New stakeholders and the promotion of agro-silvo-pastoral activities in southern Burkina Faso:

False start or inexperience?

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Issue paper no. 118

Acknowledgements

Dr. Camilla Toulmin and Théa Hilhorst of IIED for all their financial support and suggestions in conducting this study.

The members of the GRAF network, especially Hubert Ouédraogo, Daniel Thieba, Mahamoudou Zongo and Firmin Ouali, for their guidance and contribution to the design of this research.

Heads of technical support services, the population of the study area and the new stakeholders who agreed to co-operate in data collection.

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1. Introduction

For most communities in rural areas of Burkina Faso, prospects for an improvement in agro-silvo-pastoral production are extremely gloomy. Indeed, the situation is critical in certain regions of the country; with the farming systems and production techniques applied nowadays, there is no way of avoiding substantial food deficits for the overwhelming majority of the population. This is despite the fact that, in some regions such as the central plateau, natural resources are already seriously over-exploited (this is due to soil degradation as a result of heavy demographic and livestock pressure, as well as to the general deterioration in climatic conditions).

Faced with this ecological crisis situation, small farmers have taken some important steps. On family farms, they have gradually adapted their strategies as best they can to the new conditions. In terms of farming methods, we see the adoption of erosion control measures, intensification of water and soil conservation methods, strengthening of the relationship between animal husbandry and crop production, the development of agro-forestry, improvement of soil fertility management and so on.

The quantitative and qualitative results achieved have shown that these small family farms are the key to economic prosperity, social solidarity and sustainable management of local resources.

Despite these achievements and the overwhelming preponderance of small-scale family agriculture throughout the country, attention seems to be focused on the development of large farms. Variously called "agribusinessmen" or "new stakeholders", those promoting this new type of farming include employees, entrepreneurs and politicians. Their efforts to establish very large farms or holdings (50 or even 200 or 400 hectares) can be seen in most areas of the country where natural resources are still quite readily available.

Supported by the government authorities, these activities by new stakeholders are supposed eventually to contribute towards intensification and modernisation of farming with a view to ensuring food security. In addition, the enterprise of these new stakeholders should lead to increased monetarisation of output and competitiveness of products in the sub-region and to globalisation of trade.

What are the consequences of this form of agriculture for small family farms and farming systems as currently practised? Can it represent a relevant alternative for agricultural development in the country? Is there still enough suitable land to allow this type of agriculture and small-scale family farming to cohabit?

Opinion is greatly divided about the response to these questions. According to Minister of State Salif Diallo[1], *"Burkina Faso is rich in arable land, but only one-third of this land is being used; this is why we need to encourage those who have the means and desire to use the land to do so. Small producers could become labourers on these large farms. The idea is not to dispossess the small producers but to enable them to earn additional income"*.

The aim of this research is to get a better understanding of and explain the emerging "phenomenon" in new farming policy as it takes shape in the southern region of the country, where "new stakeholders" presently seem to be concentrated. To achieve this result, the study attempted to:

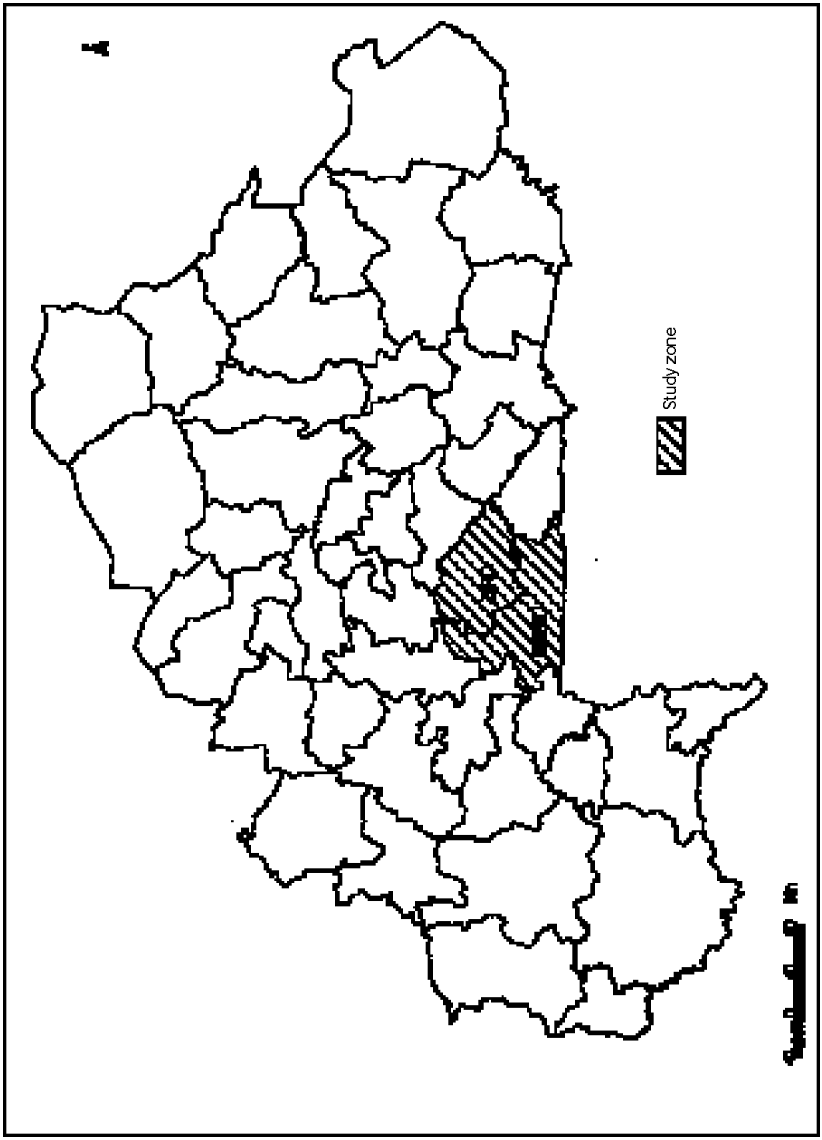
- take stock of the current position of "agribusiness" in the region
- assess the technical and economic performance of farms;
- assess the effects and impacts of the intervention of new stakeholders on land tenure
- principles and practices, the environment, vulnerable groups such as women and
- young adults, etc.

The results are presented in this paper with all their limitations that are essentially due to the pioneering nature of the research. They are structured into seven parts as follows: the first presents the issues and methodology of the study, the second deals with the socio-economic characteristics of the region, the third discusses catalysts for the phenomenon, while the fourth, fifth and sixth parts focus on profiling the new stakeholders and analysing their performance in the field; finally, part 7 assesses impacts and effects on the ecological and socio-cultural environment.

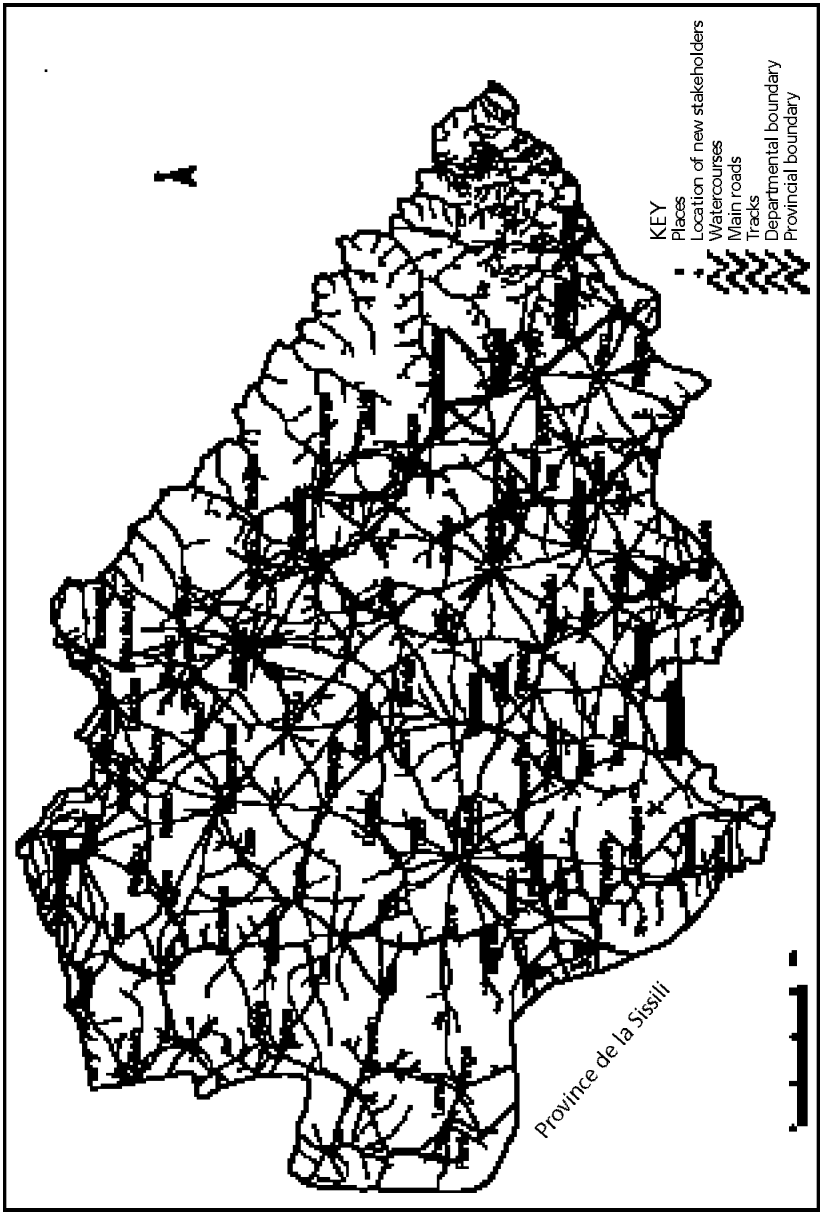
1 Sidyawa of 11th November 2002: second ordinary session of the Economic and Social Council; Minister Salif Diallo speaking to councillors.

Maps showing the location of the study area

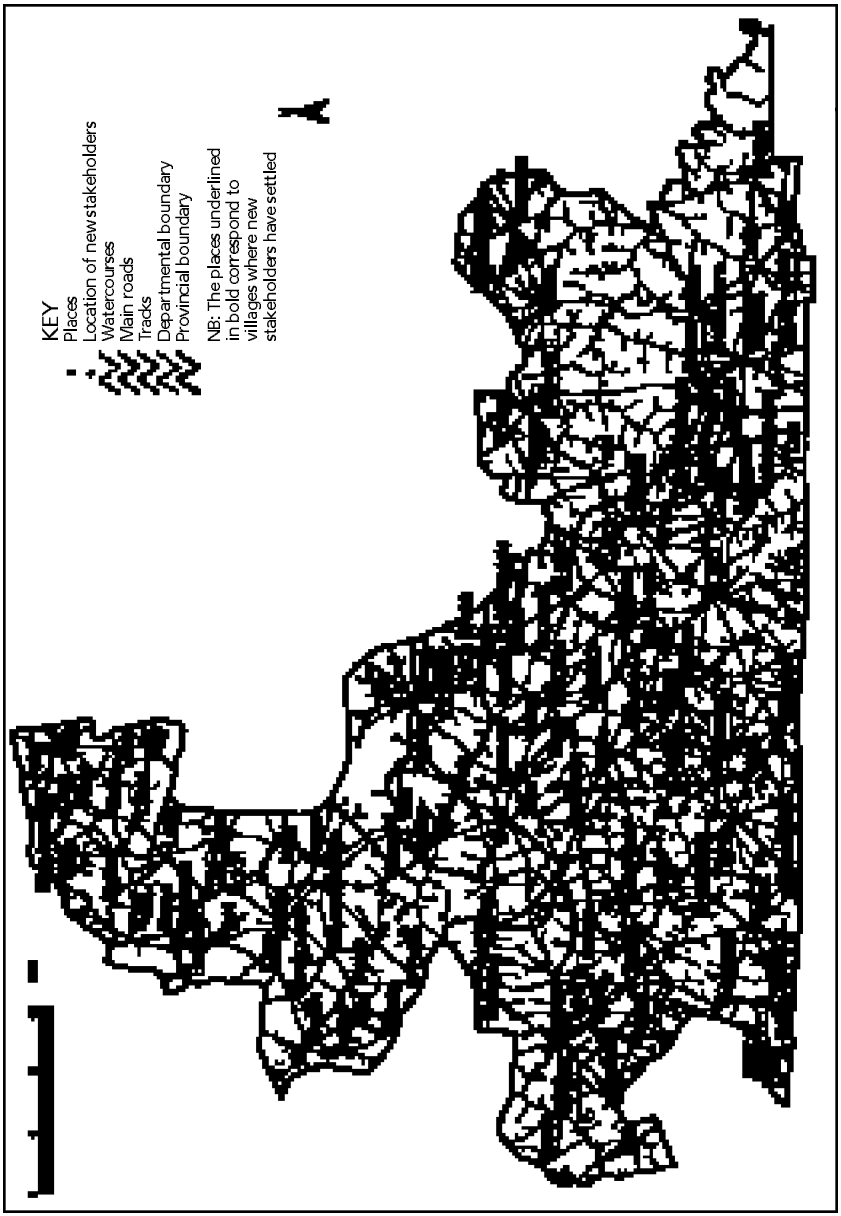
Map 1. Burkina Faso: Location of the study area (shaded)



Map 2. Burkina Faso, Ziro Province: Location of new stakeholders



Map 3. Burkina Faso, Sissili Province: Location of new stakeholders



2. Presentation of the issue and the study methodology

2.1 The issue

2.1.1 The characteristics of improved traditional farming

In Burkina Faso, the agricultural sector is still dominated by improved traditional farming both as regards occupation of the active rural population and output intended for self-consumption and sale. Analysis of agricultural policy[2] specific to improved traditional agriculture shows that the main characteristics of farms are as follows:

- an average farming household has between 6 and 16 members in the central and western regions, 6 to 10 in the eastern region and 5 to 11 in the Sahel; and
- the average cultivated area per farming unit varies from 2.8 hectares to 12 hectares in the western region where there are farms with more than 50 hectares that have motorised equipment, from 1.5 to 4 hectares in the eastern region, from 2 to 5.5 hectares in the central region and from 2 to 3 hectares in the Sahel.

In all regions, cereals predominate in terms of sown area. In the west, cotton is the second most important crop, whereas groundnuts dominate in the other regions. Production conditions vary in accordance with factors such as:

- fertility and availability of farmland;
- equipment and farm inputs;
- processing of products, markets and prices; and
- extension services and farmer organisation.

Improved traditional agriculture includes animal husbandry. Animal production for general consumption involves ruminants (cattle, sheep, goats and camels) and non-ruminant stock (poultry and pigs). Animal production conditions depend on the socio-cultural, institutional and economic environment, livestock resources and performance, access to inputs, extension services and herder organisation.

2 Ousmane Tontorogobo et al. *Contribution au diagnostic du secteur agricole et à la definition d'axes stratégiques de croissance horizon 2000-2030* [Contribution to assessment of the farming sector and definition of strategic growth targets for 2000-2030], Ministry of Agriculture and Animal Resources, May 1997.

This type of farming, practised by almost all rural communities, cohabits with modern style farming that mainly involves irrigated cropping, agro-pastoral farms and the food-processing industry (agribusiness).

2.1.2 Overview of modern style farming

The modern farming sector includes:

- Irrigated cropping, which has intensified since the great drought of the 1970s. With the support of development partners, the government has undertaken various schemes to build micro and major dams, usually with a view to developing the land downstream (the Kou Valley, the Niéna Dionkélé and Bazon plains, etc.). The development strategy has included resettling producers from the overpopulated central plateau. Smallholders cultivate small areas depending on the size of the family labour force and level of investment (e.g. farm equipment, inputs). The schedules of conditions drawn up by the extension services focus on rice, green beans and tomatoes, but are gradually moving to incorporate a greater variety of crops (maize, cow peas, groundnuts and various vegetables). Apart from exported produce (particularly green beans), the other crops have to compete with imported produce, especially rice and maize.

- The establishment of private orchards and farms by individuals, many of whom are politicians, civil servants and entrepreneurs. Activities on these orchards and farms mainly involve fruit tree plantations, animal husbandry (ruminants and poultry) and the construction of second homes. Sites are usually chosen on the basis of ethnic origin (the village where the stakeholder was born) rather than the cost-effectiveness of the investment. Sources of finance vary but, in general, civil servants rely on their salaries and entrepreneurs on business income. When the civil servants have "lucrative positions", they establish the orchards and farms using their own capital and other fringe benefits deriving from their jobs. Despite good technical (and sometimes economic) results, they are driven mainly by reasons of prestige rather than by economic and financial concerns. Most of them suffer from the lack of a coherent plan (design, implementation, monitoring and evaluation) and their results can only be determined through in-depth, meticulous enquiry.

- The food-processing industry, the most important experience being that of the sugar company in the west of the country that has been the subject of a great deal of research work.

2.1.3 The promotion of large-scale private farming and the origins of agribusiness

Promotion of private large-scale farming was initiated by the National Revolutionary Council (Conseil National de la Révolution – CNR) around 1985. Although it did not really get off the drawing board, this attempt seems to have encouraged the return to the land of civil servants and entrepreneurs. With the aim of ensuring food self-sufficiency, the CNR authorities had taken steps towards intensification and modernisation of agricultural activity. Apart from the many support measures to promote small family farms, the strategy to ensure food security for all in Burkina Faso was to be underpinned by the promotion of rural water supply programmes and more productive use of floodplains. In the latter connection, the contribution of entrepreneurs proved to be essential in achieving the expected results. Schemes such as that on the Sourou plain were selected as test cases. Operations were to involve farms of around 50 hectares to be established by entrepreneurs on a personal basis and/or on behalf of their companies. The government authorities' strategy was to intensify and modernise farming by means of increasing the competitiveness of agricultural produce, diversifying production and developing investment in the means of production, which implies greater monetarisation.[3]

The Ministry of Agriculture was put in charge of operations and organised many meetings with economic operators about the feasibility of the programme. These consultations very quickly resulted in massive take-up by entrepreneurs, some ignorant of the scale of investment required and some fearing being accused of going against the manifesto of the Democratic Popular Revolution. They committed themselves in respect of thousands of hectares but quickly became disenchanted on first contact with the land, despite government support in purchasing some of the equipment such as tractors. In the absence of preliminary technical and economic studies, the general impression is that, rather than the activity constituting a source of cash income for the stakeholders, the opposite has been true: in other words, one needed to be sufficiently rich to undertake such activities. In view of the many unanswered questions, especially regarding the roles and responsibilities of those involved (the government and economic operators), financing for the farms, choice of production systems, markets and prices, etc., the project remained to a large extent on the drawing board.

3 Economic operators were best placed to achieve these objectives, as not only do they have adequate financial resources to cope with the demands of intensive production systems, they are also better equipped to handle the very complex mechanisms of trade and marketing.

However, in the field, individual initiatives to develop the concept of "agro-pastoral farms" became increasingly common. Apparently, the phenomenon was so widespread in the 1990s that, when the preliminary assessments for the sustainable agricultural development policy were being undertaken, the idea re-emerged and was incorporated in the policy guidelines.[4] Unfortunately, the concept was not supported by clear strategies unless one counts the speeches by politicians that certainly had plenty of impact on (public) employees and some entrepreneurs. It should also be noted that some politicians went further and individually set an example by establishing such farms in various provinces. Could these factors explain the enthusiasm for the activity? What are the real motivations of the new stakeholders? What are the benefits of "agribusiness" style farming in the context of achieving regional political, economic and social integration that can provide opportunities to develop the agricultural sector, but also in the new context of competition and the restrictive and demanding concept of comparative advantage? With this in mind, the research is designed to test the following hypotheses:

a) Why choose modern farming "agribusiness" style? Is it just a matter of prestige for political leaders and economic operators or a real opportunity to develop the agricultural sector?

b) Does the strategic bias towards this type of farming take account of the constraints and comparative advantages of crop, animal and forest production at sub-regional level?

c) Does the current agricultural policy provide "new stakeholders" with a framework of protection and support, particularly as regards:
   - security of tenure on farms;
   - sinking substantial financial investment into the start-up phase; and
   - advice and support in adopting efficient production sytems, training new stakeholders and their permanent staff, managing farms and looking for domestic and foreign markets.

What is the future for the small family farms that involve almost the entire population of rural areas as this type of agriculture expands?

4 Current agricultural policy relating to the emergence and support of new types of producers open to the market economy and technical progress is expressed in the Strategic Policy Document (SPD) as follows:
- developing the market economy;
- monetarising the rural economy;
- lifting the constraints on farms;
- improving natural resource management and supporting the professionalisation of the various stakeholders;
- improving food security and combating poverty; and
- establishing a framework favourable to private initiative and refocusing the role of the State.

2.2 The study methodology

Although the "agribusiness" phenomenon concerns most regions where natural resources are still relatively available, this research focused on the south of the country, especially the provinces of Sissili and Ziro (cf. location maps). This region was chosen for the following reasons: the proximity of the town of Ouagadougou (around 100 km away), the relative accessibility of the area that probably explains the current flow of "new stakeholders" and the diversity of stakeholders, amongst other parameters. Bearing in mind the pioneering nature of the study, these factors are a great asset in obtaining vital data about the phenomenon of "new stakeholders" unfolding in the country over the last ten years.

In this regard, the research attempted: (i) to take stock of the situation in the two provinces where the trend is quite marked; (ii) to assess the technical and economic performance of farms already or being set up; (iii) to appreciate the effects and impacts; and (iv) to assess the limits and potential of administrative and technical services in providing advice and support to promote these large-scale farms.

To obtain results, a four-stage methodology was applied to collecting and analysing the data relating to the various study issues, viz:

2.2.1 Assessing the scale of the phenomenon in the region and profiling the "new stakeholders"

Who are they? How many are there? In which parts of the region are they found? Why? Answers to these questions are essential to achieve the objectives assigned to the study. In fact, analysis of documentation collected from the technical support services, as well as interviews with certain resource people, shows that "new stakeholders" are mainly concentrated in Ziro province. For the moment, there are very few of them in Sissili province. Nevertheless, it should be stressed that the only criterion for identifying "new stakeholders" used by the grassroots community and technical support services is the size of the "farm". This means that anyone who has been allocated a "field"[5] of more than 30 hectares is considered to be a "new stakeholder or agribusinessman".[6]

In connection with the research and in the various exchanges of views, we agreed to extend the definition of "new stakeholders" to everyone whose main source of income is off-farm, who is involved in agro-silvo-

5 Throughout the exchanges of views, the resource people almost always referred to fields rather than farms or holdings.

6 We also noticed from the survey that the social position of the individual seems to make a difference, with ministers and civil servants of a certain status being allocated 100 hectares.

pastoral production as a secondary activity and has a farm with an area equal to or above 2 hectares.[7]

To collect these data, a survey was conducted in the provinces of Ziro and Sissili using questionnaires that produced the following information: the identity of the new stakeholder, his social position, the total area/area in use, the location of the holding, the status of the party granting the land, the year of acquisition, the mode of acquisition, the terms of acquisition and the types of investment and activities carried out.

2.2.2 Analysis of evolving tenure practices in the study area

Analysis of tenure practices was one of the first important stages of this research and was designed to get a better understanding of the various rights, uses and management practices relating to land in the area. In fact, in most rural areas of Burkina Faso, traditional management rules and principles are still in operation despite the existence of laws on agrarian reform. As a result, land transactions between indigenous "landowners" and "new stakeholders" are essentially based on the traditional rules of land tenure. However, as a general rule, traditional land management is governed by certain principles such as: no one may appropriate the land, no one applying for land may plant trees or make use of the fruit trees existing on the allocated land, etc. Theoretically, these principles do not allow the activities undertaken or envisaged by "new stakeholders" such as tree cropping, marking out holdings and formalising agreements.

To get a better understanding of current practices, it was necessary to collect data on the traditional principles of land tenure, the parties involved at local level and their role, traditional patterns of land transfer, activities prohibited and authorised on allocated land, rights of "new stakeholders" and "landowners" over the allocated land, etc.

This analysis was conducted by means of semi-structured interviews with:
- village intermediaries (entry points for new stakeholders into the grassroots community) between applicants and grantors;
- customary leaders (village chiefs, land chiefs, notables);
- farmer organisations in villages;
- managers and technicians from various government services; and
- migrants, etc.

7 In relation to the focus of the study, holdings below 2 hectares are not relevant when seeking to understand the phenomenon of agribusiness. In addition, a high percentage of civil servants present in the study area by reason of easy access to land and ideal production conditions usually have farms around the two hectare mark without being classed as new stakeholders. There are also seasonal farmers who mostly come from the central provinces of the country (Ouahigouya, Bam, Sanmatenga, etc.) to work the land solely to produce food for self-consumption.

2.2.3 Assessing the efficiency of farming techniques and profitability of activities[8]

Analysis of efficiency was based on collecting and processing information relating to the following aspects:

- crop production (farming techniques, seeds, fertilisers, pesticides, crops, yields, etc.);
- animal production (livestock species, herd management, meat production, milk production, manure production, etc.);
- forestry (forest species, production of firewood, timber, fruit, etc.); and
- infrastructural development (residential and farm buildings, erosion control measures, water supply, electrification, fencing, etc.) and equipment (farm equipment as such and other production equipment).

This information was used to simulate estimated trading accounts[9] to assess the scale of investments made by new stakeholders and get an approximate idea of the cost-effectiveness and profitability of the economic activity undertaken.

2.2.4 Assessing the effects of new stakeholders' activities on the environment and socio-cultural situation

The establishment of "new stakeholders" in the region and the nature of the activities they undertake inevitably have repercussions on the state of the environment, current agro-silvo-pastoral production systems and the socio-cultural lifestyles of the local communities.

- In environmental terms, we focused on the impact of creating farms on the sustainable management of natural resources (soil, vegetation, water and wildlife). This assessment was based on analysing the cultivation techniques used and the corrective measures adopted by new stakeholders in the field.

- In economic terms, the analysis attempted to appreciate trends in profitability of activities undertaken by the new stakeholders.

- In socio-cultural terms, attention was focused on the relationship between the various stakeholders and their effects on local practices.

8 This analysis was undertaken on the basis of a sample prepared from the survey data.
9 Generally speaking, entrepreneurs do not have a systematic monitoring system enabling them to collect data on investments and activities. As a result, we reconstituted the data in order to estimate trading accounts.

3. The socio-economic characteristics of the region

In administrative terms, the study region extends over two provinces, Sissili and Ziro, located 100 and 140 km respectively from Ouagadougou. Before the new administrative division (Law No. 10/96/ADP dated 24th April 1996 creating and designating 15 provinces) in Burkina Faso, this area of 12,504 sq km formed a single administrative unit (Sissili). In terms of regional economic classification, the two provinces belong to the central western planning region, which includes the provinces of Sissili, Ziro, Sanguié and Boulkiemdé with Koudougou as administrative centre.

In agro-ecological terms, the whole region is located in the south sudanian zone, where average annual rainfall is usually above 900 mm. This type of climate is characterised by two seasons: a dry season extending from mid-November to mid April and a wet season extending from mid-June to mid September. The abundant rainfall combined with the diversity and nature of the soil has encouraged the development of species-rich vegetation. Plant formations are composed of shrubby and wooded savannah, sparse forests and gallery forests along watercourses. In comparison with the central plateau region, farmland and pasture are still relatively abundant and there is substantial potential to extend farming. Apart from these agro-ecological features, the study region has the following noteworthy characteristics.

3.1 Demography dominated by non-native communities

The whole region was originally occupied by the Nuni, who belong to the Gourounsi sub-group. However, due to the upsurge of migration that began in 1973/74 and the persistence of years of drought, as well as the increasingly marked deterioration of natural resources, a variety of social groups are now found throughout the region, the indigenous communities having been joined by Fulani (or Peul), Gourmantché, Mossi, etc. The most numerous migrant Mossi communities originate from the central plateau provinces (Bam, Yatenga, Sanmatenga, Namentenga, Kadiogo, Bazega, Passoré, etc.). Next come the Fulani who account for more than 15 per cent of the resident population. There were two phases of mass migration to the area. First of all, seeking to ease overcrowding in the central region of the country which could no longer support its growing population, the government set up schemes and settled migrants in the Volta valleys, especially the *département* of Fara in Sissili province. The

second phase involved unorganised migration with no involvement on the part of government services.

Nowadays, in most of the valleys in the region, migrants outnumber the indigenous communities. This is due to the fact that the first migrants have been settled for more than 20 years and there has been a constant flow of new arrivals since then. For instance, in Ziro province alone, more than 1000 households originally from central areas of the country were recorded during 2002. Sometimes, they have established their own farming hamlets that have become "administrative villages" equipped with basic infrastructure such as schools and clinics. In some villages, the longest established migrants are gradually going into business and some are the heads of economic interest groups.

This demographic expansion and the increasing numbers of livestock have begun slowly but surely to erode the natural resource potential of the region. These two factors lie behind many conflicts between farmers and herders in the area. It should be noted, however, that population density remains relatively low in comparison with other regions of the country, with 21.5 people per sq km in Sissili and 23.2 in Ziro.

3.2 Omnipresent traditional power

Despite the heterogeneous nature of the groups present, the indigenous communities dominate social organisation. In almost all traditional villages (with the exception of those established by migrants), the Nuni wield political power. The village chiefs are responsible for day-to-day administration, management and arbitration in social disputes between villagers and inhabitants of the farming hamlets under their authority. They are usually assisted by councils of elders made up of the chiefs of the various lineages and the district officials. On matters of village development, migrants take part in debates through their chiefs who are, in most cases, the first members of their community to settle in the area.

Land-use management and management of other natural resources is handled by the land chief. Invested with mystic religious powers, he is responsible for mediating between the ancestors and the living. In many areas, political and religious power is exercised by the same person for various reasons (e.g. smallness of the indigenous population).

Social organisation amongst migrant communities is lightweight and based on their particular interests. They are organised around ethnic or religious leaders or socio-economic groupings and do their best to maintain social harmony. As they generally have greater economic power than the indigenous communities, they are always involved in decision-making.

3.3 Weak socio-economic infrastructure constraining the economy

Farming is the dominant economic activity. Food crops predominate with more than 160,000 hectares of land under cultivation. The crops are mainly cereals and tubers such as yams, sweet potatoes and so on. Cash cropping is also developing, with more than 80,000 hectares under cultivation with cotton, soya, cow peas, groundnuts and tobacco. Apart from crop production, animal husbandry is an important part of the region's economy. There are, for example, more than 160,000 head of cattle, 482,000 small ruminants, 19,000 pigs and 19,000 donkeys. Grazing is still relatively abundant with huge potential for developing rangelands.

However, all this potential is currently under-exploited due to the almost total absence of basic infrastructure. Most areas in the region are isolated, hindering trade and thereby the development of the commercial sector. This situation also partly explains the low productivity of farming. In the same way, the severe shortage of infrastructure supporting education, health and occupational training is responsible for the precarious living conditions of the residents.

4. Catalysts to agribusiness in the area

The establishment of large farms is not a new activity in the southern region of the country. In the 1980s, there were already a few in Sissili province, especially in the Fara and Poura areas. In addition, in the 1990s, licensees were authorised by the government to set up hunting areas in a very large area of forest with a view to developing game viewing and hunting for tourists. However, over the last five years, the trend towards establishment of large estates for various activities has stepped up alarmingly. In the last three years alone, the two provinces of Ziro and Sissili have recorded the creation of around 100 "individual farms", some of which cover more than 150 (one hundred and fifty) hectares. There seem to be three factors encouraging this boom in agribusiness in the region, as discussed below.

4.1 Changing principles and practices in land transactions

The fundamental idea behind the traditional tenure system is that one cannot appropriate anything that does not result from man's creative work. As the land is not produced by anyone, it does not belong to anyone, but to "nature" or to a "God" or spirits. According to this perception, people can only have cultivation or usage rights and land is never refused to someone who asks for it to meet their own needs. Despite this, it is increasingly common in rural areas for land to be appropriated in various ways. The most widespread and long-standing is transmission of cultivation rights and control over land from father to son by inheritance. This form of appropriation concerns all land under cultivation and cleared land. In the study region, only indigenous farmers are entitled to bequeath their holdings to their offspring. Transmissible rights come down from the first occupant acknowledged as a member of the "landowning" family. In this regard, the notion of occupation constitutes an essential element in the acquisition and appropriation of land according to traditional land-use management principles. Consequently, occupation of land means first of all marking the presence of an individual or community on the ground, i.e. settling on a piece of land and marking it out; subsequently, it means making a fundamental change in the physiognomy of the land, in other words bringing it into productive use (Messanvi Foli, 1982). According to these practices, ascertaining the real owner of a piece of land in the region means finding whoever brought it into productive use. An important feature of these forms of appropria-

tion is that there is no "individual private property". The holding belongs to the lineage whose chief organises management in co-operation with the members. Apart from the inheritance procedure, access to land is a direct right through patrilineal filiation. According to this principle, resident daughters and sons have the right to cultivate the lineage land.

With the establishment of large-scale farming in the region, more and more new forms of appropriating access rights to land are emerging that constitute a complete break with the traditional principles of land-use management such as the ban on planting trees on the land that has been granted, the formalisation of acquired rights, etc. In this respect, current practices are quite ambiguous; for the indigenous "landowners", there has never been any question of selling land: "*We never sold our land and the new stakeholders never bought it. If we agree to them planting trees, it is because this kind of activity contributes towards environmental protection and, in any case, they will not be able to take the trees with them when they decide to leave".*

In fact, granting land to a new stakeholder allows the grantor to obtain a number of benefits, especially in monetary terms.[10] The acquiring party contracts a permanent debt towards the grantor. However, the paradox in current transactions between "landowners" and new stakeholders is that there is no sale nor is land treated as a commodity. According to Dominique Desjeux (1982), the notion of commoditisation or sale of land reflects the transformation of the tenure issue brought about by the development of the market economy. Supposedly, it also corresponds to transformation of the relationship of farmers to the land, the latter becoming a commodity that can be exchanged for something of equivalent value, usually money. At the current stage of practice in the field, it is, however, difficult to see the gifts offered by the new stakeholders to thank the indigenous parties for the benefits received as a form of land rent or financial settlement. In the same way, it is hard to describe the holdings acquired by new stakeholders as "private property". The explanation for this seems to be twofold: first of all, the parties involved (both indigenous and new stakeholders) are following the same logic as regards principles and rules of access to land; secondly, there have been no cases anywhere in the area of land being withdrawn because a new stakeholder refused to pay a consideration.[11]

10 In most cases, the acquiring party assists the grantor by providing him, as a token of gratitude or at his request, with food, equipment (a plough or bicycle, for example), cash, etc. There is no particular timetable for this kind of support. It is spontaneous and regularity depends on how often the new stakeholder comes to the area.
11 Cf. also Jean Marc Gastella, 1982, on usage rights and private ownership.

In view of the foregoing, one might be tempted to conclude that it is not a matter of commoditisation of land, but a form of "alienation from rights and traditional practices in land-use management". By behaving in this way, local communities seem to be finding alternative ways of improving their living conditions by temporarily swapping their prerogatives over part of their assets against various forms of support provided by new stakeholders (gifts of food, farm equipment, socio-economic infrastructure, etc.). Although they are endowed with substantial natural resources, the local people are extremely poor and lacking in socio-economic infrastructure. This is one of the reasons why they are prepared to accept new stakeholders.

Box 1.

When the matter of land transactions is discussed in the field with the various parties, two concepts are usually put forward, i.e. "giving and lending" land. Even the notion of "giving" mentioned by indigenous parties does not suggest that the term is interpreted as meaning that the person receiving the gift may exercise all rights over it. However, some new stakeholders do interpret the concept in this way and this shows in the activities they undertake and their attempts to formalise agreements with a view to permanently appropriating the land granted to them. Nevertheless, in the eyes of the indigenous parties, the notion of giving is not synonymous with transferring all rights over the allocated land. In some contexts and with the consent of the landowners, the acquiring party may have more extensive rights for an unlimited period over some of the land, as shown by the comments below.

"We do sometimes give land to someone who is not from the village but this practice is only adopted under very specific circumstances. For instance, a person who has stayed for a while in the village and decides to live here permanently may be given land. This is also on condition that he proves that he is sociable and can fit into our community. In the village, we have many migrants who have been here for more than 20 years and whose children have married ours. They speak our language, Nuni, and have decided to settle here permanently. However, as they also have their own customs, we have to ensure that they can continue to observe them even when they are not in their home area. This is why, when they bring their "insects"[12] with them, we arrange all the ritual ceremonies so that our ancestors may accept them. Once these conditions have been fulfilled, they are like sons of the village and, from then on, they can use the land allocated to them on the same conditions as indigenous farmers. For example, they may plant trees and make some of their sacrifices so long as they inform us. Besides, we are

12 Meaning, in this case, fetishes, a term that land chiefs prefer not to use.

having to go along with current developments in lifestyles, as otherwise in our traditions and from what we learned from our parents it would not be possible to give a field to someone who does not live in the village; you have to live there, experience the problems of the village and participate in its development.

It is noticeable that usually people who come to us to ask for land always say that it is to grow maize, sorghum, cow peas, etc. Apart from these crops, they are not normally entitled to undertake other activities on the allocated land without prior authorisation from the land chiefs. However, if they inadvertently plant trees, for example, they will be summoned by the customary authorities to explain what they have done. However, as they have had to cut down trees before bringing the land under cultivation, we can not ask them to pull up what they have planted. Only when they decide to leave, all investments come back to the village chief as of right without any compensation. In the same way, they do not have the right to transfer the trees to third parties, or to sell them. This also applies to buildings (huts and so forth) that must not be destroyed or have their roofs removed. To be more explicit, we have neither sold nor given the land: it is a loan".

The above remarks show that, contrary to the interpretation that may be placed on the concepts used to describe land transactions between indigenous parties and new stakeholders in the region, there is never a permanent transfer of all rights over the allocated land. However, agreements may be made for an unlimited period provided that neither of the parties breaches the clauses and/or the prohibitions. They also highlight the fact that the legal framework provided by the law on agrarian reform is inadequate. In fact, the notion that the "national estate" (i.e. the land) is the exclusive property of the State, the latter being responsible for allocating land to whoever wishes to work it, is extremely theoretical when compared to actual practice on the ground. In any event, the balance of power in the field is not in favour of the public authorities or what they might suggest or promote.[13]

13 See also Philippe Haeringer, 1982.

4.2 The emergence of new stakeholders and rules of the game in tenure issues

The question of land-use management in the region is, to an increasing extent, no longer the sole prerogative of the former local authorities (land chiefs, village chiefs and landowning lineages). Other stakeholders are emerging who often support differing interests and this is stepping up the process of transformation of local land-use management practice and rules, including including those set out below.

Migrant farmers

Most of them come from the Mossi central plateau and fall into two major groups. The first group is made up of people who settled a very long time ago (20 to 50 years) and are in practice integrated into the indigenous Nuni community. They speak the local dialect very well and have marriage ties with the indigenous people. In most cases they are in business and are considered as the chiefs of those who came later. They take part in some decision-making and have virtually the same rights as the indigenous people in access to and use of natural resources. The second group is made up of migrants who have arrived in the area over the last ten years following heavy pressure on land and frequent climatic upheavals on the central plateau. They are probably in the majority and every year there are new arrivals in the region. The latter are obliged to go to the most remote villages that are the most lacking in socio-economic infrastructure (especially water points) to settle. In fact, most of the more accessible villages are beginning to run out of space and potential is gradually dwindling.

Agro-pastoralists

This category of stakeholders includes the indigenous Nuni, as well as the Mossi and the Fulani who are the largest group. Some of them came to the area over 20 years ago drawn by abundant grazing. They now have large herds of cattle (personal property) and are heavily involved in farming. Residential construction using semi-permanent materials suggests that they are becoming sedentarised. As they need a lot of space, agro-pastoralists are the most hostile to the current settlement of "new stakeholders". According to them, the latter are occupying the pastures and the corridors by which the animals can reach water points and avoid damaging fields during the rainy season. Agro-pastoralists are finding it increasingly hard to cohabit with farmers – an age-old problem – and are the most seriously affected by the various tenure problems encountered in the area. In addition, the whole area is visited by seasonal transhumant herders from the northern and central regions of the country. They are having increasing difficulty with shortage of grazing and obstruction of livestock corridors.

Bush management committees[14]

Committees on "bush management " or "land-use management " are quite new and, at present, more numerous in Ziro province. They have apparently existed in Sapouy for seven years and only three years in some other villages in the province. Set up following many consultation meetings between the indigenous communities on improving management of land resources in the various areas, they are mainly composed of members of the families of the traditional land management authorities (land chiefs, village and district chiefs and their oldest sons). For various reasons (e.g. the need for sound knowledge of the community's taboos and access to sacred places being forbidden to certain people), the nephews of "landowning" families and even long-established migrants may not be members. These committees, which are more or less self managing and have operating rules that vary from place to place, are playing an increasingly important role in the actual allocation of land to applicants.

The involvement of the customary authorities also varies. In some villages, the village chief and land chief are members of the committee. This applies to the committees in Sapouy that are set up for *secteurs*[15] and villages where the indigenous Nuni population is small. In other villages, such as Dianzoe, the land and village chiefs are not members. The committee members are the younger brothers and sons of the land and village chiefs. It has, however, been noted that, in spite of the existence of these committees, the decision to accept an outsider and grant him a portion of the village land is always taken by the council of elders (land chief, village chief and the older members of the indigenous community). Once the decision has been taken, the committee is responsible for actually allocating the land.

The advent of committees in the region has also led to changes in practices and terms of access to land. For example, contrary to the former practices which involved the applicant himself providing the various products (cola, cock, dolo [local beer], tobacco, etc.) to enable the different ceremonies to be held, he may now give the equivalent in cash in an amount set by the village in question. This payment includes a form of

14 The initiative to set up organisations at local level has apparently come from development projects and programmes, especially the PNGT (programme national de gestion de terroir - national programme for village land-use management) and PDISAB. People from the region have been invited to attend workshops and debates about various topics including empowerment of local communities in managing their own environment. On their return, feedback meetings have apparently been organised to share lessons and discuss how to apply the suggested corrective measures. It seems that these debates have led to the creation of bush management committees in the region.

15 Administrative divisions corresponding to quartiers (districts) under the pre-revolutionary organisation of villages.

contribution towards meeting the social needs of the village and the operating costs of the committees that are paid out of a common fund held by the decentralised financial institutions.[16] In Sapouy, the amount paid varies from one district to another: it is FCFA 10,500 in Kholiessan (former *quartier*) and FCFA 4,500 in Goliessan. It is FCFA 13,500 in Dianzoe, where villagers say that this does not include a contribution for the committee's operating costs but that if there is a balance against the FCFA 13,500, that amount is paid to the committee.

As regards land allocation, the trend is to limit the size of farms. In Dianzoe, for example, the land allocated may not exceed 15 hectares. In Sapouy, no applicant may receive more than 1 hectare. In that area, it is even being suggested that large-scale producers should not be accepted. In the case of traditional farmers, half a hectare would be granted for any married migrant and one-quarter hectare for single migrants. However, according to analysis of data collected in the field, these decisions are either very recent or theoretical as the farms are substantially larger in size.

Intermediaries

The term "intermediary" is used here to describe anyone who acts in any way as a guide or facilitator in the establishment of "new stakeholders" in the region. Their role consists of introducing applicants to local decision-making bodies. Intermediaries are very well known locally and fully cognisant of the rules governing access to land. Once land has been acquired for applicants, they will not hesitate to offer their services to carry out or supervise certain work (marking out, clearance, ploughing and so on). For some of them, the practice is a source of income that enables them to acquire certain goods (means of transport, improved housing, farm equipment, etc.). They are also powerful sources of information about "new stakeholders" and their activities. Intermediaries usually have all the details of new stakeholders they have supported (telephone number, address, etc.). They may be members of indigenous families, technical support workers or former residents.

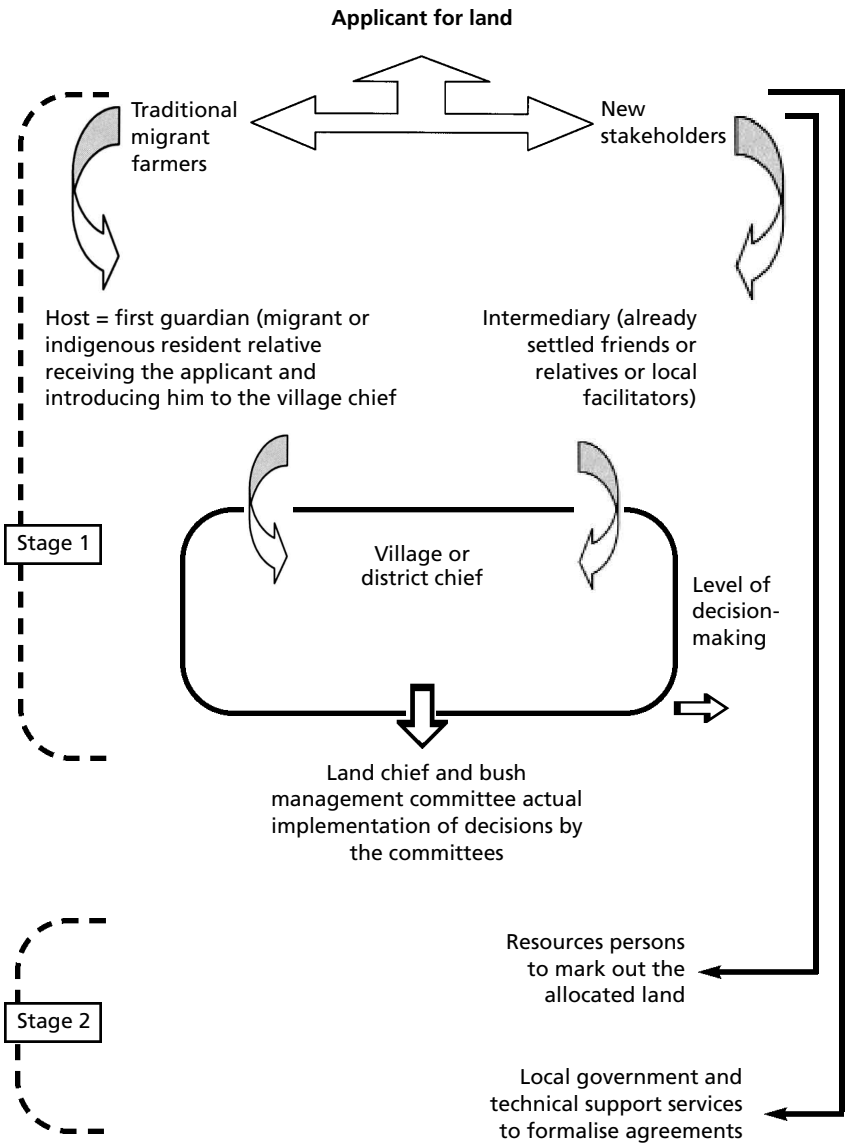
16 Apart from this type of contribution, the strategy of new stakeholders is to show generosity towards those granting them land. Consequently, apart from the modest contributions requested by the latter, the former are keen to show their gratitude by means of various gifts in cash or in kind. This type of assistance to the indigenous community is ongoing and to some extent has become a way of acquiring certain infrastructure and a potential source of income. The process has enabled some to obtain equipment and socio-economic infrastructure such as carts, ploughs, boreholes and so on. When the acquiring party or parties hold lucrative positions, they become the flag bearers of the village in dealings with potential investors such as projects, programmes and NGOs in the country. This complicity also provides a degree of tenure security for the acquiring parties and explains why there are practically no conflicts related to access of new stakeholders to land or their practices that are often contrary to traditional management principles.

Former residents
These are local people who live in other parts of the country and return home from time to time for various reasons. They may be civil servants, private sector workers or entrepreneurs. Some of them have farms in their villages of origin. Aware of the problems that the current monopoly of land by new stakeholders and migrants could pose, they are often the instigators of measures taken by resident populations to turn back the tide.

Providers of consultancy and other services
These are usually employees of the technical support services or jobless young people from the region. They are skilled in certain techniques such as marking out land boundaries, planting and monitoring/maintenance of crops, ploughing, etc. that enable them to provide services to the new stakeholders. Consequently, once the bush management committee has identified the portion of land, most new stakeholders resort to this type of service providers for marking out operations. This is not a formal matter and is of no concern to the grantors, apart from the financial benefits it may provide to young people from the village. This activity is followed by the partial or total clearance of the allocated land. Those who can afford to do so will then plant trees to provide physical evidence of their control over the farm. Subsequent activities include planting fruit trees, bringing the land under cultivation (sowing maize, sorghum and cow peas), building housing and storehouses for inputs, digging wells, etc. Most of this work is carried out with support from the village population either on an individual basis or through their organisations (women's or youth group, etc.).

Local government and technical support services
They are sometimes called upon to provide various forms of technical support to producers and to resolve conflicts between stakeholders in the field. They also crack down on inappropriate resource use practices, especially unauthorised cutting techniques during clearance. However, with the arrival of new stakeholders, they are increasingly being called upon (in most cases informally) to formalise land transactions between stakeholders. Nevertheless, this is a very delicate area for the public authorities and technical support services as the indigenous community regards with suspicion if not reluctance the issue of the PVPs ("minutes of village discussions") that are required to start proceedings to formalise agreements. The reason often put forward to justify refusal is that the land has been lent and not permanently given, while the PVP is one of the documents that cancels all rights of the grantor over the land in question. In the same way, the behaviour of those who have been able to acquire land title is hardly an encouragement to accept permanent transfer of rights over land (totally forbidding the indigenous community

Diagram 1. The land allocation process



from making use of the fruit trees and gaining access to facilities such as water points located within the boundaries of farms). However, new stakeholders are very keen to acquire this document, a primary form of land title, in order to have sufficient security of tenure to engage in large-scale farming.[17]

When examining the roles played by various parties in land transactions, two major stages in the process of access to land were identified:

- a first stage at local level where the main parties involved are the traditional land use management authorities (land chief and village chief); and
- a second, more formal, stage essentially based on current regulations in force.

4.3 The proximity of Ouagadougou and opening up the region

The location of the city of Ouagadougou, around 100 km from Sapouy (the administrative centre of Ziro province) and 140 km from Léo (administrative centre of Sissili province), provides a catalyst for the establishment of new stakeholders in the southern region. Enthusiasm for land in areas close to Ouagadougou is not new. The city is entirely surrounded by "estates" ranging from 600 to more than 1000 sq km that belong to private individuals planning to conduct various types of activities. Nowadays, it is almost impossible to gain easy access to land in these areas. Apart from the urban perimeter, neighbouring provinces such as Bazega and Oubritenga have not escaped the flow of employees, politicians and entrepreneurs seeking land for various purposes. The saturation of these areas explains the flow of new stakeholders into the southern region of the country. However, the phenomenon has speeded up over the last three years, partly as a result of the project to tarmac the road from Ouagadougou, Sapouy and Léo up to the border with Ivory Coast. This new road will provide better access to the region and develop public transport, thereby making it easier for owners to visit their holdings, as some of them, for professional reasons, can only come at the weekend or on holidays.

17 Despite such suspicions, some new stakeholders use very subtle methods to impose formal transfers of rights on the indigenous community; some come along with very attractive projects for the village saying that they need certain papers, including the PVP, to submit a request for funding. In this way, they persuade certain members of the village to establish the PVP. The same arguments are used with the technical support services responsible for the procedure to formalise rights.

5. Status and social position of the "new stakeholders"

Almost all the socio-professional categories considered to be relatively well off in the country are involved in the creation of agro-pastoral farms. Although no economic indicators can justify the current craze for land accumulation by employees and entrepreneurs, it is noticeable that people in Burkina Faso have become increasingly keen on acquiring land since 1985.[18] A phenomenon that had seemed to be restricted to urban areas and focused on residential plots is now extending to rural areas. It is not uncommon to hear comments such as "I have a plot here, 2 plots there and a 30 hectare farm in such and such a place, etc.". The main aim of the parties involved is to obtain a maximum amount of land even if they do not have the necessary financial resources to develop it. According to their strategy, the land must first be acquired and the rest will come in time.[19] The land comes more and more to be seen as wealth "to be contemplated", a kind of savings and a source of pride for those who have some in all four corners of the country. This means that farmland is being accumulated not just by those who have great resources to invest but also by those able to gain access to land.

These various factors explain the diverse nature of parties involved in the current process of creating agro-silvo-pastoral farms in the study area. For ease of reference, we have grouped them into six categories.

- **State employees** (AE): Commonly referred to as "public officials", this first category includes civil servants who are not in positions of command, officials and heads of departments of the various ministries (mainly doctors, researchers, engineers and extension workers in agriculture, environment and animal resources, accountants, primary school, secondary and higher education teachers, Treasury officials and so on), uniformed services (police, customs, national army, gen-

18 This attitude on the part of employees and politicians is apparently related to their experience of the August 1983 revolution. In fact, some leading civil servants and politicians suddenly found themselves "homeless" when the administration was obliged to evict them from the official residences they had been occupying for 15 years or more in some cases. Equally, the dismissal from public service of certain employees and senior staff for various reasons had an impact on the behaviour of all concerned. A salary is not a guarantee and income sources must be diversified.

19 Because of this attitude, many people do not meet the deadline for development of plots that was set when the latter were acquired. When these deadlines expire, plots are withdrawn, causing social tension between citizens and the authorities.

darmerie). Generally speaking, the mainstay of their financial capacity is their salary paid monthly by the civil service. In parallel to this income, some of them manage to improve their financial standing by providing various services (support/consultancy in development projects, carrying out various studies, private service provision, etc.). State employees are currently the largest category, representing 40 per cent of stakeholders.

- **Parastatal employees** (PP): Representing around 5 per cent of the new stakeholders present in the area, most of them work for public corporations and development projects and programmes. In view of the status of their employers, their salary income is slightly higher than that of the previous group. In most cases, they are temporary officials or civil servants seconded to public corporations.

- **Private sector employees** (SP): this category includes workers in financial agencies, transport and forwarding companies, aeronautics, etc. Their financial capacity in terms of salary and benefits is substantially higher than that of public service employees and parastatal institutions. They account for about 14 per cent of "new stakeholders".

- **Entrepreneurs** (PE): This category includes anyone who has set up a business and/or has a major activity providing the bulk of their income. Including traders, building contractors or roadbuilders, managing directors of financial and insurance institutions, architects and so on, entrepreneurs account for 19 per cent of new stakeholders and come in second position after state employees. They have substantial financial capacity.

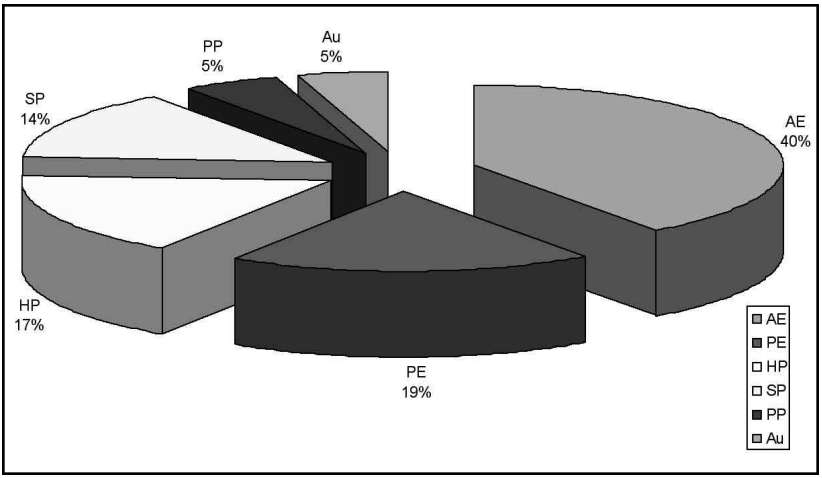
- **Politicians** (HP): This category includes ministers, whether or not in office, MPs, whether or not in office, administrative authorities at provincial level (high commissioners and general secretaries), presidents of institutions, general secretaries of ministries, departmental heads of institutions, etc. Whether they are state employees or entrepreneurs, the posts they hold provide them with income. Their status also entitles them to certain considerations and benefits vis-à-vis rural communities and technical support services. They account for 17 per cent overall of the stakeholders concerned.

- **Other** (Au): This category includes religious organisations, local development associations and NGOs, representing about 5 per cent of new stakeholders.

Table 1. Distribution of stakeholders by category			
No. per province/ Category	**Ziro**	**Sissili**	**Study area**
State employee (AE)	47	3	50
Entrepreneur (PE)	22	2	24
Politician (HP)	17	4	21
Private sector employee (SP)	9	9	18
Parastatal employee (PP)	4	2	6
Other (Au)	6	0	6
Total	**105**	**20**	**125**

Source: Study data

Diagram 2. Distribution of stakeholders by category in the study area



6. Estimated surface area of farms

Size was analysed from two perspectives: estimating the total area allocated and the area actually developed.

6.1 General description of the nature of the allocated land

Land allocated to new stakeholders is, in the overwhelming majority, land that has lain fallow for various periods. Vegetation patterns at the sites show that, in some cases, the last year of cultivation was more than 20 years ago. Conversely, others are very recent fallows. From the topographical point of view, all types of land are involved in the transactions (valley bottom, floodplain and plateau land), but it is land in the valley bottoms and floodplains that is most sought-after by the new stakeholders, since it is theoretically possible to use the watercourses there for dry season cropping and animal production.

6.2 Overview of areas of land allocated to new stakeholders

Information on the size of farms and the proportion of land allocated varies according to sources and is therefore difficult to validate. This difficulty was initially encountered when reviewing data from the reports of the technical support services. According to this first source, farms could reach 350 hectares. For example, against a sample of 64 farms listed by the Provincial Agriculture Department, there were two holdings of over 300 hectares, two of 200 to 250 hectares and 13 of 100 hectares.

When this information is cross-checked, particularly with Fulani herders, it appears that the areas allocated are much larger and may be as much as 400 or 500 hectares. The latter base their assessments on the level of shrinkage of rangelands that are almost completely obstructed by the establishment of "new stakeholders".

Amongst the indigenous communities and particularly the customary authorities directly involved in land allocation, this information is hard to come by for three reasons.

- Firstly, when land is being allocated, no surveying tools are used to check on the area of the portions of land granted. Determining the area for allocation is done by simply walking around the "bush" followed by marking of boundaries on the trunks of trees. When the applicant is lucky enough not to have a farm close to his own, he may abuse the generosity of the

grantors to acquire a very large area. Neither side has a precise idea of the areas actually granted.

- Secondly, depending on the generosity of the applicant and his acceptance within the host community, the size of the area allocated may be increased either at his request or at the grantors' suggestion. Here again, the same techniques are applied as during the initial allocation.

- Finally, there are no written documents enabling the indigenous community to monitor the area of land allocated per type of applicant. As a result, after a few years and depending on the number of applicants, it becomes increasingly difficult to assess the areas already granted and those that are still available.

The information gathered from applicants presents many irregularities. Aware of the process of de facto expropriation of land to the detriment of the indigenous communities, they fear that the latter will be shocked if this type of information is disseminated. However, it should also be noted that they do not always have precise information about the size of their holdings. In most cases, they entrust the task of marking out to unauthorised people whose skills have not been checked. Information that seems to reflect reality relates to estates whose boundaries have already been marked out by the competent authorities and, to a lesser extent, farms where stakeholders have made substantial investment.

In view of all these difficulties, several sources were used to come up with estimated data on areas (surveys of labourers, if any, on-farm interviews with staff who were responsible for marking out and discussion with educated members of landowning families) .[20]

Table 2. Distribution of areas allocated per province and *département*

Province	*Département*	Area allocated (ha)	Number of people involved
Ziro	Bagata	120	3
Ziro	Cassou	1,158	45
Ziro	Sapouy	759	57
Sissili	Biéha	200	2
Sissili	Boura	300	2
Sissili	Léo	584	13
Sissili	To	75	3
Total		**3196**	**125**

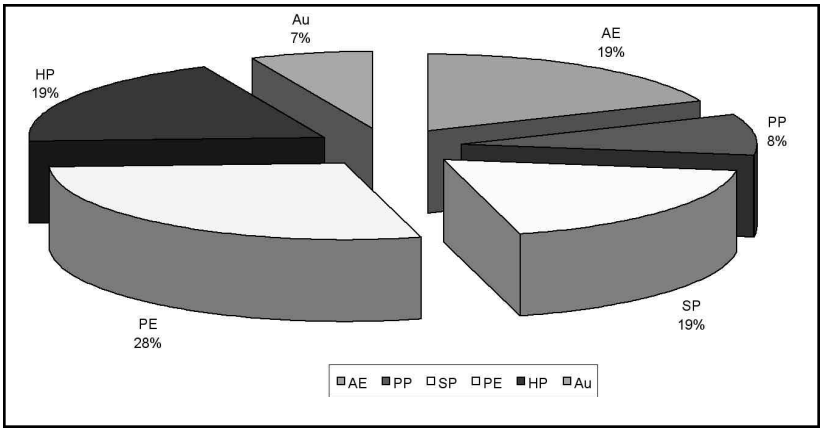
Source: Survey data

20 Bearing in mind all the inaccuracies that might call in question the reliability of data on estimated areas granted, these should be considered with great caution. The data are neither complete nor exhaustive and cannot be claimed to reflect the exact picture in the field. However, they do give an idea of current trends.

Table 3. Distribution of areas allocated per category of stakeholder		
Category	**Area allocated (ha)**	**Average per stakeholder (ha)**
State employees	599	11.98
Parastatal employees	270	45
Private sector employees	593	34.8
Entrepreneurs	906	37.75
Politicians	619	29.4
Others	209	20.09
Total	**3196**	**-**

Source: Survey data

Diagram 3. Distribution of areas allocated per category of stakeholder



6.3 Estimated area of developed land

The legal notion of land that has been "developed", i.e. that is in productive use, seems somewhat inappropriate inasmuch as there are so many different situations in the field. In most cases, once land has been acquired, "new stakeholder" applicants proceed with total or partial clearance of their holdings. The phenomenon is such that the practice grants more extensive rights over the land to the new holders. The absence of other types of activity on the cleared land seems to confirm this observation. We noted that the cleared areas are not systematically brought under cultivation. This tendency is more marked amongst new stakeholders falling into the category of state employees. Some have undertaken plantations of eucalyptus or fruit trees on two or three hectares but these are very poorly maintained.

The relevance of productive use of land is particularly noticeable on the farms of "new stakeholders" coming under the category of entrepreneurs and politicians. There again, the percentage of those making any real investment is very low in relation to their numbers.

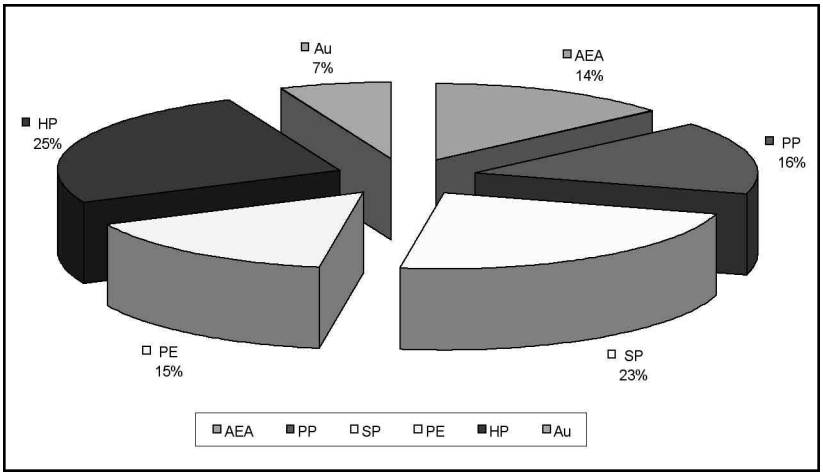
Of the 3196 hectares of land allocated, only 1292 hectares have actually been put to use. By way of indication, the average area of land used per stakeholder is 3.56 hectares for state employees, 34 hectares for parastatal employees, 17.47 hectares for private sector employees, 9 hectares for entrepreneurs, 15.66 hectares for politicians and 8.4 hectares for the others.

Table 4. Distribution of areas allocated per category of stakeholder

Category	Area cultivated (ha)	Average per stakeholder (ha)
State employees	178	3.56
Parastatal employees	204	34
Private sector employees	297	17.47
Entrepreneurs	200	8.33
Politicians	329	15.66
Others	84	8.4
Total	**1292**	**-**

Source: Survey data

Diagram 4. Distribution of areas allocated per category of stakeholder



7. Technical and economic data on farms

The purpose of analysing technical and economic performance was to assess profitability in relation to other types of farms such as small family holdings. Unfortunately, the exercise proved to be very tricky in the absence of reliable technical and accounting data on the activities undertaken by new stakeholders.[21] To get an idea of trends, more in-depth surveys in the form of case studies were conducted on 5 farms belonging to new stakeholders selected on the basis of the following criteria:

- a politician with a farm of over 50 hectares with a high level of activity;
- an economic operator with a farm of between 10 and 25 hectares with a low level of activity;
- an economic operator with a farm of between 25 and 50 hectares with an average level of activity;
- an employee with a farm of about 5 hectares; and
- a "new stakeholder" in the "other" category with a farm of over 50 hectares.

The sample was selected by distinguishing the farms listed by:

- size (total area under 5 hectares, from 10 to 25 hectares, from 25 to 50 hectares, 50 hectares and over);
- place of settlement in the *département* (low, medium or high density of population);
- status of the new stakeholders (employees, economic operators, politicians, others); and
- intensity of activity (low, average, high).

7.1 Distribution of farms according to area per *département*

The four specific categories of holdings allocated to "new stakeholders", determined essentially on the basis of surface area, are distributed in the following manner in the *départements* of the two provinces.

21 This situation confirms once again that the short-term objective of new stakeholders is not financial. Otherwise, it is difficult to understand how one could consider such a level of investment without rigorous technical and financial monitoring.

Situation in Ziro Province

Sapouy *département*

Table 5. Distribution of farms per category of area in villages in Sapouy *département*

Villages	under 5 ha	10 to 25 ha	25 to 50 ha	50 ha and over	Total
Tiana	5	2	-	-	7
Gallo	3	-	-	-	3
Dianzoé	1	3	-	-	4
Baouiga	1	1	-	-	2
Oubanou	-	-	1	-	1
Néliré	-	2	2	-	4
Tiago	1	3	-	1	5
Napo	3	-	-	1	4
Tiabienne	1	-	-	-	1
Idiou	2	-	-	-	2
Koutara	-	-	1	-	1
Kation	-	1	1	-	2
Sia	2	1	-	-	3
Diarré	-	-	-	1	1
Nébrou	-	1	-	1	2
Zavora	-	1	1	-	2
Kassio	2	1	1	-	4
x	2	-	1	-	3
Total	**22**	**15**	**7**	**4**	**51**

Source: Survey data

Cassou *département*

Table 6. Distribution of farms per category of area in villages in Cassou *département*

Villages	under 5 ha	10 to 25 ha	25 to 50 ha	50 ha and over	Total
Cassou	1	-	-	-	1
Lyen	1	12	3	1	17
Sourou	-	3	1	1	5
Bazanwara	-	2	-	-	2
Néviri	-	2	1	2	5
Boudo	-	4	-	-	4
Vrassan	-	1	-	-	1
Kadapon	-	-	-	-	-
Paro 2	-	-	-	2	2
Taré	-	6	-	-	6
Dianzoé	-	-	1	-	1
Total	**4**	**30**	**6**	**4**	**44**

Source: Survey data

Table 7. Distribution of farms per category of area in villages in Bagata *département*					
Villages	**under 5 ha**	**10 to 25 ha**	**25 to 50 ha**	**50 ha and over**	**Total**
Bakata	-	-	-	1	1
Diou	-	1	-	1	2
Total	**-**	**1**	**-**	**2**	**3**

Source: Survey data

Situation in Sissili province

Bagata *département*

Table 8 . Distribution of farms per category of area in villages in Bieha *département*					
Villages	**under 5 ha**	**10 to 25 ha**	**25 to 50 ha**	**50 ha and over**	**Total**
Néboum	-	-	-	2	2
Total	**-**	**-**	**-**	**2**	**2**

Source: Survey data

Léo *département*

Table 9. Distribution of farms per category of area in villages in Léo *département*					
Villages	**under 5 ha**	**10 to 25 ha**	**25 to 50 ha**	**50 ha +**	**Total**
Dabiou	-	-	-	1	1
Binavoro	-	-	-	1	1
Sect5/Léo	-	-	-	1	1
Kayéro	-	-	-	2	2
Léo/commune	-	2	-	-	2
Zoro	-	1	-	1	2
Fido	-	-	1	-	1
Koalaga	-	-	-	1	1
Sissili	-	-	1	-	1
Total	**-**	**3**	**2**	**7**	**12**

Source: Survey data

TO *département*

Table 10. Distribution of farms per category of area in villages in TO *département*					
Villages	**under 5 ha**	**10 to 25 ha**	**25 to 50 ha**	**50 ha +**	**Total**
Météo	-	1	1	-	2
Kouri	-	-	1	-	1
Total	**-**	**1**	**2**	**-**	**3**

Source: Survey data

Boura *département*

Table 11. Distribution of farms per category of area in villages in Boura *département*					
Villages	**under 5 ha**	**10 to 25 ha**	**25 to 50 ha**	**50 ha +**	**Total**
Poudiéné	-	-	-	1	1
Gomou	-	-	-	1	1
Total	**-**	**-**	**-**	**2**	**2**

Source: Survey data

In the two provinces, 67 per cent of farms have an area below or equal to 25 hectares. This seems surprising when considering the issue of large modern farms, unless it is seen in terms of producing so-called "rich" crops such as vegetables and flowers. This type of farm is mainly concentrated in the province of Ziro and involves state employees (cf. categories of new stakeholders). Three factors seem to explain this situation:

- stakeholders in this category sometimes have insufficient income to afford substantial investments (clearance, initial ploughing, employment of sufficient labour to carry out the work, etc.);

- the increase in numbers[22] of the latter over the years has certainly led the indigenous communities to reduce the areas allocated; and

- not having a well worked out plan from the outset, some stakeholders are not keen to take on large areas. However, when they succeed in developing the first portion and have established trust with the

22 Their concentration in parts of the province close to Ouagadougou is related to the difficulty most of them have in travelling easily to the sites. Frequently, they do not have their own means of transport and some travel on public transport, which does not go much farther than the large urban centres in the province such as Cassou, Sapouy, etc.

indigenous communities, they take advantage of this to increase the size of their holdings.

Large farms of 25-50 and 50+ hectares account for 33 per cent and are spread throughout the region. The accessibility of the sites and, increasingly, the availability of land are also factors in choosing the area of establishment. Indeed, it is increasingly necessary to go to more remote places to gain access to large areas of land.

7.2 Category and status of new stakeholders per *département*

Table 12. Distribution of farms per category and status of new stakeholders in the *départements* of the two provinces

Départements	Employees	Entrepreneurs	Politicians	Others	Total
Sapouy / Ziro	34	9	10	4	57
Cassou / Ziro	25	13	5	2	45
Bagata / Ziro	1	-	2	-	3
Biéha / Sissili	1	1	-	-	2
Boura / Sissili	1	1	-	-	2
Léo / Sissili	11	-	2	-	13
To / Sissili	1	-	2	-	3
Total	**74**	**24**	**21**	**6**	**125**

Source: Survey data

In comparison with other regions of the country, Ziro and Sissili have enormous natural potential. As the land is usually of similar quality in all areas, the criterion of accessibility explains the concentration of new stakeholders. Sapouy, Cassou and Léo are easily accessible because the roads are in good condition and public transport serves the area. In the same way, these are the places that have at least a minimum level of infrastructure (accommodation, restaurants, communications, etc.).

Départements that are not easily accessible are not yet receiving an influx of new stakeholders.

7.3 General position of development of farms

Table 13. Number of farms per *département* where different types of activity are conducted

Description/ *Département*	Type of investment			Type of activity			
	Buildings	Water point	None	Tree Cropping	Crop Production	Livestock	None
Bagata / Ziro	3	2	-	2	3	2	-
Cassou / Ziro	14	4	25	10	20	4	18
Sapouy / Ziro	15	6	40	18	33	2	17
Biéha / Sissili	1	-	-	1	2	1	-
Boura / Sissili	1	-	-	1	2	1	-
Léo / Sissili	11	6	-	12	11	2	-
To / Sissili	2	1	-	3	3	1	-
Total	**47**	**19**	**65**	**47**	**74**	**13**	**35**

Source: Survey data

NB: The figures in the table indicate the number of farms where the types of investment listed in the table are present and the number of farms where productive activities are undertaken.

One can readily see that investment is currently very low in the field. In all the six *départements* of the study area, we recorded only 47 (forty-seven) farms where there are buildings (housing and input stores)[23] and 19 (nineteen) farms that have a water point (boreholes or shallow wells). In terms of productive activities, 47 (forty-seven) new stakeholders are investing in tree cropping and 13 (thirteen) in animal production; the bulk of new stakeholders' activity relates to crop production (maize, sorghum and cow peas), produced on 74 (seventy-four) farms.

Apart from the above aspects, data from the table also highlight the large number of farms (35) where no economic activity is undertaken apart from the clearance that has been carried out. This situation shows the contradiction between the concept of "agribusiness" which means "making substantial monetary income from agriculture" and what is happening in the field that seems more like a process of land-grabbing to the detriment of the rural communities who have increasing need of land. Moreover, in some cases, the land allocated to new stakeholders is not used as much as that belonging to small family farmers.

23 No assessment has been made of the quality of investment, which often leaves much to be desired. The buildings are sometimes in a dreadful state and usually constructed from non-permanent materials.

7.4 Results of the in-depth surveys and case studies

As investment costs, production expenses, quantities harvested and yields were not supplied in full by the new stakeholders, estimates were made on a normative basis from all the statistical data collected in the field. Consequently, the results obtained are purely indicative, although the views expressed by certain producers tend to confirm that they are very close to reality. Basic costs referred to practices such as: clearance/stump removal: FCFA 25,000/ha; manual tillage FCFA 10,000/ha; animal drawn tillage: FCFA 15,000/ha; tractor tillage: FCFA 25,000/ha; sowing: FCFA 7,500/ha; crop maintenance: FCFA 12,000/ha; and harvesting: FCFA 7,500/ha. The stated costs of inputs and transport were market prices at the time of the study.

Farmer No. 1: a new stakeholder in the "politician" category with a farm of over 50 ha with a high level of activity

Size of farm

- Total area: 110 ha; in use: 100 ha; cleared with stumps removed: 100 ha; in reserve: 10 ha.

Labour

- permanent: 4 - 5 people for 2002 (primary school education, training as tractor driver, no technical agricultural or farm management training); and
- occasional: under contract with villagers (around 50 people for weeding and ridging work, 50 women for harvesting); post-harvest work done by permanent labourers.

Infrastructure

- boreholes: 2 in working order; satisfactory water table; and
- buildings: 3 including two residential units and one store.

Equipment

- 1 generator;
- 2 tractors;
- 3 three-disc ploughs;
- 1 disc harrow;
- 1 harrow;
- 1 cultivator;
- 1 seed drill;
- 1 winnowing machine;
- 1 baler;
- 1 trailer; and
- donkey cart.

Activities

- tree planting (cashew, mango and lemon);
- crops (maize: 40 ha in 2001 and 60 ha in 2002; cow peas: 20 ha in 2001 and 40 ha in 2002); cultivation work by tractor (ploughing and sowing) manual cultivation work (weeding and ridging), mineral fertiliser on maize and cow peas; cow peas treated with insecticide.

Estimated trading account

Description	2000 - 2001	2001 - 2002
Operating costs	16,360,000	21,876,000
Income	16,900,000	24,000,000
Gross margin	**540,000**	**2,124,000**
Depreciation	2,233,000	2,233,000
Net result	**- 1,693,000**	**- 109,000**

NB: see details in Appendix

Farmer No. 2: a new stakeholder in the "entrepreneur" category with a farm of between 25 and 50 ha with an average level of activity

Size of farm

- Total area 30 ha; 30 ha in use, cleared and with stumps removed.

Labour

- permanent: 1 person in 2001 and 2 people in 2002 (no specific agricultural training); and
- occasional: under contract (women for sowing at FCFA 6,000 ha and 5 to 28 men for weeding at FCFA 12,000 ha; harvesting by day labourer at FCFA 750 ha and food for the women engaged in threshing the sorghum; post- harvest work by permanent labourers).

Infrastructure

- 1 residential building;
- 2 round huts for a permanent labourer; and
- 1 borehole with a manual pump.

Equipment

- 1 tractor (only brought in when required);
- 1 disc plough;
- 1 disc harrow;
- 2 balers; and
- 1 trailer.

Activities
- crops (2001: sorghum 26 ha and maize 3.5 ha; 2002: sorghum 15 ha and maize 15 ha);
- herd of 40 cattle; and
- tree planting (eucalyptus) around the edges of the farm.

Estimated trading account

Description	2000 - 2001	2001 - 2002
Operating costs	7,261,000	9,929,750
Income	3,790,000	4,800,000
Gross margin	**- 3,471,000**	**- 5,129,750**
Depreciation	673,000	673,000
Net result	**- 4,144,000**	**- 5,802,750**

NB: see details in Appendix

Farmer No. 3: A new stakeholder in the "entrepreneur" category with a farm of between 25 and 50 ha with an average level of activity

Size of farm
- Total area: 20 ha; 20 ha in use, cleared but no stumps removed.

Labour
- permanent: 8 including two with specific agricultural technical training received in Mali; and
- occasional: around 20 people for agricultural work.

Infrastructure
- 3 residential units for permanent labourers (with support from the Sassakawa Global 2002 project); and
- 3 solar panels (with support from the Sassakawa Global 2002 project).

Equipment
- 1 tractor;
- 1 disc plough; and
- 1 trailer.

Activities
(None but scheduled for the current season.)

Farmer No. 4: new stakeholder in the "employees" category with a farm of around 5 ha

Size of farm
- Total area: 5 ha; 3 ha in use (partial clearance and tree planting).

Labour
- permanent: 1 educated person with no specific technical agricultural training; and
- occasional: 5 to 10 people depending on workload.

Infrastructure
(None but a plan to build a residential unit).

Equipment
(None)

Activities
- planting forest trees: 300 cashew, 200 eucalyptus; and
- 2000 and 2001: 3 ha of maize.

Estimated trading account

Description	2000 - 2001	2001 - 2002
Operating costs	1,011,750	288,000
Income	795,000	-
Gross margin	**- 216,750**	**- 288,000**
Depreciation	40,000	40,000
Net result	**- 256,750**	**- 328,000**

Farmer No. 5: New stakeholder in the "other" category with a farm of around 50 ha

Size of farm
- Total area: 40 ha; 22 ha in use (cleared and stumps removed).

Labour
- permanent: 5 people (no specific agricultural training; only waged during the rainy season for farm work; carry out private income-generating activities at the same time); and
- occasional: depending on workload.

Infrastructure
- 1 residential unit for staff; and
- 1 unlined well.

Equipment
- 1 tractor with tools.

Activities
- 2001: maize 20 ha; cow peas 2 ha.

Estimated trading account

Description	2000 - 2001	2001 - 2002
Operating costs	5,437,000	5,137,000
Income	5,830,000	5,280,000
Gross margin	**393,000**	**143,000**
Depreciation	472,500	472,500
Net result	**- 79,500**	**- 329,500**

According to the results of the above trading accounts, the activities conducted by new stakeholders cannot currently be considered as "agribusiness". Like the majority of existing farms in the area, the five farms all recorded a deficit over the first two cropping seasons. The annual deficit ranges from FCFA 256,750 to 5,802,750. The scale of the deficit is not related to the size of the farms. Deficits on Farms 2 and 3, of 30 and 20 hectares, are higher than that of Farm 1, of 100 hectares.

The reason for the deficit is partly the level of investment in the first and second years, which brings down the profitability of the operation due to annual depreciation, and partly the low productivity of agriculture (inadequate and incomplete intensification with a lot of work done manually and failure to comply with production norms for maize, cow peas and sorghum).

The tendency of "new stakeholders" who invest the most to have the lowest profitability is likely to discourage the establishment of large modern farms and drive those "new stakeholders" who do settle to adopt improved traditional production systems (low investment, low inputs).

This comment must nevertheless be qualified, as experience shows that the large farms start to show positive results in the fourth or fifth years, when diversified or specialised crops reach cruising speed in terms of productivity and the level of investment is lower.

In order to establish a parallel with the technical and financial results of improved traditional farming in the area, a trading account was established for the latter on the basis of data supplied by the Provincial Agriculture Department.

Typical trading account

Baseline data
Farm with 7.5 hectares in use
Family made up of eight people
Family with 3.75 active members
Equipment: 1 pair of oxen, one donkey, one cultivator, one donkey cart

Purpose of production

Sorghum, maize and millet:	50% self consumption	50% sale
Rice:	25% self consumption	75% sale
Cotton:		100% sale
Groundnuts:	25% self consumption	75% sale
Sesame:	25% self consumption	75% sale
Cow Peas:	75% self consumption	25% sale

Crops	Area ha	Yield kg/ha	Production kg	Self-consumption kg	Production Sold kg
Sorghum	2	894	1788	894	894
Maize	2	1500	3000	1500	1500
Millet	1	835	835	417	417
Rice	0,5	1932	966	241	724
Cotton	1	1155	1155	-	1155
Ground-nuts	0,5	807	403	100	303
Sesame	0,25	587	146	36	109
Cow peas	0,25	854	213	159	53

Table 14. Trading account of a "typical farm" in Sapouy

Descriptions	Amounts
Value of production sold	708030
Value of production costs	187500
Gross margin	520530
Depreciation	37500
Net result	483030
Net result per active member FCFA	128808

The “typical farm” meets the food requirements of the family, producing 418 kilos of food per person, i.e. double the national average, which is 217 kilos. Income per active member is FCFA 128,808, i.e. almost triple the estimated national minimum wage of FCFA 35,000.

However, these technical and financial results need to be seen in perspective, as the pressure of non-food expenditure (health, education, consumer goods and social expenses) encourages families to sell food crops beyond the 25/75% ratio. Nevertheless, they do show some quite clear trends while also reflecting the question marks hanging over the promotion of large-scale farming.

8. Effects and impacts of the activities of new stakeholders

8.1 Effects and impacts on the environment

Over the last ten years, the growing flow of migrant farmers and herders has often put heavy pressure on natural resources. The arrival of "new stakeholders" in the area seems to have exacerbated this situation of erosion of natural potential. There seem to be various factors involved in environmental degradation caused by new stakeholders.

Clearance techniques used to prepare the fields

The most relevant indicator for identifying a farm belonging to a "new stakeholder" is the extent of the area cleared. Generally speaking, the techniques adopted by the latter consist of systematically cutting down almost all ligneous species. Where tractors are available, all the vegetation cover will be pulled up, thereby exposing the soil to various factors of degradation (rainwater run-off, wind, sun, etc.). On the other hand, the majority use machetes and axes as clearance tools and cut down trees leaving 30 or 40 cm of trunk; this cutting technique does not allow the coppice shoots to resist inclement weather such as strong wind or the passage of animals. To facilitate ploughing, some people burn the stumps remaining after cutting.

Residual density per hectare of 100 trees (ligneous species and shrubs) recommended by the competent authorities is never respected. On most farms, the species spared rarely exceed 15 to 20 trees per hectare. Sometimes, there are only seven or eight trees per hectare, mainly mature fruit trees (shea and néré).

When the area is not accessible to wholesale firewood traders, the felled trees are piled together and burnt. The disadvantage of this technique is that it destroys the young seedlings that could have enabled vegetation cover to regenerate. In the same way, the fires destroy all the organic matter thereby speeding up the drop in soil fertility.

Poor ploughing techniques

Considering the size of farms, "new stakeholders" use more modern methods of tillage, such as donkey and ox drawn ploughs as well as mechanised equipment such as tractors. While the equipment may seem more appropriate for farms of this size, it can be seen that the ploughing techniques used do not sustain the soil potential. Very often, the techniques do not take account of the nature and quality of the soil. For

instance, heavy ploughing is practised on very light soils, although this can strip off the topsoil and cause capping. In addition, ploughing does not always take account of topography. If it is not done perpendicular to the slope, run-off speed is increased, sweeping fine soil particles into the watercourses. This process eventually causes degradation of the soil, rendering it unfit for agriculture.

Absence of additional inputs

A feature of the vast majority of farms started by "new stakeholders" is the total absence of inputs in the sense of preserving natural potential. First of all, cleared areas are never entirely brought under cultivation, nor are the uncultivated parts put to use in any other way. Subsequently, the areas sown with cereals are over-exploited and no organic matter is applied. Very few farmers combine animal husbandry with cropping, making do with chemical fertilisers, which are often spread in incorrect doses. According to specialists, a minimum of 5 tonnes of organic matter is needed per hectare to maintain soil fertility. The use of chemical fertilisers (NPK and urea) without organic matter can cause soils to dry out.

No measures are taken to combat erosion due to run-off, such as building stone or earth bunds, planting grass strips, etc. In the same way, the systematic collection of harvest residues to meet other needs exposes the soil to wind erosion and the effects of sunshine.

Inappropriate choices for restoring and/or replacing vegetation cover

Attempts made by certain new stakeholders to restore and/or replace natural vegetation with fruit trees have in most cases been very disappointing. There are many reasons for failure, including:

- improper planting techniques that do not allow the young seedlings to take root and develop properly;
- poor choice of species or varieties that are not always suitable for the local agro-pedological conditions;
- lack of monitoring, treatment and maintenance of seedlings exposing them to attack by parasitic insects and wandering animals; and
- silting up and pollution of watercourses.

Sites located along the edges of watercourses are the most sought after by new stakeholders. These sites allow for diversification of activities and intensification of production systems. The techniques envisaged involve using surface water as of the end of the rainy season and groundwater to continue production after watercourses have dried out. Unfortunately, these sites are not used properly and the banks are often cleared and

cultivated. The disadvantage of these practices is that watercourses silt up, thereby making management of surface water even more difficult. The use of fertilisers and chemical pesticides in such places can cause water pollution, affecting the development of fishing resources and causing a risk of proliferation of larvae, mosquitoes and other insects that are vectors of diseases.

8.2 Effects and impacts on improving living conditions

It would be premature, at this stage of the study, to make a judgment about the effects and impacts of the establishment of "new stakeholders" on improving the living conditions of rural communities. However, some trends can be seen in respect of the following:

Support in acquiring socio-economic infrastructure

It has been noted in the previous sections that, generally speaking, the region is ill-served with socio-economic infrastructure such as schools, sanitation and water supply, access roads, etc. Likewise, production systems are characterised by the use of rudimentary tools (local hoes, spades, etc.) that cannot take full advantage of the enormous existing potential.

Through the intermediary of new stakeholders, some communities are beginning to lobby for access to the goods and services essential for their survival. The influence of some new stakeholders on existing sources of funding has resulted in improvements such as school building and, in particular, access to drinking water (boreholes, large diameter wells, etc.).

In the same way, agricultural equipment (carts, ploughs, etc.) has begun to appear in some places that, even in limited numbers, could eventually bring about changes in mentality and efforts to improve current production techniques.

In addition, the various forms of service provision to new stakeholders constitute a source of income to pay for certain needs (healthcare, clothing, etc.)

Pending more in-depth studies to come up with the actual quantified impacts, it may be said that, at the current stage of the process, benefits have certainly come to the population of the region in terms of improved living conditions (acquisition of socio-economic infrastructure, local job opportunities, etc.). There is, however, the risk that the monopoly of land by new stakeholders may represent a medium-term constraint on the promotion of family farming in which almost all rural communities are involved.

8.3 Effects and impact on livestock activities

The region has enormous potential for the development of animal production. The extent and richness of rangeland constitute a pull factor for the Fulani (Peul) herders who represent around 15% of the resident population. Livestock includes 160,000 head of cattle, 482,000 small ruminants, 19,000 pigs and 19,000 sheep. In view of the availability of land before the arrival of new stakeholders, livestock systems are basically traditional with animals ranging over areas of varying size.

Apart from the dairy produce and meat obtained from livestock, the latter also constitute an important factor in managing soil fertility and the efficiency of cereal production. Manuring contracts between farmers and herders would allow the organic matter essential to soil fertility to be reconstituted.

However, over the last three years, according to the herders, "*the situation has become more and more difficult; the indigenous people allocate land to new stakeholders without thinking about us. Yet the areas allocated are increasingly large, sometimes as much as 200 or 500 hectares, thereby reducing rangeland available for animals. The location of the farms hinders easy access to water points and grazing. If the process continues at this rate, no herder will be able to stay in the area in two years time".*

These remarks expose the difficulties of cohabitation between herders and new stakeholders. Some activities such as tree planting are not compatible with current animal husbandry practices in the area. Moreover, conflicts between traditional farmers and herders are increasingly common due to damage caused to fields by animals.

This situation clashes with current policy on promoting agro-pastoral activities, calling for complementarity between the two types of activity. Their separation will have disastrous consequences for the management of soil fertility and cause serious hardship for small family farms where very poor households cannot afford chemical fertilisers.

8.4 Effects and impacts on family farms

"New stakeholders" often have holdings close to villages that can provide them with abundant cheap labour (women, young people and men) on a temporary basis. Such service provision provides the population with cash income enabling them to meet certain social needs. However, tension within families caused by individual pursuit of financial resources may impact on the labour force of family farms. Family leaders (the older generation) have less and less control over the allocation of family labour between communal and individual fields. The most educated or dynamic

family members are likely to find permanent jobs on the farms of "new stakeholders", thereby reducing their contribution to the agricultural and other work of the family.

The "monopolising" of large areas of farmland by new stakeholders may jeopardise the traditional cultivation system based on fallowing every five to seven years. Family farms will be obliged to give up shifting cultivation although they do not have the wherewithal to implement an intensive system (animal traction, organic matter, fertiliser, etc.).

The establishment of new stakeholders is still recent and the agricultural activities undertaken have not brought in any significant technical innovations likely to influence the skills and attitudes of the young villagers who work on these farms. Activities do not yet include animal husbandry and the few initiatives in this respect involve traditional practices.

8.5 Effects and impacts on improving women's living conditions

The most immediate effects on women of the establishment of farms by new stakeholders involve:

Income earned by their organisations for the provision of agricultural labour

The local economy in the region is characterised by the lack of income-generating activities, particularly for women. This is due to the fact that the latter do not have the capacity to start up activities such as petty trading in condiments or the sale of dolo (a traditional drink), etc. Services provided to new stakeholders therefore offer an opportunity to improve their financial position and enable them to undertake off-farm activities.

Support in acquiring socio-economic infrastructure

The main benefits that women gain from the establishment of new stakeholders relate to the acquisition of equipment and socio-economic infrastructure. Improvement in certain conditions such as accessibility of drinking water and education has very positive effects on the health and education of children. In the same way, the acquisition of equipment such as carts and ploughs helps to reduce the arduousness of women's domestic work.

Strengthening of women's organisations

Apart from the above aspects, working on the farms of new stakeholders is a very effective way of dynamising women's organisations that tend to be rather weak in the region. Improvement in their financial capacity will undoubtedly strengthen the structure of women's organisations and make them more dynamic and more proactive.

9. Conclusion

When seeking to ensure food security against a background of continuous degradation of the environment and thus of arable land, there is no getting away from agricultural intensification seen as synonymous with increased productivity. This implies the use of appropriate technology for the various crops suited to the agro-ecological and economic conditions of each region of the country; improved access to equipment and agricultural inputs; increased monetarisation of production, etc. Measures to promote agribusiness or establish large-scale farms that are still being debated by the government authorities have to be seen in this perspective. Theoretically, the aims pursued could certainly contribute towards resolving some of the difficulties encountered in current production systems but they represent a complete break with ongoing practice in the field. As agribusiness could be defined as a technical, economic and financial activity in the field of agro-silvo-pastoral production, activities undertaken by new stakeholders need to be underpinned by very clear ideas.

Observation of the current process shows that there are basically three types of new stakeholders.

- The first type has very specific ideas in the shape of a coherent plan (choice of location, technical and financial research, fund-raising: salary, bank loan, external financial support, etc.). There are not many of these "new stakeholders" and their achievements are modest, as the start-up costs are substantial and far exceed the capacity of an ordinary wage earner.

- The second type relies on ideas that are quite specific but not organised in a concrete plan; the main constraint on implementation is funding. These "new stakeholders" are usually active or retired employees who may never actually get set up.

- Finally, the third type has rather vague ideas that are not formalised and these stakeholders act spontaneously with no real knowledge of the costs of setting up a large-scale farm or of the technical, economic and financial options available. This is the largest category and, after clearance, the land may be used for traditional farming or launching activities at great expense that may not be appropriate in technical, economic and financial terms.

As stated, the great majority of new stakeholders fall into the third category. As they do not have very precise plans, they start their activity by clearing the land allocated and then cultivate it for many years without any additional inputs such as tree planting, erosion control or use of organic matter. This has disastrous consequences for the environment and plays a part in further erosion of the natural potential of the areas concerned.

Apart from the ecological consequences, the process is increasingly coming to resemble land-grabbing that may, in the short or medium term, cause social tension when the resource shrinks for various reasons (increased needs of residents, degradation of land currently worked by the indigenous community, etc.). This will inevitably be followed by challenges to the rights and agreements made between stakeholders and hence deterioration in social cohesion. These types of conflict are legion in the country, as shown in the example of the tenure problems in Bazega between the population of a village and a former Prime Minister over the occupation of a valley bottom where the latter had invested substantial sums to develop a farm. As a result of this conflict, more than 6000 fruit trees were cut down.

All the same, there can be no increased investment in the agricultural sector without consistent, appropriate measures to provide greater security of tenure. New stakeholders are currently in an unenviable position. First of all, the land is allocated according to traditional land use management principles and practices that are not recognised under the provisions of the laws on agrarian reform. These days, the fundamental issue is whether it is the State or traditional "landowners" who may legitimately formalise new stakeholders' rights over allocated land. Surely this precariousness of rights over the allocated land partly explains the low level of investment in the various regions? What rights need to be given to new stakeholders to increase investment and ensure social peace in rural areas?

The situation is so complex that more in-depth work needs to be done in order to answer these questions. In the current circumstances, where improving agriculture is a matter of concern to almost all rural people in the country, the promotion of agribusiness must not be undertaken to the detriment of small family farms. Comparative studies show that the smallest farm is currently more cost-effective than large-scale farms. It is characterised not only by its ascendancy over other forms of agriculture (in terms of employment, wealth creation and natural resource management) but also its great resilience in the face of environmental degradation, falling prices and unfair competition in the market. The potatoes,

tubers and vegetables produced in the north, south and centre-north of the country respectively are relevant examples showing that, if the conditions are right (transport facilities and, above all, marketing networks), small farmers are able to make significant progress towards modernising farming. In this regard, activities undertaken by the Farm Industry Promotion Agency (Société de Promotion des Filières Agricoles – SOPROFA) in organising production, collecting produce, marketing, organising and professionalising producers are salutary. Such activities will be able to bring about successive changes in terms of intensifying production systems (improved seeds, fertilisers, cultivation techniques, etc.), choice of crops (cotton, protein plants, etc.), controlling marketing networks and increasing productivity and cultivated area in a natural process that will provide optimum conditions for the emergence of intensive modern farming.

Appendixes

Estimated trading accounts of new stakeholders

Farm no.1: Area in use: 100ha out of 110ha

Baseline data

Description		Season 2000 - 2001		Season 2001 - 2002	
	PU	Qty	Total cost	Qty	Total cost
Costs					
clearance/stump removal	25,000	100	2,500,000	0	-
manual tillage	10,000	0	-	0	-
tillage with animal traction	15,000	0	-	0	-
tillage with tractor	25,000	60	1,500,000	100	2,500,000
sowing	7,500	60	450,000	100	750,000
crop maintenance	12,000	120	1,440,000	200	2,400,000
harvesting	7,500	60	450,000	100	750,000
permanent labour	288,000	4	1,152,000	5	1,440,000
fertiliser maize	52,000	40	2,080,000	60	3,120,000
fertiliser sorghum	26,000	0	-	0	-
fertiliser cow peas	26,000	20	520,000	40	1,040,000
treatment products	5,000	20	100,000	40	200,000
seeds maize	7,000	40	280,000	60	420,000
seeds sorghum	5,000	0	-	0	-
seeds cow peas	10,000	20	200,000	40	400,000
packing/handling	300	960	288,000	1,520	456,000
monitoring	100,000	6	600,000	8	800,000
transport	5,000	960	4,800,000	1,520	7,600,000
Total operating costs			**16,360,000**		**21,876,000**
Depreciation					
buildings	3*200000		120,000		120,000
borehole	12,000,000		1,200,000		1,200,000
lined well	8,000,000	0	800,000		800,000
improved trad. well	1,500,000	0		-	-
acquiring land/ marking out	565,000		113,000		113,000
Total Depreciation			**2,233,000**		**2,233,000**
Income					
sale wood after clearance	25,000	100	2,500,000	0	-
sale maize	120,000	80	9,600,000	120	14,400,000
sale cow peas	300,000	16	4,800,000	32	9,600,000
sale sorghum	80,000	0	-	0	-

Trading account

Description	2000 - 2001	2001 - 2002
Operating Costs	16,360,000	21,876,000
Income	16,900,000	24,000,000
Gross margin	**540,000**	**2,124,000**
Depreciation	2,233,000	2,233,000
Net result	**- 1,693,000**	**- 109,000**

Farm no. 2: Area in use: 30ha out of 50ha
Baseline data

Description		Season 2000 - 2001		Season 2001 - 2002	
	PU	Qty	Total cost	Qty	Total cost
Costs					
clearance/stump removal	25,000	30	7,500,000	0	-
manual tillage	10,000	0	-	0	-
tillage with animal traction	15,000	0	-	0	-
tillage with tractor	25,000	30	750,000	100	2,500,000
sowing	7,500	30	225,000	100	750,000
crop maintenance	12,000	60	720,000	100	1,200,000
harvesting	7,500	30	225,000	100	750,000
permanent labour	288,000	1	288,000	2	576,000
fertiliser maize	40,000	4	160,000	15	600,000
fertiliser sorghum	25,000	26	650,000	15	375,00
fertiliser cow peas	25,000	60	1,500,000	40	1,000,000
treatment products	5,000		-		-
seeds maize	6,250	4	25,000	15	93,750
seeds sorghum	10,000	26	260,000	15	150,000
seeds cow peas	30,000	0	-	0	-
packing/handling	300	360	108,000	450	135,000
monitoring	100,000	6	600,000	8	800,000
transport	10,000	100	1,000,000	100	1,000,000
Total operating costs			**7,261,000**		**9,929,750**
Depreciation					
buildings	200,000		40,000		40,000
borehole	6,000,000		600,000		600,000
lined well	8,000,000	0	-	0	-
improved trad. well	1,500,000	0	-	-	-
acquiring land/ marking out	165,000		33,000		33,000
Total Depreciation			**673,000**		**673,000**
Income					
sale wood after clearance	25,000	30	750,000	0	-
sale maize	120,000	8	960,000	30	3,600,000
sale cow peas	240,000	0	-	0	1,200,000
sale sorghum	80,000	26	2,080,00	15	-
Total Income			**3,790,000**		**4,800,000**

Trading account

Description	2000 - 2001	2001 - 2002
Operating Costs	7,261,000	21,876,000
Income	16,900,000	24,000,000
Gross margin	**540,000**	**2,124,000**
Depreciation	2,233,000	2,233,000
Net result	**- 1,693,000**	**- 109,000**

Farm no. 3: Area in use: 20ha out of 50ha
Baseline data

Description		Season 2000 - 2001		Season 2001 - 2002	
	PU	Qty	Total cost	Qty	Total cost
Costs					
clearance/stump removal	12,000	20	240,000	0	-
manual tillage	10,000	20	200,000	0	-
tillage with animal traction	15,000	0	-	20	300,000
tillage with tractor	25,000	0	-	0	-
sowing	7,500	20	150,000	20	150,000
crop maintenance	10,000	40	400,000	40	400,000
harvesting	7,500	20	150,000	20	150,000
permanent labour	288,000	8	2,304,000	8	2,304,000
fertiliser maize	40,000	20	800,000	20	800,000
fertiliser sorghum	25,000	0	-	0	-
fertiliser cow peas	25,000	0	-	0	-
treatment products	5,000		-		-
seeds maize	6,250	20	125,000	20	125,000
seeds sorghum	10,000	0	-	0	-
seeds cow peas	30,000	0	-	0	-
monitoring	50,000	6	300,000		-
transport	10,000	40	400,000	40	400,000
Total operating costs			**5,069,000**		**4,629,000**
Depreciation					
buildings	600,000		120,000		120,000
borehole	6,000,000		-		-
lined well	8,000,000	0	-		-
improved trad. well	1,500,000	0	-		-
acquiring land/ marking out	565,000		28,250		28,250
Total Depreciation			**148,250**		**148,250**
Income					
sale wood after clearance	25,000	20	500,000	0	-
sale maize	120,000	40	4,800,000	40	4,800,000
sale cow peas	240,000	0	-	0	-
sale sorghum	80,000	0	-	0	-
Total Income			**5,300,000**		**4,800,000**

Trading account

Description	2000 - 2001	2001 - 2002
Operating Costs	5,069,000	4,629,000
Income	5,300,000	4,800,000
Gross margin	**231,000**	**171,000**
Depreciation	2,233,000	2,233,000
Net result	**- 2,002,000**	**- 2,062,000**

Farm no. 4: Area in use: 3ha out of 5ha
Baseline data

Description	PU	Season 2000 - 2001 Qty	Total cost	Season 2001 - 2002 Qty	Total cost
Costs					
clearance/stump removal	25,000	3	75,000	0	-
manual tillage	10,000	0	-	0	-
tillage with animal traction	15,000	3	45,000	0	-
tillage with tractor	25,000	0	-	0	-
sowing	7,500	3	22,500	0	-
crop maintenance	10,000	6	60,000	0	-
harvesting	7,500	3	22,500	0	-
permanent labour	288,000	1	288,000	1	288,000
fertiliser maize	40,000	3	120,000	0	-
fertiliser sorghum	25,000	0	-	0	-
fertiliser cow peas	25,000	0	-	0	-
treatment products	5,000		-		-
seeds maize	6,250	3	18,750	0	-
seeds sorghum	10,000	0	-	0	-
seeds cow peas	30,000	0	-	0	-
monitoring	50,000	6	300,000		-
transport	10,000	6	60,000	0	-
Total operating costs			**1,011,750**		**288,000**
Depreciation					
buildings	3*200,000		-		-
borehole	2*6,000,000		-		-
lined well	8,000,000	0	-		-
improved trad. well	1,500,000	0	-		-
acquiring land/ marking out	40,000		40,000		-
Total Depreciation			**40,000**		**-**
Income					
sale wood after clearance	25,000	3	75,000	0	-
sale maize	120,000	6	720,000	0	-
sale cow peas	240,000	0	-	0	-
sale sorghum	80,000	0	-	0	-
Total Income			**795,000**		**-**

Trading account

Description	2000 - 2001	2001 - 2002
Operating Costs	1,011,750	288,000
Income	795,000	-
Gross margin	**- 216,750**	**- 288,000**
Depreciation	40,000	40,000
Net result	**- 256,750**	**- 328,000**

Farm no. 5: Area in use: 22ha out of 40ha
Baseline data

Description		Season 2000 - 2001		Season 2001 - 2002	
	PU	Qty	Total cost	Qty	Total cost
Costs					
clearance/stump removal	25,000	22	550,000	22	550,000
manual tillage	10,000	0	-	0	-
tillage with animal traction	15,000	0	-	0	-
tillage with tractor	25,000	22	550,000	22	550,000
sowing	7,500	22	165,000	22	165,000
crop maintenance	10,000	44	440,000	44	440,000
harvesting	7,500	22	165,000	22	165,000
permanent labour	288,000	5	1,440,000	5	1,440,000
fertiliser maize	58,000	20	1,160,000	20	1,160,000
fertiliser sorghum	26,000	0	-	0	-
fertiliser cow peas	26,000	2	52,000	2	52,000
treatment products	5,000	2	10,000	2	10,000
seeds maize	6,250	20	125,000	20	125,000
seeds sorghum	10,000	0	-	0	-
seeds cow peas	30,000	2	60,000	2	60,000
monitoring	50,000	6	300,000		-
transport	10,000	42	420,000	42	420,000
Total operating costs			**5,437,000**		**5,137,000**
Depreciation					
buildings	3*200,000		40,000		40,000
borehole	2*6,000,000		-		-
lined well	8,000,000		-		-
improved trad. well	1,500,000		300,000		300,000
acquiring land/ marking out	265,000		132,500		132,500
Total Depreciation			**472,500**		**472,500**
Income					
sale wood after clearance	25,000	22	550,000	0	-
sale maize	120,000	40	4,800,000	40	4,800,000
sale cow peas	240,000	2	480,000	2	480,000
sale sorghum	80,000	0	-	0	-
Total Income			**5,830,000**		**5,280,000**

Trading account

Description	2000 - 2001	2001 - 2002
Operating Costs	5,437,000	5,137,000
Income	5,830,000	5,280,000
Gross margin	**393,000**	**143,000**
Depreciation	472,500	472,500
Net result	**- 79,500**	**- 329,500**

Situation of new stakeholders

Département	Job	Category	Area alloc.	Area in use	Locality	Year alloc.
Cassou	Entrepreneur	PE	50	5	Sourou	2002
Cassou	Geographer	SP	25	0	Sourou	2002
Cassou	Solar energy executive Sahel	SP	100	60	Sourou	2000
Cassou	Trader	PE	20	5	Sourou	2001
Cassou	Civil servant	AE	15	5	Sourou	2000
Cassou	Entrepreneur	PE	20	4	Bazanwara	2001
Cassou	Trader	PE	15	5	Bazanwara	1999
Cassou	CREDO official	PE	200	0	Néviri	2000
Cassou	CNSS official	PP	50	7	Néviri	2002
Cassou	CARFO official	AE	60	7	Néviri	2002
Cassou	Trader	PE	10	5	Néviri	2001
Cassou	Civil servant	AE	15	10	Neviri	1999
Cassou	Trader	PE	10	5	Bouto/Cassou	2000
Cassou	Marabout	AU	20	15	Bouto/Cassou	2000
Cassou	Civil servant	AE	10	0	Bouto/Cassou	2002
Cassou	Welder	PE	20	5	Bouto/Cassou	2002
Cassou	Teacher	AE	20	0	Luen	2002
Cassou	Trader	PE	40	15	Luen	
Cassou	Customs officer	AE	18	8	Luen	juin01
Cassou	Customs officer	AE	10	4	Luen	juin01
Cassou	Ex MP/Bam	HP	10	2	Luen	mai01
Cassou	MEE official	AE	10	2	Luen	2001
Cassou		HP	40	20	Luen	2002
Cassou	Architect D.E.I.A.U	PE	10	0	Luen	2002
Cassou	Agric. service official, Ziro	AE	20	10	Luen	2002
Cassou	Pilot	SP	20	5	Luen	
Cassou	Head of Protocol	HP	20	10	Luen	2001
Cassou	Treasury official	AE	10	2	Luen	2001
Cassou	Doctor	AE	40	0	Luen	2002
Cassou	Gen. Sec. Ministry	HP	10	3	Vrassan	2001
Cassou	Former MP	HP	n. av.	0	Kadapro	2001
Cassou	Director CEG	AE	5	3	Poro	1999
Cassou	Police Commissioner	AE	3	3	Poro	2000
Cassou	MEE official	AE	2	2	Cassou	2000
Cassou	MD government agency	PP	20	10	Taré Cassou	1999

Département	Job	Category	Area alloc.	Area in use	Locality	Year alloc.
Cassou	University professor	AE	20	10	Taré Cassou	1999
Cassou	Extension worker	AE	20	5	Taré Cassou	1999
Cassou	Catholic sister	AU	10	2	Taré Cassou	1999
Cassou	Mechanic	PE	20	1	Taré Cassou	1999
Cassou	Bank MD	PE	25	10	Taré Cassou	2002
Cassou	Project worker	PP	15	5	Luen	2000
Cassou	Project driver	PP	5	2	Luen	2000
Cassou	Garage mechanic	PE	15	3	Luen	2000
Cassou	MEE official	AE	125	15	Luen	2000
Cassou	Researcher	AE	30	0	Dianzoué	2000
Bagata	PPS	HP	60	20	Diou	1998
Bagata	Former Préfet	AE	10	5	Diou	1998
Bagata	Member of Government	HP	50	50	Bakata	1998
Sapouy	Trader	PE	40	40	Néliri	1983
Sapouy	Trader	PE	10	5	Néliri	2000
Sapouy	Auditor	PE	50	50	Néliri	2001
Sapouy	Customs officer	AE	10	5	Néliri	1998
Sapouy	Retired nurse	AE	10	5	Tiagao	1997
Sapouy	Treasury official	AE	5	5	Tiagao	1997
Sapouy	Plantation owner	SP	10	5	Tiagao	1997
Sapouy	MD private company	PE	13	10	Tiagao	1998
Sapouy	MD oil company	HP	60	36	Tiagao	1998
Sapouy	Member of Government	HP	100	12	Napo Nabilpaga	1997
Sapouy	Local teacher	AE	2	2	Napo Nabilpaga	1999
Sapouy	Local teacher	AE	1	1	Napo Nabilpaga	2001
Sapouy	Local teacher	AE	1	1	Napo Nabilpaga	2001
Sapouy	Welder	PE	5	4	Tiabienne	1994
Sapouy	Teacher	AE	6	2	Tiabienne	1998
Sapouy	Individual	SP	40	20	Koutara	1990
Sapouy	FONADES Sapouy	AU	2	2	Idiou	1998
Sapouy	Engineer	AE	2	2	Idiou	1999
Sapouy	Member of Government	HP	50	7	Kation Sapouy	1997
Sapouy	St Camille	AU	20	10	Kation Sapouy	1998
Sapouy	Army officer	AE	ND	2	X	2000

Département	Job	Category	Area alloc.	Area in use	Locality	Year alloc.
Sapouy	Customs officer	AE	ND	5	X	2002
Sapouy	High Commissioner	HP	ND	0	X	1999
Sapouy	Project consultant	AE	ND	0	X	2002
Sapouy	High Commissioner	HP	10	1	Sia Sapouy	2000
Sapouy	Trader	PE	ND	10	X	2001
Sapouy	MEBA official	AE	3	0		2001
Sapouy	Bank official	SP	1	0		2001
Sapouy	Expatriate	SP	2	0	Sia	2000
Sapouy	Civil servant Inl. Rev. Ouaga	AE	10	2	Baouiga	1998
Sapouy	MEE official	AE	30	6	Oubanon	1999
Sapouy	Gen. Sec./province	HP	ND	2	Oubanon	1999
Sapouy	MEBA official	AE	5	5	Kassio	1999
Sapouy	MEBA inspector	AE	8	5	Kassio	2000
Sapouy	Pastoralist AD	AU	11	3	Kassio	2000
Sapouy	Customs officer	AE	5	0	Kassio	2000
Sapouy	Official agric. service	AE	ND	2	Kassio	
Sapouy	High-ranking civil servant	AE	5	5	Tiana	1998
Sapouy	Civil servant	AE	5	5	Tiana	2000
Sapouy	Government official	HP	5	0	Tiana	2001
Sapouy	High-Commissioner	HP	5	2	Tiana	2001
Sapouy	MEBA official	AE	15	0	Tiana	2001
Sapouy	Police officer	AE	10	0	Tiana	1998
Sapouy	Civil servant, Public Revenue Office	AE	5	5	Tiana	1998
Sapouy	Civil servant	AE	4	0	Gallo	2001
Sapouy	Road building contractor	PE	5	5	Gallo	2000
Sapouy	Building contractor	PE	3	3	Gallo	2002
Sapouy	Police officer	AE	3	1	Sia / Sapouy	2001
Sapouy	Marabout	SP	60	20	Diaré / Sapouy	1998
Sapouy	Trader	PE	100	30	Nébrou	1998
Sapouy	Representative A.D	AU	25	2	Nébrou	2001
Sapouy	Treasury accountant	AE	30	15	Zavara	1999
Sapouy	Judge	HP	15	15	Dianzoé	1999
Sapouy	Director, Customs Transit	SP	10	10	Dianzoé	1999
Sapouy	Chancellery of Burkina	HP	5	0	Dianzoé	2001

Département	Job	Category	Area alloc.	Area in use	Locality	Year alloc.
Sapouy	Civil servant, Met. Office	AE	6	3	Dianzoé	2002
Sapouy	Civil servant	AE	10	0	Dianzoé	1999
Bieha	Project employee	PP	100	100	Néboum	1996
Bieha	Jumbo official	PE	100	100	Néboum	1994
Boura	President, Farmers Federation	SP	100	55	Poudiéné	1997
Boura	Entrepreneur	PE	200	20	Gomou	2000
Léo	Supervisor de CRPA	AE	20	11	Commune Léo	1990
Léo	CRPA official	AE	20	12	Zoro	1992
Léo	Policeman	AR	28	8	Fido	1990
Léo	Senior manager CREDO	SP	60	27	Kayéro	1989
Léo	Army officer	HP	40	40	Sissili	1994
Léo	Pastoralist	SP	30	9	Sissili	1998
Léo	Air Afrique employee	SP	15	15	Commune Léo	1980
Léo	Engineer	SP	100	50	Koala	1998
Léo	Member of Government	HP	54	54	Zoro	1995
Léo	SOBCA official	SP	60	20	Dabiou	1996
Léo	SOBCA official	SP	60	20	Binavoro	1998
Léo	President Club	SP	80	20	Commune Léo	2001
Léo	Veterinarian	SP	100	70	Kayéro	1999
To	Member of Government	HP	40	40	Météo	1998
To	Doctor	SP	20	8	Meteo	1999
To	Mayor of commune	HP	45	15	Kouri	1995

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NB: Many articles in the press on tenure conflicts in Burkina Faso have also been consulted.