Income generation of farm labourers in Trans Nzoia District, Kenya: rural employment and social networks

Tellegen, N.; Verstrate, L.; Foeken, D.W.J.

Food and Nutrition Studies Programme

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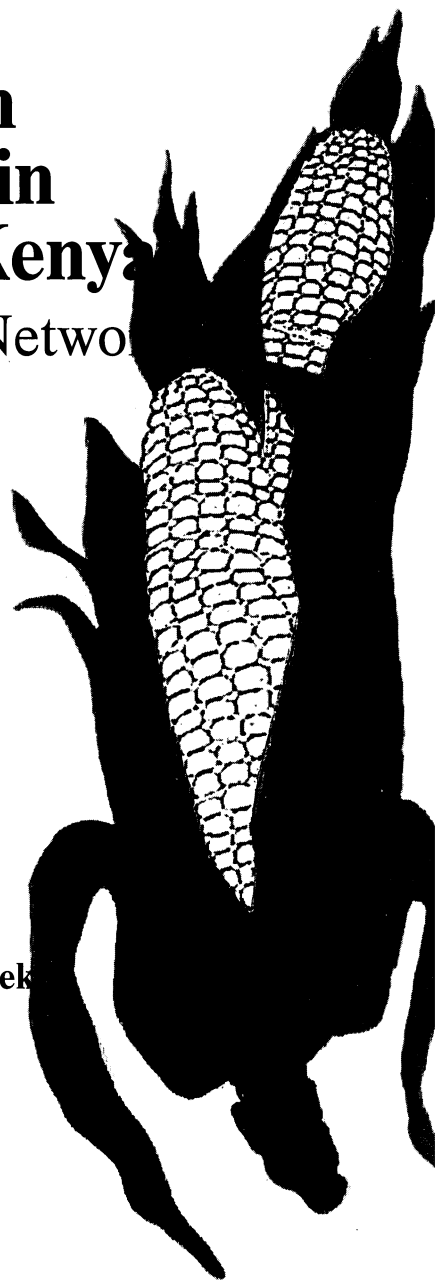

Nina Tellegen, Lieke Verstrate & Dick Foek

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Acknowledgements

This FNSP-report is based on a study that was carried out in 1989 by two students of the University of Amsterdam — Nina Tellegen and Lieke Verstrate — for their M.A. thesis. It provides detailed knowledge on two aspects related to household income generation and food security, i.e. rural employment and social networks. As such, the report can be seen as an addition to the main report regarding the Trans Nzoia survey, i.e. *Household resources and nutrition among farm labourers in Trans Nzoia District, Kenya* (Foeken & Tellegen 1992).

The research project could not have been realized without the help of many persons. First of all, we would like to express our gratitude to Mr. J. Otieno (Chief Planning Officer of the Sectoral Planning Department) and Ms. L. Shitakha (Head of the Food and Nutrition Planning Unit) for their continuous support. During the preparation phase of the project, valuable information was gathered at four levels: national (Nairobi), provincial (Nakuru), district (Kitale) and farm level. In Nairobi, our informants were Mr. J. Mwanyike (Director of the Central Bureau of Statistics), Mr. M. Mukolwe (Deputy Director of Agriculture), Dr. G. Ruigu (Institute of Development Studies) and Mr. H. Hendrix (Rural Development Coordinator, Netherlands Embassy). In Nakuru, Mr. P.S. Muthui (Provincial Planning Officer), Mr. A.N. Kenyori (Deputy Provincial Planning Officer), Mr. J.K. Kiragu (Provincial Labour Officer) and Mr. J.O. Onyembo (Deputy Provincial Director of Agriculture) were very helpful. In Kitale, we benefitted greatly from the assistance and knowledge of various officers: Mr. S.S.K. Limo (District Commissioner), Mr. D.O. Mijondo (District Development Officer), Mr. G.A. Owuori (District Agricultural Officer), Mr. R.K. Kisia (District Labour Officer), Mr. J.E. Owuor (District Statistical Officer), Dr. K.K. Bii (Regional ADC Manager), Mr. L.K.K. Chepkitony (Technical ADC Officer), Mr. S.J. Gathogo (Project Management Development Officer), and Ms. E. Kosgei (Home Economist). Finally, at farm level, valuable information was provided by various persons, notably Mr. J.H. Robinson, Mr. D. Kamau, Ms. H. Yego, Mr. S. Chege, Mr. M. Birech, Mr. M. Muchemi, Mr. A. Wafula, Mr. F. Sifuma, Mr. A. Mwangi, Mr. N. Karu, Mr. C, Wanyeri, Mr. S. Kamau and Mr. P. Wainaina.

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Summary

This report is the third in a series on household resources and nutrition of labourers on large farms in Trans Nzoia District. The first report concerned a survey among 46 large farms and dealt with numbers, earnings and provisions of farm labourers (Foeken & Verstrate 1992). The second report concerned a survey among about 300 households of farm labourers and a comparison group of non-labourers. Issues discussed are living conditions, household resources, food consumption, and the nutritional status of the study population (Foeken & Tellegen 1992). The present study focuses on two aspects of the income generation of households, notably the importance of rural employment (subdivided into agricultural labour on large farms and non-agricultural employment) and social networks. The population in this study is a sub-sample of the study population of the main household survey and consists of three categories of farm labourers in Trans Nzoia, i.e. permanent labourers living on the large farms, casual labourers living on the large farms (the so-called resident casuals), and casual labourers living outside the farms (the so-called non-resident casuals). For comparison purposes, a group of non-labourers is included.

Agricultural wage labour on the large farms consists of permanent labour and casual labour. Permanent labour offers higher wages and is a less seasonal activity than casual labour on a large farm. Peaks in casual labour occurred in April, May and June (weeding and planting of maize, the main crop in Trans Nzoia) and in November and December (harvesting). During the other months fewer casual labourers were needed. There were more women than men engaged in casual labour. It was also the only type of work for which the average earnings of men and women were about the same. The groups most depending on agricultural labour were the ones with the lowest household incomes, i.e. the resident casuals and the permanent labourers. Non-resident casuals had a slightly higher income than permanent labourers, were less dependent on agricultural wage labour but still obtained about 40% of their income from it, compared with about 75% for households residing on the large farms.

Non-agricultural employment consists of regular employment (outside the agricultural sector) and self-employment. Regular employment was predominantly undertaken by men and showed little seasonal fluctuation. Highly rewarding types of employment like teaching and nursing were not accessible for most households because members lacked the qualifications required. Therefore, members of agricultural labourers' house-

holds were at best engaged in low-paid types of employment, e.g. in a local store or as a maid. Labourers living on the large farms were usually not allowed to work outside the farm, so these households depended predominantly on the labour on the farm for their livelihood. For the non-labourers, regular employment was a comparatively important source of income. Members of these households were engaged in relatively better-paid jobs like teaching and post office work, for which education is needed.

Self-employment activities ranged from selling of maize to running a *matatu* business. Some of these activities were seasonal and only undertaken during relatively idle periods on the large farms and on the households' own plots, while other types of work provided an income throughout the year. There were more women than men engaged in self-employment but women's earnings were on average only about one-third of men's. Households living on the large farms undertook some self-employment, but again very little compared to the other groups, which was due to the restrictions imposed on them. Casuals living outside the farms were more often engaged in self-employment, especially simple types of activities like selling boiled maize and some trading in vegetables. The households in the wealthiest group, the non-labourers, were engaged in steady activities, showing no seasonal fluctuations in income and requiring quite a lot of starting capital.

Apart from employment, social networks can also provide households with an income. Because about 70% of the heads of the households were immigrants, social networks often crossed district borders. Apart from networks with family members residing in the area of origin, other relations with non-residential household members, neighbours or family residing in Trans Nzoia or elsewhere existed. Both receipts from and gifts to relatives showed seasonal fluctuations; there was a distinct peak in July. It appeared that social networks did not act as a source of income for most households in the sample. On the contrary, households were net-givers instead of net-receivers. With increasing household income, the amount given also increased. Another factor determining the amounts given was whether the parents of the head and his spouse(s) were still alive. The largest amounts were donated to the parents of the head of the household. Relations with non-residential household members showed a positive financial balance. Households of resident casuals showed the smallest balance between receipts and gifts, the non-labourers the largest. Only households with very small incomes received more than they gave.

Introduction

The food and nutritional situation of the Kenyan population is cause for concern. In only about one-fifth of the country the soil is suitable for arable farming. Population growth is among the highest in the world and feeding the population is becoming more and more of a problem. Maize is the dominant food crop in Kenya. Large-scale, commercial production of maize takes place mainly on large farms in the highlands in western Kenya. Trans Nzoia District is part of that area.

During colonial times, Trans Nzoia consisted solely of European-owned large farms. After Independence, all these farms were sold, either to private Kenyan citizens or to the government. Many farms have been subdivided, often into small plots. This gives the district a 'dualistic' outlook, with very large farms on the one hand and many small ones on the other.

Nowadays, most households in Trans Nzoia live on small plots created by these subdivisions. Many people from these households are working as farm labourers on the large farms, some on a permanent basis, but most of them as casuals during specific periods of the year. Because many of these people are not able to grow enough food to feed their families, and because the earnings from agricultural wage labour are very modest and in most cases seasonal, the food and nutritional situation of these households is a matter of concern for the district administration (MPND 1989).

In 1989, research was conducted among wage labourers on large farms concerning their household resources, food supply and nutritional condition. The project took place in the context of the Food and Nutrition Studies Programme (FNSP), a joint programme of the Ministry of Planning and National Development, Kenya and the Netherlands Government. This programme aims to analyse contemporary trends and future needs concerning food and nutrition in Kenya, and focuses, among other subjects, on nutrition in relation to household resources. One of the research topics concerns nutritional conditions among farm labourers and their families in Trans Nzoia District, notably in relation to farm size and type of employment (permanent or casual).

The research project in Trans Nzoia consisted of three studies: a farm survey, a household survey and a support study. For the farm survey, 46 large farms were selected and information was gathered regarding land use, agricultural production, number of labourers, wage levels and provisions for labourers. The household survey covered some 300 households, the large majority of them being households of farm labourers. Information was collected on demography, food production, income earning activities, food consumption and anthropometry.[1]

The present report concerns the support study. It offers an in-depth analysis of two aspects of the households' food security and welfare level, which were expected to be of importance but could not be covered in detail in the main survey. The first aspect relates to the various types of non-agricultural employment with which households try to obtain a monetary income in order to cover food expenditures and other necessary purchases. For many rural households in Kenya, non-agricultural employment is indispensable for food security and for reaching a minimum level of subsistence.[2] This is also recognized by the Kenyan government, and strengthening the rural informal sector has now become a major policy objective (Livingstone 1991). The second aspect relates to the fact that Trans Nzoia is an in-migration district. Thus, many households have links with relatives living in the area of origin and the study also focuses, then, on the degree in which these links act as a coping mechanism during times of seasonal food shortages. In this context, other social relationships, like those with non-residential household members, are also taken into account. In short, the main objective of the present study is to analyse the extent to which farm labourers in Trans Nzoia District generate an income by engaging in non-agricultural employment and by exploiting social networks.

The research project in Trans Nzoia took place from March to September 1989. For most households this is a difficult period in terms of food security. The food from the last harvest runs out and the new maize cannot yet be harvested. This is also the period in which non-agricultural activities may be undertaken and in which the need to exploit the relation networks with the area of origin and with non-residential household members is likely to be the strongest. Pre-testing was done in May-June 1989 by means of informal interviews with several households in the district. The actual field work for the support study took place in August 1989.

The general outline of the report is as follows. In Chapter 1, the main characteristics of Trans Nzoia District are reviewed. This section includes an overview of the ways in which households of farm labourers in Trans Nzoia District secure their food supply. This overview is based on existing literature, including some theoretical studies on non-

[1] See Foeken & Verstrate 1992 and Foeken & Tellegen 1992, respectively.
[2] See, for instance Foeken et al. 1989.

agricultural activities and social networks. The description results in the formulation of a number of research questions. A brief review of some methodological aspects of the study in Chapter 2 is followed by the analysis related to the research questions. Chapter 3 discusses the importance of the various types of rural employment (both agricultural and non-agricultural) undertaken by the households of the survey population. Chapter 4 offers insight into the sexual division of labour and into the constraints concerning the undertaking of rural employment. Chapter 5 analyses the social networks. Finally, in the last chapter a number of conclusions are drawn.

On November 23rd and 24th, 1992, the results of the present report as well as the accompanying reports (Foeken & Verstrate 1992, Foeken & Tellegen 1992), were discussed during a dissemination seminar in Kitale. The lengthy discussions led to a number of policy recommendations. These are included in a separate report (Tellegen & Foeken 1992).

1. Trans Nzoia District

1.1 TRANS NZOIA: GENERAL DESCRIPTION

Trans Nzoia District, situated in the Western part of Kenya, lies at about 1800 meters above sea level with peaks towards the western border (Mount Elgon, 4321 m. above sea level) and the eastern border (Cherengani Hills, highest point 3371 m. above sea level). It is characterized by a highland equatorial climate. Average annual rainfall ranges from 1000 to 1200 mm (Jaetzold & Schmidt 1983). The climate is unimodal, i.e. with one wet season, from March until October, and one dry season, from October until March. The average annual temperature in Kitale — the main town, situated in the centre of the district — is 18.3°C. The mean maximum is 25.0°C, the mean minimum is 11.7°C. The coldest month is August (average 17.1°C), while March is the warmest month (average 19.6°C) (Jaetzold & Schmidt 1983; Agatsiva 1985).

Although 81% of the land is suitable for arable farming and is all of high potential, there are differences in soil fertility within the district. The hills and steep slopes of Mount Elgon and the Cherengani Hills have a variable fertility because they consist of shallow, stony soils. Agriculture is possible in about half of these areas. The lower slopes of Mount Elgon, however, have a high fertility because of the red and brown clays which originate from volcanic ash. The part of the district around Kitale consists of soils with a moderate to low fertility (Agatsiva 1985).

The majority of farms are of a mixed type, mostly combining dairy and maize. In terms of land use, livestock rearing is the most important activity in Trans Nzoia. According to the KREMU land-use survey in Trans Nzoia, which was carried out in 1984, almost half of the arable land surface in the district was used for livestock grazing (Agatsiva 1985). In 1988/89, some 150,000 heads of cattle were counted in the District, two-thirds of which being of high grade (Friesians, Ayrshires, Guernseys, Sahiwals and their cross-breeds). Most of the milk produce went through KCC[3] Ltd. in Kitale, totalling

[3] Kenya Cooperative Creameries

almost 41 million kg in 1988/89 (MOLD 1991). This equals about 12% of the total KCC milk production in Kenya (CBS 1991).

In 1988/89, about 68,000 ha (or 34% of the arable land surface) was planted with commercial maize. Maize production reached a record level of 3.4 million 90 kg bags in these years (MOA 1990). If we compare such figures with a national figure of 5.4 million bags of maize bought by the NCPB in 1988 and 7.0 million in 1989 (CBS 1991), it is evident that Trans Nzoia is the maize granary of Kenya.

Besides maize, other important crops cultivated in Trans Nzoia are, in sequence of hectarage in 1989, beans, seed maize, commercial wheat, sunflowers, coffee, seed wheat, and tea (MOA 1990).

The prevalence of large farms in Trans Nzoia District is a situation inherited form the colonial period. As part of the 'White Highlands', only white settlers were allowed to buy land in this part of the country. In 1920, 76 white farmers were living in the district, their farms having an average holding size of 2400 acres. The number of settlers grew and by 1930 315 white farmers had settled in Trans Nzoia (Odinga 1971). During the struggle for Independence, one of the main issues was the Africanisation of firms and companies. During the years after Independence (1963) all large farms were bought by Africans, either by one individual or by a group of persons (partnership farms, company farms and cooperative farms). The Kenyan state also bought a number of farms. Most of these were subdivided (settlement schemes), some others have remained as large state farms, managed by the Agricultural Development Corporation (ADC). At the end of the 1980s, i.e. when the FNSP-surveys took place, all group-owned farms had been subdivided among the participants (Foeken & Verstrate 1992). Since many of the company and cooperative farms counted a large number of participants, subdivision implied the creation of a large number of smallholdings of about 3 to 5 acres. Therefore, land ownership in Trans Nzoia shows a rather 'dualistic' structure, with large to very large farms on the one hand and many smallholdings on the other.

Not all large farm owners live in the district. There is a widespread opinion that especially the larger farms are absentee-owned. Reality, however, is somewhat different, as on two-thirds of the farms of 100 acres and more the owner did permanently live on the farm; regarding the largest farms (1000 acres or more), this figure was 43% (Foeken & Verstrate 1992).

Before Independence, Africans were not allowed to live in the district, apart from the permanent labourers living on the large farms. In return for their labour, these people were allowed to cultivate a small piece of land. Most labourers, however, only came to work in the district during peak seasons and left their families in the so-called Reserves. These Reserves, surrounding Trans Nzoia District, were areas appointed by the govern-

ment where Africans were allowed to live. Some of the seasonal labourers settled illegally on the estates and brought their families to the district. In the course of time this caused a growing number of people to live on the white-owned farms. These people were usually denoted as 'squatters'. More recently, the squatters' incidence seems to be on the decline. For instance, they were present on only three of the 46 sampled farms (of 100 acres and more) of the farm survey. On seven others, they had been there but were expelled, in all cases between 1984 and 1986 (Foeken & Verstrate 1992).

The subdivision of large farms into smaller plots after Independence caused an influx of people from outside the district. According to the Population Census of 1979, 63% of the population was born outside the district (CBS 1981). From the Trans Nzoia Rural Housing Survey of 1986/1987 it appeared that no fewer than 80% of the heads of the surveyed households were born outside Trans Nzoia (Schafgans 1988).

Due to the immigration of people from other parts of the country, the population of Trans Nzoia shows a variety of ethnic backgrounds. Table 1.1 shows the ethnic composition of the general population in 1981 and 1987, as well as the ethnic composition of the present study population. In 1987, 36% of the heads of households originated from Bungoma, 10% from Kakamega, 10% from Kisii and 6% from Nandi District (Schafgans 1988). The largest ethnic group were the Luhya. Most of the Luhya in Trans Nzoia belong to the Bugusu sub-group, located in Bungoma. The Table shows that the study population is not representative of the general population: Luhya and Turkana are over-represented among the labourers on large farms in Trans Nzoia, while Kalenjin and Kikuyu are under-represented.

The population in the district has been growing very rapidly, partly due to the above-mentioned immigration and partly by natural increase. With 7.7% per year, Trans

Table 1.1
Main ethnic groups in Trans Nzoia
(%)

	CBS 1981 (N=259,673)	Schafgans 1988 (N=199)	present study* (N=49)
- Luhya	49.3	53.2	75.5
- Turkana	4.9	3.2	8.2
- Teso	3.8	4.8	6.1
- Kalenjin	22.6	16.1	4.1
- Kikuyu	10.3	9.7	-
- other	9.1	13.0	6.1
total	100	100	100

* Heads of labourers' households only.

Nzoia showed the highest growth rate of the country between 1969 and 1979 (Livingstone 1986). During the following decade growth slowed down to about 4.2%, resulting in a population of 394,000 in 1989 (CBS 1991). Because mainly young families came to Trans Nzoia, the district has a young population: over 50% of the population is younger than 15 years (MPND 1989; Schafgans 1988).

Trans Nzoia is made up of three divisions (see Map 1 on page 15). The main town is Kitale, situated in the centre of the district. Smaller centres exist in the different divisions but consist only of some small shops. Kitale has a rapidly growing population: from 28,327 inhabitants in 1979 to 53,000 in 1989 (CBS 1991). Several government departments and parastatals — like the Agricultural Finance Corporation (AFC), the National Cereals and Produce Board (NCPB), the Agricultural Development Corporation (ADC) and the Kenya National Trading Corporation (KNTC) — are located there. The town also serves as the district centre for the distribution of agricultural inputs, consumer goods, banking, some agro-based industries, medical facilities and secondary schools. Because other centres are very small and offer only very few facilities, Kitale serves the whole district.

1.2 Food security and income generation in Trans Nzoia

Food security

There are many households in Trans Nzoia with small farms only, or with no land at all. Quite a number of these are not able to grow enough food for the family, despite the favourable climatic and soil conditions in the district. These people have to rely on various kinds of income-generating activities outside the own farm in order to be able to buy food and other necessary items. Because labour opportunities are mainly found on the large farms, however, this kind of labour may interfere with the household's own food production. If cash is urgently needed, people may decide to sell part of the farm produce. Often, the result is that later in the year food has to be bought at higher prices.

Households located on one of the large farms are generally even worse off. Although they normally have the right to cultivate a piece of land, these plots tend to be very small, often less than one acre. Moreover, on large farms where seed maize is cultivated, the labourers are not always allowed to grow maize (Foeken & Verstrate 1992). If maize cultivation is not restricted, the household's crop can be adversely affected by the owner of the large farm insisting that his labourers work first on his (i.e. the owner's) fields. Other restrictions that may hamper the food security of these households are the ban on

keeping livestock and, more often than not, the ban on working for employers other than the farm owner.

In general, households that do not succeed in producing enough food, have two alternatives to fill this 'gap'. First, a cash income may be obtained from some type of rural employment. Rural employment is defined here as all income-generating activities other than those directly related to the household's own farm production. Thus, selling part of the maize harvest is not regarded as rural employment, but selling roasted maize cobs is. Because in Trans Nzoia income-generating opportunities outside the own household are found mainly on the large farms, rural employment takes two main forms, i.e. agricultural wage labour (on large farms, and either permanent or casual) and non-agricultural employment. Within the latter category, a sub-division is made between regular employment and self-employment. Figure 1.1 shows the components of 'rural employment' as they are dealt with in this report.

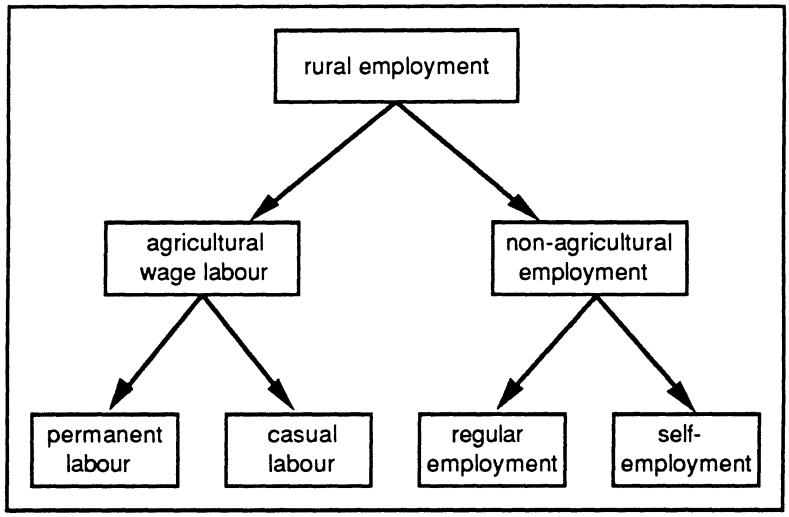

Figure 1.1
Components of rural employment

The second way of filling a possible 'food gap' is by appealing to the relations with family and/or non-relatives elsewhere. On the following pages, agricultural wage labour, non-agricultural employment and social networks as sources of income generation will be discussed in general (and sometimes hypothetical) terms.

Agricultural wage labour[4]

The 'average' large farm in Trans Nzoia employs a small number of permanent labourers and a large number of casual labourers during peak periods. This is related to the prevailing farming system in the district, which is, as we have seen, of a mixed type, i.e. maize cultivation and livestock rearing. For the latter activity, a small number of cattle workers is required the whole year round. Other permanent labourers perform tasks of a more general nature; examples are foremen, drivers, watchmen, and 'farm workers' performing all kinds of general work. Permanent labourers earn a monthly salary and often enjoy some further benefits, like a house and a plot of land for their own use. Moreover, on many farms, workers are able to buy relatively cheap maize and milk and often receive an annual present in the form of food.

Maize is the main crop and requires a lot of seasonal labour. Casual labourers are paid after each day's work, often poorly and irregularly. In years with 'normal' rainfall, the pattern of the demand for casual labourers is roughly as follows (see FNSP 1988):

- From January to mid-March the land is ploughed mechanically, so there is little demand for casual labour.
- Mid-March to mid-May is the planting season; on the large farms this is often done mechanically and there still is little demand for casual labour.[5]
- During June and July weeding, top-dressing (adding fertilizers to seed maize plants) and detussling takes place. This is mainly manual work (although herbicides are also used), so many casual labourers are needed.
- August and September are relatively idle months, during which not many casual labourers are needed.
- From October to December harvesting — i.e. cutting and stocking — of the maize takes place. This is done by hand, requiring much casual labour.

As far as the labour *peaks* are concerned, this picture was confirmed by the results of the farm survey. However, the supposedly low demand for casual labourers during relatively 'idle' periods, was disproved. It was found that even during the leanest months (February and March) an average of 50 casuals per farm were employed, performing on average 700 labour days per farm.[6]

Casual labourers are recruited from various sources. The first source concern the household members of the permanent labourers. As the permanent labourers are predominantly men, this category consists mainly of women and older children. Secondly, there may be others living on the farm. These so-called 'resident casuals' consist of two groups. Some of them are recruited by the owners/managers as 'regular casuals'. They

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[4] Unless stated otherwise, this section is based on Foeken & Verstrate 1992.
[5] However, due to the sharply risen prices of agricultural equipment and of spare parts in 1988/89, on most farms planting was done manually in 1989.
[6] These figures refer to a group of farms with an average size of 1025 acres.

live on the farm, usually in the same labour camp as the permanent labourers. In general, they enjoy the same benefits as the permanents. The second sub-group of resident casuals can be considered 'squatters', i.e. people who occupy a piece of land on the farm, without having a legal title to that land. They usually live on the fringes of the large farm and although the owner/manager obliges them to work on his farm as casuals if needed (on pain of being removed), it is not always easy for the farm management to 'control' these people. They do not enjoy the same benefits as the permanents and the 'regular casuals' — like the provision of a house, a latrine, and water supply — but they usually share in such provisions as buying maize and milk from the farm and the occasional food gift. Thirdly, labourers are recruited from areas surrounding the large farms. These are mainly people from nearby settlement schemes or sub-divided farms. Finally, if these three sources do not provide the farm with sufficient labour, people from further away are recruited. These are predominantly young men.

According to the informants interviewed prior to the survey, the bulk of the seasonal labourers during the real peak labour periods consists of the third category, i.e. from nearby subdivided farms. Estimates by the respondents of the farm survey led to more than half recruited from outside the farms during these periods. It was therefore surprising to find that almost three-quarters of *all* casual labourers employed during a period of twelve months were actually living *on* the farm.

The casual labourers coming from outside the large farms, the non-resident casuals, live for the most part on smallholdings at a nearby subdivided farm. Agricultural labour is concentrated in certain periods of the year and, as mentioned earlier, wages are low. Especially the period from April until October, is a difficult time: food from the last harvest runs out and opportunities to earn cash are limited. In June and July most cash can be earned through casual wage labour on a large farm but this may be insufficient to cover all expenses, since food has to be bought in the same period and prices are likely to rise.

It can be expected that men and women do not have equal access to agricultural wage labour. In most parts of Africa, women are responsible for food production and food preparation. In other words, the bulk of the labour and management involved in food production is done by women.[7] Apart from this, all tasks in and around the house are the main responsibility of women. These tasks can be very time-consuming and do not provide them with a monetary income. Women, therefore tend to have less access to agricultural wage labour than men. They probably undertake activities which last only a few hours a day, or work only short periods of the year.

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[7] Spring (1986: 333) estimates that in Africa the women's contribution to food production varies from 60 to 80% of the labour involved.

Non-agricultural employment

Because of the seasonal character and low rewards of agricultural wage labour, many households try to secure other — i.e. non-agricultural — forms of employment. Examples are small-scale trading, road construction, forest work or occasional jobs in Kitale (MEPND 1984, Schafgans 1988). Regular jobs are very hard to find, however. In 1985, the formal sector in Kitale — the main centre in the district offering labour opportunities outside the agricultural sector — counted 6,923 persons, a growth of 7.3% since 1981. During the same period, the average employment growth rate for the other towns in Kenya was 15% (CBS 1986). Therefore, most people seeking non-agricultural employment, have to depend on the informal sector. Since the early 1970s, it is generally recognized that this sector can offer a living to many of the growing number of people residing in the rural areas (ILO 1972). According to the District Development Plan of 1989, "the greatest potential in the business and commercial self-employed category lies in the informal sector" (MPND 1989, 39).

As said, in the present study two categories of non-agricultural employment are distinguished: regular employment and self-employment. Regular employment consists of wage labour outside the agricultural sector and usually has a more or less permanent character. Earnings are relatively high. As stated, not many people in the rural areas of Trans Nzoia are able to make a living this way. Such jobs as teaching or nursing are scarce. For most of these jobs qualifications are needed, which makes them even less accessible to most rural households. For many households, therefore, some form of self-employment is all that is left as an extra source of income. This may involve a risk, however, because for certain types of self-employment capital is required. Moreover, many self-employment activities offer only modest incomes and are mainly performed during periods in which other activities do not provide an income. Thus, one may expect households of agricultural wage labourers to be mainly engaged in small-scale activities, such as selling food crops at local markets.

Social networks

The majority of the households living in Trans Nzoia originate from other rural areas (rural-rural migration). Generally, relations are still maintained with relatives in the area of origin. These social relationships (including migrated household members) can play a role in the household's food supply. Several authors have stressed the importance of social networks for the food security of households. Maintaining social networks through reciprocal relations can act as a kind of insurance in times of stress. Goods, services, small loans, and economic information can be exchanged (Long 1984). Foeken (1990, 20), in his description of mechanisms to cope with seasonal stress, mentions that "in

many African societies, there exist networks of social relations of a redistributive nature", which help to overcome periods of severe food shortages. In difficult times, for example, food or money can be borrowed in order to satisfy pressing consumer needs, so that starvation can be avoided. Relatives are sometimes called upon to help with planting or harvesting or with building houses. In this way bottlenecks in labour requirements can be overcome. Another way of using these social networks is to send younger children to wealthier relatives in times of need, thereby relieving the burden of the household. Finding sources of income can also be easier if the social network is extensive. In short, social networks can be of importance for obtaining food-stuffs, non-edible goods, cash, extra labour during agricultural peak periods, temporary accommodation for household members, as well as information, e.g. about job opportunities.

As stated before, the period from April to October is a relatively difficult time in Trans Nzoia in terms of food security, so this is the period during which the need to exploit social networks may be strongest. Moreover, agricultural cycles in different districts may not be the same. Food shortages in Trans Nzoia can coincide with surpluses in the area of origin. For these reasons, the exploitation of social networks can be expected to show a seasonal character.

1.3 RESEARCH QUESTIONS

The main objective of the present survey is to establish the importance of rural employment and of social networks for the income of households of farm labourers in Trans Nzoia District. Based on this, the following questions can be formulated, under the two respective headings.

Income generation

1) What is the relative importance of agricultural wage labour (permanent or casual), non-agricultural employment and farm production for the households' income?

2) Are there seasonal fluctuations in the households' total income and in the incomes from the various forms of employment?

3) To what extent does a division of labour exist between the sexes regarding income-generating activities?

4) What are the constraints regarding agricultural wage labour and non-agricultural employment?

Social networks

5) What is the importance of social networks for the household's income generation?

6) To what extent do different types of social relationships — family in the area of origin, non-residential family members, non-relatives — differ in this respect?

7) Is there a seasonal variation in the exploitation of social networks?

8) To what extent do differences in agricultural cycles between Trans Nzoia and the area of origin help to solve food shortages?

The first two questions are addressed in Chapter 3, questions 3 and 4 are answered in Chapter 4, and the questions related to social networks are discussed in Chapter 5.

2. Method

Main surveys

For the purpose of the surveys in Trans Nzoia, large farms were defined as farms of 100 acres and more (Foeken & Verstrate 1992). From a total estimated number of about 220 farms, a 20% sample was drawn, stratified according to farm size. Thus, 46 farms were selected, distributed over four categories (Table 2.1). The interviewing of farm owners or managers took place during March and April 1989.

Table 2.1
Sample composition: farm survey

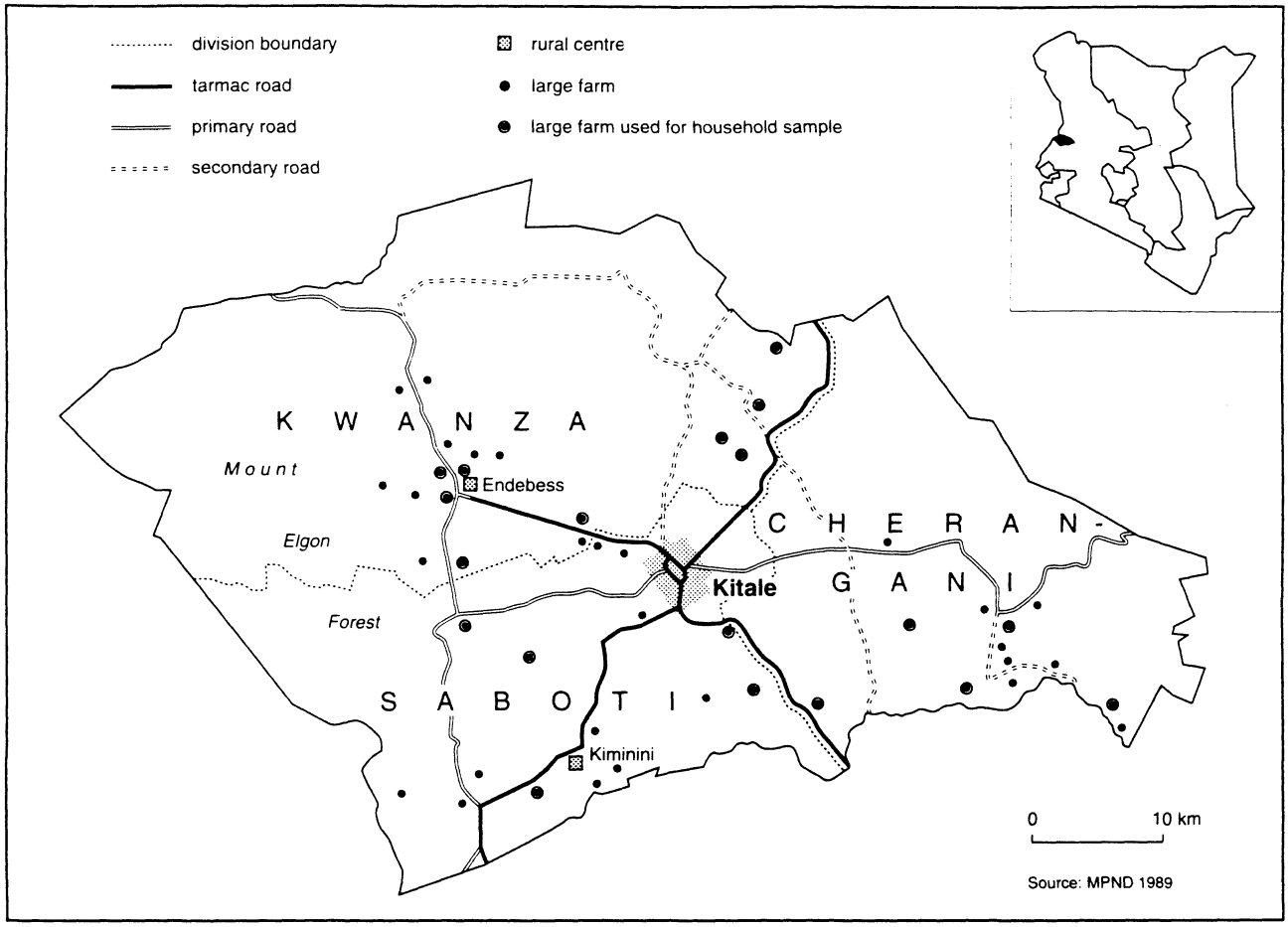
	total	100-199 acres	200-499 acres	500-999 acres	1000+ acres
number of farms	46	13	13	11	9

Source: FNSP 1990

For sampling purposes for the main household survey, the 46 farms of the farm survey were grouped into six geographical clusters. From each cluster, 1-4 farms were selected. Farms selected were those known (from the farm survey) to employ enough labourers of one or more types. Map 1 shows the sampled farms as well as the farms used for the household survey. The final sample was as follows:

- 47 households of permanent labourers living on large farms: "permanent labourers",
- 51 households of casual labourers living on large farms: "resident casuals",
- 165 households of casual labourers living on smallholdings: "non-resident casuals",
- 35 households of persons who did not work as casual labourers: "non-labourers".

As far as the three categories of labourers are concerned, the selected numbers of households to a certain extent reflect the numbers that could be estimated from the data of



Map 1
Trans Nzoia District: farm sample and household sample

the farm survey (being 1: 0,5 : 3,5).[8] Only the group of resident casuals is somewhat over-represented, but proportional representation would make the number of households in this category too small. Nevertheless, where aggregated data of all labourers' households are presented, these figures can be considered fairly representative for the whole labourers' population in the district. The actual number of non-labourers' households in the district is not known, but this group solely functions as a comparison group.

"Non-resident casuals" refers to households in which one of the household members had ever been working on a large farm during the twelve months prior to the interview. If that was not the case, the household was categorized as "non-labourer".

The rationale for this sample stratification can be summarised in terms of both provisions and regularity of income. The permanent labourers have a regular, monthly salary and enjoy relatively many benefits in the form of such provisions as a house, water supply, a latrine, a plot of land, and the possibility to buy relatively cheap food from the farm stocks. Resident casuals usually enjoy some of the provisions given to the permanents, but lack a steady source of income. Moreover, they are in a disadvantageous position as they are usually not allowed to seek wage employment outside the farm where they live. Non-resident casuals do not experience that constraint, but lack most of the provisions for resident casuals. Finally, the group of non-labourers is added for comparison purposes.

In order to collect a maximum of information on nutritional conditions, the survey covered households with young children between the ages of six months and five years. The reason for this selection criterion is that small children comprise the most vulnerable group in nutritional terms.[9]

Thus, the sample of the main household survey included 298 households. Four-fifths of these were approached with the 'basic questionnaire', containing information regarding household composition, economic activities of household members, farming, anthropometry, health, food preparation of the preceding day, and food consumption. These were the so-called "recall households". The remaining 60 households were visited for three whole days, every other day. On each occasion, all food preparation and consumption was observed. Moreover, a food preparation recall of the day before was done. In this way, a period of six days was covered for these "observation households".

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[8] For the 220 farms of 100 acres or more, the estimated figures (during peak labour periods) at district level are 3,900 households of permanent labourers, 2,000 households of resident casuals and 13,500 households of non-resident casuals. See Foeken & Verstrate 1992, p. 22 (permanent labourers) and p. 31 (casual labourers).

[9] Despite this selection criterion, it turned out that the age composition of all persons in the selected households did not deviate very much from the age compositionof the district population as projected in 1988 (see Foeken & Tellegen 1992 and MPND 1989), in the sense that the sampled population is only slightly younger.

The households of the permanent labourers and the resident casuals were easy to trace and were randomly selected in the field. For tracing the households of the non-resident casuals, data regarding the main recruitment areas of the large farms (from the farm survey) could be used. Almost without exception, these households could be found on the nearest subdivided farm. Cluster-sampling was used to select these households. Finally, the non-labourers' households were selected as the nearest neighbours of the non-resident casuals.

The household was chosen as the unit of analysis and was defined as a group of people who reside together under one roof or under several roofs within a single compound, who are answerable to the same head and share a common source of income (FNSP 1988).

Present study

The population of the present study consisted of the 60 observation households of the main survey. These households were chosen because quite a lot of information was already available on them. Another reason was the fact that they could be considered to represent the 298 households in the main household survey, and thus the farm labourers' population in Trans Nzoia District (with, as was pointed out, only some over-representation of the resident casuals).

Only one household, from the group of non-resident casuals, refused to be interviewed, reducing the sample population to 59 households. Another problem was the fact that two households within the group of non-labourers appeared to earn 20% of their income from agricultural wage labour. It was decided to add them to the group of non-resident casuals. The same problem occurred in the group of households of non-resident casuals. The main source of income of one of the households was a *matatu* business (mini-bus for transporting people) and nobody within this household undertook casual labour. It was decided to give this household a place in the group of non-labourers. Thus, the distribution of the households over the four sub-groups became as follows: 10 households in the group of permanent labourers, 10 households in the group of resident casuals, 30 households in the group of non-resident casuals and 9 households in the group of non-labourers.

During the analysis of the data regarding household income, three households turned out to have exceptionally high incomes: one in the group of permanent labourers and two in the group of non-labourers. As these households have a disproportionately large influence on group averages, they have been left out of the analysis. The final study population as used in this report, then, is shown in Table 2.2.

Table 2.2
Sample composition (households) of the in-depth study

	permanent labourers	resident casuals	non-resident casuals	non-labourers	total
number of households	9	10	30	7	56

The sizes of the four study groups are rather small, which is only in the nature of an in-depth study. In general, this does not allow for statistical comparisons. However, during the analysis it appeared that the variations within the sub-groups are relatively small and the differences between the sub-groups are quite consistent, allowing presentation of data on sub-groups.

Field work took place in August 1989. Each household was interviewed for about two-and-a-half hours. A semi-structured questionnaire was used, containing a mixture of different interview techniques (see Appendix O). The basic questionnaire of the main survey was used as a starting point. More detailed information about various subjects was desired, so data were collected about seasonality of farming and economic activities. Households were asked what kind of activities they had undertaken during the last twelve months. This part of the questionnaire consisted mainly of structured questions. Furthermore, information was gathered on the household budget, migration history, links with the area of origin and other social relationships, using open interview techniques. After discussing and checking the interviews, some households were visited again because clarification on some of the topics was needed.

Most of the respondents knew quite exact when they planted and harvested maize and what type of economic activities they had undertaken during any particular month. Some households even showed calendars on which they had marked the dates of planting and harvesting. It is therefore assumed that the data about seasonal fluctuations regarding income generation and economic activities were quite reliable.

Further information was asked on individuals, such as differences between the sexes in constraints on seeking jobs, especially non-agricultural employment. As to questions about migration and social networks, both husbands and wives were asked where they were born, how long ago they had come to Trans Nzoia, for what reason, and so forth.

As regards the 'exploitation of social networks' exhaustive accounts were obtained of the exchanges of the interviewed households with relatives and non-relatives, whether

in cash or in kind. Information was collected on the closest relatives of both husbands and wives, how often they went there, how often they came to visit, what was given, where they lived, the costs of public transport and how long it took. The same questions were asked regarding other relatives and non-relatives in case goods or money were exchanged. A calculation was made of the total value of gifts and receipts during the whole year preceding the survey. In order to do so, food and other non-monetary exchanges were given a monetary value. Conversion values are the same as those used in the chapter on household income (see Appendix A), which makes comparison with other sources of income possible. Non-food items were left out, because it was very difficult to estimate their values. These items are not commonly exchanged, however, so excluding them only results in a slight under-estimation. By asking *when* each exchange took place, an impression of the seasonal variation was obtained. Only actual exchanges for the preceding year were counted, so relatives who visit each other every two years, but not last year, were not included. Three kinds of exchanges were distinguished: cash, staple foods, and other edible gifts (normal staple foods in Trans Nzoia District are maize, beans, irish potatoes, sweet potatoes and bananas). In this way a better insight could be gained into the importance of social networks for the population's food supply.

The district where people were born is regarded as the area of origin. In all cases, relatives living in this district lived very close to the migrant's place of birth. Differences in fare and travelling time were very small, so taking the district as one area seemed logical and practical. The area of origin was defined for both husband and wife (wives) and relations with relatives on both sides were taken into consideration.

3. Household income

In the present chapter, various aspects of household income will be discussed. First, the total average income and its components for each of the four study groups will be compared. This section relates to the first main research question as formulated at the end of Chapter 1. Second, the seasonal variation of income-generating activities will be analysed. Finally, a more detailed analysis is presented of one particular type of activities, namely non-agricultural employment.

3.1 HOUSEHOLD INCOME AND ITS COMPONENTS

For purposes of the present study, the households' total income is divided into two main components: income from own farm production and income from rural employment. As pointed out in Chapter 1, the latter is split into income from agricultural labour on large farms and income from non-agricultural employment.[10] Tables 3.1 to 3.3 offer some information on each of these components.

The income from the own farm activities consists of the monetary value of the home-consumed part of the harvest, the value of the livestock increase, the value of the household's milk production, and the money obtained by selling part of the produce.[11] For each study group, the respective figures are shown in Table 3.1. The variation regarding farm income can to a certain extent be attributed to differences in farm size.[12] Especially the non-labourers had relatively large plots and this may explain their high

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[10] Income derived from social networks is not included in this section.
[11] See Appendix A.
[12] The average farm sizes for the five study groups are as follows:
- permanent labourers 0.9 acres
- resident casuals 1.0 acres
- non-resident casuals 1.8 acres
- non-labourers 3.9 acres

One of the resident casuals owned 3.5 acres outside the farm. If this is deducted, the average becomes 0.75 acres.

Table 3.1
Annual farm income, by study group
(KSh/household)

(N=)	permanent labourers (9)	resident casuals (10)	non-resident casuals (30)	non-labourers (7)
- home production	721	694	2260	2938
- livestock and milk production	385	50	1863	3086
- farm sales	332	237	861	5449
Total	1438	981	4984	11473

Table 3.2
Annual income from agricultural wage labour, by study group
(KSh/household)

(N=)	permanent labourers (9)	resident casuals (10)	non-resident casuals (30)	non-labourers (7)
- permanent labour	4180	632[1]	50[2]	-
- casual labour	2968	4987	4689	395[3]
Total	7148	5619	4739	395

Notes: (1) This concerns one family member of the head of the household who is working as a permanent labourer on a large farm other than the farm the household lives upon. (2) This concerns the husband of one of the respondents. Before he died in January 1989 he had been working as a permanent labourer. (3) During the lengthy and detailed interviews in this survey it appeared that some households that had been selected for the main household survey as 'non-labourers' had in fact earned some money from casual labour. The amounts were so small, however, that it was decided to retain these households in the category of 'non-labourers'.

Table 3.3
Annual income from non-agricultural employment, by study group
(KSh/household)

(N=)	permanent labourers (9)	resident casuals (10)	non-resident casuals (30)	non-labourers (7)
- regular employment	833	170	2723	6807
- self-employment	56	667	1974	7754
Total	889	837	4697	14561

value of farm sales. The very low values of farm income for the households living on the large farms (permanent labourers and resident casuals) cannot only be attributed to the small plots they had at their disposal, but can also be related to the restrictions regarding agriculture laid upon them by many large farm owners. On farms where seed maize was cultivated, the labourers were not always allowed to grow their own maize. Moreover, it was forbidden to keep livestock (although two of the permanent labourers' households in the survey appeared to have some livestock, but it was kept outside the farm). As a result, the farm incomes of these households were very low indeed. Table 3.1 shows that this applied not only to the resident casuals (as could be expected), but to the permanent labourers as well.

The income derived from agricultural wage labour — i.e. labour on large farms of 100 acres and more — is divided into the income from permanent labour and the income from casual labour. It is obvious that the figures in Table 3.2 reflect the way the groups were defined. But the table also shows that for the households of permanent labourers, *casual* labour (undertaken by wives and older children) was an important source of income.

The average incomes from non-agricultural employment are shown in Table 3.3.[13] The picture that emerges is the same as that of the average farm incomes, implying that the relatively high income level of the non-labourers was not only caused by relatively high farm incomes but also by substantial earnings from non-agricultural employment. Comparing the income from regular employment of this group with the income from permanent labour of the group of permanent labourers, Table 3.2 shows that the latter type of employment was much less rewarding than regular employment outside the large farms.[14]

Total household income and its distribution are shown in Table 3.4. For reasons of interpretation, the average incomes of the study groups are compared with the estimated average value of the annual expenditures of *all* Kenyan rural households in 1989, calculated from the data of the Rural Household Budget Survey 1981/82.[15] The average annual expenditures reaches a level of KSh.12,000. Hence, this level is called the *average livelihood level.*

The table shows that the resident casuals were clearly the poorest group, with an average income far below the average livelihood level. Only one household in this group managed to obtain an income above that level. The average incomes of the permanent

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[13] More detailed information regarding non-agricultural employment is presented in Section 3.3.
[14] On quite a number of farms, monthly salaries of permanent labourers appeared to be (far) below the legal minimum level. See Foeken & Verstrate 1992, Chapter 4.
[15] For method of calculation, see Appendix A.

Table 3.4
Total annual household income, by study group

(N=)	permanent labourers (9)	resident casuals (10)	non-resident casuals (30)	non-labourers (7)
• total income (KSh/hh)*	9547	7370	10294	26801
• distribution (%):				
- up to KSh.12,000	77.8	90.0	50.0	-
- more than KSh.12,000	22.2	10.0	50.0	100
total	100	100	100	100

* Some households in the groups living outside the large farms have a modest income from renting out part of their land. On group level, this comprises less than one per cent of the total household income, however.
Source (total income): Tables 3.1, 3.2 and 3.3.

labourers' households and of the non-resident casuals did not differ very much. However, it appeared that the vast majority of the permanent labourers' households and 'only' half the non-resident casuals fell below the critical level of KSh.12,000. Finally, after what has been presented in the foregoing tables, it is not surprising that the group of non-labourers were relatively wealthy and that all the households were above the critical level.

Table 3.5 shows the composition of the households' incomes, which allows us to further describe the differences in income level between the four study groups. It is clear that the higher the dependency on agricultural wage labour, the lower the household income. Permanent labourers and resident casuals derived three-quarters of their income from this type of activity. Farm activities and non-agricultural employment contributed very little to the income of these households. The reverse was true for the non-labourers. The relatively high average income of these households can be attributed to the high incomes from farming and from non-agricultural employment. Finally, the non-resident

Table 3.5
Composition of household income, by study group

(N=)	permanent labourers (9)	resident casuals (10)	non-resident casuals (30)	non-labourers (7)
- farm income	15.8	12.4	29.4	44.2
- agricultural wage labour	74.9	76.2	43.1	1.5
- non-agricultural employment	9.3	11.4	27.5	54.3
total	100	100	100	100

Source: Tables 3.1, 3.2 and 3.3.

casuals occupied a middle position as far as the composition of the total household income was concerned. They relied for a substantial part on casual labour on large farms. Because they did not experience the same restrictions on agriculture and working elsewhere as the households living on large farms, they obtained higher incomes from farming and non-agricultural employment than the on-farm groups.[16]

3.2 SEASONAL ASPECTS OF INCOME-GENERATING ACTIVITIES

According to the general literature on seasonality, many rural households in Third World countries face one or two periods of 'stress' each year. Usually, this stress is felt in the form of depletion of food stocks and lack of money to buy necessary items (including food). The households in the survey were asked whether they had experienced "difficult months" regarding their food situation during the twelve months prior to the interview. Figure 3.1 shows the responses of the labourers' households only (data on the group of non-labourers and on the different groups of labourers are presented in Appendix B). It is clear that the period from June to September, and especially July and August, were felt to

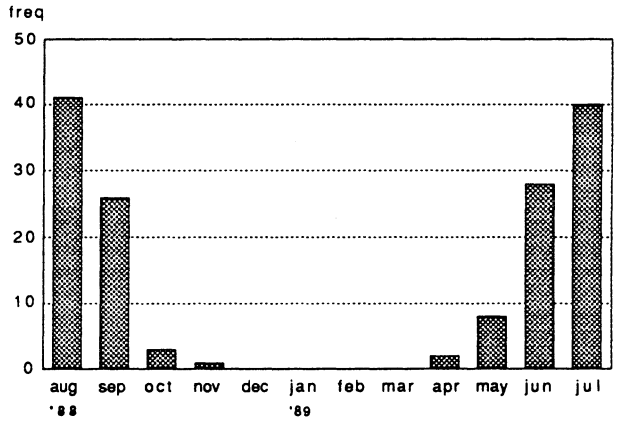

Figure 3.1
'Difficult months', as mentioned by the respondents
(farm labourers only; source Appendix B)

[16] Compared with the main household survey (see Foeken & Tellegen 1992, Table 4.9), the average incomes deviate in the sense that they tend to be somewhat higher. This is probably caused by the intensive way of interviewing, so that some 'forgotten' sources of income were mentioned. However, the central focus of both studies, notably the comparison between the four study groups, remains unaffected.

be "difficult months". Stores of food from the preceding harvest were depleted by then, while the new crop could not yet be harvested.

The main mechanism to cope with "difficult months" is money to make the necessary food purchases. As stated, money comes from three potential sources: farm sales, income from agricultural wage labour and income from non-agricultural employment. The monthly variations of the incomes from these sources are shown in Figure 3.2.

Farm sales consisted almost entirely of staples that were sold: maize, beans, irish potatoes, sweet potatoes and bananas. Typically commercial crops like fruits and sugar cane were hardly cultivated. It is obvious then, that the income derived from farm sales was highly seasonal, being concentrated in the period from December to March. Most households sold part of their yield immediately after the harvest, in some cases because of an urgent need for money, in other cases because of lack of storage facilities. The relatively high farm sales of the households in the group of non-labourers in January and March can be explained by the need to buy inputs for the new crop. The figure shows that most households living on the large farms were able to sell hardly anything. Their harvests were simply too small, partly because of the small plots and partly because of the restrictions imposed on them regarding crop cultivation. However, these households still sold some part of their harvest, indicating an urgent need for cash.

The income from agricultural labour consists of the salaries of the permanent labourers on large farms and the daily earnings of casual labourers. The salaries of the permanent labourers were very stable throughout the year, at a level of about KSh.350 per month (Appendix C). In other words, the fluctuations in the incomes from agricultural wage labour in Figure 3.2 actually reflect the fluctuations in the earnings from casual labour on the large farms in Trans Nzoia.

Figure 3.3 shows the average monthly earnings from casual labour on large farms, aggregated for all labourers' households. A clear seasonal picture emerges. April, May and June 1989 were busy months, with such activities as planting and weeding. With about KSh.450 per household, earnings reached an absolute peak in May. November and December 1988 formed another peak. This was a period of maize harvesting. The figure also shows that August-September 1988 and February-March 1989 were the periods that casual labourers were least needed. Nevertheless, even in the leanest month (September), the households of the study population earned an average of KSh.253 from casual labour, indicating there is always some casual labour to do on the large farms (Appendix C).[17]

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[17] The same conclusion was drawn in Foeken & Verstrate 1992. Comparison of Figure 3.3 with the average number of labour days from the farm survey (Foeken & Verstrate 1992) shows that the highest labour peak in 1988 took place in July, i.e. two months later than in 1989. Apparently, the maize cycle

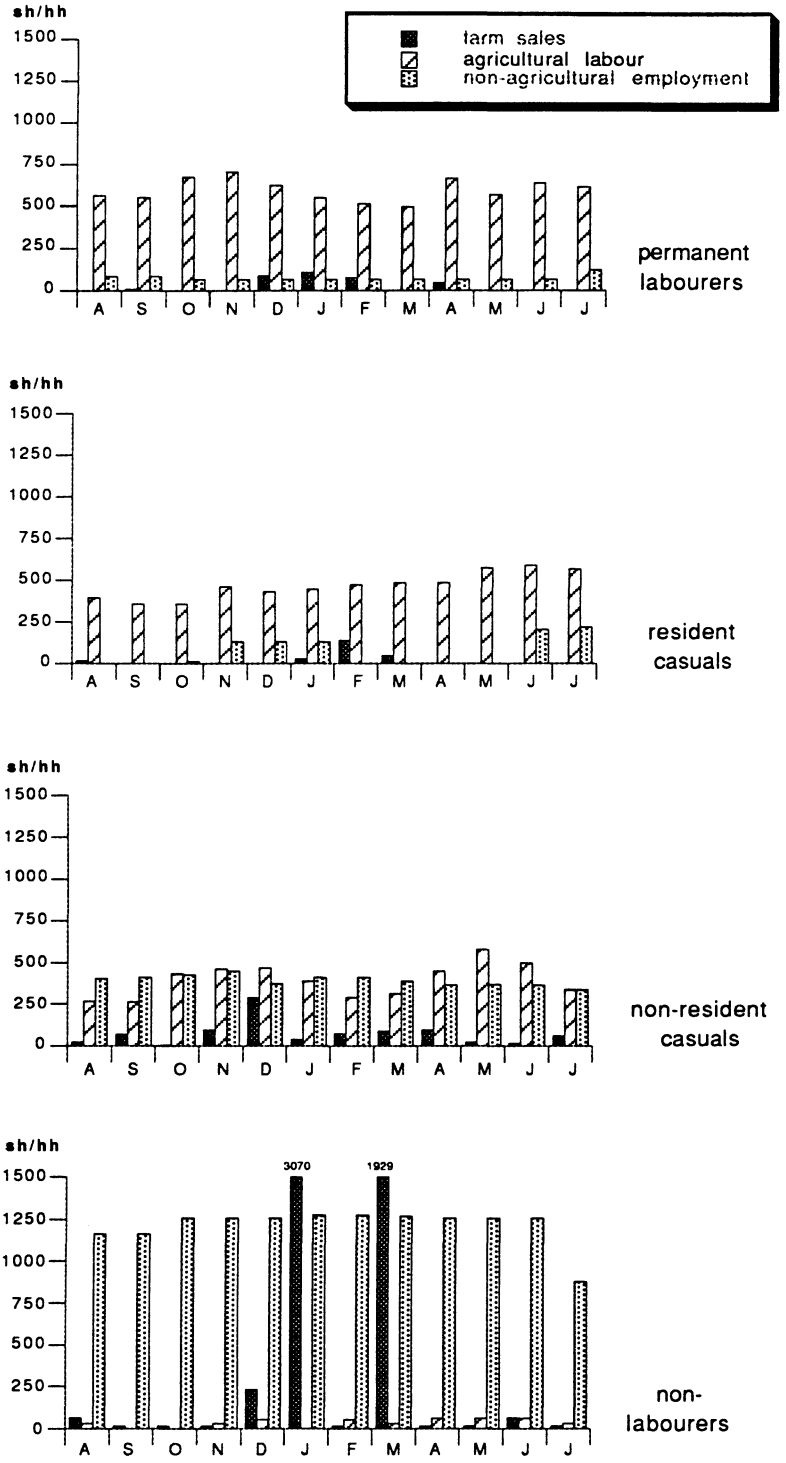

Figure 3.2
Monthly incomes from farm sales, agricultural wage labour and non-agricultural employment, by study group (Ksh)
(Source: Appendix C)

started in 1989 about one-and-a-half month earlier than the year before, implying that households cannot rely in advance on certain earnings from casual labour in specific months.

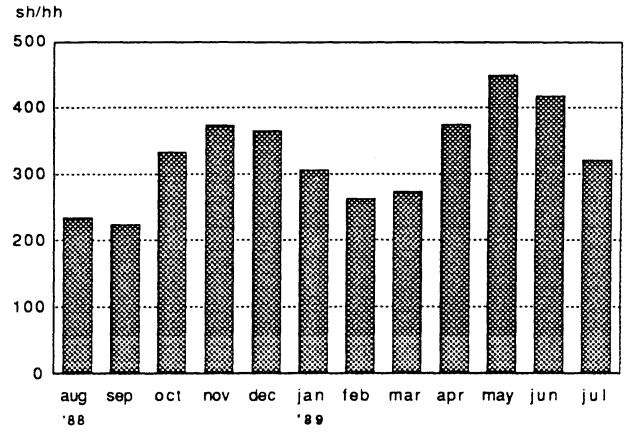

Figure 3.3
Monthly earnings from casual labour on large farms (KSh)
(farm labourers only; source: Appendix C)

Income from non-agricultural employment comes from two sources: regular employment and self-employment. The first is generally considered as the most secure way to prevent seasonal stress. As we have seen (Table 3.3), it is only in the group of non-labourers that both regular employment and self-employment contributed substantially to the households' income. This is confirmed by Figure 3.2, and it also shows that this was a regular source of income the whole year through. As far as the non-resident casuals were concerned, their earnings from non-agricultural employment did show some seasonality, which was caused by the monthly variations in the income from self-employment (Appendix C). These variations were rather small, however.

3.3 NON-AGRICULTURAL EMPLOYMENT

One aim of the present study was to gain insight into the importance of non-agricultural employment as a source of income for households of agricultural wage labourers. We saw that in at least two study groups a substantial part of the household income was derived from non-agricultural employment (Table 3.5). Two broad categories of non-agricultural employment were distinguished: regular employment and self-employment. Table 3.6 offers information on the types of non-agricultural employment carried out by

Table 3.6
Non-agricultural employment, by type of employment
(number of persons)

	regular wage employment	self-employment
- community, social and personal services	8	5
- trade	-	13
- food processing	3	4
- transport	5	-
- small-scale manufacturing	1	2
- factory work	-	-
- forestry	2	-
total	19	19*

Note: The category of non-labourers is excluded.
* Because some persons perform more than one activity the number of persons is smaller than the number of activities.
Source: Appendix D

households of farm labourers. The different activities are presented according to types of industry (Appendix D contains a complete list of all different activities undertaken, presented by study group).

The first thing Table 3.6 shows is that among households of farm labourers the total number of persons involved in self-employment was the same as the number involved in regular wage labour. However, since some people were engaged in more than one type of self-employment, the number of self-employment activities was higher than the number of regular jobs. Moreover, regular employment — i.e. excluding permanent labour on large farms — occurred mainly in the sector of local services, while self-employment was dominated by trade activities and to a lesser extent by local services. Most trade activities were very marginal indeed, often being no more than the buying and selling of one product (Appendix D).

Regular employment is generally better-paid than self-employment.[18] In the present study this is also the case. On average, the 19 members of households of farm labourers with a regular job earned about KSh.4,785 during the twelve months covered Appendix E). When leaving out the three maids who earned relatively little, the average income amounted to Ksh.5,345. Members of households of farm labourers who were self-employed earned KSh.3,650.

[18] See, for instance, Foeken et al., 1989: 49.

Compared with permanent agricultural labour (on large farms), non-agricultural labour of a permanent nature payed better. The nine permanent labourers (on large farms) of the sample had an average annual income of KSh.4,180 (Table 3.2). In other words, the average annual income of the non-agricultural wage labourers, excluding the maids, was about one-quarter higher than that of the permanent labourers on the large farms.

If the earnings from self-employment and casual labour (on large farms) are compared, it appears that the former type offered a much higher income than the latter: the average income earned by those engaged in any type of self-employment was about twice as high as the average income from casual labour, the latter being calculated at about KSh.1,700 per labourer during the year under consideration.

Table 3.7 shows, for each of the four study groups, three different aspects of non-agricultural employment: the average number of persons per households engaged in this type of activity, the educational level per worker and the average earnings per worker.[19] In the households living on the large farms, very few persons were engaged in non-agricultural employment, especially compared with the non-labourers. This applied to both regular employment and self-employment (Appendix E). Moreover, the average earnings per worker in the non-labourers category were much higher than those in the on-farm categories (Table 3.7). On average, the non-agricultural worker in the former category earned more than three times as much as the worker in the latter groups.

These differences were related to (at least) two factors. First there were difficulties faced by households living on large farms regarding possible non-agricultural activities. As mentioned earlier, the members of these households were often forbidden to seek work outside 'their' large farm, on pain of eviction from the farm. This explains the small

Table 3.7
Aspects of non-agricultural employment, by study group*

	permanent labourers	resident casuals	non-resident casuals	non-labourers
• number of workers per household	0.4	0.4	1.2	2.3
• educational level** of workers	3.0	2.5	5.2	6.4
• income per worker (sh)	2,000	2,092	4,699	6,588

* For N's, see Appendix E. ** Average number of years of formal education.
Source: Appendix E.

[19] It must be noted that for two study groups, notably the permanent labourers and the casuals-on-the-farm, the numbers were very small. This in itself is a noteworthy result, however.

number of workers per household. The second factor was the educational level of the workers. The workers in the non-labourers households (and to a lesser extent also the non-resident casuals) clearly had a higher educational level than their colleagues on the large farms (Table 3.7). As a result of these two factors, the average household income from non-agricultural employment among the non-resident casuals was five times higher than that of households living on the farm and that of the non-labourers households even seventeen times higher (see Table 3.3).

4. Rural employment: sexual division and constraints

In this chapter, further aspects of the two main categories of rural employment — i.e. agricultural wage labour and non-agricultural employment — are discussed. First, the sexual division of these types of activities will be analysed. Secondly, the constraints on rural employment will be discussed, differences between the two sexes again included.

4.1 SEXUAL DIVISION OF RURAL EMPLOYMENT

Table 4.1 shows the number of men and women from the three groups of farm labourers engaged in different types of rural employment as well as the average earnings from these activities (for data on all groups, see Appendix F). In all, the numbers of men and women were almost equal: 71 and 74, respectively. There were important differences, however, regarding the participation of men and women in the different types of activities. Women did not engage in permanent agricultural labour and very few of them had regular employment outside the agricultural sector. Women who sought employment outside their own farm were restricted to either casual labour on a large farm or to one of the many types of self-employment. Moreover, in both types of activity, the number of women exceeded the number of men. No fewer than 92% of the women engaged in rural employment undertook casual labour on a large farm, compared with 76% of the men.

Not only were there differences regarding the *number* of men and women engaged in the various categories of rural employment, the same applied to the average earnings. The five women with regular employment earned about 70% less than the men engaged in this type of employment. Regarding self-employment, women earned about 40% less than men.

Apparently, women dominated the less-rewarding activities, such as selling (roasted) maize and vegetables; sources of income, moreover, that can only be exploited during a relatively short period of the year. Men predominated in the more permanent (and higher

Table 4.1
Average earnings per worker from rural employment, by type of activity and by sex* (KSh)

	MEN		WOMEN	
	average earnings	N	average earnings	N
from all types of rural employment	3,519	71	2,287	74
from agricultural wage labour				
- permanent labour	4,131	11	-	-
- casual labour	1,845	54	1,716	68
from non-agricultural employment				
- regular employment	5,905	14	1,650	5
- self-employment	5,305	8	2,181	11

* In each column, the number of persons in the top row is smaller than the sum of the number of persons engaged in the different types of rural employment. This is due to the fact that in some cases one person is engaged in more than one type of activity. This applies to both men and women.
Source: Appendix F

paid) types of self-employment. Examples were a *matatu* owner, a carpenter, a butcher and someone who ploughed with oxen for other farmers. These jobs required relatively high capital inputs, but such investments turned out to be quite remunerative.

Table 4.1 shows that the only type of work in which men and women were more or less equal in terms of earnings was casual labour on large farms. As already mentioned, for women casual labour on large farms was by far the most important means of obtaining a cash income with which food and other necessary items could be bought. The number of women undertaking rural casual labour — which included such 'maize activities' as weeding, top-dressing, detussling, stocking and shelling — was primarily determined by the seasonal demand for farm labour. This can be seen in Figure 4.1.

As far as the women were concerned, Figure 4.1 shows two clear peaks: one in November-December 1988 and one in April, May and June 1989. These were the periods of stocking (November-December), of planting and weeding (April-May) and of detussling and top-dressing of seed maize (June). Regarding the men, only one peak, in April, can be discerned. Apparently, the seasonal variations of casual labour by men was much less than that of casual labour by women. In other words, peak labour requirements on the large farms in Trans Nzoia are mainly covered by female labourers.

Comparing these findings with the reported 'difficult months' (see Figure 3.1), it is clear that for women it was difficult to obtain cash during the months that were ex-

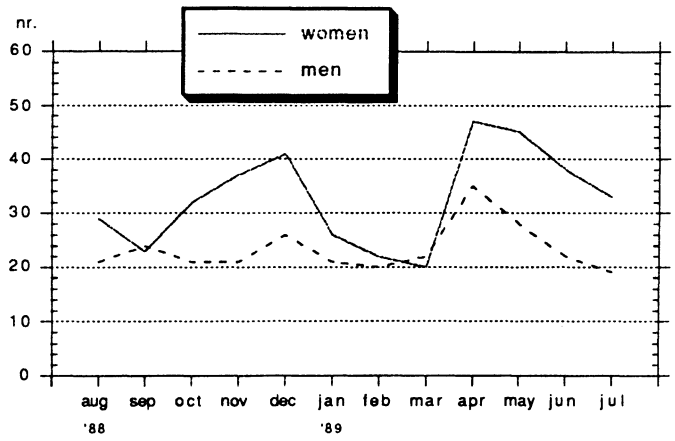

Figure 4.1
Seasonality of casual labour, by sex
(labourers' households only; source: Appendix G)

perienced as being the most 'difficult' ones in terms of food security, namely July and August.[20] However, the peak in income from casual labour during the previous months (April, May and June) might help to buy food during this 'hungry season'.

Female-headed households

A group generally regarded as the most vulnerable regarding food security is that of female-headed households. In many cases, the female head is the only adult in the household capable of generating an off-farm income, but she is at the same time responsible for the household's food supply and all domestic tasks. There were six female-headed households among the three groups of farm labourers. Two of these women were widows, one was divorced. The other three still had a husband, but in all cases the man was living elsewhere and contacts were very irregular or even non-existent. Five of the households belonged to the group of non-resident casuals and one to the group of permanent labourers. In the latter case, the husband had left in January and had not come back since then. The six female-headed households belonged to the poorer segments of the study population, with an average annual income of KSh.7,157 per household, compared with KSh.9,560 for all households of farm labourers.

In one household, a daughter had found regular employment and worked as a maid, with an average income of KSh.250 per month. The girl had lost her job in January 1989, however, and since then the household concerned lacked this source of income. In three

[20] As mentioned earlier, in contrast with 'normal' years July 1989 was a relatively lean month in terms of labour on large farms.

households, the female head undertook some type of self-employment. One woman carried water for others, the other two were involved in brewing and selling of home-made beer (*busaa*). The latter activity was relatively rewarding, bringing in these women about KSh.500 per month (compared, for instance, with an average monthly income from casual labour of KSh.250). Another advantage of this activity was that it could be done at home, so the women could look after their children while realizing an income. At the same time, however, it was illegal, making it a risky activity.

In all female-headed households, casual labour formed a source of income, be it to different degrees. For some women it formed the major source of income, while others were engaged in casual labour for a short period of the year only. The poorest female-headed household was the household with the daughter who had worked as a maid until January. The household did not have any land to cultivate crops and when the daughter lost her job, the household was completely dependent on casual labour.

4.2 CONSTRAINTS REGARDING RURAL EMPLOYMENT

Each respondent was asked whether (s)he found it difficult to find work, and if so, why. Table 4.2 offers an overview of the constraints that were mentioned by households of farm labourers. Only one main reason was asked for, so the numbers count up to forty-nine.

Regarding casual labour on large farms, a large majority of the respondents mentioned the seasonal character of this type of labour as the main problem. On the other hand, 16% had no problem finding casual labour. However, almost 40% of the latter were members of households of permanent labourers (Appendix H), and for these people it was much easier to get casual work than for those who were living outside a large farm. Lack of jobs as the main constraint was only mentioned by respondents living outside the large farms (Appendix H). Nevertheless, it seemed that agricultural casual work was accessible for nearly all respondents. Many respondents, however, preferred casual work of a longer duration, so that a more regular income might be obtained.

Concerning permanent labour on large farms, the lack of jobs was mentioned most frequently as the main constraint (Table 4.2). This could also be induced by the fact that during the survey, a number of permanent labourers were turned into casual labourers by the farm owners or managers. They were still allowed to live on the farm, but turning them into casuals made it easier for the large farmers to remove them eventually or pay them less for the same work. Another constraint often mentioned was the long time before

Table 4.2
Constraints mentioned in relation to rural employment, by type of activity (N=49)

	casual agricultural labour	permanent agricultural labour	non-agricultural employment
- seasonality	34	-	-
- lack of jobs	4	14	1
- no time	1	-	1
- distance	1	1	1
- have to know employer	1	6	1
- lack of capital	-	-	29
- not allowed by farm owner	-	1	10
- lack of skills	-	-	3
- other reasons	-	8	-
- difficult, but no reason mentioned	-	9	-
- no problem	8	8	3
- no answer	-	2	-
Total	49	49	49

Note: Farm labourers' households only.
Source: Appendix H

a large farm owner was willing to employ somebody as a permanent labourer. Even casual labourers who had been working for more than ten years for the same farm owner and who were eager to become a permanent labourer were not easily offered a steady job. One of the complaints several respondents mentioned was that "you have to bribe the manager to become a permanent", while other respondents told that the manager of the farm they worked on only employed people of his own ethnic group. In short, to become a permanent labourer on a large farm was very difficult.

To start certain business, capital investments are needed, but most households lacked the means to do so. This explains the high number of respondents mentioning lack of capital as the main constraint regarding non-agricultural employment (Table 4.2). Quite a number of respondents had definite ideas about the type of self-employment they would like to undertake. As one respondent said, "there are no shops around, so enough customers; the only problem is capital". Another man was a carpenter but had no money to buy the tools and was therefore forced to work as a casual on a large farm. One woman would like to buy maize after the harvest and sell it later on at a higher price, but again money to buy stock was the main problem. Another woman, however, said that most people prefer to do casual labour because it was paid immediately, while most self-

employment activities were only profitable after some time because the initial investments had to be paid off.

A majority of the permanent labourers and about 40% of the resident casuals mentioned as reason that they were not allowed to do non-agricultural work (Appendix H). As mentioned before, many large farm owners forced 'their' permanents and, if present, 'their' casuals to work solely on the farm, under penalty of being dismissed or sent away. There were also some respondents who said that it was no problem to find non-agricultural employment. All of them were located outside the large farms.

Finally, two respondents mentioned constraints of a very specific nature. The first had a shop in Lodwar (Turkana District). This business collapsed because he gave away too much food and other consumption items to his relatives instead of selling it. The second respondent was working for a *mzungu* (white man) before Independence and had a very good job. According to him, other people became jealous and he was bewitched. He fell seriously ill and at the time of the survey was not able to do any kind of labour.

The respondents were also asked whether constraints regarding rural employment differed for men and women. Regarding agricultural casual labour, over half of the respondents said that being a man or a woman made no difference in finding work. Others (30%), however, stressed that women were more fit for such labour as planting and top-dressing, while men were more often hired for heavier jobs, such as carrying bags of maize. Some respondents also stressed the existence of differences in wages for men and women. Two respondents mentioned even differences of KSh.10 to KSh.15 per day. It was not clear whether this was a general phenomenon or that it occurred only in exceptional cases.

Rather surprisingly, almost one-third of the respondents said that there were no differences between the sexes in finding a job as a permanent labourer on a large farm. Among the permanent workers on the farms, very few women — working as an administrative employee on one of the very large farms — could be found. In general, the type of work permanent labourers performed was considered to be too heavy for women. Others said that many men did not allow their wives to work permanently because they had to be at home for domestic tasks and to take care of their husbands and children. The same applied to regular non-agricultural employment.

As far as self-employment was concerned, there were many types of work that were sex-bound. Some respondents, for instance, reported that the selling of maize and vegetables could only be done by women because men were not allowed to carry edible goods. Other types of work, such as carpentry and masonry, were considered to be too heavy for women.

In conclusion, although generally speaking women were allowed to undertake rural employment, for many of them this was restricted to some marginal forms of self-employment (selling foodstuffs) and casual work on a large farm. Regarding the latter type of work, however, the seasonal character was considered a major constraint. Men experienced few constraints regarding rural employment. They had access to almost all types of work, with the exception of the small-scale trading of edible goods.

5. Social networks

Social networks are generally regarded an important mechanism to prevent or solve seasonal stress.[21] This can take several forms. Labour shortages in agriculture may be lessened by relatives who come and help during peak periods. Family members living elsewhere may be asked to provide temporary shelter for one or more children, so that less mouths have to be fed. Finally, food (or money to buy food) may be obtained through family ties.

A study carried out in 1986-87 revealed that the majority of the population in Trans Nzoia District are immigrants, originating from other districts.[22] In this chapter, an analysis is made of the extent to which these relationships contribute to household income. The analysis is not restricted to networks with the area of origin, but also includes relationships with relatives and non-relatives in other districts. First, attention will be paid to some general characteristics of the immigrants. Second, we will assess the degree in which social networks were 'exploited', in the sense that an (additional) income was obtained from it. This includes the question whether the various categories of social relationships differed in this respect. Third, the seasonal aspects of the exploitation of social networks will be explored. In that context, attention will be paid to the question whether differences between agricultural cycles in Trans Nzoia and in the areas of origin helped to solve food shortages.

5.1 IMMIGRATION

Table 5.1 shows the districts of origin of both the heads of the households and their spouses. About two-thirds of both heads and spouses were born outside Trans Nzoia. These people, i.e. living in Trans Nzoia at the time of the survey but born outside the district, are referred to as immigrants.

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[21] See, for instance, Foeken 1990.

[22] See Schafgans 1988, 30. According to this study, 80% of the heads of the surveyed households were born outside Trans Nzoia.

Table 5.1
District of origin of heads of households and their spouse(s)
(numbers)

	head	spouse
- Trans Nzoia	15	18
- Bungoma	20	17
- Kakamega	6	7
- Turkana	4	4
- Other*	4	8
Total	49	54

Note: Farm labourers' households only.
* Uashin Gishu, West Pokot, Siaya, Elgeyo Marakwet, Busia, Uganda.
Source: Appendix J

Most immigrants originated from the two districts bordering Trans Nzoia in the south: Bungoma and Kakamega. As a result, 75% of the study population belonged to the Luhya tribe. This was a much higher percentage than that mentioned in CBS 1981 (49%) and in Schafgans 1988 (53%) for the district population as a whole, indicating that the Luhya are over-represented in the rural labourer's population of Trans Nzoia. The same applied to the Turkana, while such tribes as the Kalenjin and the Kikuyu are very much under-represented in comparison with the general population.

Table 5.2 offers some information on the numbers of migrants and the average length of stay in Trans Nzoia for the different study groups. It only concerns the heads of the households. In all groups the percentage of immigrants was high, in particular in the group of permanent labourers and the group of non-labourers. The latter group was also the group with the highest average length of stay of the heads. All non-labourers came to Trans Nzoia before 1970.

Table 5.2
Immigrants, by study group
(heads of households only)

	permanent labourers	resident casuals	non-resident casuals	non-labourers
(N=)	(8)	(7)	(19)	(6)
- % of total population	89	70	63	86
- average length of stay (years)	15	12	19	28

Of the total of 34 immigrated 'heads' of households of farm labourers almost half came to Trans Nzoia more than 15 years ago. Only seven (21%) came during the second half of the 1980s. Three of these seven were living on a large farm, one as a permanent labourer, the other two as resident casuals and all three had settled with the help of relatives. The other four belonged to the group of non-resident casuals. Compared with the other households in this group, these four had only a very small piece of land at their disposal, namely 0.7 acres, against an average of 1.8 acres for the whole group. This can be related to the fact that, first, during the 1980s no more redistribution of land by the government took place, and secondly, land prices increased greatly during that period, so that immigrants found it increasingly difficult to acquire land outside the large farms.

In explaining migration flows, a distinction between push factors and pull factors can be made. Push factors concern the reasons to leave the area of origin, while pull factors concern the motives to migrate to a certain area. Both the heads of the households and the spouse(s) were asked why they had left their home area and why they had come to Trans Nzoia District.

Reasons for leaving the area of origin differed substantially for men and women. Regarding the men, in many cases the parental holding in the area of origin was too small to provide all the sons with a living. Since work was not locally available either, one or more of them were forced to leave the home area and make a living somewhere else. People mentioning this reason generally came from Kakamega and Bungoma. They described their area of origin as crowded, with too many people and without possibilities of buying land or finding wage labour. Also soil erosion was mentioned as a cause of increasing poverty in the home area.

People from Turkana only left when they were on the brink of starvation. Because of repeated droughts and cattle diseases many cattle had died and with them their only source of food and income. What was left of the family, went to Trans Nzoia to find work. Usually they had no relatives already living in the District to help them on their arrival. All Turkana households in our sample were living on the large farms at the time of the study, because they are the favoured dairy workers (see Appendix J).

Women usually mentioned that they came with parents or husbands, or that they had met "a future to be" (husband) who lived in Trans Nzoia. Sometimes they were sent to a brother or a sister already living in the district, because food was not sufficient at home to feed them all. One woman mentioned that she wanted "a change of environment". In general, the women were dependent on the decisions of their parents or husbands regarding the question whether to leave and where to go to.

Leaving because of quarrels or because of abusive stepmothers were reasons of a more individual nature. Others stated that they had left because they were always sick in their home area while "in Trans Nzoia the climate is better".

Reasons for coming to Trans Nzoia (pull factors) differ, although the answers to this question seemed to be influenced by the actual situation of the respondent. Some came already before Independence to work as farm labourers on a white man's farm. An example was a permanent labourer on a large farm. After his marriage in 1957, he and his wife left Bungoma District and came to Trans Nzoia. Both started wandering around to find work as many people did in those days. At one of his jobs, on a white-owned farm, he had learned to grease cars, which he was still doing on the farm where he lived at the time of the interview. Respondents mentioned that there were more jobs in Trans Nzoia compared with Bungoma. They complained, however, that it was difficult to obtain an additional income because employers did not allow them to work outside the farm. There was no possibility of going back to Bungoma either, since all the family land had been sold there and most relatives also had left the area.

Regarding the men, to find work was most frequently mentioned as the main reason for coming to the district. All who said so were working as casual labourers at the time of the survey. Six of the men stated that they wanted to buy land, which they did. One said he came to do business and had retired from trading in Trans Nzoia some years before the interview. Women said they came to the District with their husband, or came to marry or to visit relatives. In contrast with most of the men, they never migrated without a place or relatives to go to.

Not everyone had come straight to the place where they lived in 1989. They all originated from rural areas, but in some cases they had gone first to towns like Nakuru and Eldoret, where they found work. At one time or another they had a fight with their boss — like the man who quarrelled with the manager of the hotel where he worked — and were fired. Then they went to Trans Nzoia to find another job, instead of going back to their area of origin.

From the foregoing we can conclude that although for men migration can usually be seen as a 'desperate move', differences regarding the degree of necessity did occur. In the case of the Turkana people, migration was an act of survival, since no means of making a living were available in the area of origin. Families from crowded parts of Bungoma migrated in order to find better living circumstances. In Trans Nzoia a cash income could be obtained and possibilities of acquiring land were greater. Others came only to find a new employer.

5.2 SOCIAL NETWORKS AND INCOME TRANSFER

Every household in the sample appeared to have relations with relatives and/or non-relatives with whom cash or food was exchanged. Usually only small exchanges occurred, but in some cases hundreds of shillings changed hands. A number of households actually maintained relations with relatives in the area of origin. In order to assess the importance of these relationships as a source of income we will look at their value and compare this with the households' income from other activities. First, however, an example will be presented.

> The family lived on a very small plot on a large farm, where they worked as casual labourers. The husband was born in Trans Nzoia District, his parents came in 1952 from Amkura in Busia. His father had some misunderstandings with his brothers after grandfather died, so he went to look for a job on a white man's farm. The wife was born in Bungoma, where her parents were still living. In 1986, at the age of 23, she came to Trans Nzoia to stay with her sister, who was working as a casual labourer. She wanted a change of environment. Husband and wife met each other on this farm.
>
> The husband's father was a neighbour, living with some of his (the husband's) younger brothers and sisters. His mother stayed in Chepchoina (Trans Nzoia) with one of his sisters. It took three hours by bike to get there. The husband had a plot of one acre there, so he visited his mother and sister every week, meanwhile checking his farm. The last time before the interview that he went there, in July, he gave his sister 40 maize cobs, some sugar and tea, but normally he did not give anything. She gave him KSh.50 on this occasion. This sister never came to visit him. His other brothers and sisters all stayed with his father. He helped his father by supplying him with paraffin and money when somebody fell ill (which did not happen last year). His father helped him during the difficult period of the year with maize. For instance, in May (1989) his father gave him three *debes*[23].
>
> The parents-in-law were living in Bungoma. It took one hour to get there with a *matatu*, costing KSh.20. The wife went there monthly from October to January and in February and April in order to buy fish, which she sold in Trans Nzoia. In February she went for a memorial after a burial. Normally, she took with her some kilograms of sugar or KSh.100 as a dowry payment. Last time she went, which was in April, she brought them four kilograms of sugar, tobacco, six loaves of bread and tea. During the whole year, she gave an amount of KSh.700 as part of the dowry. Each time she came her parents gave her a chicken, which is one of the traditional Luhya gifts to visiting guests. They never came to visit their daughter in Trans Nzoia. Her brothers and sisters who still lived with their parents came to visit her in the school holidays, which are in April, August and December. Last time they came already in July and brought one kilogram of meat and an amount of maize cobs. The previous time they brought a tin of tilapia fish. She gave them both KSh.20 for the bus fare when they left. One of her sisters, the one she stayed with during the first few months after she came to Trans Nzoia, was living nearby. They helped each other with small things, the exchanges being more or less equal. A similar relationship existed with the non-related neighbours; they lent each other small amounts of money or a tin of maize.

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[23] A *debe* is about one-fifth of a 90 kg bag.

The total value of both receipts and gifts of households of farm labourers during the year preceding the interview, as well as a breakdown by type of relationship, are presented in Table 5.3.[24] It is immediately clear from the table that, contrary to expectations, the households in the sample were net-givers: the total value of the gifts was almost twice the total value of the receipts. This was mainly caused by the relatively high values of the gifts to the relatives of the husbands (parents and brothers/sisters) and the parents of the wife (or wives). The only positive balance was found with the category of non-residential household members and children.

Table 5.3
Average value of receipts and gifts, by type of relationship (KSh)
(N=49)

type of relationship	receipts	gifts	balance*
- parents of husband	76	352	-276
- parents of wife (wives)	115	235	-120
- brothers/sisters husband	98	273	-175
- brothers/sisters wife (wives)	81	110	-29
- non-residential household members + children	165	36	+130
- others**	25	67	-42
Total	560	1073	-513

Note: Farm labourers' households only. * Receipts minus gifts.
** Cousins, a niece, a stepmother, 2nd/3rd wives living elsewhere, and neighbours.
Source: Appendix K.

Table 5.3 shows that the parents of the husband, if still alive, received most, followed by the brothers and sisters of the husband and the parents-in-law (the parents of the wife). The relation with the parents-in-law is a traditional obligation because of the dowry payment. Since most people were not capable of paying the traditional dowry in the form of a number of cows, they had to keep the parents-in-law satisfied by regularly donating small gifts to them.[25] The sampled households all had children under five years old, so parents and parents-in-law were in most cases alive. Since most children were still young, many of them lived in the households of their parents. Therefore, exchanges with 'children' were quite modest. In some cases however, the head of the household was the grandfather living together with his children and grandchildren. In these households support from other children, who were married, was sometimes received.

[24] For the calculation of the value of receipts and gifts, see Appendix A.
[25] See for instance the case study on page 42.

Six households had members living elsewhere, both migrant and non-migrant households. Some of these household members stayed in the area of origin. On average, together with the children, they were the only relatives who supported the household instead of receiving from it.

The geographical distribution of the households' exchanges more or less reflects the foregoing. This can be seen in Table 5.4. The negative balance between receipts and gifts with the area of origin of the head of the household was bigger than the balance with other districts. These relationships concerned to a relatively large extent the head's parent(s).

Table 5.4
Geographical distribution of receipts and gifts (KSh)
(N=49)

	receipts	gifts	balance*
- relations with district of origin	138	500	-362
- relations with other districts	422	572	-150

Note: Farm labourers' households only. * Receipts minus gifts.
Source: Appendix L

There were seven households of farm labourers with a positive exchange balance with their area of origin. One household belonged to the group of permanent labourers, one to the resident casuals and five to the group of non-resident casuals. It is noteworthy that in all seven cases the husband's parents had died and in three cases also the wife's parents. Two of the households consisted of (grand)parents, children and grandchildren and received support from a child. In another case, gifts were received from brothers and sisters. Two other households, with very low incomes, were supported by the wife's parents.

In Table 5.5 the receipts and gifts of the four study groups are shown. On average, all groups were net-givers. This applies especially to the group of non-labourers. The very high negative balance of this group was caused by one household with an extremely high gift value. If this household is excluded, the non-labourers' balance becomes much smaller, namely KSh.1,050. In general, the table shows that as household income was higher, receipts were smaller and gifts bigger, at least in absolute terms.

If the total value of receipts and gifts is expressed as a percentage of the (estimated) annual income during the same period (see Table 3.4, p. 23), the picture becomes different. It appears then that the households living on the large farms not only received a

Table 5.5
Receipts and gifts, by study group

(N=)	permanent labourers (9)	resident casuals (10)	non-resident casuals (30)	non-labourers (7)
• *total value (KSh)*				
- receipts	923	481	480	234
- gifts	1374	876	1048	2744
- balance*	-451	-395	-568	-2510
• *as % of household income*				
- receipts	9.7	6.5	3.3	0.9
- gifts	14.5	11.8	7.3	10.4

* Receipts minus gifts.
Source: Appendix K

substantial value in cash and/or food, but gave even more. Even if the value of the receipts is added to the household income, the permanent labourers and the resident casuals gave away an amount equalling 13 and 11% of the total household income. For both categories of households living outside the farms, this percentage was 10%.

The figures presented so far hide important differences between the households: fifteen households of farm labourers appeared to be net-receivers instead of net-givers. Eleven of these were households with an income lower than the so-called *average livelihood level*[26] (i.e. below KSh.12,000 per year). However, only in two cases did the household income increase substantially (with about 20%) due to the support of relatives. One of these was a female-headed household receiving about KSh.2,000 a year from the non-resident husband. The other one was supported by married children, to an amount of about KSh.1,500. The balance of the other thirteen net-receivers ranged from KSh.10 to KSh.600. The latter household was headed by a widow who had no money to visit her relatives and was supported by her daughter.

Table 5.6, presenting data on households of farm labourers only, confirms the earlier notion that the balance between gifts and receipts was related to household income. The lowest income group consisted on average of net-receivers; the other groups were net-givers, especially the highest income category. Moreover, the gifts of the lowest income group consisted mainly of food (71% of the value of all gifts), but the receipts mainly of cash (69%). For the highest income category the reverse was true (36% and 24%, respectively).

[26] See page 22.

Table 5.6
Receipts and gifts, by household income (KSh)

household income (KSh) (N=)	<5,000 (7)	5,000-9,999 (17)	10,000-19,999 (17)	20,000+ (8)
- receipts	406	487	778	390
- gifts	322	989	1258	1513
- balance*	+84	-502	-480	-1123

Note: Farm labourers' households only.
* Receipts minus gifts.

As already noted, whether one or both of the husband's parents were still alive is equally important in deciding the balance between receipts and gifts. In 73% of the net-receiving households, both parents of the husband were not alive anymore. In the group of net-givers, this figure was 32%. Another way of showing the importance of this variable is by calculating the balance between receipts and gifts for the households with the husband's parents still alive and the households where both parents had died. Although both groups appeared to be net-givers, the difference was substantial: KSh.919 and KSh.52, respectively. The wife's parents played a less important role in determining the balance. In the net-receiving and the net-giving group the percentage households of which one or both of the wife's parents were still alive was around 75%.

In conclusion, the households of the sample were, on average, net-givers. This applied to all study groups. However, some households were net-receivers. Three-quarters of these were households with a relatively low annual income[27]. The amount of gifts and the balance being positive or negative, was primarily related to whether one or both of the husband's parents were still alive. In absolute terms, the exchanges were rather modest. On the other hand, with over 10% of their annual income, the households living on the farms spent a fairly high proportion of their income on gifts.

5.3 SEASONAL ASPECTS OF SOCIAL NETWORKS

Figures 5.1 and 5.2 show the monthly fluctuations regarding the number of exchanges by the sampled households. Because the exchanges were generally quite modest in monetary terms, only the frequencies of the exchanges have been used to assess the monthly variations. Again, only the labourers' households are included in the aggregated data.

[27] These households had incomes below Ksh 12,000, i.e. the so-called *average livelihood level* (see page 22 and Appendix A).

Both the number of receipts and the number of gifts show the same pattern (Figure 5.1). It is clear that the negative balance between receipts and gifts occurred throughout the year. That means that even during the months that were mentioned as being 'difficult' — June to September (see Figure 3.1, p. 24) — the households of the sample gave on average more frequently goods or money than they received it. Although the receipts showed a clear peak in June-July, the same occurred with the gifts.

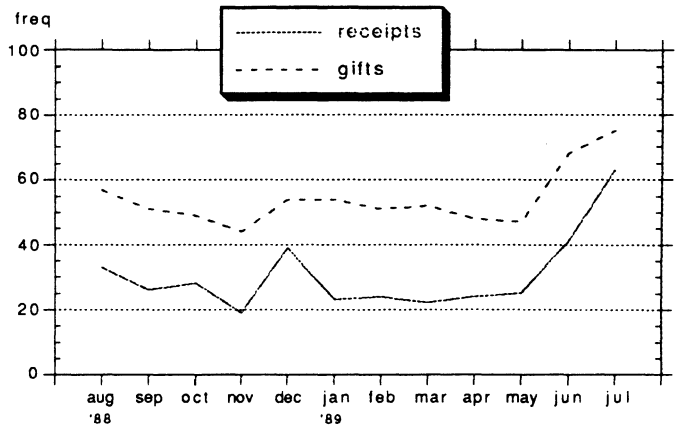

Figure 5.1
Number of receipts and gifts per month
(farm labourers' households only; source: Appendix M)

There are differences, however, according to type of exchange. A distinction has been made between exchanges of staple food (maize, beans, irish potatoes, sweet potatoes, bananas), other food items (such as tea or sugar) and cash. Figure 5.2 shows that the negative balance between receipts and gifts was mainly caused by the exchanges of money: the sampled households far more often gave money than received it. 'Presents' of cash were somewhat more frequent in June and July, i.e. immediately after the peak in earnings from casual labour (see Figure 3.3, p. 27). The 'dip' in April is probably caused by the fact that earnings from casual labour were relatively low at that time, while, on the other hand, farm inputs had to be bought.

Receipts and gifts of staples were more or less in balance throughout the year (see the top diagram in Figure 5.2). Receipts of staples were highest in June, July and August, i.e. in three of the months that were mentioned as being 'difficult' in terms of food security. However, the number of gifts of staples was also high during this period of the year.

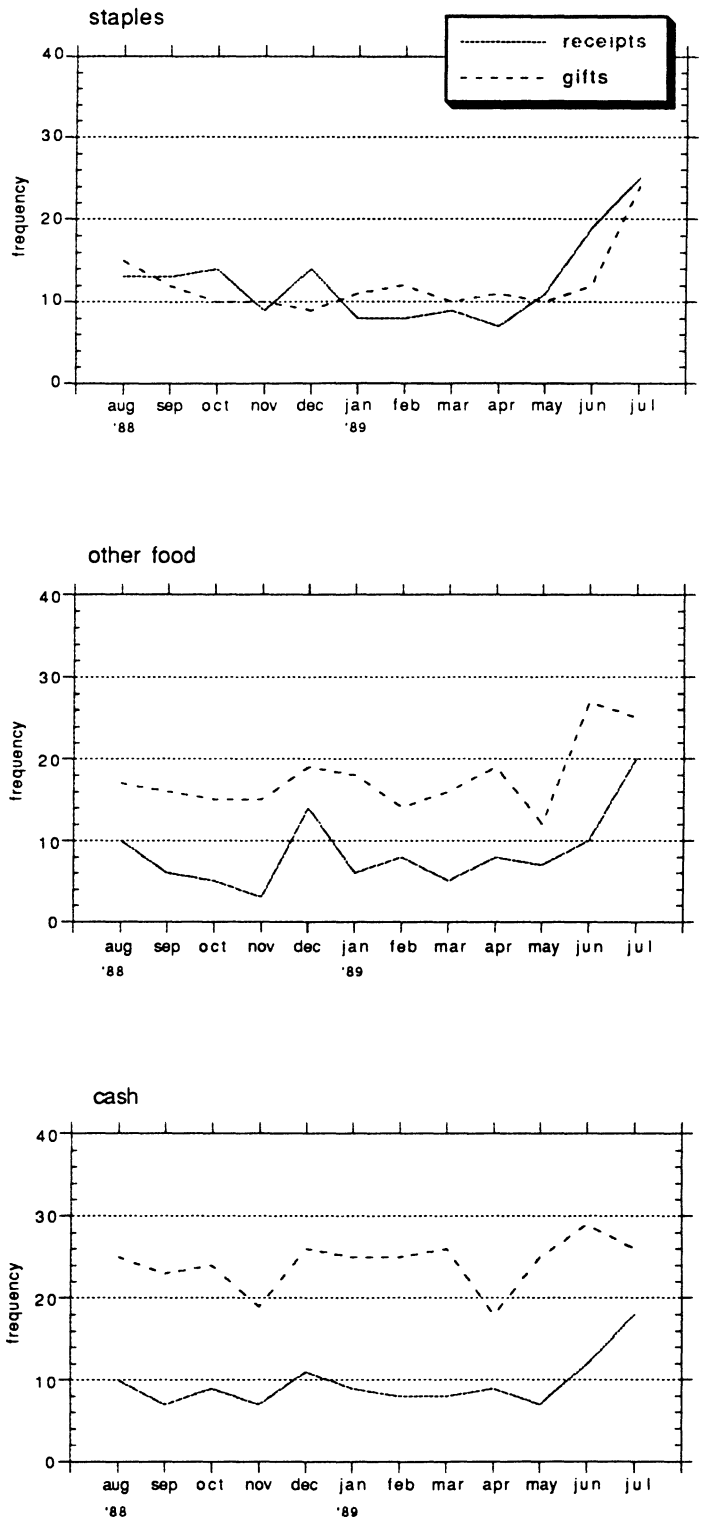

Figure 5.2
Number of exchanges per month, by type of exchange
(farm labourers' households only; source: Appendix M)

So far in this section, all exchanges with different areas have been grouped together. It is interesting to consider, however, how households living in areas with different agricultural cycles may help each other in solving possible food shortages. In Trans Nzoia, maize and beans are the principal crops and seeding of both crops usually takes place in April. The beans are harvested in July-August, the maize in December. Fresh maize can be consumed from October onwards. As mentioned before, the period from June to September was considered to be the most difficult time as food stocks were depleting.

Some of the districts surrounding Trans Nzoia have similar agricultural cycles (like Uasin Gishu), some have very different cycles (like West Pokot), others have slightly different cycles (like Bungoma, Kakamega and Busia). Of these, only Bungoma is useful for the present analysis because the number of exchanges with other districts were too small. Although Bungoma has about the same rainfall pattern as Trans Nzoia, seeding of maize and beans usually takes place earlier in the year (February-March). Harvesting is done from August to November (Jaetzold & Schmidt 1983). In some areas, Katumani maize is cultivated. This crop has a growing cycle of only three months, making two harvests possible, i.e. one in June-July and one in January. Also millet is cultivated in Bungoma, which is harvested in June. Thus, the 'difficult' period differs between farmers, depending on the types of cereals that are cultivated.

According to the respondents, the variety of crops in Bungoma was greater. Several different cereals were cultivated as well as various types of fruits, groundnuts and cassava. Some respondents complained about the "boring" food they ate in Trans Nzoia, mainly consisting of maize, vegetables and some beans. In their home areas, they said, dishes were much more varied.

Figure 5.3 gives an impression of the monthly fluctuations of the exchanges by those households of farm labourers having links with Bungoma District (see Appendix N for data on the different groups). The figure first of all shows that the number of receipts and gifts were more or less in balance. Exchanges reached the highest levels in January and in the May-July period. The relationships of these periods with the 'difficult' periods in terms of food security were not very clear, however. The peaks in the gifts in Figure 5.3 were primarily caused by peaks in the category 'other'. The same applied to the June-July peak in receipts.

The foregoing does not mean that links with relatives or other people are not season-bound. This can be demonstrated by also taking non-material exchanges into account, such as the performance of labour during peak periods. Some individual cases will illustrate this.

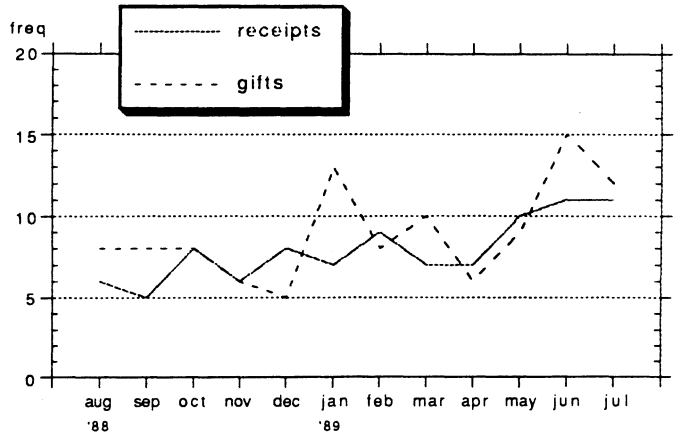

Figure 5.3
Monthly number of exchanges with Bungoma District
(farm labourers' households only; source: Appendix N)

In nine cases, the Trans Nzoia households and their relatives in other districts helped each other with planting and harvesting. Women helped their own kin when extra labour was needed there and the men assisted theirs. This points to different agricultural cycles, as otherwise people would have been busy on their own fields.

One woman always helped her parents, living in Chesamis in Bungoma District, with planting in April and harvesting in December. She obtained maize from them in June, when she needed it, and returned it in January. During the latter month, her younger brothers and sisters came to her in Trans Nzoia for the school holidays and because she had plenty of food at that time. Another woman went in September to her relatives in Siaya to help them with the cultivation of their plot. She brought them some maize, because it was the start of the difficult period there. In a third household, maize was obtained from parents living in Malakissi, Bungoma, in January and June. These parents cultivated the fast-growing Katumani maize variety, so they had two harvests a year.

A Turkana man always received his nephews and nieces in his house in January, i.e. shortly after the maize harvest in Trans Nzoia. This is in the middle of the dry period in Turkana District, so milk production is very modest then. His family came to visit him and, according to him, "ate half of his harvest". One man went in June to Kamakuywa, Bungoma, to help his parents with the harvesting of the maize. He did not bring home any staples, but at least he was fed there. It meant one mouth less to feed in Trans Nzoia, where this is the difficult time of the year.

Some households had relationships with relatives who were living outside Trans Nzoia but not in the area of origin. Most of these relatives were living in towns like Eldoret, Webuye, Naivasha, Nakuru, Nairobi and Lodwar. Food was rarely exchanged with these people. Some of them usually brought a packet of sugar, tea or cooking fat when they came to Trans Nzoia and got some beans or maize from the farm in return. Two of them were children with a job. They sometimes sent money to their parents and received some home-grown food in return. Another case concerned a husband living in Nakuru, who was working in the building industry. When he came home, he gave part of his income to his wife and took some maize and/or beans (depending on the time of year) with him to town. Finally, in two households maize was exchanged for bananas and irish potatoes with brothers and sisters in Bungoma. This happened in July, which is the difficult period in both districts.

In sum, exchanges with relatives and non-relatives took place throughout the year. There was a peak in June, July and August, i.e. during the months that were mentioned as being generally 'difficult' in terms of food security. However, this peak occurred for both receipts and gifts, and also for all types of exchanges (staples, other food, money). That does not mean that the exploitation of social networks was not, at least to a certain extent, season-bound, as could be seen from individual examples.

6. Conclusions

The present study is a support study for a larger survey on the nutritional situation in the households of labourers on large farms in Trans Nzoia. As with the main survey, three categories have been distinguished: permanent labourers, casual labourers living on the farm (resident casuals), and casual labourers living outside the farm (non-resident casuals). For comparison, a fourth group consisting of non-labourers was added.

The study covered two aspects of household income. The first concerned the elements that comprise the household's income: farming activities, labour (either permanent or casual) on large farms, and non-agricultural employment. The latter category consists of either regular wage labour or self-employment, both in the non-agricultural sphere. The first main objective of the present study was to assess the relative importance of these three income-generating activities — and rural employment in particular — for the incomes of the different study groups. Related questions referred to the effects of seasonality on several activities, as well as the sexual division and the constraints regarding specific income-generating activities.

The second aspect concerned the social networks of the labourer's households. Each household maintains relationships with relatives, non-residential household members and non-relatives (such as neighbours). Because the majority of the adults in Trans Nzoia can be considered immigrants — i.e. originating from other, mostly neighbouring districts — relationships with relatives are often relationships with the area of origin. Thus, the second major objective of the study was to find out how these social networks contribute to the household's food security and income situation. Again, seasonal variations are taken into consideration, making it possible to assess whether differences in agricultural cycles between Trans Nzoia and the area(s) of origin may help to solve food shortages.

Household income and rural employment

In the three categories of labourers on large farms, the earnings from rural employment comprised the lion's share of the total household income, ranging from 70% among the non-resident casuals to 85% and 88% for the permanent labourers and the resident casuals, respectively. In the latter two groups only one of the two distinguished types of rural employment was generally found, namely agricultural wage labour on large farms. Their income from non-agricultural employment — the second type of rural employment — appeared to be very small indeed. For their income, the households living on the large farms depended almost exclusively on the earnings from the labour they performed on those farms. Hence, because wages were quite low, most households living on the farms had an income considerably below the so-called *average livelihood level*, which was estimated at KSh.12,000 per year. In this respect, the permanent labourers were in a somewhat better position than the resident casuals because of their regular income. However, to reach the status of permanent labourer appeared to take a very long time; if ever, because permanent labourers were easily turned into casuals again.

There were three main causes for the poverty of the households on the large farms. In the first place, wages paid for agricultural labour were rather low. In the second place, they had very little land to cultivate: on average about one acre. Moreover, it was forbidden to keep cattle and on several farms the labourers could not cultivate maize because of the presence of seed maize in the near surroundings. As a result, the value of the own farming activities of many households was very modest indeed. The third cause was the obligation always to be available in order to perform casual labour if needed. In practice, this meant that people living on the large farms were generally not allowed to work outside the farm. Although the farm owner/manager was not always able to control this completely, the very low average earnings from non-agricultural employment of these two groups suggest that this constraint was quite effective. Moreover, the respondents in these households mentioned "not allowed by farm owner" as a main constraint in relation to non-agricultural employment.

The foregoing does not mean that there were no poor households *outside* the farms. Half of the non-resident casuals also had an income below the *average livelihood level.* Although the group of non-resident casuals had on average somewhat more land (1.8 acres) than the households *on* the farms, this permitted only a modest income from farming activities. And although these people did not experience any 'ban' regarding non-agricultural employment, it appeared that as far as *regular* employment was concerned, many of them did not succeed in finding relatively well-paid jobs. This is undoubtedly related to the comparatively low level of education of these people, another major determinant of the income level of the households in Trans Nzoia. However, not lack of

education but "lack of capital" was often mentioned by these people as the most important constraint regarding non-agricultural activities. Still, it should not be forgotten that several households in the category of non-resident casuals had reached a level of prosperity comparable with the relatively well-off non-labourers.

As a category, the non-labourers form a relatively well-to-do group. They owed their prosperity to a piece of land of reasonable size (3.9 acres on average) — making a substantial income from farming possible — and relatively high incomes from non-agricultural employment. Especially the average earnings per worker from regular employment appeared to be much (more than 250%) higher than that of the regularly employed persons in the households living on the farm. Again, the much higher educational level of the former group was an important factor in this.

A majority of the labourers' households depended on the large farms for most of their income. This applied in particular to the resident casuals, who derived two-thirds of their income from this type of activity. It is not a steady source of income, however. During two periods of the year — when weeding/top-dressing/detussling and harvesting, respectively, have to be done — it is possible to derive a reasonable income from casual labour. In total, this is roughly a period of about six months. During the other months, much less casual labourers are needed. However, even during the leanest months there is always a minimum amount of casual labour to be done. Moreover, it is mainly the labourers living *on* the large farms who are working on a more or less regular basis as casuals.[28] In other words, in particular for the poorer non-resident casuals, the seasonal character of casual labour is a major constraint. The second consequence of the casual labour link with the maize cycle is that during bad years this source of income may virtually dry up. It may cause serious problems for those households depending to a large extent on this activity. Thirdly, peak labour periods on the large farms coincide with peak labour periods on the labourers' own plots. Hence, working on a large farm in order to obtain desperately needed cash may result in a neglect of the crop on the own farm.

The various types of income-generating activities were not equally accessible to men and women. Moreover, men tended to earn much more than women for the same type of activity. The only type of work with both equal access and equal earnings was casual labour on the farms. It is noteworthy, however, that men tended to perform casual labour on a much more regular basis than women. The peaks in labour demand were mainly filled by women.

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[28] See Foeken & Verstrate 1992.

Social networks

In the African context, the exploitation of social networks is often mentioned as one of the important mechanisms to solve seasonal stress. In this context, 'exploitation' means that during periods that a household is experiencing a food shortage, other households may offer help in the form of food and/or money. Other forms of assistance are also possible, such as the provision of labour or the temporary adoption of a household member so that there is one mouth less to feed.

In order to assess the value of the exchanges of the sampled households with other households, all material exchanges — i.e. receipts and gifts — were given a monetary value. In general, it appeared that for the sampled households social networks were *not* a source of income. On the contrary, the majority of the households appeared to be net-givers instead of net-receivers. This applies to all sub-groups. In this respect, it is noteworthy that the categories of permanent labourers and resident casuals spent about twelve per cent of the total household income on gifts. The balance between receipts and gifts was related to household income: the higher the household income, the more negative the balance. Only in the lowest income category (KSh.5000 per year) the balance was positive. In most cases, however, the absolute amount was very modest, adding in fact very little to the household income.

The amounts of both receipts and gifts are determined primarily by the type of relationship. Relationships with the parents of both husband and wife as well as with the husband's brothers and sisters, were characterized by a comparatively high level of gifts and a low level of receipts. Regarding the relationships with non-residential household members and children, the receipts exceeded the gifts. Receipts from and gifts to other types of family and non-family (such as neighbours) were quite limited. Thus, it was only the households' own members living elsewhere who provided the household with an additional income, be it, on a modest scale.

The amounts of both receipts and gifts showed some seasonal variations, with a clear peak in July. This applied to all three distinguished types of exchanges (staples, other food items, and cash). Although many exchanges, in particular those with the parents of husband and wife, were with other districts, it was not possible to verify the hypothesis that relationships with areas with different agricultural cycles could help to solve food shortages. However, some individual examples of exchanges of a non-material nature (such as labour assistance) showed that such exchanges did show seasonal patterns.

These observations imply that the already problematic financial situation of the farm labourers was exacerbated by the social obligations of these households towards their families. Although this is not an area in which a government can intervene, it is neverthe-

less important to be aware of this extra burden on (especially young) households and it stresses once more the importance of a policy directed towards improvement of the income level of labourers on large farms.

Appendix A
Notes on calculations

Value of home-consumed food production

In order to assess the income in kind from the households' farming activities for home consumption, the following calculations were made. Data on the last harvest of maize, beans, irish potatoes, sweet potatoes, bananas, and some less common food crops like sorghum, millet, peas, *njahe* and *sukuma wiki* were collected. This information was available in different quantities: 90 kg bags, *debes* (about a sixth of a 90 kg bag) and *ngoro ngoros* (about one-eighth of a debe) for maize, beans, irish potatoes, sweet potatoes, millet, sorghum, and peas; bundles for *sukuma wiki*; and bunches for bananas. Furthermore, information was collected about how many 90 kg bags, *debes*, *ngoro ngoros* or bunches had been sold. The sold amounts of food crops were subtracted from the harvested amount. The difference was considered to be the income in kind from farming. Because more food crops were bought than sold, we decided to use the prices of bought food crops for calculating an average price for home-consumed food production. The average prices of a 90 kg bag has been used as the basis for the average prices for *debes* by dividing the average price of a 90 kg bag by 5.8, and for *ngoro ngoros* by dividing the average price of a 90 kg bag by 45. Because bananas are always measured in bunches, the average buying price as mentioned by all respondents was used, i.e. KSh.30 per bunch. The prices used for the estimation of the monetary value of home-consumed production of food crops are as follows:

	90 kg bag	*debe*	*ngoro ngoro*
maize	250	43	5.6
beans	400	69	8.9
Irish potatoes	150	26	3.3
sweet potatoes	150	26	3.3
millet	500	86	11.1
sorghum	500	86	11.1
peas, njahe	110	19	2.4
sukuma wiki	85	1 (bundle)	-

Value of livestock and milk production

The income in kind received from livestock consists of the value added during the last year (off-take rate) and the production of milk. In order to calculate the off-take rate, prices of cattle were needed. Only prices of bulls and ungraded cows were available. The value of a grade cow was estimated to be 2.5 times the value of an ungraded cow, and the value of a sheep one-fifth and of a goat one-seventh of that of an ungraded cow. Thus, the following prices (KSh.) were obtained:

grade cow	3750	grade bull	2000	sheep	300
ungraded cow	1500	ungraded bull	2000	goat	215

Data collected during the household survey showed that the death rate among grade and ungraded cows was very high. The number of calves was not enough to substitute for death cows. Therefore, no off-take rate was calculated for cows. Taking into account the death rate among bulls and the number of calves in the sample, the off-take rate of a grade bull was estimated at 13% and of an ungraded bull at 20%. The off-take rate of goats is 30%, while that of sheep is only 10% due to a high death rate.

The value of the milk production was calculated as follows. The average consumer price of one litre of milk in 1989 was KSh.5. According to a Dairy Development Project Report (MOLD 1989) grade cows, with a very intensive way of farming, gave six litres of milk a day. Because of the extensive way of dairy farming, it was assumed that grade cows of households in the sample gave about half that amount, i.e. three litres a day. However, cows do not produce the same amount of milk during the wet and the dry season. It was assumed that during six months an average cow gave three litres a day and during the other six months two litres, resulting in a total production value per year of KSh 4565 per grade cow. The production of local cows was estimated at an average of about one litre per day, adding up to an income of KSh.1825 a year.

Based on all calculations described above, the income in kind from cattle is:

grade cow	4565	ungraded bull	400
ungraded cow	1825	sheep	30
grade bull	260	goat	65

Value of receipts and gifts

In order to be able to compare the value of receipts and gifts with the household income, both types of exchanges had to be given a monetary value. For the value of staple foods and of milk, the same conversion rates have been used as for the assessment of household

income (see above). For 'other food items', the market prices that prevailed during the survey were used. For instance, in August 1989 a packet of sugar costed KSh.8/- in Kitale, so that amount was used as the monetary value of that exchange.

Average livelihood level

According to the Rural Household Budget Survey 1981/82, the average expenditure on food, clothing, household goods, education, transport, etc., amounted to KSh.526 per month (CBS 1988). These expenditures also include the households' own production. In order to estimate a similar figure for 1989, this 1981/82 figure was multiplied with 1.9, being the rate of increase of the lower income index of consumer prices for Nairobi (see CBS 1986 for 1981 and CBS 1990 for 1989). Thus, an average level of expenditure of 1.9x526=999sh. was obtained, or KSh.12,000 for a whole year.

Appendix B

'Difficult months' as mentioned by the respondents, by study group

(August 1988-July 1989; numbers)

	(N)	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*	*Jan.*
Permanent labourers	(9)	6	6	0	0	0	0
Resident casuals	(10)	7	6	0	0	0	0
Non-resident casuals	(30)	28	14	3	1	0	0
Non-labourers	(7)	4	3	2	1	0	0

	(N)	*Feb.*	*Mar.*	*April*	*May*	*June*	*July*
Permanent labourers	(9)	0	0	1	1	5	7
Resident casuals	(10)	0	0	0	1	3	8
Non-resident casuals	(30)	0	0	1	6	20	25
Non-labourers	(7)	0	0	2	2	5	6

Appendix C

Components of monthly cash income, by study group

(August 1988 - July 1989; shilling per household)

	Aug.	*Sept.*	*Oct.*	*Nov.*	*Dec.*	*Jan.*	*Feb.*	*Mar.*	*April*	*May*	*June*	*July*
Permanent labourers (N=9)												
farm sales	0	11	0	0	89	108	78	0	46	0	0	0
permanent labour	356	356	356	356	356	343	343	343	343	343	343	343
casual labour	205	192	316	345	266	206	172	156	320	226	293	271
regular employment	17	17	0	0	0	0	0	0	0	0	0	0
self-employment	67	67	67	67	67	67	67	67	67	67	67	122
Resident casuals (N=10)												
farm sales	18	0	0	0	0	30	140	49	0	0	0	0
permanent labour	53	53	53	53	53	53	53	53	53	53	53	53
casual labour	343	304	305	410	380	394	420	433	421	532	536	511
regular employment	0	0	0	0	0	0	0	0	0	0	85	85
self-employment	0	0	13	133	133	133	0	0	0	0	120	135
Non-resident casuals (N=30)												
farm sales	22	66	4	94	287	40	69	87	96	22	16	58
permanent labour	8	8	8	8	8	8	0	0	0	0	0	0
casual labour	257	254	425	450	463	377	288	312	449	580	498	338
regular employment	187	194	187	216	223	248	248	248	248	248	229	214
self-employment	215	219	211	224	148	163	163	140	116	120	133	121
Non-labourers (N=7)												
farm sales	64	13	13	13	227	3070	13	1929	16	13	64	13
permanent labour	0	0	0	0	0	0	0	0	0	0	0	0
casual labour	29	0	0	29	50	0	51	29	59	59	59	29
regular employment	521	521	614	614	614	614	614	614	614	614	614	236
self-employment	642	642	642	642	642	657	657	654	642	642	642	642

Appendix D

Types of non-agricultural activities, by study group

(as mentioned by the respondents)

type of activity	permanent labourers	resident casuals	non-resident casuals	non-labourers
a) regular employment				
community, social and personal services			mechanic maid (3) watchman (2) hotel work post office	teacher
food processing	cook		cook bakery work	posho mill (2)
transport	turning boy	driver	driver (2) rural access roads	
small-scale manufacturing			masonry	
factory work				Kenya Grain Cereals Board
forestry			forestry work tree nursery	tree nursery
• total number of persons	2	1	16	6
b) self-employment				
community, social and personal services	thatching houses		repairing cars carrying water ploughing with oxen carrying beans+firewood	
trade	trading maize	trading fish trading firewood trading maize	selling in canteen trading vegetables (3) trading maize+vegetables trading sugarcane trading eggs trading soap +salt	trading vegetables trading maize
food processing			brewing beer (2) butcher selling boiled maize	posho mill (6)*
transport			transporting milk transporting maize	matatu owner
small-scale manufacturing			carpenter	
• total number of persons**	2	3	14	8

* This concerns 6 persons belonging to one household who are running a posho mill together.

** Because some persons perform more than one activity, the number of persons can be smaller than the number of activities.

Appendix E
Characteristics of non-agricultural employment, by study group

	permanent labourers	resident casuals	non-resident casuals	non-labourers
A) number of workers (N)				
- regularly employed	2	1	16	6
- self-employed	2	3	14	8
- total	4	4	30	14
B) income per worker (KSh)				
- regularly employed	3750	1700	5110	8275
- self-employed	250	2223	4233	5642
- all	2000	2092	4699	6588
C) educational level of workers*				
- regularly employed	4.0	4.0	5.2	6.8
- self-employed	2.0	2.0	5.1	6.1
- all	3.0	2.5	5.2	6.4

* Average number of years of formal education.

Appendix F
Average earnings from rural employment, by study group and sex

	permanent labourers		resident casuals		non-resident casuals		non-labourers	
	male	female	male	female	male	female	male	female
a) average earnings per worker (KSh)								
from agricultural wage labour								
• permanent labour	4180	-	6324	-	1500	-	-	-
• casual labour	1063	1600	3935	1205	1494	1887	238	687
from non-agricultural wage labour								
• regular employment	3750	-	1700	-	6679	1650	8090	7200
• self-employment	100	400	-	2223	6049	2418	10500	3070
b) N's								
• permanent labour	9	-	1	-	1	-	-	-
• casual labour	7	12	9	12	38	44	3	3
• regular employment	2	-	1	-	11	5	5	1
• self-employment	1	1	-	3	7	7	4	4

Appendix G

Seasonality of casual labour, by study group and sex

(August 1988 - July 1989; number of persons per month)

	(N)	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*	*Jan.*
Permanent labourers	(9)						
men		1	0	2	2	4	2
women		7	5	6	5	10	5
Resident casuals	(10)						
men		6	7	6	6	6	7
women		5	3	5	6	6	3
Non-resident casuals	(30)						
men		14	17	13	13	16	12
women		17	15	21	26	25	19
Non-labourers	(7)						
men		0	0	0	0	1	0
women		0	0	0	1	1	0

	(N)	*Feb.*	*Mar.*	*April*	*May*	*June*	*July*
Permanent labourers	(9)						
men		2	1	4	2	1	1
women		3	4	11	8	9	7
Resident casuals	(10)						
men		8	8	7	8	8	7
women		3	3	3	4	6	6
Non-resident casuals	(30)						
men		10	13	24	18	13	11
women		16	13	31	33	23	20
Non-labourers	(7)						
men		2	0	1	1	1	1
women		1	1	2	2	2	2

Appendix H

Rural employment: constraints, by type of activity and study group

(frequencies)

	permanent labourers (n=9)	resident casuals (n=10)	non-resident casuals (n=30)	non-labourers (n=7)
A) agricultural casual labour				
- seasonality	6	9	19	4
- lack of jobs	-	-	4	1
- no time	-	-	1	-
- distance	-	-	1	-
- have to know employer	-	-	1	-
- lack of capital	-	-	-	-
- not allowed by farm owner	-	-	1	-
- lack of skills	-	-	3	-
- other reasons	-	7	-	-
- difficult, no reason mentioned	-	9	-	-
- no problem	3	1	4	1
- no answer	-	-	-	1
total	9	10	30	7
B) agricultural permanent labour				
- seasonality	1	-	13	1
- lack of jobs	-	-	-	-
- no time	-	-	-	1
- distance	-	-	1	-
- have to know employer	2	3	1	1
- lack of capital	-	-	-	-
- not allowed by farm owner	-	-	1	-
- lack of skills	-	-	-	-
- other reasons	1	3	3	-
- difficult, no reason mentioned	-	3	6	-
- no problem	4	1	3	-
- no answer	-	-	2	1
total	9	10	30	7
C) non-agricultural employment				
- seasonality	-	-	-	-
- lack of jobs	-	-	1	-
- no time	1	-	-	-
- distance	-	-	1	1
- have to know employer	-	-	1	-
- lack of capital	3	5	21	3
- not allowed by farm owner	5	4	1	-
- lack of skills	-	1	2	-
- other reasons	-	-	-	-
- difficult, no reason mentioned	-	-	-	-
- no problem	-	-	3	3
- no answer	-	-	-	-
total	9	10	30	7

Appendix J

Area of origin of heads of households and their spouses, by study group

(frequencies)

	permanent labourers (n=9)		resident casuals (n=10)		non-resident casuals (n=30)		non-labourers (n=7)	
	men	women	men	women	men	women	men	women
- Trans Nzoia	1	2	3	3	11	13	1	1
- Bungoma	3	1	4	4	13	12	4	4
- Kakamega	2	1	1	1	3	5	-	1
- Turkana	2	2	2	2	-	-	-	-
- Uasin Gishu	-	-	-	1	2	-	-	-
- West Pokot	-	-	-	1	-	1	1	1
- Siaya	-	-	-	-	1	1	-	-
- Elgeyo Marakwet	1	1	-	-	-	-	-	-
- Murang'a	-	-	-	-	-	-	1	1
- Busia	-	2	-	-	-	-	-	-
- Uganda	-	1	-	-	-	1	-	-
Total	9	10	10	11	30	33	7	8

Appendix K

Receipts and gifts, by type of relation and by study group

(shilling per household)

	permanent labourers (n=9)			resident casuals (n=10)		
	receipts	gifts	balance	receipts	gifts	balance
- parents husband	79	503	-424	114	202	-88
- parents wife/wives	19	214	-195	175	252	-77
- brothers/sisters husband	117	290	-173	110	283	-173
- brothers/sisters wives	164	106	+58	80	112	-32
- non-residents/children	498	139	+359	-	5	-5
- others	46	122	-76	2	22	-76
total	923	1374	-451	481	876	-395

	non-resident casuals (n=30)			non-labourers (n=7)		
	receipts	gifts	balance	receipts	gifts	balance
- parents husband	63	357	-294	4	1082	-1078
- parents wife/wives	126	235	-109	38	603	-565
- brothers/sisters husband	189	266	-177	28	654	-626
- brothers/sisters wives	157	110	-63	136	278	-142
- non-residents/children	119	15	+104	28	-	+28
- others	26	65	-39	-	127	-127
total	480	1048	-568	234	2744	-2510

Appendix L

Geographical distribution of receipts and gifts, by study group

(shilling per household)

	permanent labourers (n=9)			resident casuals (n=10)		
	receipts	gifts	balance	receipts	gifts	balance
- district of origin	249	1200	-951	160	494	-334
- other districts	673	174	+499	320	381	-61
total	922	1374	-452	480	875	-395

	non-resident casuals (n=30)			non-labourers (n=7)		
	receipts	gifts	balance	receipts	gifts	balance
- district of origin	98	292	-194	53	686	-633
- other districts	381	755	-374	180	2058	-1878
total	479	1047	-568	233	2744	-2511

Appendix M

Seasonality of exchanges, by study group and type of exchange

(August 1988 - July 1989; number of exchanges per month)

		Aug.	*Sept.*	*Oct.*	*Nov.*	*Dec.*	*Jan.*	*Feb.*	*Mar.*	*April*	*May*	*June*	*July*
PERMANENT LABOURERS (N=9)													
• all exchanges	receipts	7	4	4	2	5	6	4	2	2	63	9	14
	gifts	6	4	5	3	8	11	6	9	4	3	14	12
• staples	receipts	1	1	2	1	1	1	2	0	0	0	2	3
	gifts	2	0	1	1	1	3	0	1	0	1	2	4
• other food	receipts	2	1	0	0	1	1	0	0	0	2	3	4
	gifts	1	1	1	1	2	2	2	3	1	1	5	3
• cash	receipts	4	2	2	1	3	4	2	2	2	1	4	7
	gifts	3	3	3	1	5	6	4	5	3	1	7	5
RESIDENT CASUALS (N=10)													
• all exchanges	receipts	3	4	3	2	7	6	2	4	5	4	9	12
	gifts	14	7	9	10	10	11	7	8	9	5	10	16
• staples	receipts	2	3	3	2	3	4	1	3	3	4	6	6
	gifts	6	4	3	3	1	1	3	2	2	2	3	6
• other food	receipts	1	0	0	0	2	1	1	1	2	0	1	4
	gifts	1	1	2	2	5	4	1	1	4	0	3	4
• cash	receipts	0	1	0	0	2	1	0	0	0	0	2	2
	gifts	7	2	4	5	4	6	3	5	3	6	4	6
NON-RESIDENT CASUALS (N=9)													
• all exchanges	receipts	23	18	21	15	27	11	18	16	17	18	23	37
	gifts	37	40	35	31	36	32	38	35	35	36	44	47
• staples	receipts	10	9	9	6	10	3	5	6	4	7	11	16
	gifts	7	8	6	6	7	7	9	7	9	7	7	14
• other food	receipts	7	5	5	3	11	4	7	4	6	5	6	12
	gifts	15	14	12	12	12	12	11	12	14	11	19	18
• cash	receipts	6	4	7	6	6	4	6	6	7	6	6	9
	gifts	15	18	17	13	17	13	18	16	12	18	18	15
NON-LABOURERS (N=7)													
• all exchanges	receipts	3	2	2	6	2	3	2	5	4	2	6	5
	gifts	11	9	6	8	10	11	11	10	10	9	11	12
• staples	receipts	1	1	1	2	1	1	1	2	2	1	1	3
	gifts	3	2	2	1	2	1	2	2	1	2	3	2
• other food	receipts	2	1	1	3	1	2	1	3	2	1	4	2
	gifts	1	1	1	1	2	3	2	1	2	1	1	2
• cash	receipts	0	0	0	1	0	0	0	0	0	0	1	0
	gifts	7	6	5	7	6	7	7	7	7	6	7	8

Appendix N

Seasonality of exchanges with Bungoma, by study group

(August 1988 - July 1989; number of exchanges per month)

	(N)	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*	*Jan.*
Permanent labourers	(9)						
receipts		0	1	1	0	1	2
gifts		1	1	1	0	1	2
Resident casuals	(10)						
receipts		0	1	2	1	0	1
gifts		1	2	2	0	0	1
Non-resident casuals	(30)						
receipts		6	3	5	5	7	4
gifts		6	5	5	6	4	10
Non-labourers	(7)						
receipts		3	2	2	0	1	2
gifts		3	1	1	1	2	2

	(N)	*Feb.*	*Mar.*	*April*	*May*	*June*	*July*
Permanent labourers	(9)						
receipts		2	0	2	1	2	0
gifts		0	0	0	1	1	0
Resident casuals	(10)						
receipts		0	1	1	2	4	4
gifts		2	1	2	1	4	4
Non-resident casuals	(30)						
receipts		7	6	4	7	5	7
gifts		6	9	3	7	10	8
Non-labourers	(7)						
receipts		2	0	0	1	3	0
gifts		1	0	2	4	2	1

Appendix O
Questionnaire

FOOD & NUTRITION STUDIES PROGRAMME (FNSP 8) **CONFIDENTIAL**

Trans Nzoia Farm Survey, Support Study, 1989

Name of Farm code

Hsehld nr

Head of household Division code

Location code

Area of origin

District code Nr of yrs

Location code reason

reason:

1: to buy a farm
2: to find work
3: to join family
4: other(specify)

Permanent
Casual on the farm
Casual outside the farm
Smallholder

Comments

	damoyr	name	assistant/supervisor
Household interv.			
check			
Coding			
check			
Data Entry			
check			

Form 1 Form 7
Form 2 Form 8
Form 3 Form 9
Form 4 Form10
Form 5 Form11
Form 6 Form12

CBS / FOOD AND NUTRITION PLANNING UNIT
MINISTRY OF PLANNING AND NATIONAL DEVELOPMENT
& AFRICAN STUDIES CENTRE-NETHERLANDS

FORM 1: SHAMBA-1 **CONFIDENTIAL** Hsehold nr Page nr

	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Planting '88												
Harvesting												
Planting '89												

Reason

			costs
labour	1988		
	1989		
plough	1988		
	1989		
seeds	1988		
	1989		
fertilizer	1988		
	1989		
cattle	1988		
	1989		

FORM 2: SHAMBA-2 **CONFIDENTIAL** Hsehld nr Page nr

1) On which part of your shamba do you grow maize? (acreage)

Sell 1988 1989

crop	code	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Income	

Reason

Buy 1988 1989

crop	code	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Costs	

Reason

2) Does the household have enough time to work on the own shamba?

FORM 3: ECONOMIC ACTIVITIES-1 **CONFIDENTIAL**

Hsehld nr ☐ Page nr ☐

1988 1989

pers nr	name	activity		Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Income	Paid	

Comments ☐

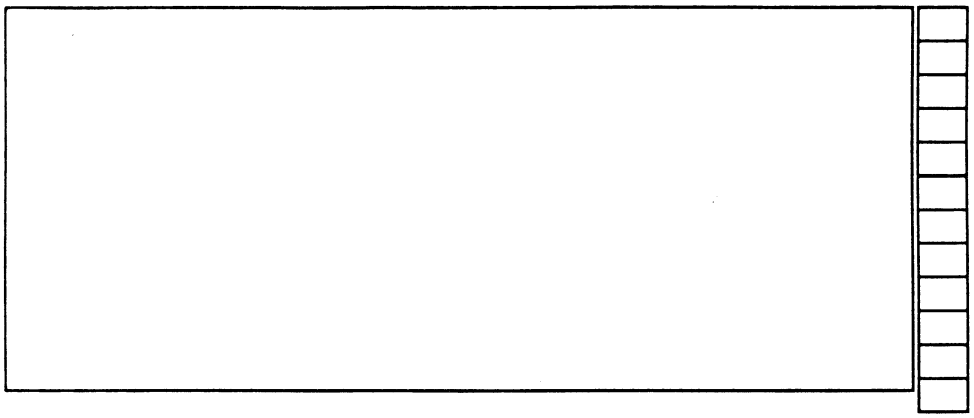
Activity

1: agricultural casual labour
2: agricultural permanent labour
3: non-agricultural casual labour
4: non-agricultural permanent labour
5: trading
6: self-employed
7: food preperation
8: domestic labour
9: employed by household

CONFIDENTIAL

FORM 4: ECONOMIC ACTIVITIES-CONSTRAINTS Hsehld nr ☐ Page nr ☐

1) How did you start the job?
2) Did you ever have other jobs? Why did you stop?
3) Is it difficult to get a job as a casual? When especially?
   Is there a difference for men and women?
4) Is it difficult to get a job as a permanent? Why?
5) Is it difficult to get a job or start a job outside agriculture? Why?
6) Do other household members want to have a job?
   Why? What are the constraints?



FORM 5: EXPENSES **CONFIDENTIAL** Hsehld nr Page nr

1) Do you have to pay for this plot? When?

2) How much do pay for schoolfees? When do you have to pay?

3) Do you have other obligations? (e.g. dowry)

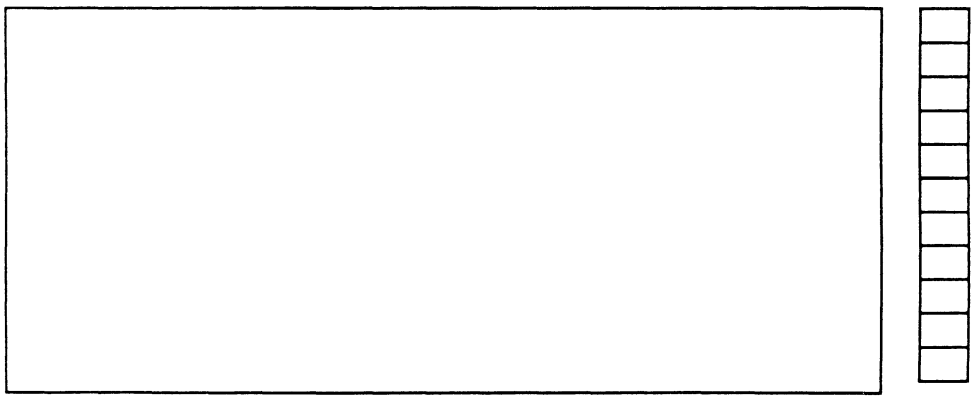
4) Are you able to save some money? What do you do with it?

FORM 6: MIGRATION HISTORY-1 **CONFIDENTIAL** Hsehld nr ☐ Page nr ☐

Pers nr	Name	District	Location	Yrs	Reason	Costs	Distance

1) Reason for leaving?
2) Did you come at once?
3) Were your relatives already living here?
   Did they have land and/or a job?
   Did they help you?
4) How old were you when you left?
5) Is there a difference between life here and there?

FORM 7: MIGRATION HISTORY-2 CONFIDENTIAL Hsehld nr Page nr



FORM 8: AREA OF ORIGIN-1 **CONFIDENTIAL** Hsehld nr Page nr

acres costs distance:

distance

1) < 1 hr
2) 1-2 hrs
3) 2-3 hrs
4) 3-4 hrs
5) 4-6 hrs
6) 6-8 hrs
7) 8 hrs- a day
8) over a day

1) Where is this plot?

2) Who takes care of this plot?

3) What are the rights of the household concerning this plot?

4) Products: how often, how much and what kind of?

Planting time

Harvesting time

FORM 9: AREA OF ORIGIN-2 **CONFIDENTIAL** Hsehld nr ☐ Page nr ☐

1) How often and in which month does the household go there, to work on the land?

2) How often and in which months do they come here to help you?

3) Does the household own cattle there? How many? Who takes care of the cattle?

4) What is the most difficult period during the year concerning food?

FORM 10: RELATIONS-1 **CONFIDENTIAL** Hsehld nr ☐ Page nr ☐

Person	Code	District	Code	Location	Code	Costs	Distance

1) When did you go there for the last time?
2) What did you bring?
3) How often do you go?
4) Which time of the year on what occasions?
5) What do you give them per year?
6) What do they give you when you go there?
7) Do you ever sent them something?

Checklist:
- ☐ 1) parents
- ☐ 2) parents in law
- ☐ 3) brothers/sisters (husband)
- ☐ 4) brothers/sisters (wife)
- ☐ 5) children
- ☐ 6) non-res.h.h.members
- ☐ 9) other (specify)

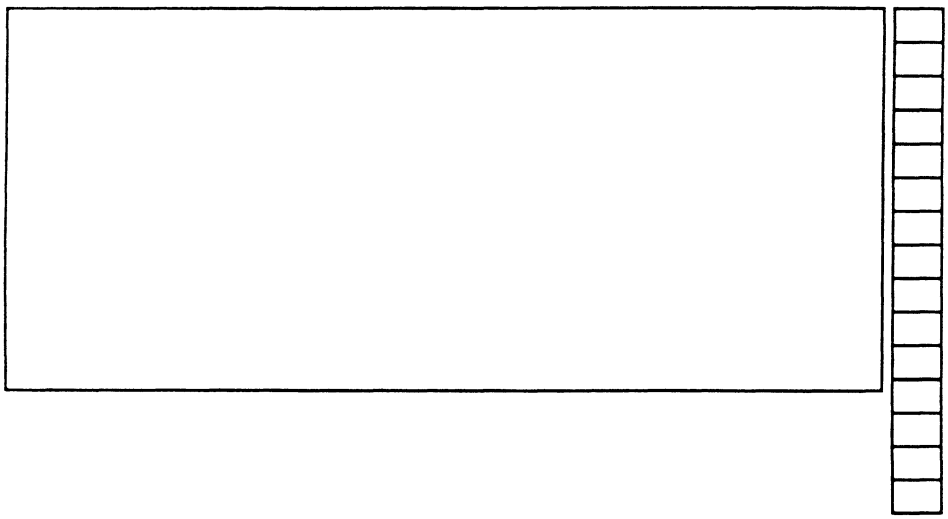
Distance:
- 1) < 1hr
- 2) 1-2 hrs
- 3) 2-3 hrs
- 4) 3-4 hrs
- 5) 4-6 hrs
- 6) 6-8 hrs
- 7) 8 hrs-a day
- 8) over a day

FORM 11: RELATIONS-2 **CONFIDENTIAL** Hsehld nr Page nr

1) When did they come here for the last time?
2) What did they bring?
3) How often do they come?
4) Which time of the year, on what occasions?
5) What do they give you per year?
6) What do you give them when
7) Do they ever sent you something?

FORM 12: GENERAL QUESTIONS CONFIDENTIAL Hsehld nr ☐ Page nr ☐

1) What is the most difficult period during the year concerning food?
   Do you get support in this period?
2) Can you manage without this support?
3) Did you get more support in the past?
4) If there is a period of severe food shortage, what would you do?
   What would other household members do?
5) What is the most important for your food supply, your own shamba?
   agricultural wage labour, other employment or support from others?



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