de mieux comprendre comment les cultivateurs utilisent la terre dans la zone. Résumer les différentes parties de l'enquête:

- Qui vous êtes?
- Quels moyens sont à votre disposition?
- Quelles terres cultivez-vous?
- Quelles sont vos droits d'usage sur les terres?
- Qu'est-ce que vous cultivez?
- Qu'est-ce que vous employez comme intrants?
- Est-ce-qu'il y a eu de litiges sur les terres?
- Avez-vous bénéficié de crédits?

SECTION 1: RECENSEMENT DU MENAGE

No	01	02	03	04	05	06	07	08
NOM								
AGE								
ETHNIE								
LIGNAGE								
LIEN DE PARENTE AU C.M. si un enfant, inscrire les nos. du père et de la mère (eg. 1x2, 1x4)								
SEXE M - MASCULIN F - FEMININ								
ETAT CIVIL 1 - CELIBAT. 2 - MARIE 3 - DIVORCE 4 - SEPARE 5 - VEUF								
ETAT DE SANTE 1 - BONNE 2 - INFIRMITE PARTIELLE 3 - INFIRMITE TOTALE								

Ethnie:

- | | | |
|---------------|-------------|------------------------|
| 1 - Watchi | 5 - Bè | 9 - Añla |
| 2 - Péda | 6 - Tougban | 10 - Guin |
| 3 - Keta | 7 - Adangbé | 11 - Ewe |
| 4 - Alakpléwo | 8 - Mina | 12 - autre à préciser: |

Lignage: Nom vernaculaire du lignage (clan)

Lien de parenté: (relation des membres du ménage au chef)

- | | |
|--------------------|--|
| 1 - Chef de ménage | 7 - autre parenté |
| 2 - épouse | 8 - sans lien de parenté (apprenti ou autre travailleur régulier <u>non-payé</u>) |
| 3 - neveu/nièce | 9 - sans lien de parenté (apprenti ou autre travailleur régulier <u>payé</u>) |
| 4 - ascendant | 10 - autre à préciser: |
| 5 - frère ou soeur | |
| 6 - gendre | |

SECTION 2: LA FORMATION ET LES ACTIVITES DES MEMBRES DU MENAGE

No	01	023	03	03	04	05	06	07	08
<u>FORMATION</u>									
SCOLAIRE NON SCOL									
<u>ACTIVITES :</u>									
1) <u>PRINCIPALE</u>									
2) <u>SECONDAIRE</u>									
<u>TRAVAIL SUR CHAMPS</u>									
1-REGULIER 2-IRREGULIER 3-JAMAIS									
NBRE DE MOIS ENTIERS ABSENT PENDANT LES 12 DERNIERS MOIS									
ACTIVITE QUAND ABSENT									
OBSERVATIONS PARTICULIERES									

Activités:

- 0 - pas applicable (enfant)
- 1 - Agriculteur
- 2 - Salarié (secteur privé)
- 3 - Artisan
- 4 - Commerçant
- 5 - Ouvrier agricole
- 6 - Ménagère/Domestique
- 7 - Ecolier/étudiant
- 8 - Fonctionnaire
- 9 - Petit élevage
- 10 - Pêcheur
- 11 - sans activité
- 12 - autre à préciser:

Formation scolaire:

(dernière classe fréquentée)

- 0 - Sans instruction
- 1 - CP1
- 2 - CP2
- 3 - CE1
- 4 - CE2
- 5 - CM1
- 6 - CM2
- 7 - CEG 6^e
- 8 - CEG 5^e
- 9 - CEG 4^e
- 10 - CEG 3^e
- 11 - Lycée (toutes années)
- 12 - Ecole Professionnelle
- 13 - Ecole Supérieure

Formation non-scolaire:

- 0 - sans formation
- 1 - Agricole (coopérative)
- 2 - Santé ou Planning familial
- 3 - Alphabétisation
- 4 - Apprentissage en artisanat
- 5 - Appr. en menuiserie
- 6 - Appr. en mécanique
- 7 - Appr. en maçonnerie
- 8 - Appr. en électronique
- 9 - autre à préciser:

SECTION 3: PROFIL SOCIO-ECONOMIQUE DU CHEF DE MENAGE

1. Etes-vous né au village? 1 - Oui 2 - Non (_____)
 - Si NON, passez à la Q.6

2. Si né ici, vous êtes-vous éloignés pendant plus d'un an?
 - 1 - Oui 2 - Non (Si NON, passez à la Q.10) (_____)

3. Si oui, où et combien de temps?
 - Où? Nom du village/ville:
 - Préfecture/Pays:

 - Combien de temps? Nombre d'années:

4. Quelle y était votre activité principale? (_____)
 - (voir codes activité page 4)
 - autre à préciser:

5. Quel a été le motif principal de la rentrée? (_____)
 - 1 - manque de terres disponibles ailleurs?
 - 2 - manque de travail disponible ailleurs?
 - 3 - rejoindre la famille/suivre la famille?
 - 4 - autre à préciser:

PASSEZ A LA QUESTION 10

6. Si vous n'êtes pas né ici, à quel endroit avez-vous vécu auparavant (la dernière fois)?

Nom du village/ville:

Préfecture/Pays:

7. Quelle y était votre activité principale? (____)

(voire codes activité page 4)

autre à préciser:

8. Quel a été le motif principal du déplacement vers ici? (____)

1 - manque de terres disponibles?

2 - manque de travail disponible?

3 - rejoindre la famille/suivre la famille?

4 - autre à préciser:

9. Année du déplacement: (____)

10. Participez-vous actuellement aux activités suivantes?

1 - Oui

2 - Non

1 - coopérative (____)

2 - groupement (____)

3 - groupe d'entre-aide (____)

4 - cultivation de champ collectif (____)

5 - encadrement par la DRDR (____)

6 - tontine: montant à toucher: _____ (____)

contribution regulier:

fréquence de contribution: _____

7 - caisse d'épargne informel (caisse de solidarité) (____)

montant épargné:

SECTION 4: INVENTAIRE DES MACHINES ET DES EQUIPEMENTS
 AGRICOLES ET NON AGRICOLES

Equipement	Nbre	Mode d'acquisition	Coût de Remplacement (par unité)	Observations (condition actuelle)

Equipements agricoles:

- 1 - Coupe-coupe
- 2 - Houe
- 3 - Pelle
- 4 - Brouette
- 5 - Scie à main
- 6 - Moulin à moteur
- 7 - Filet de pêche
(tout confondu)
- 8 - Piège à crabes/crevettes
- 9 - Ligne à hameçons
- 10 - Pirogue
- 11 - autre à préciser:

Age de l'outils (en années)Coût de remplacement (en FCFA)Mode d'acquisition:

- 1 - Hérité
- 2 - Achat
- 3 - Construit/fabriqué
- 4 - Reçu en cadeau
- 5 - autre à préciser:

Equipements non-agricoles:

- 21 - Véhicule (voiture, bachée, camion, taxi)
- 22 - Moto ou mobylette
- 23 - Vélo
- 24 - Poste radio
- 25 - Magnétophone/cassette
- 26 - Autre à préciser:

SECTION 5: INVENTAIRE DES CHAMPS CULTIVES PAR LE MENAGE

VERIFIER QU'IL N'Y A PAS D'AUTRES CHAMPS CULTIVES PAR FEMMES/ENFANTS.

**SI LE MENAGE GERE DES CHAMPS CULTIVES PAR D'AUTRES EXPLOITANTS,
COMPLETEZ ET JOINDRE LES SECTIONS 8, 9, 10 ET 11 DU QUESTIONNAIRE.**

No du Champ	01	02	03	04	05
NOM DU CHAMP UTILISE PAR LE MENAGE					
<u>TYPE</u> <u>D'EXPLOITATION:</u> SI FAIRE VALOIR INDIRECT NOM DU PROPRIETAIRE SON LIEU DE RESIDENCE					
SUPERFICIE (EST.) UNITE DE MESURE					
TEMPS DE MARCHE ALLER: (EN MINUTES)					
QUALITE ACTUELLE DU SOL: 1-BON 2-MOYEN 3-PAUVRE					
<u>MODE D'ACCES AU</u> <u>CHAMP:</u> ANNEE (PREMIER ACCES) COMMENT QUI A ACQUIT ? DE QUI ?					

Type d'exploitation:

- 1 - ménage cultivate champ
lui appartenant
- 2 - ménage cultivate champ
ne lui appartenant pas

Unité de mesure de la superficie:

- 1 - 'catis' (12 bras carrés)
- 2 - hectare
- 3 - autre à préciser:

Lieux de résidence des propriétaires:

- 0 - non applicable
- 1 - Djankassé
- 2 - Badougbé
- 3 - Akoda
- 4 - Agbantokopé
- 5 - Agnrokopé
- 6 - autre à préciser:

Mode d'accès au champ:

- 1 - achat en espèce ou en nature
- 2 - héritage d'un ascendant direct
- 3 - don sans contrepartie (permanent)
- 4 - emprunte sans contrepartie (provisoire)
- 5 - métayage (partage de la récolte avec le propriétaire)
- 6 - location (paiement annuel fixe, en espèce ou en nature)
- 7 - mise en gage traditionnelle ('Ameybo Woba')
- 8 - bail à long terme ('Yovo Woba')
- 9 - échange contre un autre champ
- 10 - autre à préciser:

Qui a acquit le champ?Document au nom de qui?

- 1 - chef de ménage
- 2 - épouse
- 3 - fils/fille
- 4 - ascendant
- 5 - gendre
- 6 - autre membre du ménage

Acquit de qui?

- 1 - ascendant patrilinéaire
- 2 - ascendant matrilinéaire
- 3 - apparenté hors ménage
- 4 - gendre (relation par mariage)
- 5 - personne privée non-parenté
- 6 - autre à préciser:

SECTION 6: PAIEMENT DES CHAMPS CULTIVES PAR LE MENAGE ET
LES AMENAGEMENTS AGRICOLES

<u>No du champ</u>	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>
NOM DU CHAMP UTILISE					
TYPE DE PAIEMENT:					
<u>MONTANT EN ESPECE</u> (FCFA)					
MONTANT EN NATURE: QUANTITE (nbre)					
UNITE DE MESURE (décrit le type de produit)					
DUREE DU PRESENT CONTRAT (en nombre 'années; si <u>illimitée</u> <u>inscrire 99</u>)					
CONTRIB. AU PROPRIETAIRE (1 - OUI 2 - NON) LA MAIN D'OEUVRE: PARTIE DE LA RECOLTE:					
AMELIORATIONS: CULTURE EN COULOIR SI OUI, QUI A DECIDE? SI NON, POURQUOI PAS?					
<u>BRISE VENT / RIDEAU</u> QUI EN A DECIDE?					
<u>ARBRES NON-</u> <u>FRUITIERS</u> (plantée/entretenu) QUI EN A DECIDE?					
<u>ARBRES FRUITIERS</u> (palmier, cocotier, manguier, etc.) QUI EN A DECIDE?					
<u>LIMITES DU CHAMP</u> <u>DISTINGUEES PAR:</u> ARBUSTES HAIE VIVE PLANTS DIFFERENTS QUI EN A DECIDE?					

Type de paiement:

Pourquoi pas culture en couloir?

- | | |
|-----------------------------------|---------------------------------|
| 0 - aucun ou non applicable | 0 - non applicable |
| 1 - un seul (achat, mise en gage) | 1 - propriétaire refuse demande |
| 2 - regulier (location, bail) | 2 - ne voit pas l'interêt |
| | 3 - autre à préciser: |

Qui en a décidé?

- | | |
|--------------------|---|
| 0 - pas applicable | 5 - autre membre du ménage |
| 1 - chef de ménage | 6 - propriétaire du champ hors menage |
| 2 - épouse | 7 - agent de l'état/projet (obligation) |
| 3 - fils/fille | 8 - C.M. et agent (instruction, essai) |
| 4 - ascendant | 9 - autre personne à préciser: |

Autres améliorations:

- | | |
|--|-----------------------------------|
| 0 - Non-existante | 2 - Executée depuis l'acquisition |
| 1 - Existait au moment
de l'acquisition | 3 - Combinaison de 1 et 2 |
| | 4 - autre à préciser: |

SECTION 7: LES POUVOIRS, DROITS D'USAGE, DROITS D'EXCLUSION, ET
DROITS DE TRANSFERT SUR CHAMPS CULTIVEES PAR LE MENAGE

No. du Champ	01	02	03	04	05
No. du Champ utilisee					
<u>CHOIX DES CULTURES:</u>					
SAISONNIERES/ANNUELLES PERENNES/ARBUSTIVES					
<u>DROIT/POUVOIR DE:</u>					
RECOLTER LES CULTURES PERENNES					
CONSTRUIRE UNE MAISON					
ENTERRE UN PARENT DANS LE CHAMP					
PLANTER DES ARBRES NON-FRUITIERS					
COUPER DES ARBRES					
COLLECTER DU BOIS MORT					
PAITRE LE BETAIL					
CREUSER UN PUIITS					
ACCROCHER UN GRI-GRI					
IMPLANTER UNE FETICHE					
<u>DROITS D'EXCLUSION D'AUTRES PERSONNES:</u>					
DE COUPER LES ARBRES					
DE PAITRE LE BETAIL					
<u>DROITS DE TRANSFERT:</u>					
<u>PRETER:</u>					
A QUI ?					
<u>LOUER/METAYER:</u>					
A QUI ?					
<u>METTRE EN GAGE (WOBA):</u>					
A QUI?					
<u>DONNER:</u>					
A QUI?					
<u>VENDRE:</u>					
A QUI?					

Choix de cultures, droits d'usage, d'exclusion et de transfert:

- | | |
|--|--|
| 0 - pas applicable | 8 - C.M. en accord avec les héritiers |
| 1 - chef de ménage seul | 9 - membre de la famille (héritiers) |
| 2 - épouse seule | 10 - C.M. en accord avec le propriétaire |
| 3 - ascendant seul | 11 - propriétaire du champ loué/emprunté |
| 4 - fils/fille seul(s) | 12 - C.M. avec technicien agricole |
| 5 - ensemble du ménage | 13 - technicien agricole seul |
| 6 - autre membre du
ménage à préciser: | 14 - personne extérieure à la famille |
| _____ | 15 - n'importe qui |
| 7 - C.M. avec membre(s)
du ménage à préciser: | 16 - ambigu (disputé avec propriétaire) |
| _____ | 17 - sauf lieu d'habitation |
| | 18 - autre à préciser: |

SECTION 8: INVENTAIRE DES CHAMPS GERES PAR LE MENAGE MAIS
CULTIVES PAR D'AUTRES EXPLOITANTS AGRICOLES

VERIFIER QU'IL N'Y A PAS D'AUTRES CHAMPS GERES PAR FEMMES/ENFANTS.

No du Champ (à remplir)	06	07	08	09	10
NOM DU CHAMP UTILISE PAR LE MENAGE					
NOM DE L'EXPLOITANT SON LIEU DE ESIDENCE					
TYPE DE PRET: SI PRET CHAMP D'AUTRUI: NOM DU PROPRIETAIRE SON LIEU DE RESIDENCE					
SUPERFICIE (EST.) UNITE DE MESURE					
TEMPS DE MARCHE ALLER: (EN MINUTES)					
MODE D'ACCES AU CHAMP: (DU MENAGE ENQUETE) ANNEE (PREMIER ACCES) COMMENT QUI A ACQUIT ? DE QUI ?					

Type de prêt:

- 1 - ménage prête champ
lui appartenant
- 2 - ménage prête champ
ne lui appartenant pas

Unité de mesure de la superficie:

- 1 - 'catis' (12 bras carrés)
- 2 - hectare
- 3 - autre à préciser:

Lieux de résidence des exploitants / propriétaires:

- 0 - non applicable
- 1 - Djankassé
- 2 - Badougbé
- 3 - Akoda
- 4 - Agbantokopé
- 5 - Agnrokopé
- 6 - autre à préciser:

Mode d'accès au champ:

- 1 - achat en espèce ou en nature
- 2 - héritage d'un ascendant direct
- 3 - don sans contrepartie (permanent)
- 4 - emprunte sans contrepartie (provisoire)
- 5 - métayage (partage de la récolte avec le propriétaire)
- 6 - location (paiement annuel fixe, en espèce ou en nature)
- 7 - mise en gage traditionnelle ('Ameypo Woba')
- 8 - bail à long terme ('Yovo Woba')
- 9 - échange contre un autre champ
- 10 - autre à préciser:

Qui a acquit le champ?

Document au nom de qui?

- 1 - chef de ménage
- 2 - épouse
- 3 - fils/fille
- 4 - ascendant
- 5 - gendre

Acquit de qui?

- 1 - ascendant patrilinéaire
- 2 - ascendant matrilinéaire
- 3 - apparenté hors ménage
- 4 - gendre (relation par mariage)
- 5 - personne privée non-parenté
- 6 - autre à préciser:

6 - autre membre du ménage

**SECTION 9: PAIEMENT DES CHAMPS GERES PAR LE MENAGE MAIS
CULTIVES PAR D'AUTRES EXPLOITANTS AGRICOLES**

**ATTENTION AUX CHAMPS PRETES OU LOUES PAR LE MENAGE ET
RE-PRETES OU RE-LOUES A D'AUTRES EXPLOITANTS AGRICOLES!**

No du champ (à remplir)	06	07	08	09	10
NOM DU CHAMP UTILISE PAR LE MENAGE					
TYPE DE PAIEMENT PAR LE MENAGE ENQUETE:					
MONTANT EN ESPECE (FCFA)					
MONTANT EN NATURE: QUANTITE (nbre) UNITE DE MESURE (décrit le type de produit)					
DUREE DU PRESENT CONTRAT (en nombre d'années; si illimitée inscrire 99)					
CONTRIB. AU PROPRIETAIRE (1 - OUI 2 - NON) DE LA MAIN D'OEUVRE: PARTIE DE LA RECOLTE:					
TYPE DE PAIEMENT PAR L'EXPLOITANT ACTUEL:					
MONTANT EN ESPECE (FCFA)					
MONTANT EN NATURE: QUANTITE (nbre) UNITE DE MESURE (décrit le type de produit)					
DUREE DU PRESENT CONTRAT (en nombre d'années; si illimitée inscrire 99)					
CONTRIBUTION AU MENAGE: 1 - OUI 2 - NON) DE LA MAIN D'OEUVRE: PARTIE DE LA RECOLTE:					
OBSERVATIONS PARTICULIERES:					

Type de paiement:

- 0 - aucun ou non applicable
- 1 - un seul (achat, mise en gage)
- 2 - regulier (location, bail)

SECTION 10: LES AMENAGEMENTS AGRICOLES SUR LES CHAMPS GERES PAR LE
MENAGE MAIS CULTIVES PAR D'AUTRES EXPLOITANTS AGRICOLES

No du champ (à remplir)	06	07	08	09	10
NOM DU CHAMP UTILISE PAR LE MENAGE					
<u>AMELIORATIONS:</u> CULTURE EN COULOIR SI OUI, QUI A DECIDE? SI NON, POURQUOI PAS?					
<u>BRISE VENT / RIDEAU</u> QUI EN A DECIDE?					
<u>ARBRES NON-FRUITIERS</u> (plantée/entretenu) QUI EN A DECIDE?					
<u>ARBRES FRUITIERS</u> (palmier, cocotier, manguier, etc.) QUI EN A DECIDE?					
<u>LIMITES DU CHAMP</u> <u>DISTINGUEES PAR:</u> ARBUSTES PLANTEES HAIE VIVE PLANTS QUI EN A DECIDE?					

Pourquoi pas culture en couloir?

- | | |
|---------------------------------|-----------------------|
| 0 - non applicable | 3 - autre à préciser: |
| 1 - propriétaire refuse demande | |
| 2 - ne voit pas l'intérêt | |

Qui en a décidé?

- | | |
|--------------------|---|
| 0 - pas applicable | 5 - autre membre du ménage |
| 1 - chef de ménage | 6 - propriétaire du champ hors ménage |
| 2 - épouse | 7 - agent de l'état/projet (obligation) |
| 3 - fils/fille | 8 - C.M. et agent (instruction, essai) |
| 4 - ascendant | 9 - autre personne à préciser: |

Autres améliorations:

- | | |
|--|-----------------------------------|
| 0 - Non-existante | 2 - Executée depuis l'acquisition |
| 1 - Existait au moment
de l'acquisition | 3 - Combinaison de 1 et 2 |
| | 4 - autre à préciser: |

SECTION 11: LES POUVOIRS, DROITS D'USAGE, DROITS D'EXCLUSION, ET
DROITS DE TRANSFERT SUR CHAMPS GERES PAR LE MENAGE
MAIS CULTIVES PAR D'AUTRES EXPLOITANTS AGRICOLES

No du champ (à remplir)	06	07	08	09	10
<u>NOM DU CHAMP UTILISE</u>					
<u>CHOIX DES CULTURES:</u> SAISONNIERES/ANNUELLES PERENNES/ARBUSTIVES					
<u>DROIT/POUVOIR DE:</u> RECOLTER LES CULTURES PERENNES					
<u>CONSTRUIRE UNE MAISON</u>					
ENTERRE QUELQU'UN DANS LE CHAMP					
PLANTER DES ARBRES NON-FRUITIERS					
COUPER DES ARBRES					
COLLECTER DU BOIS MORT					
PAITRE LE BETAIL					
CREUSER UN PUIITS					
ACCROCHER UN GRI-GRI					
IMPLANTER UNE FETICHE					
<u>DROITS D'EXCLUSION D'AUTRES PERSONNES:</u> DE COUPER LES ARBRES					
DE PAITRE LE BETAIL					
<u>DROITS DE TRANSFERT:</u> <u>PRETER:</u> A QUI ?					
<u>LOUER/METAYER:</u> A QUI?					
<u>METTRE EN GAGE WOBA) :</u> A QUI ?					
<u>DONNER:</u> A QUI?					
<u>VENDRE:</u> A QUI?					

Choix de cultures, droits d'usage, d'exclusion et de transfert:

- | | |
|---|--|
| 0 - pas applicable | 11 - C.M. en accord avec les héritiers |
| 1 - chef de ménage seul | 12 - membre de la famille (héritiers) |
| 2 - épouse seule | 13 - C.M. en accord avec le propriétaire |
| 3 - ascendant seul | 14 - propriétaire du champ loué/emprunté |
| 4 - fils/fille seul(s) | 15 - C.M. avec technicien agricole |
| 5 - ensemble du ménage | 16 - technicien agricole seul |
| 6 - autre membre du ménage à préciser: | 17 - exploitant en accord avec le C.M. |
| _____ | 18 - exploitant en accord avec le propr. |
| 7 - C.M. avec membre(s) du ménage à préciser: | 19 - personne extérieure à la famille |
| _____ | 20 - n'importe qui |
| 8 - exploitant seul | 21 - ambigu (disputé avec propriétaire) |
| 9 - exploitant et ménage | 22 - ambigu (disputé avec exploitant) |
| 10 - exploitant et C.M. | 23 - sauf lieu d'habitation |
| | 24 - autre à préciser: |

SECTION 12: LES CULTURES SUR LES CHAMPS CULTIVES PAR LE MENAGE

**ATTENTION: UN CHAMP PEUT CONTENIR PLUSIEURS PARCELLES
ET LES PARCELLES PEUVENT VARIER D'UNE ANNEE A L'AUTRE!**

No de la Parcelle	01	02	03	04	05
NOM DU CHAMP UTILISE	01	02	03	04	05
CULTURES DE LA PRESENTE GRANDE SAISON (90):	01	02	03	04	05
No de la Parcelle	01	02	03	04	05
NOM DU CHAMP UTILISE	01	02	03	04	05
CULTURES DE LA DERNIERE PETITIE SAISON (89):	01	02	03	04	05
No de la Parcelle	01	02	03	04	05
NOM DU CHAMP UTILISE	01	02	03	04	05
CULTURES DE LA DERNIERE GRANDE SAISON (89):	01	02	03	04	05
No de la Parcelle	01	02	03	04	05
NOM DU CHAMP UTILISE	01	02	03	04	05
CULTURES DE L'AVANT- DERNIERE GRANDE SAISON:	01	02	03	04	05

Codes des cultures:

Monocultures:

- 0 - inconnu ou pas applicable
- 1 - mais
- 2 - manioc
- 3 - igname
- 4 - coton
- 5 - haricot (niébé)
- 6 - arachide
- 7 - pois d'Angole
- 8 - palmier
- 9 - cocotier
- 10 - banane
- 11 - verger
- 12 - tomate
- 13 - brèdes (épinard)
- 14 - patate douce
- 15 - autres cult. potagères
- 16 - engrais vert
- 17 - jachère (vég. naturelle)
- 18 - boisement pure (non-fruitier)
- 19 - non-cultivée
- 20 - enclos
- 21 - autre monoculture à préciser:

Cultures en association:

- 31 - mais et haricot
- 32 - mais et manioc
- 33 - mais et manioc et autre
- 34 - mais suivi de coton
- 35 - mais et autre
- 36 - manioc et haricot
- 37 - manioc et autre
- 38 - haricot et mais
- 39 - haricot et autre
- 40 - banane et autre
- 41 - autres cultures en
association à préciser:

Codes de l'agro-foresterie:

(se référer au code de culture)

- 1 - Cultures en couloir
- 2 - Cultures sous cocotier
- 3 - Cultures sous palmier
- 4 - Cult. sous arbres fruitier
- 5 - autre à préciser:

Exemple: mais et manioc
sous palmier, inscrire 313

SECTION 13: L'UTILISATION D'INTRANTS PENDANT LA DERNIERE GRANDE SAISON SUR LES CHAMPS CULTIVES PAR LE MENAGE

ATTENTION: IL S'AGIT DE LA DERNIERE GRANDE SAISON SEULEMENT

No de la Parcelle	01	02	03	04	05
NOM DU CHAMP UTILISE					
SEMENCES SELECTIONNEES 1-OUI 2-NON					
ENGRAIS CHIMIQUE TYPE QUANTITE UTILISEE PRIX UNITAIRE (FCFA) UNITE DE MESURE					
PESTICIDES TYPE QUANTITE UTILISEE PRIX UNITAIRE (FCFA) UNITE DE MESURE					
EQUIPEMENTS LOUES: TYPE (CODES PG. 6) DEPENSE (FCFA)					
AUTRE: TYPE QUANTITE UTILISEE PRIX UNITAIRE (FCFA) UNITE DE MESURE					
QUI A DECIDE DE L'UTILISATIN DES INTRANTS?					

Engrais Chimique:

- 0 - néant
- 1 - NPK 15-15
- 2 - l'Urée
- 3 - NPK 15-15 et l'Urée
- 4 - NPK SB (pour coton)
- 6 - autre à préciser:

Pesticide:

- 0 - néant
- 1 - pour coton
- 2 - pour maïs
- 3 - pour niébé
- 4 - autre à préciser:

Unités de mesure:

- 1 - Kilo
- 2 - Litre
- 3 - Sac de 50 kg
- 4 - Bole
- 5 - autre à préciser:

Qui décide de l'utilisation des intrants?

- 0 - Pas applicable
- 1 - Chef de ménage seul
- 2 - Epouse seul
- 3 - Chef de ménage et épouse
- 4 - Fils/Fille
- 5 - Ascendant
- 6 - C.M. avec autre membre du ménage à préciser:
- 8 - membre de la famille hors ménage
- 9 - Propriétaire de la parcelle louée/empruntée
- 10 - Technicien Agricole (obligation)
- 11 - Chef de ménage et Tech. Agr. (instruction/conseil)
- 12 - Autre personne extérieure au ménage à préciser:

SECTION 14: L'UTILISATION DE LA MAIN D'OEUVRE PENDANT LA DERNIERE
GRANDE SAISON SUR LES CHAMPS CULTIVES PAR LE MENAGE

No de la Parcelle	01	02	03	04	05
NOM DU CHAMP UTILISE					
SUPERFICIE (section 5):					
DEFRICHE/LABOUR/PREP.: UNITE DE MESURE TRAV.					
CONTRIBUTION DE TRAV: MENAGE (NON-PAYEE) GROUPE D'ENTRE-AIDE MAIN D'OEUVRE PAYEE					
PRIX UNITAIRE TRAVAIL: EN FRANCS CFA EN NATURE: PRODUIT UNITE DE MESURE QUANTITE					
SEMIS: UNITE DE MESURE TRAV.					
CONTRIBUTION DE TRAV: MENAGE (NON-PAYEE) GROUPE D'ENTRE-AIDE MAIN D'OEUVRE PAYEE					
PRIX UNITAIRE TRAVAIL: EN FRANCS CFA EN NATURE: PRODUIT UNITE DE MESURE QUANTITE					
PLANTATION MANIOC: UNITE DE MESURE TRAV.					
CONTRIBUTION DE TRAV: MENAGE (NON-PAYEE) GROUPE D'ENTRE-AIDE MAIN D'OEUVRE PAYEE					
PRIX UNITAIRE TRAVAIL: EN FRANCS CFA EN NATURE: PRODUIT UNITE DE MESURE QUANTITE					
SARCLAGE: UNITE DE MESURE TRAV.					
CONTRIBUTION DE TRAV: MENAGE (NON-PAYEE) GROUPE D'ENTRE-AIDE MAIN D'OEUVRE PAYEE					
PRIX UNITAIRE TRAVAIL: EN FRANCS CFA EN NATURE: PRODUIT UNITE DE MESURE QUANTITE					

Unités de mesure du travail:

1 - le 'catis' (12 bras carré)

Contribution de travail:

Inscrire le nombre d'unités

- 2 - l'homme/jour
- 3 - autre à préciser: _____

de travail effectué sur le
champ par chaque groupe.

SECTION 15: INVENTAIRE DES LITIGES FONCIERS

1. Est-ce qu'il y a jamais eu de litiges sur l'un ou l'autre de vos champs?

Avez-vous ou un de vos ascendants jamais perdu un champ à la suite d'un litige?

Etes-vous jamais entré en litige à propos d'un champ que vous ne possédez pas?

1 - Oui

2 - Non Si non, passez à la section 16. (____)

2. Si oui, donner le détail de vos litiges:

Si le champ n'a pas été inventorié, inscrire le Numéro 99.

No du TYPE DE AVEC OU RESIDE QUAND DUREE COUT QUI A DECISION
Champ LITIGE QUI T-IL ? (ANNEE) (MOIS) (CFA) TRANCHE /RESULT

No du Champ	TYPE DE LITIGE	AVEC QUI	OU RESIDE T-IL	QUAND (ANNEE)	DUREE (MOIS)	COUT (CFA)	QUI A TRANCHE	DECISION/ RESULTAT

Types de litige:

- 1 - Droit de cultiver ou de récolter
- 2 - Droit de planter des arbres non-fruitiers (y compris les reboisements faits dans le cadre du projet TOG/87/001)
- 3 - Droit de couper des arbres non-fruitiers
- 4 - Droit d'aliéner le champ (prêter, louer, donner, vendre)
- 5 - Droit de construire
- 6 - Droit d'implanter une fetiche
- 7 - Litige concernant les droits d'exclusion
- 8 - Litige concernant le droit de propriété
- 9 - Litige concernant les limites de la parcelle
- 10 - autre à préciser:

Avec qui?:

- 1 - Membre du ménage
- 2 - Apparenté (hors ménage)
- 3 - Voisin
- 4 - Propriétaire de la parcelle n'appartenant pas au ménage

Durée:

en nombre de mois entiers
99 - si le litige n'est pas résolu

Qui a tranché?:

- 1 - Conseil familial (ménage)
- 2 - Entre les 2 parties concernés
- 3 - Chef de lignage
- 4 - Conseil des chefs de lignage
- 5 - Chef de village
- 6 - pas résolue
- 7 - Instance juridique à préciser:

Décision/Résultat:

- 1 - Perte de propriété
- 2 - Perte de droit concerné
- 3 - Modification des limites
- 4 - Gain de propriété
- 5 - Gain du droit concerné
- 6 - pas résolue/en instance
- 7 - autre à préciser:

SECTION 16: QUESTIONS GENERALES SUR LE CREDIT

1. Quelqu'un du ménage a-t-il sollicité un prêt au cours des deux dernières années, et/ou au cours de la dernière saison (y compris les demandes non agréées)?

1 - Oui

2 - Non Si non, passez à la section 17.

(_____)

	Ordre des demandes de prêts				
	Dernière saison:		Deux dernières années:		
	Demande No 1	Demande No 2	Demande No 3	Demande No 4	Demande No 5
1. Année					
2. But					
3. Type de créanciers					
4. montant Sollicite					
5. Montant reçu					
6. Comment reçu					
7. Echéance (date de remboursement)					
8. Montant à rembourser					
9. Type de garantie					
10. Solde dû (reste à payer jourd'hui)					

But:

- 1 - Education
- 2 - Investissement non-agricole
- 3 - Achat intrants agricole
- 4 - Engage main d'oeuvre agricole
- 5 - Achat équipement agricole
- 6 - Achat bétail
- 7 - Construction agricole
- 8 - Consommation finale
- 9 - Cérémonie
- 10 - Vêtement
- 11 - autre à préciser:

Comment reçu:

- 0 - Demande non agréée
- 1 - En espèce
- 2 - En nature
- 3 - combinaison 1 et 2

Type de garantie:

- 0 - Pas applicable
- 1 - Récoltes
- 2 - Champ cultivé
- 3 - Cultures pérennes
- 4 - Construction
- 5 - Bétail
- 6 - Sans garantie
- 7 - autre à préciser:

Créanciers:

- 1 - Apparentés
- 2 - Prêteur privé
- 3 - Commerçant
- 4 - Tontine
- 5 - Coopérative
- 6 - Caisse de Solidarité (informelle)
- 7 - Groupement
- 8 - Caisse Nationale de Crédit Agricole
- 9 - Projet Agricole
- 10 - autre à préciser:

SECTION 17: LES BIENS IMMOBILIERS

1. A qui appartient la maison que vous habitée? (____)

- | | |
|--------------------|-------------------------------------|
| 1 - Chef de ménage | 4 - sans lien de parenté (non payé) |
| 2 - ascendant | 5 - sans lien de parenté (location) |
| 3 - autre parenté | |

Si location, le montant mensuel du bail:

2. Etes-vous propriétaire de bâtiment(s) ailleurs? (____)

- 1 - OUI 2 - NON

Si oui, le nom du village/ville:

SECTION 18: INVENTAIRE DU BETAIL (ADULTE) APPARTENANT AU MENAGE

NOMBRE DE	BOVINS	OVINS	PORCINS	CAPRINS	VOLAILLES

SECTION 19: CONCLUSION

- Remercier l'enquêté pour sa patience et sa contribution.
- Demandez: Voulez-vous poser des questions ou suggérer quelque chose au personnel du Projet 87/001? (inscrire la réponse ci-dessous et sur le verso de la page)

Annex 3: Code List

PROJET PNUD/FAO TOG/87/001

RECHERCHE SUR LES RESSOURCES FONCIERES
DANS LA REGION MARITIME DU TOGO

LISTE DES CODES

Septembre 1990

SECTION 1: RECENSEMENT DU MENAGE

Ethnie:

- | | | |
|---------------|-------------|--------------|
| 1 - Watchi | 5 - Bè | 9 - Añla |
| 2 - Péda | 6 - Tougban | 10 - Guin |
| 3 - Keta | 7 - Adangbé | 11 - Ewe |
| 4 - Alakpléwo | 8 - Mina | 12 - Dofo |
| | | 13 - Ashanti |

Lignage: Inscrire le nom figurant sur le questionnaire.

Lien de parenté: (relation des membres du ménage au chef)

- | | |
|--------------------------|--|
| 1 - Chef de ménage | 7 - autre parenté |
| 2 - épouse | 8 - sans lien de parenté (apprenti ou autre travailleur régulier <u>non-payé</u>) |
| 3 - neveu/nièce | 9 - sans lien de parenté (apprenti ou autre travailleur régulier <u>payé</u>) |
| 4 - ascendant | 10 - petit fils |
| 5 - frère ou soeur | |
| 6 - relation par mariage | |

SECTION 2: LA FORMATION ET LES ACTIVITES DES MEMBRES DU MENAGE

Activités: Inscrire jusqu'à trois codes par individu

- 0 - pas applicable (enfant)
- 1 - Agriculteur
- 2 - Salarié (secteur privé)
- 3 - Artisan
- 4 - Commerçant
- 5 - Ouvrier agricole
- 6 - Ménagère/Domestique
- 7 - Ecolier/étudiant
- 8 - Fonctionnaire
- 9 - Petit élevage
- 10 - Pêcheur
- 11 - sans activité
- 12 - Hospitalisation (maladie)
- 13 - Vacances
- 14 - Apprenti
- 15 - Maraichage
- 16 - Feticheur/Réligieux
- 17 - Conducteur de pirogue

Formation scolaire:

- 0 - Sans instruction
- 1 - CP1
- 2 - CP2
- 3 - CE1
- 4 - CE2
- 5 - CM1
- 6 - CM2
- 7 - CEG 6^e
- 8 - CEG 5^e
- 9 - CEG 4^e
- 10 - CEG 3^e
- 11 - Lycée (toutes années)
- 12 - Ecole Professionnelle
- 13 - Ecole Supérieure

Formation non-scolaire:

- | | |
|--------------------------------|----------------------------------|
| 0 - sans formation | 8 - Appr. en électronique |
| 1 - Agricole (coopérative) | 9 - Appr. en dactylographie |
| 2 - Santé ou Planning familial | 10 - Appr. en soudeur-peintre |
| 3 - Alphabétisation | 11 - Appr. bijouterie-tailleurie |
| 4 - Apprentissage en artisanat | 12 - Appr. en couture |
| 5 - Appr. en menuiserie | 13 - Appr. en chauffeur |
| 6 - Appr. en mécanique | 14 - Appr. en étanchéité |
| 7 - Appr. en maçonnerie | 15 - Appr. en coiffeuse |

SECTION 3: PROFIL SOCIO-ECONOMIQUE DU CHEF DE MENAGE

3. Si oui, où et combien de temps?

6. Si vous n'êtes pas né ici, à quel endroit avez-vous vécu auparavant?

Nom du village/ville:

Préfecture/Pays:

- | | |
|--|----------------------------------|
| 1 - Agbantokopé | 1 - Vo |
| 2 - Djankassé | 2 - Lacs |
| 3 - Anfoin | 3 - Golfe |
| 4 - Klologo | 4 - une autre préfecture au Togo |
| 5 - (Vo-)Kponou | 5 - divers préfectures au Togo |
| 6 - (Vo-)Koutimé | 6 - Ghana |
| 7 - Vogan | 7 - Benin |
| 8 - Amegnra | 8 - Nigeria |
| 9 - Aného | 9 - Côte d'Ivoire |
| 10 - Lomé | 10 - un autre pays en Afrique |
| 11 - Accra | 11 - divers pays en Afrique |
| 12 - Kumasi | |
| 13 - Lagos | |
| 14 - Abidjian | |
| 15 - un autre endroit au Togo | |
| 16 - un autre endroit à l'étranger | |
| 17 - divers endroits au Togo | |
| 18 - divers endroits à l'étranger | |
| 19 - divers endroits au Togo et à l'étranger | |

4. Quelle y était votre activité principale?

7. Quelle y était votre activité principale?

- | | |
|-------------------------------|----------------------------------|
| 0 - pas applicable (enfant) | 9 - Petit élevage |
| 1 - Agriculteur (indépendant) | 10 - Pêcheur |
| 2 - Salarié (secteur privé) | 11 - sans activité |
| 3 - Artisan | 12 - Hospitalisation (maladie) |
| 4 - Commerçant | 13 - Vacances |
| 5 - Ouvrier agricole | 14 - Apprenti |
| 6 - Ménagère/Domestique | 15 - Salarié et Artisan |
| 7 - Ecolier/étudiant | 16 - Salarié et Commerçant |
| 8 - Fonctionnaire | 17 - Salarié et écolier/étudiant |

5. Quel a été le motif principal de la rentrée?

8. Quel a été le motif principal du déplacement vers ici?

- 1 - manque de terres disponibles ailleurs?
- 2 - manque de travail disponible ailleurs?
- 3 - rejoindre la famille/suivre la famille?
- 4 - retraite
- 5 - rappatriement/mésaventure/expulsion
- 6 - mariage
- 7 - ouvrier agricole
- 8 - cérémonies coutumières
- 9 - affectation
- 10 - autre

SECTION 4: INVENTAIRE DES MACHINES ET DES EQUIPEMENTS
AGRICOLES ET NON AGRICOLES

Equipements agricoles:

- 1 - Coupe-coupe
- 2 - Houe
- 3 - Pelle
- 4 - Brouette
- 5 - Scie à main
- 6 - Moulin à moteur
- 7 - Filet de pêche
(tout confondu)
- 8 - Piège à crabes/crevettes
- 9 - Ligne à hameçons
- 10 - Pirogue
- 11 - Enclume
- 12 - Pioche
- 13 - Arrosoir

Coût de remplacement (en FCFA)

Mode d'acquisition:

- 1 - Hérité
- 2 - Achat
- 3 - Construit/fabriqué
- 4 - Reçu en cadeau
- 5 - Emprunté

Observations (condition):

- 0 - Aucune observation
- 1 - Tous en bon état
- 2 - Un seul en bon état
- 3 - Moyen (\pm bon)
- 4 - Mauvaise état/en panne

Equipements non-agricoles:

- 21 - Véhicule (voiture, bachée, camion, taxi)
- 22 - Moto ou mobylette
- 23 - Vélo
- 24 - Poste radio
- 25 - Magnétophone/cassette
- 26 - Montre-reveil
- 27 - Machine à coudre

SECTION 5: INVENTAIRE DES CHAMPS CULTIVES PAR LE MENAGE

Type d'exploitation:

Unité de mesure de la superficie:

- | | |
|--|------------------------------|
| 1 - ménage cultivé champ
lui appartenant | 1 - 'catis' (12 bras carrés) |
| 2 - ménage cultivé champ
ne lui appartenant pas | 2 - hectare |

Lieux de résidence des propriétaires:

- | | | |
|--------------------|-----------------|-------------------|
| 0 - non applicable | 4 - Agbantokopé | 8 - Koenou |
| 1 - Djankassé | 5 - Agnrokopé | 9 - Aného |
| 2 - Badougbé | 6 - Adje-kopé | 10 - Goumou-kopé |
| 3 - Akoda | 7 - Batchi-kopé | 11 - Kodjavi-kopé |
| | | 12 - Togoville |

Mode d'accès au champ:

- 1 - achat en espèce ou en nature
- 2 - héritage d'un ascendant direct
- 3 - don sans contrepartie (permanent)
- 4 - emprunte sans contrepartie (provisoire)
- 5 - métayage (partage de la récolte avec le propriétaire)
- 6 - location (paiement annuel fixe, en espèce ou en nature)
- 7 - mise en gage traditionnelle ('Ameybo Woba')
- 8 - bail à long terme ('Yovo Woba')
- 9 - échange contre un autre champ

Qui a acquit le champ?

Acquit de qui?

Document au nom de qui?

- | | |
|----------------------------|-----------------------------------|
| 1 - chef de ménage | 1 - ascendant patrilinéaire |
| 2 - époux/se | 2 - ascendant matrilinéaire |
| 3 - fils/fille | 3 - apparenté hors ménage |
| 4 - ascendant | 4 - gendre (relation par mariage) |
| 5 - relation par mariage | 5 - personne privée non-parenté |
| 6 - autre membre du ménage | 6 - Domaine de collègue |
| 7 - frère | 7 - Epoux/se |

SECTION 6: PAIEMENT DES CHAMPS CULTIVES PAR LE MENAGE ET
LES AMENAGEMENTS AGRICOLES

Type de paiement:

- 0 - aucun ou non applicable
- 1 - un seul (achat, mise en gage)
- 2 - regulier (location, bail)

Durée du contrat:

- 0 - pas applicable ou inconnu
- 99 - illimité

Pourquoi pas culture en couloir?

- 0 - non applicable
- 1 - propriétaire refuse demande
- 2 - ne voit pas l'interêt
- 3 - n'est pas informé
- 4 - crainte du proprietaire
- 5 - n'a pas le droit
- 6 - terrain trop petit/concurrence
- 7 - n'a pas voulu
- 8 - terrain n'est pas pauvre
- 9 - manque de temps
- 10 - litige entre Djankassé et Agbantokopé
- 11 - dégats des animaux domestiques
- 12 - parce que les hommes n'ont pas planté chez nous
- 13 - n'a pas reçu leuceana

Qui en a décidé?

- 0 - pas applicable ou inconnu
- 1 - chef de ménage
- 2 - épouse
- 3 - fils/fille
- 4 - ascendant
- 5 - autre membre du ménage
- 6 - propriétaire du champ hors ménage
- 7 - agent de l'état/projet (obligation)
- 8 - C.M. et agent (instruction, essai)
- 9 - petit frère
- 10 - école
- 11 - C.M. et ascendant
- 12 - C.M. et propriétaire
- 13 - C.M. et ex-exploitant
- 14 - épouse et ascendant

Autres améliorations:

- 0 - Non-existante
- 1 - Existait au moment de l'acquisition
- 2 - Executée depuis l'acquisition
- 3 - Combinaison de 1 et 2

SECTION 7: LES POUVOIRS, DROITS D'USAGE, DROITS D'EXCLUSION, ET
DROITS DE TRANSFERT SUR CHAMPS CULTIVEES PAR LE MENAGE

Choix de cultures, droits d'usage, d'exclusion et de transfert:

- 0 - pas applicable
- 1 - chef de ménage seul
- 2 - époux/se seul(e)
- 3 - ascendant seul
- 4 - fils/fille seul(s)
- 5 - ensemble/membre du ménage
- 6 - époux/se avec l'accord de sa famille
- 7 - C.M. avec épouse
- 8 - C.M. avec l'accord des héritiers
- 9 - membre de la famille (héritiers)
- 10 - C.M. avec l'accord du propriétaire
- 11 - propriétaire du champ loué/emprunté
- 12 - C.M. avec technicien agricole
- 13 - technicien agricole seul
- 14 - personne extérieure à la famille
- 15 - n'importe qui
- 16 - ambigu (disputé avec propriétaire)
- 17 - sauf lieu d'habitation
- 18 - interdit par l'état
- 19 - à celui qui lui plait
- 20 - propriétaire à condition de rembourser
- 21 - C.M. et propriétaire également
- 22 - ensemble du ménage et propriétaire également
- 23 - propriétaire avec l'accord du C.M.
- 24 - un collègue fonctionnaire
- 25 - C.M. avec fils

SECTION 8: INVENTAIRE DES CHAMPS GERES PAR LE MENAGE MAIS
CULTIVES PAR D'AUTRES EXPLOITANTS AGRICOLES

Type de prêt:

- 1 - ménage prête champ lui appartenant
- 2 - ménage prête champ ne lui appartenant pas

Unité de mesure de la superficie:

- 1 - 'catis' (12 bras carrés)

Lieux de résidence des exploitants / propriétaires:

- | | |
|-------------------------------|-------------------------------|
| 0 - non applicable ou inconnu | 13 - Mawulé-kopé |
| 1 - Djankassé | 14 - Adjé-kopé |
| 2 - Badougbe | 15 - Laté-Tomekossou |
| 3 - Akoda | 16 - Goumedjina-kopé |
| 4 - Agbantokopé | 17 - Sewatchri-kopé |
| 5 - Agnrokopé | 18 - Adjegan |
| 6 - Kolykoe-kopé | 19 - Kpoté |
| 7 - Folykoe-kopé | 20 - Deyi-kopé |
| 8 - Koumasi | 21 - Doumassi-kopé |
| 9 - Geti-kopé | 22 - "hameau" ou sur le champ |
| 10 - Anfoin | 23 - Djadé-kopé |
| 11 - Kanou | 24 - Anyidé-kopé |
| 12 - Lomé | 25 - Afanouvi-kopé |

Mode d'accès au champ:

- 1 - achat en espèce ou en nature
- 2 - héritage d'un ascendant direct
- 3 - don sans contrepartie (permanent)
- 4 - emprunte sans contrepartie (provisoire)
- 5 - métayage (partage de la récolte avec le propriétaire)
- 6 - location (paiement annuel fixe, en espèce ou en nature)
- 7 - mise en gage traditionnelle ('Ameybo Woba')
- 8 - bail à long terme ('Yovo Woba')
- 9 - échange contre un autre champ
- 10 - gestion pour un membre de la famille absent

Qui a acquit le champ?

Document au nom de qui?

- 1 - chef de ménage
- 2 - épouse
- 3 - fils/fille
- 4 - ascendant
- 5 - relation par mariage
- 6 - autre membre du ménage
- 7 - frère du C.M.

Acquit de qui?

- 1 - ascendant patrilinéaire
- 2 - ascendant matrilinéaire
- 3 - apparenté hors ménage
- 4 - relation par mariage
- 5 - personne privée non-parenté
- 6 - Domaine de collègue
- 7 - Epoux/se

SECTION 9: PAIEMENT DES CHAMPS GERES PAR LE MENAGE MAIS
 CULTIVES PAR D'AUTRES EXPLOITANTS AGRICOLES

Type de paiement:

- 0 - aucun ou non applicable
- 1 - un seul (achat, mise en gage)
- 2 - regulier (location, bail)

SECTION 10: LES AMENAGEMENTS AGRICOLES SUR LES CHAMPS GERES PAR LE
 MENAGE MAIS CULTIVES PAR D'AUTRES EXPLOITANTS AGRICOLES

Pourquoi pas culture en couloir?

- 0 - non applicable ou inconnu
- 1 - propriétaire refuse demande
- 2 - ne voit pas l'interêt
- 3 - exploitant ne voudra pas le faire

Qui en a décidé?

- | | |
|--------------------|---|
| 0 - pas applicable | 5 - autre membre du ménage |
| 1 - chef de ménage | 6 - propriétaire du champ hors ménage |
| 2 - épouse | 7 - agent de l'état/projet (obligation) |
| 3 - fils/fille | 8 - C.M. et agent (instruction, essai) |
| 4 - ascendant | 9 - exploitant seul |
| | 10 - exploitant et ascendant |

Autres améliorations:

- 0 - Non-existante ou inconnu
- 1 - Existait au moment de l'acquisition
- 2 - Executée depuis l'acquisition
- 3 - Combinaison de 1 et 2

SECTION 11: LES POUVOIRS, DROITS D'USAGE, DROITS D'EXCLUSION, ET
DROITS DE TRANSFERT SUR CHAMPS GERES PAR LE MENAGE
MAIS CULTIVES PAR D'AUTRES EXPLOITANTS AGRICOLES

Choix de cultures, droits d'usage, d'exclusion et de transfert:

- 0 - pas applicable ou inconnu
- 1 - chef de ménage seul
- 2 - épouse seule
- 3 - ascendant seul
- 4 - fils/fille seul(s)
- 5 - ensemble du ménage
- 6 - autre membre du ménage à préciser
- 7 - C.M. avec membre(s) du ménage à préciser
- 8 - exploitant seul
- 9 - exploitant et ménage
- 10 - exploitant et C.M.
- 11 - C.M. avec l'accord des héritiers
- 12 - membre de la famille (héritiers)
- 13 - C.M. avec l'accord du propriétaire
- 14 - propriétaire du champ loué/emprunté
- 15 - C.M. avec technicien agricole
- 16 - technicien agricole seul
- 17 - exploitant avec l'accord du C.M.
- 18 - exploitant avec l'accord du propriétaire
- 19 - personne extérieure à la famille
- 20 - n'importe qui
- 21 - ambigu (disputé avec propriétaire)
- 22 - ambigu (disputé avec exploitant)
- 23 - sauf lieu d'habitation
- 24 - interdit
- 25 - à celui qui lui plait
- 26 - aux membres de la famille de l'exploitant
- 27 - seulement construction provisoire
- 28 - seulement les arbres entretenus par l'exploitant

SECTION 12: LES CULTURES SUR LES CHAMPS CULTIVES PAR LE MENAGE

Codes des cultures:

Monocultures:

- 0 - inconnu ou pas applicable
- 1 - maïs
- 2 - manioc
- 3 - igname
- 4 - coton
- 5 - haricot (niébé)
- 6 - arachide
- 7 - pois d'Angole
- 8 - palmier
- 9 - cocotier
- 10 - banane
- 11 - verger
- 12 - tomate
- 13 - brèdes (épinard)
- 14 - patate douce
- 15 - autres cult. potagères
- 16 - engrais vert
- 17 - jachère (vég. naturelle)
- 18 - boisement pure (non-fruitier)
- 19 - non-cultivée
- 20 - enclos
- 21 - gombo

Cultures en association:

- 31 - maïs et haricot
- 32 - maïs et manioc
- 33 - maïs et manioc et autre
- 34 - maïs suivi de coton
- 35 - maïs et autre

- 36 - manioc et haricot
- 37 - manioc et autre

- 38 - haricot et maïs
- 39 - haricot et autre

- 40 - banane et autre
- 41 - maïs, manioc et arachide
- 42 - maïs, manioc et patate douce
- 43 - maïs et arachide
- 44 - maïs et patate douce
- 45 - maïs, haricot et tomate
- 46 - maïs, haricot et arachide
- 47 - maïs, haricot et autre
- 48 - maïs, arachide et autre

Codes de l'agro-foresterie:

(se référer au code de culture)

- 1 - Cultures en couloir
- 2 - Cultures sous cocotier
- 3 - Cultures sous palmier
- 4 - Cult. sous arbres fruitiers
- 5 - Cult. sous arbres non-fruitiers

Exemple: maïs et manioc
sous palmier, inscrire 32,3

SECTION 13: L'UTILISATION D'INTRANTS PENDANT LA DERNIERE GRANDE
SAISON SUR LES CHAMPS CULTIVES PAR LE MENAGE

Engrais Chimique:

- 0 - néant
- 1 - NPK 15-15
- 2 - l'Urée
- 3 - NPK 15-15 et l'Urée
- 4 - NPK SB (pour coton)
- 5 - NPK SB et l'Urée

Pesticide:

- 0 - néant
- 1 - pour coton
- 2 - pour maïs
- 3 - pour niébé

Unités de mesure:

- 1 - Kilo
- 2 - Litre
- 3 - Sac de 50 kg
- 4 - Bole

Qui décide de l'utilisation des intrants?

- 0 - Pas applicable
- 1 - Chef de ménage seul
- 2 - Epouse seul
- 3 - Chef de ménage et épouse
- 4 - Fils/Fille
- 5 - Ascendant
- 6 - C.M. avec autre membre du ménage à préciser
- 8 - membre de la famille hors ménage
- 9 - Propriétaire de la parcelle louée/empruntée
- 10 - Technicien Agricole (obligation)
- 11 - Chef de ménage et Tech. Agr. (instruction/conseil)

SECTION 14: L'UTILISATION DE LA MAIN D'OEUVRE PENDANT LA DERNIERE
GRANDE SAISON SUR LES CHAMPS CULTIVES PAR LE MENAGE

Unités de mesure du travail:

- 1 - le 'catis' (12 bras carré)
- 2 - l'homme/jour

Contribution de travail:

le nombre d'unités de travail
effectué sur le champ par
chaque groupe.

SECTION 15: INVENTAIRE DES LITIGES FONCIERS

Types de litige:

- 1 - Droit de cultiver ou de récolter
- 2 - Droit de planter des arbres non-fruitiers (y compris les reboisements faits dans le cadre du projet TOG/87/001)
- 3 - Droit de couper des arbres non-fruitiers
- 4 - Droit d'aliéner le champ (prêter, louer, donner, vendre)
- 5 - Droit de construire
- 6 - Droit d'implanter une fetiche
- 7 - Litige concernant les droits d'exclusion
- 8 - Litige concernant le droit de propriété
- 9 - Litige concernant les limites de la parcelle
- 10 - augmentation du prix de location
- 11 - mésentente entre exploitant et propriétaire (non-specified)
- 12 - diminution de la surface prêtée
- 13 - non-exploitation du champ prêté

Avec qui?:

- 1 - Membre du ménage
- 2 - Apparenté (hors ménage)
- 3 - Voisin
- 4 - Propriétaire de la parcelle n'appartenant pas au ménage
- 5 - autre personne privée
- 6 - collectivité/autorité

Durée:

en nombre de mois entiers
99 - si le litige n'est pas résolu

Qui a tranché?:

- 1 - Conseil familial (ménage)
- 2 - Entre les 2 parties concernés
- 3 - Chef de lignage
- 4 - Conseil des chefs de lignage
- 5 - Chef de village
- 6 - pas résolue
- 7 - Tribunal de Lomé
- 8 - Tribunal de Aneho
- 9 - le propriétaire

Décision/Résultat:

- 1 - Perte de propriété
- 2 - Perte de droit concerné
- 3 - Modification des limites
- 4 - Gain de propriété
- 5 - Gain du droit concerné
- 6 - pas résolue/en instance
- 7 - résiliation du contrat
- 8 - prix augmenté
- 9 - diminution du prix location

SECTION 16: QUESTIONS GENERALES SUR LE CREDIT

Echéance:

- 0 - non applicable ou inconnu
- date en chiffres (eg. "12/90")

Montant à rembourser:

- 0 - non applicable ou inconnu
- 1 - "T" ou "M" ou "C" + 10%/mois
- 2 - "T" ou "M" ou "C" + 5%/mois
- 3 - montant (en FCFA)

Solde dû (reste à payer aujourd'hui):

- 0 - zero
- 1 - "total" ou "totalité"
- 2 - montant (en FCFA)

But:

- 1 - Education
- 2 - Investissement non-agricole
- 3 - Achat intrants agricole
- 4 - Engage main d'oeuvre agricole
- 5 - Achat équipement agricole
- 6 - Achat bétail
- 7 - Construction agricole
- 8 - Consommation finale
- 9 - Cérémonie
- 10 - Vêtement
- 11 - combinaison 3 et 8
- 12 - combinaison 3 et 4
- 13 - Acquisition/location
de terres agricoles

Comment reçu:

- 0 - Demande non agréée
- 1 - En espèce
- 2 - En nature
- 3 - combinaison 1 et 2

Type de garantie:

- 0 - Pas applicable
- 1 - Récoltes
- 2 - Champ cultivé
- 3 - Cultures pérennes
- 4 - Construction
- 5 - Bétail
- 6 - Sans garantie
- 7 - membre de la caisse

Créanciers:

- 1 - Apparentés
- 2 - Prêteur privé
- 3 - Commerçant
- 4 - Tontine
- 5 - Coopérative
- 6 - Caisse de Solidarité (informelle)
- 7 - Groupement
- 8 - Caisse Nationale de Crédit Agricole
- 9 - Projet Agricole

SECTION 17: LES BIENS IMMOBILIERS

1. A qui appartient la maison que vous habitez?

- 1 - Chef de ménage
- 2 - ascendant
- 3 - autre parenté
- 4 - sans lien de parenté (non payé)
- 5 - sans lien de parenté (location)

SECTION 19: CONCLUSION

Questions, plaintes ou suggestions:

- 0 - néant ou rien de particulier
- 1 - crédit agricole ou crédit de campagne (but non-spécifié)
- 2 - crédit pour achat d'engrais ou d'intrants
- 3 - crédit pour engager la main d'oeuvre
- 4 - crédit pour acquérir (louer) de nouvelles terres
- 5 - prix des engrais
- 6 - prix des produits agricoles
- 7 - prix de location des terres
- 8 - taux d'intérêt sur les prêts (à la caisse informelle/tontine)
- 9 - période de soudure (problème d'alimentation/demande d'assistance)
- 10 - manque de terres
- 11 - assistance par des vivres (période non-spécifiée)
- 12 - équipement agricole (outils)
- 13 - moyens pour améliorer la qualité/fertilité des sols
- 14 - vols sur les champs
- 15 - maladies des plants
- 16 - aide aux petits et moyens exploitants (non-spécifié)
- 17 - soins de santé
- 18 - soins vétérinaires
- 19 - crédit pour activité non-agricole
- 20 - champ gêné par les animaux domestiques
- 21 - refus du propriétaire de construire/étendre habitat