Farmers on the move

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Farmers on the move

Mobility, access to land and conflict in Central and South Mali

Karin Nijenhuis

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If a PhD is like a marriage, then my engagement was quite long and hectic and was interspersed with periods of seeming neglect and other lovers. However the initial love proved to be strong and I would like to thank everyone who has continued to support me over the years.

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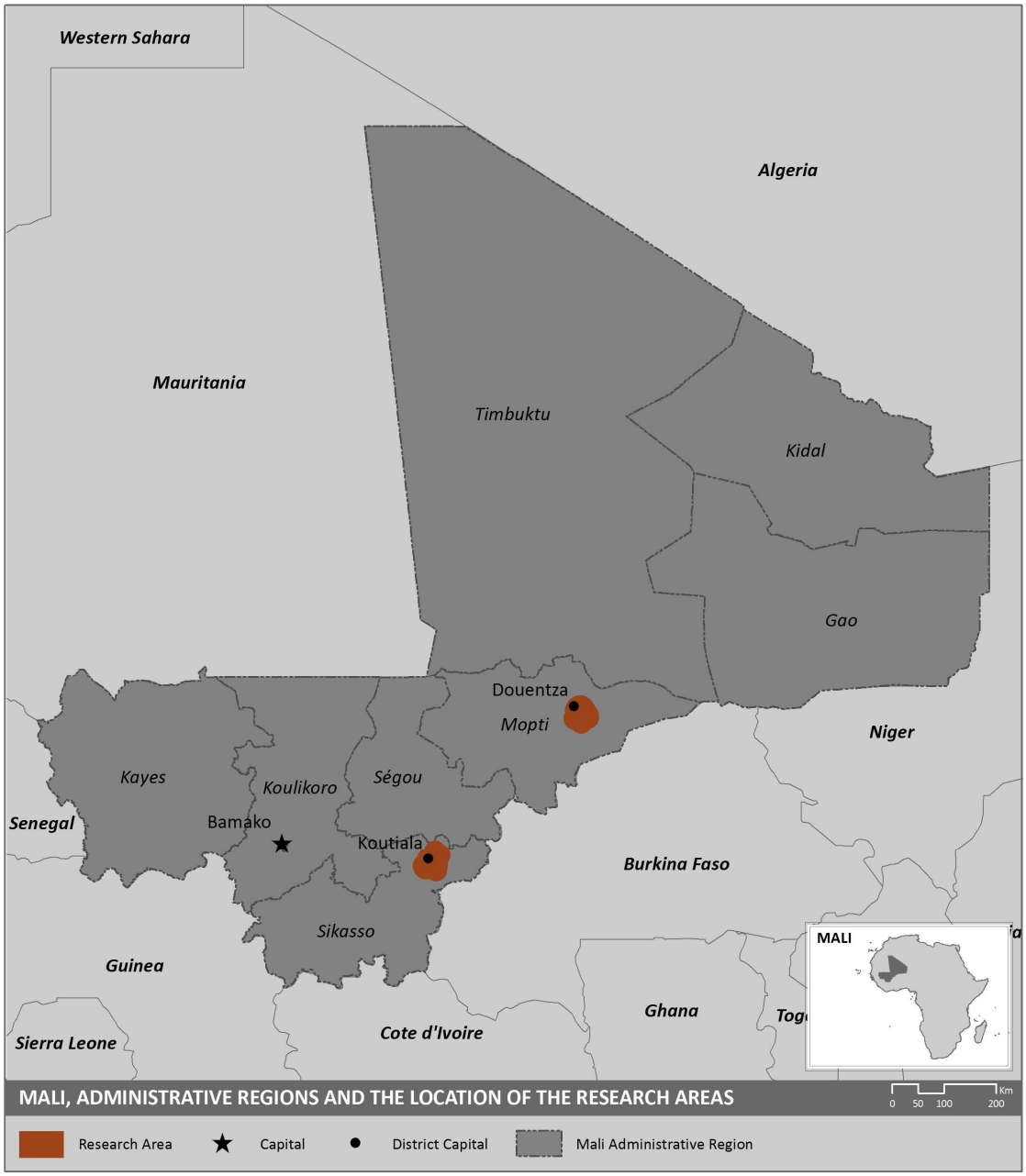
Map 1.1 Mali, administrative regions and the location of the research areas



1

The ‘discovery’of mobile farmers

The ‘discovery’ of mobile farmers

Farmers in Mali are much more mobile than usually assumed. This study considers the relationship between farmers’ mobility and local political processes in Mali regarding access to land in two regions with differing farming conditions. When I set foot on dusty Malian soil in September 1999 ready to start my first six months of fieldwork, the mobility of farmers was not the focus of my research. Based on earlier research I had undertaken on the local management of natural resources in South Mali (Nijenhuis 1999, 2001), I had designed a study primarily focused on changing entitlements to fallow land in Mali due to climate change, population growth and agro-technological change. Fallowing is widespread in West Africa and essential for restoring soil fertility in the absence of sufficient organic manure and chemical fertilizers. Although fallow fields may seem useless at a first sight, they are in fact areas that are intensively used for herding and collecting fuel wood, fruit and wild grains. They are under pressure, however, and, as a result, fallow periods are being shortened or are even disappearing (Jean 1975, Floret & Serpantié 1993, Floret & Pontanier 2000). It was expected that (subsequent) entitlements to these areas would be increasingly contested. To conduct my research, two areas in different climatic zones were selected: Douentza District in Central Mali that has a harsh semi-arid climate and Koutiala District in South Mali with its milder sub-humid climate (see Map 1.1).

The situation I encountered in the field was not what I expected. I started fieldwork in two selected villages in Central Mali that have surrounding village territories, a village of Dogon farmers called Okoyeri Dogon and another mainly inhabited by Fulani agropastoralists called Douma. Okoyeri Dogon is about 20 km south of the district capital of Douentza and Douma is about 15 km southeast of Douentza (see Map 1.2). One of the first research activities in these villages

was a participatory mapping exercise, in which a group of villagers was invited to draw a map of their village territory and its land use. The village territories, which are vast areas covering three different agro-ecological zones (clay soil, mixed clay-sand soil and sand dunes), were not indicated as ‘empty’ on either map, as I had assumed they would be, but were marked as intensively inhabited, particularly in the rainy season when millet (the staple crop) is grown. A large number of farming hamlets and agropastoral camps were indicated as being scattered over the village territory so I started to visit a number of them. The result was astonishing: there were agricultural fields and farming hamlets over every row of dunes. Since so many families were living in these hamlets, I decided to include them in the research as well.

Not only was the number of hamlets a surprise, so too was the farmers’ apparent lack of interest in fallow land. In the first explorative interviews, my inquiries about fallow land only produced a glazed-over expression from respondents. They could not understand why I was so interested in fallow land. For them as farmers, fallow land is useless because it is land that is not cultivated. In their eyes, land is plentiful and when a field is exhausted or cannot be (wholly) cultivated due to a shortage of labour or agricultural equipment, it is just left as fallow. Meanwhile, the first cultivator who ever worked the field keeps the right to cultivate it again one day. In contrast to what I had expected, fallow land is also of limited importance for herding and collecting fruits. Herding, as all the respondents assured me, is free on all uncultivated land in the bush and trees producing fruits and nuts are largely absent. Special user rights to fallow land and conflicts arising out of the use of fallow fields were not indicated by the farmers interviewed. Apparently, the issue of fallow lands was not pertinent to them or perhaps it was but in another way than that discussed with them. It seemed better to shift my research focus, at least provisionally.

What I did observe was that Dogon farmers open up, expand and relocate millet fields in a sandy dune area rather than intensifying the use of fallow lands. With the expansion of fields. a large-scale process of rural geographical mobility was taking place. For many decades, Dogon farmers have been leaving their villages on the steep, rocky Bandiagara Escarpment and have set themselves up in dispersed hamlets where they have created millet fields in a (previously) herding area among the settlements of Fulani agropastoralists, sometimes up to 40 km away. Life in this relatively remote area is harsh with no roads, no permanent drinking-water supply and no other facilities. Due to a lack of drinking water, the hamlets are only inhabited in the rainy season and these Dogon families return to their villages after the harvest. The young Dogon men then earn a cash income as labour migrants in the dry season, while many Fulani move with their herds to the Inner Niger Delta or the Bandiagara Plateau, about 100 to 150 km away

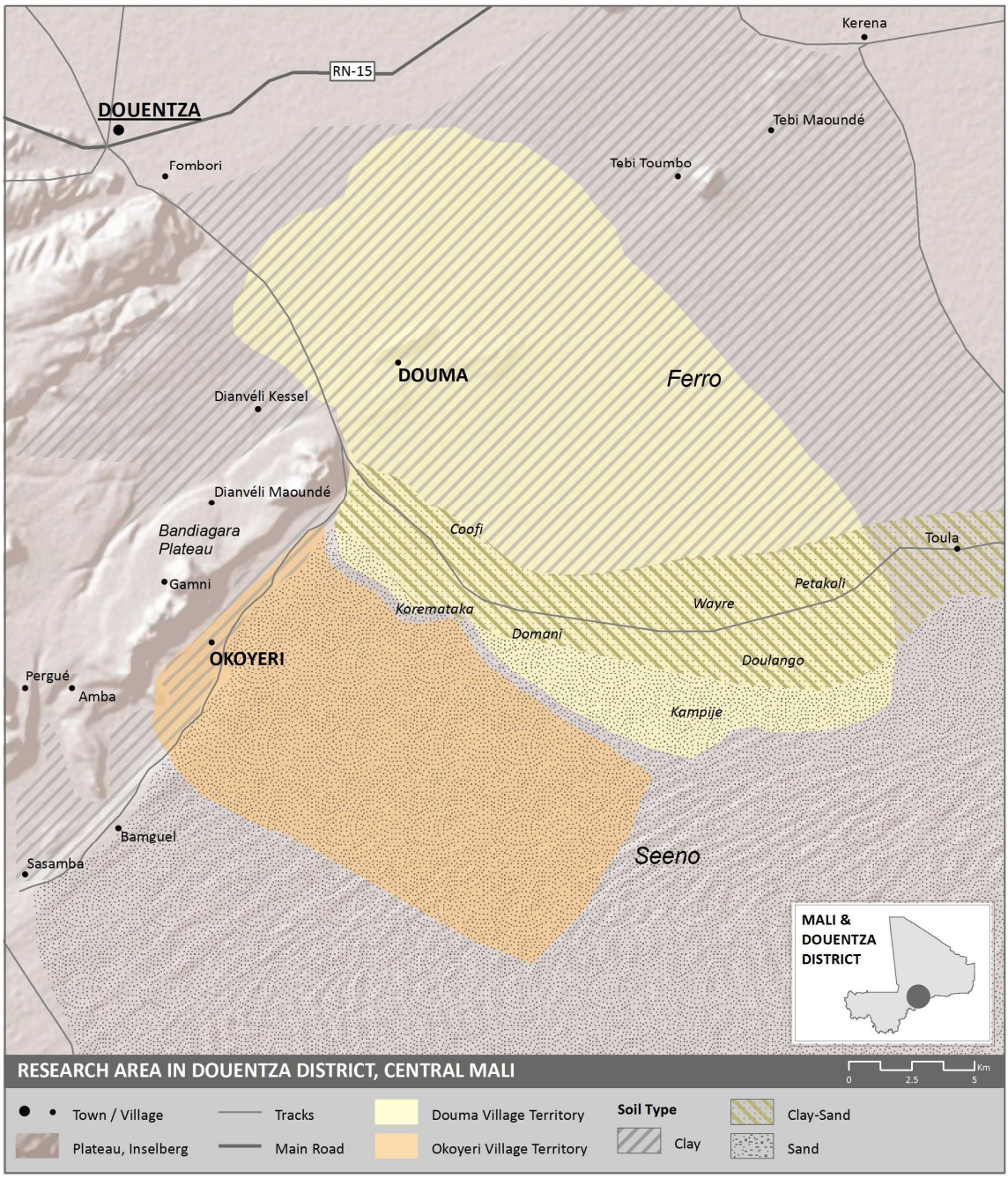
where fresh herbs and water can be found. At the start of the following rainy season, they all return to their rainy-season settlements in the research area.

Various questions arose when observing the huge numbers of hamlets and movements back and forth. Why do these people struggle in this region? Why do they leave their village in the rainy season to settle in a hamlet and work in poor sandy fields? The location of the farming hamlets in the two village territories was registered with a GPS. In all, 66 farming hamlets and 46 agropastoral campsites (112 settlements in total) were registered all over the village territories, of which about 90% are small in size and 10% are large with five families or more living together (see Map 1.3). The larger hamlets were mainly located on a strip of land with mixed clay-sand soils. The maps showing settlement over time served as a valuable source for further in-depth research. In addition to land use and land rights, people's settlement history became an important interview topic. Families living in the farming hamlets were asked when and why their family had moved to the hamlet. The focus thus gradually shifted towards the mobility of farmers, but the original research question about changing rights to fallow lands had not been completely abandoned at this stage of the research.

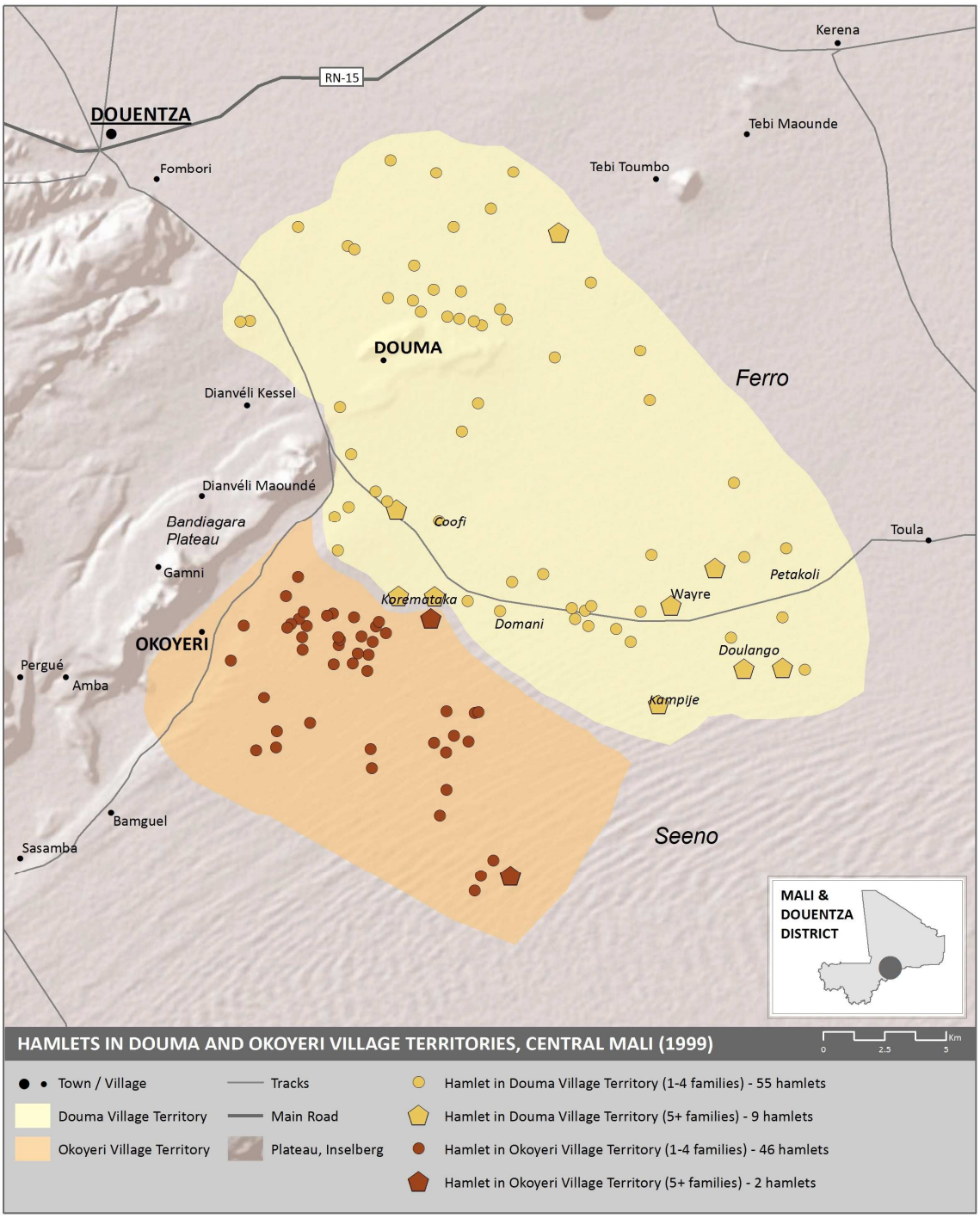
The second half of the subsequent period of fieldwork was in South Mali in early 2001. Two villages of Minyanka farmers, Mperesso and Finkoloni, were selected on the basis of their different population densities and the availability of fallow land. Mperesso is about 20 km southeast of the district capital Koutiala and Finkoloni about 15 km south of Koutiala (see Map 1.4). The central idea was that fallow land would perhaps not be of obvious interest for farmers in Central Mali but that it would be in this region that is characterized by higher population pressure and more favourable rainfall conditions. Questions about fallow in South Mali were not a good starting point for interviews here either. Surprisingly, farmers in South Mali turned out to be relatively mobile, which I had not noticed a few years earlier. As in Central Mali, large numbers of farmers in South Mali had settled in recent farming hamlets outside the village. In all, 117 farming hamlets were registered in the two village territories, and all but one was inhabited by one family only (see Maps 1.5 and 1.6).

Although huge numbers of scattered farming hamlets were found in both regions, it soon became clear that there were large differences with respect to mobility patterns and underlying driving forces. Apparently, farmers' mobility has several forms in time and place. In South Mali, hamlets are generally small, inhabited all year round and the process of settlement in hamlets is still quite recent (since the 1960s). By contrast, the size of hamlets in Central Mali varies widely, they are only inhabited in the rainy season and settlement in them started

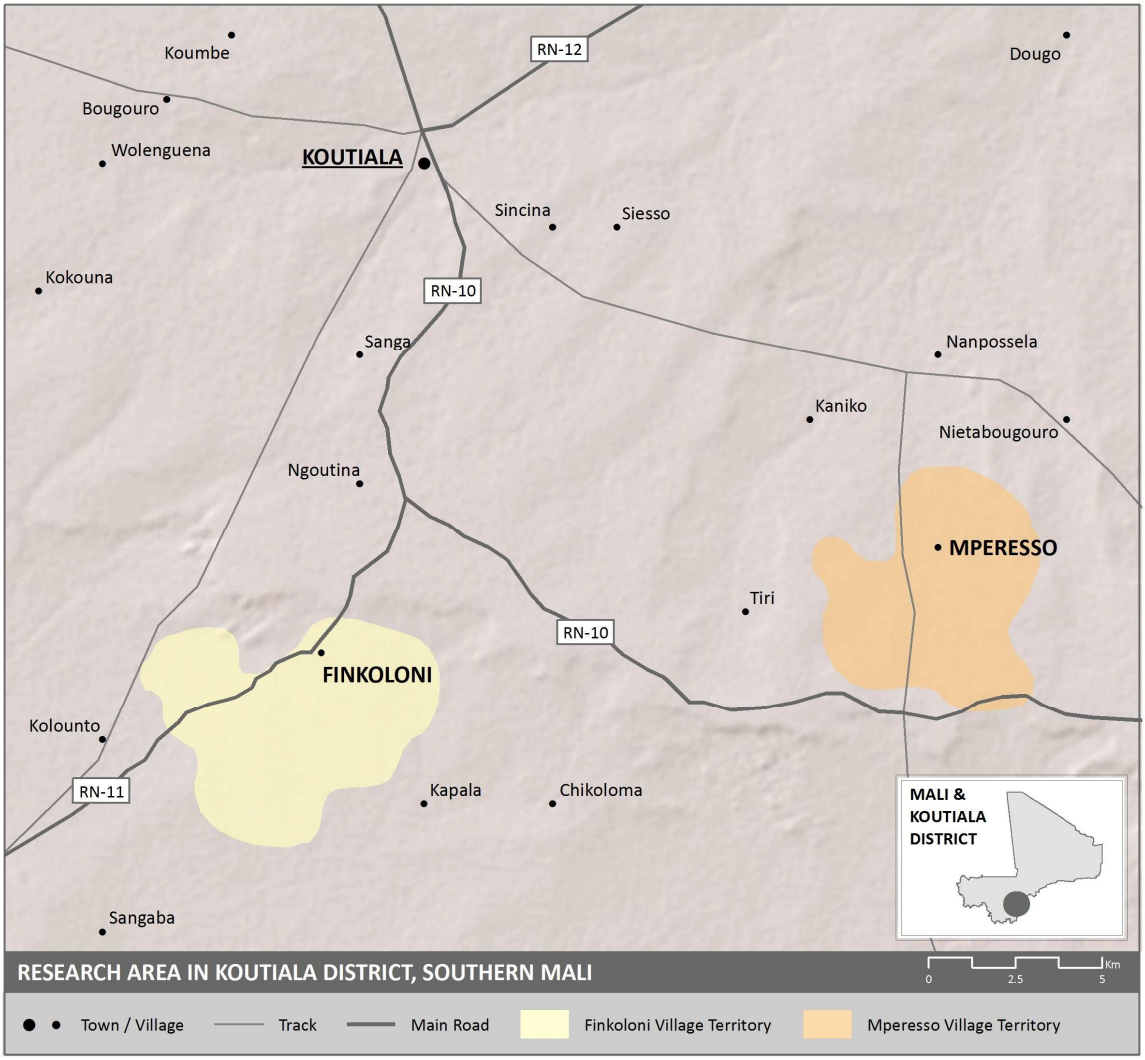
Map 1.2 Research area in Douentza District, Central Mali



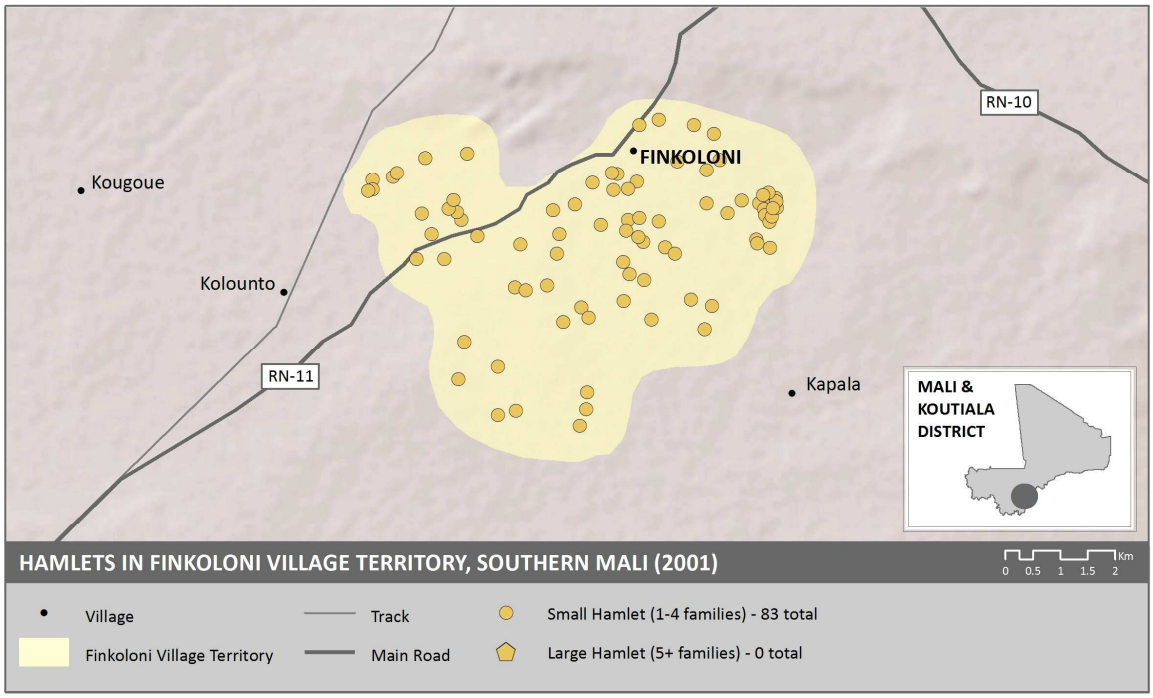
Map 1.3 Hamlets in Douma and Okoyeri village territories, Central Mali (1999)



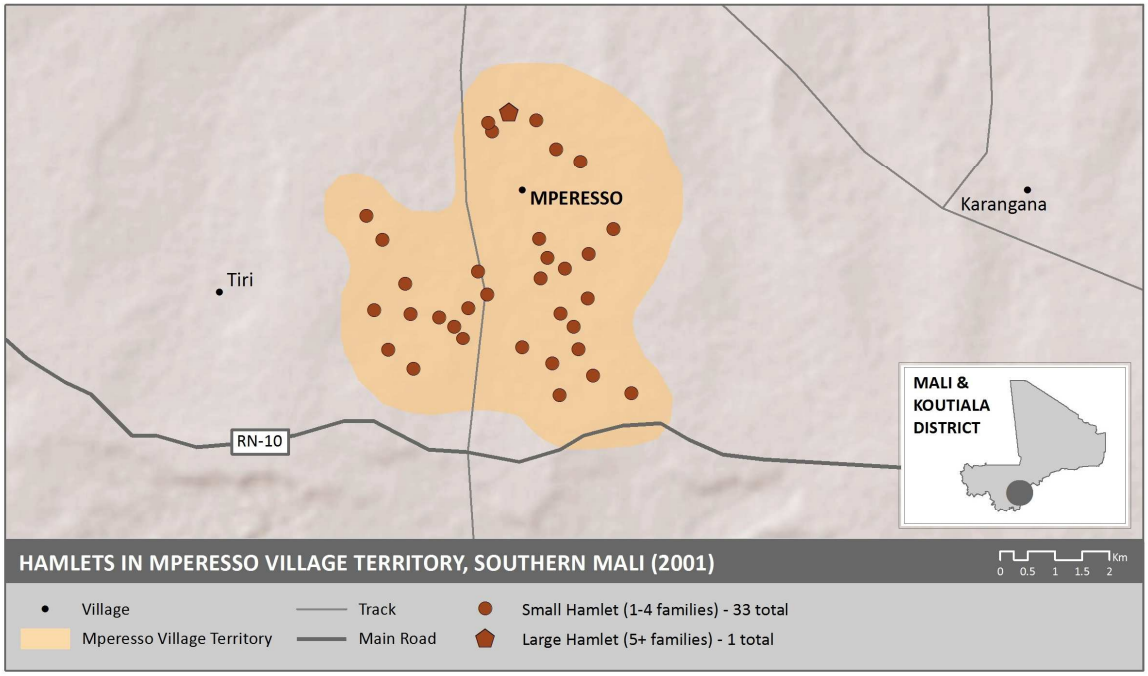
Map 1.4 Research area in Koutiala District, South Mali



Map 1.5 Hamlets in Finkoloni village territory, South Mali (2001)



Map 1.6 Hamlets in Mperesso village territory, South Mali (2001)



in the early twentieth century, or earlier. In addition, many farmers here travel to faraway places in the dry season to earn additional cash income. Another difference is that South Mali is a region of immigration. Over the past decades, many Dogon and Fulani have arrived from Central Mali, in particular following the Sahelian droughts of the 1970s and 1980s.

After discovering so many farmers living in dispersed hamlets in South Mali in early 2001, the decision was made to shift the research focus to farmers' mobility. The issue of fallow lands did not, however, entirely vanish. In Central as well as in South Mali, fallow lands turned out to be very important, but in a totally different manner from that hypothesized at the start of the research. The availability and allocation of fallow land proves to be essential to facilitating mobility among farmers. With increasing population pressure, all land that is suitable for farming has been occupied, and hamlets are increasingly being set up on fallow fields.

With the final shift of focus on the mobility of farmers, a period of in-depth research was primarily conducted among farmers living in the hamlets. Due to the linkages of people in the villages, many of them were interviewed as well. It turned out that access to land is a central issue that is closely linked to farmers' mobility. Land is essential for farmers to build a livelihood. How does a mobile farmer, who settles in a hamlet where he opens up land, gain access to it in the first place?

Land in Africa often traditionally belongs to the social group that first occupied the place and every member of the group has a basic right to cultivate a piece of land there (see Chapter 2). Outsiders gain access to land through social relationships with the original inhabitants of a village to whom people believe the land belongs. It was noticed that autochthonous farmers (people 'from inside') and migrant farmers (people 'from outside') have different local positions of power, with outsiders being in an inferior position, which plays an important role in their relationships.

It was also observed that conflicts concerning access to land frequently emerge in the hamlets. How are these related to the mobility of farmers? What makes the situation more complicated is that village territory is highly contested, particularly in Central Mali. Several villages may claim the same area, which is apparent from various settlement histories, and the distinction between an 'autochthon' (an original inhabitant) and a 'migrant' is also fluid. During the in-depth research, a conflict between an original inhabitant and a migrant farmer presented itself in both regions. These conflicts were studied as case studies to understand how processes with regard to access to land work in practice and how relationships between the original inhabitants and migrants evolve. In both cases, the migrant farmer was chased off the land. These conflicts, however, turned out

to be much bigger than the land issue alone. When digging deeper into the conflicts, I discovered that these were major divisive elements among the local populations with many aspects, stages and actors involved. In the conflicts over land, several issues were connected, such as access to land, local positions of power, socio-political relationships and farmers' mobility. Fallow land turned out to be key in all these processes.

So the deeper I went into the issue of mobility of farmers, adjusting my methodology accordingly, the more related issues I came across that gradually took centre stage in the research. I wanted to know how farmers' mobility was related to local political processes regarding access to land and conflict within the context of two regions with very different farming conditions.

The sedentary image of farmers

It is commonly recognized that many people in Mali, as in other parts of Africa, are very mobile. Geographical movements of all kinds are part and parcel of daily life and making a livelihood (de Bruijn *et al.* 2001, Baker & Aina 1995). Looking around in Mali, the examples of people on the move are manifold: young men leave their villages to find employment in towns or other countries, send remittances to their families back home and may return after a number of months or years; girls work as domestic servants in Bamako, the capital of Mali; cattle keepers roam with their herds in search of pasture and water; children in Koranic schools travel with their teacher; cigarette smugglers take the daily Bamako-Dakar train; former slaves leave their previous master; young married women join their husbands' families; fishermen move along the waterfronts on the Niger River; pious Muslims undertake the *hajj* (pilgrimage) to Mecca; traders, transporters and prostitutes move within and between countries; and refugees and IDPs move to escape violent conflicts, natural hazards and, more recently, *sharia* (Islamic) law in the north.

Mobility has become a central issue in research on African societies over the past few decades. Scholars have become increasingly aware that it might even be the normal situation for many Africans instead of more or less permanent settlement (de Bruijn *et al*. 2001, de Haan *et al.* 2002). Studies also underline how mobility is nothing new as it has always been a prominent feature in people's livelihoods, although the patterns and underlying dynamics of mobility have changed over time in response to changing social, economic, political and ecological conditions and processes (Aina & Baker 1995: 11, van Dijk *et al.* 2001, de Haan *et al.* 2002). And mobility has now become connected to globalization too (Amin 1995).

Although the mobility of Africans is generally recognized, farmers are not a group usually associated with this pattern. Instead, they have a strong sedentary

image contrary to, for example, pastoral people such as the Fulani who are well known for their travelling culture (de Bruijn & van Dijk 1999). In the African context, mainstream thinking on farmers and cattle keepers still mainly follows stereotypical lines, often implicitly, with mobile livestock keepers being considered the 'opposite' of sedentary farmers. Farmers are supposed to be tied to land (Grossman 1972) that belonged to their ancestors and to which present generations have some kind of usufruct rights. This image of sedentarity tends to have either a romantic (living in harmony with nature) or destructive character (over-exploitation of the land that causes soil degradation and erosion). Whatever the image may be, the relationship between the farmer and the land is seldom questioned and is frequently considered a mythical and spiritual link that is surrounded by worshipping altars, ancestors and rituals whose exact nature is difficult to grasp, not only for western scholars but also for Africans themselves (see Lentz 2000, Evers 2002). Remarkably, the persistent image of farmers' sedentarity is in contrast with growing understandings of the diversification of rural livelihoods. Although being a farmer or a livestock keeper appeals to strong feelings of identity, the majority of the rural population in practice undertake mixed farming with herding and other economic activities to make ends meet.

In studies dealing explicitly with the mobility of farmers, the focus is often on wage labour migration, especially to urban centres and other countries (e.g. Amin 1995), in response to drought and famine (Findley 1994) or, more generally, as a diversification of household activities (Toulmin 1992). Labour migration can be classified in various ways, for example with respect to the place of origin and destination (rural-rural, rural-urban, urban-rural, urban-urban, internal and international), distance, and duration (Goldscheider 1984: 4, Amin 1995: 30), although the categories are often problematic (van Dijk *et al.* 2001). Labour migrants are usually young males and their movements are circular, with their absence from home varying from a month to many years (Findley 1994, de Haan *et al*. 2002).

Many Malian farmers, such as the Dogon (Dougnon 2007), work as petty traders or have low-paid jobs in shops or other enterprises in the capital or work in the harbours and cocoa and coffee plantations in the coastal areas of Ivory Coast (and previously Ghana) where living standards are higher. Destinations also include Senegal, Gabon and other African countries. France too is a favourite destination for Malians, in particular the Soninke people from western Mali (Findley 1994), although European immigration laws have become stricter and travel costs are high. Long-distance labour migration is connected to agricultural development in the home area since some of the money earned, although relatively little, is invested in agricultural equipment (Breusers 1999, Mazzucato & Niemeijer 2000, van der Geest 2011).

While labour migration has been studied extensively, much less is known about the (rural) mobility of farmers for (subsistence) farming purposes. In some of the literature, the emphasis is on forced labour or voluntary migration attracted by large infrastructural public works, such as dam construction or irrigation work in South Mali (Cissé 1993, Koenig 1997, Koenig *et al*. 1998, 1999, Musch 2001). Settlement programmes were also set up to encourage farmers to develop and use the fertile soils of West Africa's river basins that had previously been underpopulated before the eradication of onchocerciasis (river blindness) in these areas (McMillan *et al.* 1998, Koenig *et al.* 1999). The number of studies on more 'spontaneous' rural movements by farmers is limited (see, as exceptions, Mollett 1991, Laurent *et al.* 1994, Breusers 1999, van der Geest 2011). In a few cases, farmers' mobility has been noted but is not explicitly problematized as a concept, for example Gallais (1975) whose geographical study on the Gourma area in Central Mali saw mobility as a common response by all rural people, including farmers, to the hard natural conditions of the Sahel (*la condition sahélienne*). In his footsteps, Petit (1998) studied the migration of Dogon farmers from the southern Bandiagara Escarpment to the adjacent plains in the Sanga region where they set up hamlets that were soon transformed into permanent villages in the first decades of the twentieth century.

Farmers' mobility seems, above all, to be a phenomenon associated with the (distant) past when the pressure on land was low and farmers used to be shifting cultivators, alternating periods of cultivation of a field with long fallow periods in order to restore soil fertility. From time to time, they moved their houses accordingly. It is believed that increased population pressure on space has resulted in the discontinuation of this practice on a large scale and farmers have become more sedentary (see Ruthenberg 1980, Netting 1993).

It is certainly true that farmers were mobile in the past, as is demonstrated in the literature on frontier processes. Some prominent anthropologists, such as Sahlins (1961) and Kopytoff (1987), pinpoint internal factors in society that resulted in the regular expulsion of people from a group (see Jansen 1996, Grossman 1972). These people then settled in hamlets far off in the 'empty' bush in places considered a frontier area where, under certain conditions, hamlets could evolve into villages, and even new societies. In addition, the geographer Pélissier (1966) conducted a vast geographical study of farmers in Senegal that highlights the move of the agricultural colonization frontier from western to eastern Senegal. In the process, vast areas of new farming land were opened up in previously savannah areas and woodlands in the first half of the twentieth century for groundnut cash cropping, which also led to the establishment of hamlets and villages.

If considered over a longer timeframe, however, a unilinear trend from mobility to sedentarity of farmers is not seen as periods of mobility have alternated with periods of sedentarity. Since the start of African agriculture some 10,000 years ago, resource-based societies have always been flexible and have adopted a more mobile or sedentary life in accordance with internal and external changes, a process that has been called 'variable mobility' (Niemeijer 1996: 98).

Geographers that have studied rural settlement patterns in Africa by considering a similarly long period of time also underline how dispersion is certainly not a phenomenon limited only to the past. Depending on the circumstances, periods of clustered settlement in villages have always alternated with periods of dispersed settlement in hamlets and homesteads. Conditions that favour processes from scattered to clustered settlement, for example, are the development of a central source of authority within a society, the extreme localization of resources such as water, strong mutual dependence, population pressure, market integration, and the need for defence in times of conflict or along a frontier (Silberfein 1998). Many villages in Africa refer to a violent past with warfare and slave-raiding when clustered habitation was necessary for protection (van Andel 1998). By contrast, processes of clustering are interrupted in situations where, for example, cattle keeping (grazing and watering) is not possible near the village or when farmers work less fertile land, which requires them to expand their area of cultivation and live further apart (Silberfein 1998: 9). Dispersion can also be regarded as a mechanism to minimize pressure on farmland and other resources or a way of escaping centralized control or social pressure, which often emerges in clustered settings (*Ibid.*: 12, Silberfein 1977: 19).

Despite their sedentary image, farmers' mobility is an old and recurrent phenomenon. It is therefore interesting to examine what conditions lead to processes of dispersion. Venema (1978), for example, studied the influence of Islamic inheritance law and the involvement of cash cropping on processes of disintegration within compounds and households among the Wolof in Senegal and found that, although compounds split into economically independent households, households often stay together. A decline in social cohesion or individualization is, according to him (*Ibid.*: 119), more visible in commensality (i.e. who is eating together and who is not) than in the figures for those moving away. What contributed significantly to the establishment of new hamlets and village wards was, however, the abolition of slavery by the French colonial administration in the early twentieth century, which resulted in many former slaves leaving the compound of their (former) master (*Ibid.*: 122, also Pelckmans 2011).

Mobility and land use

In addition to rural geographical studies that consider the mobility of farmers as a temporal and spatial process from clustered to dispersed settlements and to anthropological studies that view farmers' mobility as the result of segmentary processes within villages, the mobility of farmers can also be understood from a land-use perspective. The so-called Malthus-Boserup debate is relevant here although it did not deal initially with the mobility of farmers. It was especially popular between the 1980s and 2000s when environmental issues were high on western political and scientific agendas, with the central question being how African farmers would respond to rising population densities. An essential process underlying this concern is soil-nutrient depletion, which is a natural consequence if insufficient replenishment measures are taken, such as a failure to apply adequate fertilizer or not letting the land lie fallow.

Two opposing visions prevail in this debate. Neo-Malthusians, inspired by the ideas of eighteenth-century Thomas Malthus, pessimistically predict the expansion of agricultural land, overexploitation, land degradation and widespread poverty in the end. By contrast, Boserupians, as the followers of Esther Boserup (1965) are called, are much more optimistic and predict a trend towards agricultural intensification instead, by way of shorter fallow periods, the increased use of chemical fertilizers and more labour input. Boserupians strongly believe that higher population pressure works as an incentive to intensifying agricultural production and increasing yields and even fosters environmental recovery through the development of innovative agricultural technology and new markets for agricultural products and off-farm labour, as the famous study by Tiffen *et al.* (1994) in Kenya demonstrated. Following these contrasting lines of reasoning, the mobility of farmers can be considered a Malthusian way of dealing with increasing land pressure, while, in Boserupian logic, mobility among farmers is not expected to take place at all.

Against the background of the Malthus-Boserup debate, however, a number of studies have shown that the mobility of farmers may also be consistent with land-use intensification, but not intensification along capital-led lines but through institutional change. These studies follow the ideas of the influential political ecologists Blaikie & Brookfield (1987) who argued that population growth is not in itself a driver for land degradation, as land degradation occurs under any kind of population density but that the problem is a lack of access to productive resources that influences the way farmers manage their land (e.g. Krokfors 1989).[1]

[1] Some are more radical and question whether, despite alarming World Bank reports on desertification, land degradation in West Africa is widespread as clear evidence is lacking (Fairhead & Leach 1996, Leach & Mearns 1996, Mazzucato & Niemeijer 2000, Bassett & Zuéli 2003). Moreover, due to the various definitions, methodologies and levels of scale applied in studies, land degradation is difficult

Massive immigration into southern Burkina Faso by Mossi farmers and Fulani agropastoralists who were escaping the devastating Sahel droughts in the 1970s and that resulted in the original Nuni farming population becoming a minority, has not led to land degradation but to the development of new patterns of sustainable resource use instead (Howorth & O'Keefe 1999). In another relevant study on changing soil and water conservation practices among Gourmantché farmers in eastern Burkina Faso, not only agricultural practices were adapted in response to changing contexts but so too were social networks to access land and labour. Among other things, a more intensive and flexible use of social networks of kin has enabled farmers to borrow fallow land and set themselves up in what are called rainy-season bush camps (Mazzucato & Niemeijer 2000). In this way, adaptive social networks to accessing land and labour have greatly facilitated mobility among farmers. The latter research is noteworthy as it is one of the rare studies where on-going and massive settlements in hamlets throughout the twentieth century was observed and understood as a major transformation in farmers' livelihoods with far-reaching political implications.[2] Under the influence of processes of increased monetization and market integration, villages have been increasingly broken down into scattered compounds and households, which has, in turn, resulted in shifts in traditional authority.

The two studies in Burkina Faso are important as they link different forms of mobility of farmers (for example, immigration and the development of bush camps) to institutional changes in land use. However, they do not indicate which categories of farmers are mobile. An explicit political view is thus needed that takes local power positions and differential access to land into consideration. In a study of land-use practices among Mossi farmers on the Central Plateau in Burkina Faso, which is highly relevant to the study described in this volume, Breusers (1999) shows that land use and farmers' mobility are related to local positions of power. In making a (fluid) distinction between 'first-comers' (autochthons or the original inhabitants) and 'latecomers' (migrants), he argues that these groups use land differently and have diverse motives for being mobile since they have different access to land and labour. In his view, latecomers are relatively immobile and tend to exploit the land simply because they have no other place to go or insufficient labour to extend their fields (*Ibid.*: 155). They do not want to move as it would mean giving up any rights they have vested in the field, however weak these may be (see Gray & Kevane 2001). By contrast, the first-comers move much earlier and more often as they have access to various types of family

to assess (Blaikie & Brookfield 1987: 4, Scoones *et al.* 1996: 2, Mazzucato & Niemeijer 2000: 113-117, Bodnár 2005: 44).

[2] They report that an estimated 20% to 90% of the village population have moved into rainy-season bush camps (Mazzucato & Niemeijer 2000: 82). This can be regarded as a prolongation of the 70% noticed in one village in 1962 (*Ibid.*, citing Remy 1967).

land nearby and further away.[3] Their mobility is, however, constrained by labour availability as sufficient labour is required to work several locations.

Along the lines of Breusers's findings, the study by Homer-Dixon (1999) is also interesting. Although he is often regarded as a neo-Malthusian who simplistically relates high population pressure to land degradation, with possibly violent conflict as a consequence (Peluso & Watts 2001), he is relevant as he, like Breusers, links unequal access to land to farmers' mobility, but comes to a different conclusion. He makes a distinction between powerful and marginalized farmers and predicts two different processes in reaction to what he calls, 'environmental scarcity' (a term that includes land scarcity), 'resource capture' and 'ecological marginalization' (Homer-Dixon 1999: 80). The powerful use their authority to benefit from access mechanisms ('resource capture'), whereas the less powerful, who are the marginalized and depend heavily on natural resources for their livelihoods, will be increasingly forced to cultivate fragile areas due to unequal land distribution and high population pressure ('ecological marginalization'). In fragile areas, agricultural and economic productivity will be constrained, which marginalizes them even further. In contrast to Breusers (1999) who emphasizes the first-comers' mobility, Homer-Dixon (1999) predicts mobility among the ecologically marginalized people but, in line with his theory, the mobility of the powerful can also be predicted.[4]

Research questions

The gap between the observed widespread mobility of farmers at the start of the fieldwork in both Central and South Mali in 1999 and 2001 respectively on the one hand and the relatively little attention paid to farmers' mobility in studies to date on the other is surprising. The underexposure of the mobility of farmers as a topic of study is probably related to the research methodology, as a great deal of research in rural areas is conducted only in villages that are accessible by roads or tracks, and not in hamlets far out in the bush (see Chambers 1991). However, even when efforts are made to visit more remote areas, the mobility of farmers is unlikely to be noticed at all in contrast to, for example, the mobility of pastoralists who continuously roam with their herds. What one observes at any given moment is the farmers' settlement in hamlets, not their mobility. Mobility is the

[3] These geographically dispersed 'pools of territory' include lineage lands on village territory, territory controlled by patrilineal kinsmen living elsewhere, and land from their mother's full brothers. Migration of a newly married women to her husband's family is thus important for future access to land by her sons since they can always claim land from their maternal uncles: 'A woman holds a "submerged" claim to her patrilineage's land' (Breusers 1999: 212).

[4] It is realized that the categories mentioned by Breusers (first-comers-latecomers) and Homer-Dixon (powerful-ecologically marginalized) do not always coincide. For example, an autochthon is not necessarily a powerful person and can also be marginalized ecologically.

movement *between* periods of settlement. Seeing mobility instead of settlement, or to put it differently, studying the mobility aspects of settlement, thus requires a change in focus and a longer timeframe. Taking such a perspective may put farmers' practices, including the way they access land, in a different light.

When taking the mobility of farmers as a starting point to studying access to land and conflict, a number of explorative as well as more analytical questions emerge. Given that farming land is quite fixed, in contrast to, for example, a pastoralist's herd that is flexible and can easily be moved, how then does the mobility of farmers appear? Or, more precisely, what are the temporal and spatial dimensions of farmers' mobility? Why are farmers mobile and what are the conditions in which they become mobile? The two regions where research was conducted are very different with respect to their farming conditions, for example in their rainfall patterns and their opportunities for growing cash crops. How do these different farming conditions influence the mobility of farmers? And how is this mobility of farmers linked to access to land, which is, in addition to access to resources such as labour and capital, a must for every farmer practising agriculture? Maybe it is even more crucial for farmers who are mobile. How does a (mobile) farmer gain access to land? Or, viewed from an institutional level, how is access to land organized in a local setting and does mobility play a role in it? And are there differences in the two regions? Related to the issue of access to land is the issue of conflict. Land conflicts are quite common in Africa, and sometimes become violent. We are interested here in knowing how the mobility of farmers and conflict over access to land are related. Does the increased mobility of farmers provoke conflict or does it (also) work the other way round? In addition, we want to know the extent of the differences between the two regions and how these can be explained.

The research questions are as follows:

- What are the temporal and spatial dimensions of farmers' mobility in Central and South Mali?
- How have farming conditions shaped the mobility of farmers in Central and South Mali?
- How is the mobility of farmers linked to local socio-political relationships that mediate access to land and related conflicts in Central and South Mali?
- With regard to the previous questions, how can the differences between Central and South Mali be explained?

The issues represent three layers of understanding of the changing landscape in Central and South Mali. Starting with the upper and descriptive layer, we move to the deeper and more analytical layers step by step. The methodology used to answer the first question could be seen as taking a series of aerial photographs over a number of subsequent years. What can be observed from the pic-

tures is an increase in the number of hamlets, the expansion of the area under agriculture over time and the movements to and from the hamlets. The second question requires us to have both feet firmly on the ground and to look in and around the villages and farming hamlets to gain an understanding of how rural people make decisions about farming, under what conditions, and where and what the implications are for the mobility of farmers. To understand past mobility and its driving forces, conversations, particularly with the elderly, are indispensable. For the third question, we need to talk to people over and over again, not only in farming hamlets but also in the villages and even with people far away who have left the area but still have claims to land there. We need to gain insight into the invisible mechanisms that influence the mobility of farmers and that are related to local processes regarding access to land and conflict.

By investigating and answering these questions, we aim to contribute to the theoretical debate on access to land and conflict. This will be elaborated on in Chapter 2. In addition, we are interested in knowing about the implications of our findings for studies on land use by farmers, as discussed earlier. The central questions are therefore:

- How does a focus on farmers' mobility allow a better understanding of local political processes with regard to access to land and related conflicts?
- What are the implications of our findings for understanding land use by farmers?

Taking the mobility of farmers as a point of departure provides fresh insight into access to land and conflict over land, not only in Central and South Mali but also in other areas of West Africa, and possibly even beyond. It is argued that the mobility of farmers and access to land are intrinsically linked: the mobility of farmers shapes and is being shaped by local social and political relations that mediate access to land and that are characterized by high levels of conflict. This study goes one step further as it considers these local political processes against a background of regional contexts that differ with respect to key conditions for farming (i.e. the natural environment, demographic trends and regional agricultural development) and influence farmers' land-use strategies. Within a context of changing farming conditions, farmers may move repeatedly and, due to rapid population growth in particular, this mobility may lead to the economic and political polarization of farmers. This, in turn, will result in increased numbers of marginalized farmers on the move.

Defining the mobility of farmers

The mobility of farmers is central in this study so a precise definition of what it means is required. 'Farmers' mobility' refers to farming families' (re)distribution

of labour, livestock and other agricultural assets over several locations. These resources are divided between different places in an attempt to produce sufficient food (cereals) for themselves and generate additional cash income. Depending on the spatial and temporal distribution of the resources, which is reflected in the term 'action space' (Painter *et al.* 1994), farmers move over short or larger distances and more or less frequently within or between years.

The focus regarding the mobility of farmers in this study is primarily on processes of agricultural colonization that comprise two related elements. First, fields are opened up and expanded for farming purposes and, second, farmers move into (farming) hamlets that are inhabited all year round or in the rainy season only. The first element can also be denoted as 'moving the field' (Breusers 1999), while the second involves 'moving the house' (Mazzucato & Niemeijer 1999). It will be shown, however, that agricultural colonization, often at relatively short distances, is also connected to long-distance wage labour migration by farmers, in particular in Central Mali.

It should be noted that the mobility of farmers does *not* mean that farmers are constantly on the move, nor does it refer to farmers' daily movements from the house to the field.[5] The notion of 'mobility of farmers' consists of two terms ('mobility' and 'farmer') that also demand clarification.

Mobility in relation to settlement

(Geographical) mobility is an interesting notion that can be considered in conjunction with settlement. Farmers move from one place to another at various time intervals. As noted earlier, mobility and settlement can be considered as two sides of the same coin, with people being mobile between periods of settlement. This means that the mobility of farmers becomes visible only when considering a longer timeframe. An emphasis on the temporal dimension of mobility, in addition to the spatial dimension, implies that mobility is not to be seen as the opposite of sedentarity. Instead they are interconnected. Everyone is to a certain extent mobile and sedentary at the same time and each movement or settlement basically has a temporary character. Full mobility or sedentarity is rare, since every act is necessarily bound in space for some time. To indicate that people are always mobile and sedentary at the same time, Clifford (1997) uses the term 'traveling-in-dwelling' or 'dwelling-in-traveling'. In his view, the issue is where people are between, rather than where they are from (*Ibid.*: 37).

Such a dialectical approach to mobility is quite different from the way 'migration' is usually defined, that is, as a permanent or semi-permanent change of residence of at least six months (Johnston 1994: 382). Migration is not a useful term

[5] Carlstein (1982: 96) noticed that increasing capacities for spatial mobility paradoxically led to sedentarization.

in this study as its six-month duration is arbitrary and excludes more temporary and circular movements (van Dijk *et al.* 2001). It may seem confusing that not only the term 'mobile farmer' but also the term 'migrant farmer' are used in this thesis. The distinction is meaningful though. In our understanding, a 'mobile farmer' is any farmer who settles in a hamlet. It is a neutral term that refers to a purely geographical movement. By contrast, the term 'migrant farmer' refers to a special category of mobile farmer and has a political connotation. A 'migrant farmer' is a mobile farmer who settles on the territory of another village than his village of origin. By crossing a village boundary, which is not only a geographical but also a political boundary, he often automatically receives an inferior status compared to the original inhabitants in the host village. The relationship between mobility and local power figurations will be worked out theoretically in Chapter 2.

The settlements that mobile farmers move into are understood as farming hamlets. These are essentially different from a village, which is an administratively recognized unit. Hamlets are not,[6] but are often loosely seen as insignificant 'satellites' of the village, far off in the bush where farmers just grow some crops and keep some cattle. However, as Kopytoff's (1987) study on frontier processes has made clear, hamlets are not always that insignificant. They are in fact places of social and political innovation. Starting with one or a few families, they can grow and transform into large settlements over time, in particular when residence becomes permanent and year round, and they develop into new societies. The 'mother villages' are therefore often suspicious and protest when hamlets send a formal request to the administration to become a village as it is seen as a refutation of their authority (Koenig 1997: 164). In contrast to the geographical literature on rural settlements that, based on size and distance, classifies hamlets as a category between homesteads and villages (Silberfein 1998: 3),[7] the term 'hamlet' (or 'farming hamlet') is used in this study as a container concept for all non-official rural settlements that are used by farmers as an operating base for farming regardless of the number of families living together. It should be noted that the place where a farmer opens up a field and sets up a hamlet is not necessarily the place to which he administratively belongs, or feels he belongs to.

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[6] Although villages already existed in pre-colonial times, in particular in densely populated areas, villages as administrative units were launched by the colonial authorities to bring order to the territory and allow for better management for taxation purposes and the recruitment of labour (Grossman & Sidle 1998: 22).

[7] In this categorization, a homestead (or farmstead) is considered a dispersed settlement in which, as a rule, only one farming family of up to 50 persons lives. The homestead is located on the family field and the distance between two homesteads is generally more than 150 m ('hailing distance'). By contrast, several families are grouped together in villages and their homesteads are less than 40 m apart. Villages number more than 100 individuals and families do not live on their fields but at some distance from them.

A (farming) hamlet is also different from an (agropastoral) camp, just as a farmer is not an agropastoralist. A person is considered a farmer if their main economic activity is growing crops in a field, regardless of whether they have livestock and/or undertake other economic activities. A mobile farmer lives in a farming hamlet, either in the rainy season only or all year round. By contrast, someone is considered an agropastoralist if their main focus is on livestock keeping, with minor attention paid only to growing crops. Their seasonal settlement is indicated as an agropastoral camp, with the distinction being particularly relevant in the research area in Central Mali where the two different livelihood systems follow ethnic lines (Dogon farming and Fulani agropastoralism).

Farming in Mali in a nutshell

The second element in 'mobility of farmers' is the 'farmer'. Who is or what does a farmer do in the Malian context? It was already noted that a farmer focuses on growing crops, although s/he often also keeps some livestock (including draught animals) and undertakes other economic activities by way of livelihood diversification. The word 'farmer' in this study does not usually refer to an individual but to a family. Farming families in Mali are essentially agricultural production units that are managed by the (male) head of the family and in which all capable family members participate, with a division according to age and gender: men sow and plough the family fields while women, who are also responsible for household tasks and childcare, assist during peak periods with weeding and harvesting work.[8] If possible, children and old people assist with the work too. Farming families are usually bound by patrilineal kinship ties in Mali and residence is virilocal (or patrilocal), which means a married woman lives with her husband's family. Such a family typically consists of a man or several brothers with their wives and unmarried children, as well as their married sons with their wives and children (Mazzucato & Niemeijer 2000: 85). It is not unusual for five generations to live together in a compound (Jansen 1996: 661).

Mali is undoubtedly one of the poorest countries in the world, with a gross national income per capita of US$ 610 in 2011 (World Bank 2012). Its rural economy is largely based on animal husbandry and cereal subsistence cultivation, with most Malian farmers growing crops under rain-fed conditions. The opportunities for farming therefore differ according to rainfall conditions. Millet is the

[8] The agricultural cycle has four stages: preparation of the field, seeding, weeding in two rounds, and harvesting. The field is prepared in the dry season before the rains start: vegetation is removed and the field is ploughed. Seeds are sown with the first rains. As weeds compete with the crops for soil nutrients, they have to be removed. The first round of weeding is done with the help of a plough about two weeks after sowing when the plants are about 5 cm high. A second weeding has to be done manually since the plants are about 40 cm high by then. The last stage is harvesting and the subsequent transportation of the crop to the storage places in the village or hamlet.

staple crop in Central Mali,[9] whereas in South Mali, where rainfall conditions are better, a wider variety of cereals (sorghum, millet and maize)[10] can be grown as well as cotton, which is a major cash crop. Minor crops, such as *niébé* (beans), groundnuts, fonio and sesame, are grown in both regions. Vegetables are cultivated in small irrigated gardens near villages.[11] Earnings from cotton enable farmers to meet all kinds of daily expenses, such as clothing, taxes, food supplements, agricultural investments, ceremonies, school fees and healthcare. By contrast, cash crops are virtually absent in Central Mali, which forces farming families to find other ways of generating a cash income. Only small surpluses of food crops, if any, are sold at local markets.

A basic challenge for most rural people in Mali, as in other African countries, is dealing with risk and uncertainty in a very unpredictable environment where they need to respond to incidents as they arise. Planning is out of the question (de Bruijn & van Dijk 1995, 2005b, Scoones 1996, Mazzucato & Niemeijer 2000). This is even more the case in the Sahelian drylands of Central Mali where, in comparison to sub-humid South Mali, farming conditions are more constraining and farmers are generally more vulnerable. The major constraints include labour, soil nutrients and rainfall variability (Mortimore & Adams 1999, Mortimore 2001). In such a challenging context, farmers generally aim to minimize risk and not to maximize profit (see de Bruijn & van Dijk 2005b).

Agricultural work is carried out with basic agricultural equipment in Mali. Traditionally the land is worked with a small hand hoe (*daba*), although the plough and donkey cart have been widely adopted over the past few decades. Most farming families own, share or can at least borrow a plough. They come in several sizes and prices, from simple, cheap ploughs drawn by a donkey (Central Mali) to large and more expensive multipurpose ploughs that are drawn by a pair of oxen (South Mali). Some wealthy farmers in Central Mali may also own oxen or even a camel (dromedary) as draught animals. Draught animals (or more generally, livestock) and agriculture are considered together, which is called crop-livestock integration: draught animals are used for ploughing and the livestock provide manure, while crop residues can be used as fodder. Livestock is commonly used for saving purposes or as an investment, although it is not reliable as animals are prone to disease and can be stolen.

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[9] Sorghum is grown to a much lesser extent than millet and in clay soils only, as it requires greater soil humidity.

[10] Maize is both a food crop and a (minor) cash crop. As a food crop, it is especially important in the pre-harvest period (*soudure* or hunger period) as it is the first cereal crop that can be harvested (in September).

[11] Vegetables include onions, pepper, pumpkin, calabash, *gombo* (ocra), tomatoes, eggplant, cucumbers and potatoes.

To preserve soil fertility, and in the absence of sufficient livestock to provide manure or other fertilizers, farmers practise fallowing as part of field rotation (fields that alternate with long fallow periods) and crop rotation (short fallow periods within fields). However with increasing population pressure, fallow periods have shortened and sometimes even disappeared. And in South Mali where the pressure on land is higher, it is increasingly being cultivated permanently. A field, or parts of it, are often only laid fallow after complete depletion or in situations of (temporary) labour shortage or conflict.

A characteristic of farming families in Africa in both urban and rural contexts is that they are not necessarily fixed to one place but can be 'multi-local' with family members (labour), fields and agricultural equipment spread over several locations in a flexible way (Breusers 1999, see Foeken & Owuor 2001 for the Kenyan urban context). In contrast to the more frequently used term of 'household', which suggests a kind of fixedness,[12] '(multi-local) families' refers to a more flexible social organization of labour with members (temporarily) moving in and out of various locations.[13]

Having families spread over several locations requires a sufficiently large labour force. For many farming families, and the small ones in particular, labour is a major bottleneck (Toulmin 1992). The plough has significantly reduced the need for labour but manual labour is still required in peak periods for weeding and harvesting. To deal with the problem of labour shortages, extra-familial labour groups (*ton*) are organized in villages based on mutual assistance. In peak periods, young men used to work on certain days of the week in the family fields of the labour group members in return for a good meal with millet or sorghum beer (*dolo*) and meat. However, with the monetization and individualization of the rural economy, as has happened in South Mali, labour groups are increasingly asking to be paid in cash, which means that only relatively wealthy families can afford extra workers, while the smaller and poorer families, which in fact need the extra labour force most, are excluded (Jonckers 1987: 142, 1994: 128). It is estimated that about half of the farming families in South Mali mobilize external labour (Benjaminsen 2001).

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[12] The term 'smallholder' is also avoided because its meaning is considered too limited in the Malian context. Following the definition of Netting (1993: 2), it only refers to 'rural cultivators practicing intensive, permanent, diversified agriculture on relatively small farms in areas of dense population'.

[13] It is realized, however, that 'family' in the African context does not have a univocal meaning either and may refer to a nuclear unit (a 'household'), a lineage, a clan or some form in-between. In this study, a family is seen as a nuclear production unit that is economically independent or semi-independent, for example two brothers who have separated their production units but still share ploughs and draught animals (Venema 1978) or have a joint herd.

Methodological issues

With the gradual change of focus towards the mobility of farmers, the research methodology was adjusted accordingly. Methodological changes in turn led to new observations, which contributed to a further change in research focus. The frequent adjustments in the research methodology were a major challenge that had to be dealt with. Moreover, it turned out to be necessary to differentiate research methods in the two regions due to differences in the empirical situation encountered and, consequently, to present partly different data sets.

Selection of research areas and villages

Based on the original research design regarding the changing rights to fallow lands and linked to a research programme on the impact of climate change in drylands in West Africa,[14] two rural areas were selected in different climate areas in Mali: Douentza District (Central Mali) and Koutiala District (South Mali). Douentza District is characterized by a semi-arid climate, low soil degradation and low population density, whereas Koutiala District has a sub-humid climate, high soil degradation and high population density (see Chapter 3).

Two villages were selected in each region after a visit to a number of villages and after talks with Dutch and local experts in the area. In Douentza District in Central Mali where the fieldwork started, a distinction was made between villages on the basis of ethnicity. The main ethnic groups in the area are the Fulani and Dogon, while other ethnic groups include the Songhai, Bamana, Tuareg, Bozo, Bella and Mossi. The Fulani can be found all over the Sahel in West Africa. In contrast, the Dogon have their home base in Central Mali on the Bandiagara Plateau, its escarpment (*Falaise de Bandiagara*) and the adjoining plains. The research area is in the northernmost part of Dogon Country where the Dogon are known as Jamsay.[15] As indicated earlier, a Dogon village called Okoyeri Dogon and a Fulani-dominated village called Douma were selected as they had bordering village territories. Okoyeri Dogon is a small village of 667 people and is about 20 km south of Douentza Town, which is the administrative and commercial regional capital with 28,000 inhabitants (2009 census), while Douma is larger with 4944 people (1998 census) and situated about 15 km southeast of Douentza (see Map 1.2). After fieldwork started, it turned out, to my surprise, that another Fulani village called Okoyeri Peul used to be located within a

[14] The research was linked to the multidisciplinary and multi-level research programme entitled 'Impact of Climate Change on Drylands (ICCD)' in West Africa in which two questions were central: What is the relative importance of climatic vulnerability/risk compared to other factors of social insecurity? How did the population living in the study areas cope with climatic and other variability and vulnerability? (DLV/CERES 1996, Dietz & Veldhuizen 1998, Dietz *et al*. 2004, De Bruijn *et al*. 2005).

[15] The Dogon in Central Mali comprise three main groups who speak very different languages that are subdivided into many dialects. Most Dogon, particularly the men, speak Fulani as a second language.

stone's throw of Okoyeri Dogon. Although the population left the area between 1960 and 1985 and has since dispersed across the Inner Niger Delta, the Bandiagara Plateau (about 150 km to the west) and into southern Mali, they still have claims to the land and the village is recognized administratively.[16] The village of Okoyeri Peul, which officially consists of 1444 people (1998 census), was therefore included in the research. Attention was paid to a number of Dogon villages in Central Mali that were outside the research area but proved to have old claims to land within the research area. The reality on the ground in Central Mali of several villages holding claims to the same territory logically led to their inclusion in the study.

The Minyanka are the original inhabitants and main ethnic group[17] in the old cotton-growing area in Koutiala District in South Mali where fieldwork was undertaken afterwards. Many people from various ethnic background have immigrated into this region over time, including Bamana, Fulani, Dogon, Bobo, Sarakole (or Soninke) and Senoufo (Jonckers 1987: 5-9). Here, other selection criteria were considered relevant. It should be noted that at this time the research focus was still formally on changing entitlements to fallow lands. The two research villages were chosen on the basis of land pressure, which could be seen from the availability of long-term fallow and woodlands. It was decided to study Mperesso Village with its relatively low population pressure and Finkoloni Village, which is characterized by relatively high population pressure. Mperesso is small, with only 896 people (1998 census) and situated 20 km southeast of Koutiala Town, the booming regional capital with more than 141,000 inhabitants (2009 census). Finkoloni is larger with 1907 people (1998 census) and is 15 km south of Koutiala Town on the main tarred road to Sikasso and Ivory Coast (see Map 1.4). In contrast to the situation in Central Mali, claims to land from other villages in Finkoloni and Mperesso village territories were not relevant.

The selection of the research areas touches on methodological aspects related to the socio-spatial context of the research. Since surprisingly large numbers of farming hamlets were observed in areas in Central and South Mali that had been selected for the initial research question, it was decided, as the research focus gradually changed, *not* to adjust the research areas. As a consequence, the mobility of farmers was mainly studied within a restricted geographical area. Such an approach, in which first the territory was chosen and then the social groups were included that were related to the specific area is, of course, different from

[16] The presence of a village outside the municipal territory is not unique in Central Mali. For example, the USAID food-security action plan (2007-2010) for Diankabou Municipality, to which Okoyeri Peul belongs administratively, mentions another village called Weldé Diabé. See: http://www.aec.msu.edu/fs2/mali_fd_strtgy/plans/mopti/koro/psa_diankabou.pdf, accessed September 2007.

[17] The Minyanka in South Mali have their own language and most of them, particularly the men, speak Bamana as a second language.

the approach applied in most mobility studies where first a social group is selected and then their mobile and sometimes transnational trajectories are followed (see de Bruijn & van Dijk 2003, Kaag 2008, Pelckmans 2011, Schapendonk 2011). In this research project, the trajectories of farmers moving out of the research areas were generally not studied.[18] Our approach is also different from those studying individual 'pathways' of farmers where mobility is considered one of many options that people have in reaction to, and in interaction with, their changing environment (de Bruijn *et al.* 2005).[19] Farmers in our research, for example, were not asked explicitly about alternatives to mobility. It is obvious that every approach has its pros and cons but a clear advantage of our territorial approach is that we first noted farmers' mobility and, then, gained insight into the social and political relationships between and within various ethnic and status groups in one particular area.

Fieldwork stages and methods used

Extensive fieldwork lasting sixteen months was carried out in Central and South Mali between 1999 and 2002, mainly in the late rainy season and in the first few months of the dry season. Fieldwork in Central Mali was undertaken from September 1999 to March 2000, October to December 2000 and August to October 2002, and from January to April 2001 and October to December 2002 in South Mali. Prior to this, four months of fieldwork for the researcher's Masters thesis were conducted in South Mali between August and December 1997. Three phases can be distinguished in both research areas: (1) an exploratory phase, followed by (2) a period of in-depth research, including (3) extended case studies on conflict regarding land and power. The methods used were mainly qualitative, but some quantitative methods were applied as well. Most of the several hundred interviews were conducted with the assistance of local interpreters who translated between French and the local languages, namely Fulfulde (Fulani language) and Dogon in Central Mali and Bamana and Minyanka in South Mali.

The aim in the exploratory phase was to gain an overview of the phenomenon of farmers' mobility, such as its magnitude (number of hamlets and farmers settled), location, duration, the agricultural activities in the hamlets, and the conditions and motives for settlement in a hamlet. Various methods were used at this stage: participatory mapping, short interviews to obtain qualitative and quantita-

[18] The exception is the Fulani population of Okoyeri Peul village that lives dispersed across the Bandiagara Plateau and in the Inner Niger Delta. A number of them were found and interviewed in and around Bandiagara Town and Konna Town. Their presence in the research area in the past is the subject of current land claims.

[19] De Bruijn & van Dijk (2005b) developed the concept of 'pathways' that refers to the range of strategies people apply to deal with risk in an unpredictable environment. A central element in the concept is that such strategies follow on from decisions made by individuals, households or groups of people on the basis of past experiences.

tive information, registration of the hamlets and water points with the help of a GPS, and, back in the Netherlands, the maps were processed on the basis of the GPS data.

A participatory mapping exercise was initially conducted with a number of representatives of the village. For this purpose, the village chief summoned a number of male villagers, mainly family heads. The villagers in both Central and South Mali were able to visualize their environment well and several geographical features were indicated on the maps, such as the landscape (plateau, dunes, lowlands), land use (fields, pasture, wood reserves and cattle tracks), water points (rivers, streams, ponds, sources, wells and boreholes) and roads, tracks, villages and hamlets. In Central Mali, where fieldwork started, the maps in the two research villages revealed a large number of farming hamlets, and this formed the starting point for a gradual change in the research focus, as was described earlier.

The Dogon farming hamlets and Fulani agropastoral camps were subsequently visited over the next few months (and later in South Mali over only a few weeks) and the location of the hamlets was registered with a GPS.[20] The difficult but accessible terrain (erosion gullies, sand dunes, small tracks or no tracks at all) in Central Mali is an important reason why the exploratory phase took longer than in South Mali. In addition to hamlets, drinking water provisions were also registered in Central Mali as they proved to be an important condition for settlement in hamlets. Brief interviews were held in the hamlets with the head of the hamlet or his representative. The topics discussed mainly concerned land use and, due to their sensitive nature, use rights and the settlement history of the farming family were touched on only briefly. An attempt was also made to gather basic quantitative information on the year of settlement in the hamlet, the size of the family and the number of cattle they owned.

By using GIS software (MapInfo), the GPS waypoints of hamlets and drinking water provisions (in Central Mali) were used to produce thematic maps to indicate trends of mobility of farmers. The GIS maps consist of two layers. The top layer of GPS waypoints was put over existing topographic maps of Koutiala District and Douentza District (1955, reprinted in 1970, Scale 1: 200.000), which are the most recent maps available at this detailed scale. Based on Google Maps (accessed mid-2011), present-day asphalt roads (*routes nationales*) and tracks were added.

After a global overview of the mobility of farmers in the exploratory phase had been established, I wanted to gain more understanding of the underlying process. In the following period, various in-depth methods were therefore combined

[20] All the hamlets situated on the two village territories in South Mali were registered. In Central Mali, about five to ten settlements could not be registered due to problems of accessibility. The missing numbers are not included in the research data.

and applied simultaneously. First of all, numerous semi-structured interviews and informal conversations were held with farmers, agropastoralists and a wide variety of other relevant actors.[21] Interviews with farmers and agropastoralists were mainly conducted in their hamlets, camps and in villages within and outside the research areas[22] but also in towns like Koutiala (South Mali), Douentza, Konna and Bandiagara (Central Mali) and in remote areas on the Bandiagara Plateau (Central Mali).[23] In South Mali, in-depth research was mainly conducted on the village territory of Mperesso[24] whereas a further selection was made in Central Mali of two Dogon hamlets called Coofi and Saradina.[25] Questions at the in-depth stage concerned settlement history, the allocation of land, land rights, land use, land conflict and the position of newcomers *vis-à-vis* people who settled earlier. Interviews were held at various levels (municipality, inter-village, village, family and individual level) with individuals and groups of various sizes. Key informants were interviewed more than once and during several fieldwork periods to discuss perceived sensitive topics such as settlement history, land claims and local political conflict in particular. The cross-checking of information was another important element in the interviews.

In addition to the numerous interviews, participatory historical mapping exercises in villages (South Mali) and participatory field mapping exercises in hamlets (Central Mali) were conducted.[26] Archival research was done in the colonial

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[21] Respondents included family heads, women and youngsters, lineage chiefs, village chiefs, mayors, village and municipal councillors, *marabouts* (Islamic teachers), bards, blacksmiths, magistrates and clerks at the district courts and representatives from NGOs. In South Mali, interviews were also held with descendants of the last 'earth priests' and with the secretaries of the village associations that are the local structures of the cotton organization CMDT; representatives of the CMDT headquarters and the Soil Conservation Department (DDRS) in Koutiala; and representatives of the cotton farmers' trade union, the SYCOV.

[22] We usually visited the fields and fallow areas in the hamlets and sometimes also in the villages with the farmers. This enabled them to speak more freely than was possible in the hamlet and village where other people were hanging around listening. Another appropriately neutral place for interviews was my compound in Douentza.

[23] A number of Dogon villages on the Bandiagara Escarpment in Central Mali were visited to discuss their versions of settlement history. Interviews were also held with Fulani from Okoyeri Peul who live on the Bandiagara Plateau and in the Inner Niger Delta. Five days were spent on the Bandiagara Plateau (November 1999) and two visits were paid to Konna Town in the Inner Niger Delta (January 2000, September 2002), both about 150 km from Douentza Town, to conduct interviews. In Konna, Fulani from Okoyeri Peul met on the weekly market day.

[24] The main reason was that I was already familiar with Mperesso and a number of villagers thanks to the Masters fieldwork that had been conducted there about three years earlier. The existing social contacts facilitated in-depth research in a relatively short period of time.

[25] The selection of the two hamlets was made on the basis of three related factors: the natural environment, land use, and the fact that it was an area contested by several Fulani and Dogon villages. Coofi, where fifteen families are living together, is located in the clay-sand transition zone while Saradina, where five families live together, is located near Kampije in the Seeno dune area where the soil is more sandy. In the end, the information from Coofi in particular was considered interesting for a case study, while the information gathered in Saradina mainly served as useful background information.

[26] In South Mali, participatory historical mapping exercises were conducted with groups consisting of the village chief and a number of family heads. The historical maps served as an entry point for a

files at the National Archives in Bamako but this only revealed limited relevant information. Quantitative data were then gathered, as best as we could, at the institutional level. In South Mali, data on land use and rainfall were provided by the village association, the parastatal cotton company CMDT (*Compagnie Malienne de Développement des Textiles*) and the research institute ESPGRN (*Equipe Systèmes de Production et Gestion des Ressources Naturelles*). Data on rainfall in Central Mali were gathered at SLACAER (*Service Local d'Appui Conseil d'Aménagement et d'Equipement Rural*) in Douentza. In both regions, census data were collected for the different administrative levels (the municipality, the district and the former sub-district level) as well as at the CMDT (for South Mali). Census and agricultural data are often not kept systematically by the administrative bodies. In combination with our own fieldwork data, simple statistical analysis was conducted for South Mali. For Central Mali, this was nearly impossible so our own estimates of hamlet population and field size were made on the basis of interviews, observations and field measurements.

Halfway through the in-depth period, two large case studies on conflict over land, one in each research area, were initiated as a methodological tool to gain a more in-depth understanding of how access to land works within the context of farmers' mobility, what happens when social and political relationships between an original inhabitant and a stranger come under pressure, and how the original inhabitants in particular apply territorial strategies. In fact, the two conflicts emerged during the in-depth stage and many people at the local level turned out to be involved in some way. The main methods used for the conflict case studies were semi-structured interviews and informal conversations. For example, courtesy visits to show our respect to village chiefs, lineage chiefs and hamlet chiefs were frequently paid and during these, aspects of the conflict were discussed. Numerous talks were held with other key informants to discuss the conflict, and relevant court decisions and other legal documents, including the texts of various laws, were analysed. Issues of power positions, access to land and mobility of farmers turned out to be related and they manifested themselves in the conflicts. Observing the development of a conflict in the second and third periods of fieldwork and talking about the conflict and its background with stakeholders who were directly and distantly involved in the situation allowed a better understanding of what people actually do rather than what they merely say.

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group interview on agriculture and the establishment of hamlets in the past (with 1960 and 1977/1980 as starting points). Such an exercise was not possible in Central Mali due to a lack of overview in the villages covering vast areas. Here, a participatory field mapping exercise was organized instead to provide information on the order of settlement of families; the location of family fields and fallow fields; soil properties; the order of opening up of fields; and the name of the Fulani who was considered the owner of the field. The fields and fallow fields were visited and their size estimated.

Data collection in two different regions

In addition to adjustments in the methodology in accordance with the gradual change of research focus, another methodological challenge was the different empirical situation encountered in the two regions, which was much more chaotic and 'wild west' in character in Central Mali than in South Mali. People in Central Mali are extremely mobile, village territories and their boundaries are highly contested by people and villages from various ethnic backgrounds and, as a result, various layers of claims are put on land. Unlike in South Mali where the village hierarchy and power positions seemed more fixed and processes of mobility among farmers more structured, everything in Central Mali was in a greater state of flux and it took some time to grasp the processes observed there and to link them to what was seen in South Mali. For example, various versions of ancient settlement histories in Central Mali are told to claim land and local power positions in the present. In addition, the respondents' awareness of a researcher writing a book 'about us' could have encouraged some to recall stories that served their own interests. It is therefore emphasized that the settlement histories presented in this volume should be considered as narratives and that they do not provide any entitlement to land or authority. For our study, it is not relevant whether the histories are 'true' but more how people use their versions of settlement history in territorial strategies (see Chapter 2).

The higher mobility encountered in Central Mali also had consequences for obtaining data on hamlet populations. As mentioned earlier, hamlets are, in contrast to villages, not recognized administratively and therefore official figures on them and the number of people living in them do not exist. Village census logs are not helpful either because mobile farmers in Central Mali are registered in their village of origin and not necessarily in the place where they spend the rainy season. This is different in South Mali where migrants live all year round and most of them are registered in their village of destination. Nevertheless, village census books are unreliable sources as numbers of people and cattle are frequently underreported due to the poll-tax system.[27]

In comparison with South Mali, not only was the empirical situation encountered in Central Mali more complex but also the gathering of quantitative information, at both the farmer's and the institutional level. Research in Central Mali was conducted in a relatively remote and inaccessible area from where the state and NGOs are largely absent and where the mainly illiterate rural respondents were not used to researchers. Many hesitated when responding to questions,[28]

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[27] In 2002, the following fixed amounts were levied: FCFA 1400 for a person; FCFA 250 for a cow; FCFA 50 for a sheep or goat; FCFA 50 for a donkey; FCFA 300 for a camel; and FCFA 800 for a horse. Agricultural equipment is also taxed.

[28] Some were so afraid when they saw the 4WD arriving (they thought the administration had come to collect taxes or to fine them) that they locked themselves up in their huts.

although in a number of cases the presence of a villager (often appointed by the village chief) gave them confidence.[29] To obtain data on the numbers of hamlets and their populations and to register the location of hamlets with a GPS, an attempt was made to visit all the hamlets in the research areas. The number of people living together was also asked or observed although this proved to be difficult in Central Mali. Family size is a sensitive issue, both culturally and for taxation reasons, and it was sometimes problematic to estimate numbers of people due to their mobility. The number of people in hamlets may vary from year to year and also within one rainy season because there are a lot of movements back and forth between families in the village and their kin in the hamlets. In addition, at the time when the hamlets were being registered, which was shortly after the rainy season, most Dogon farmers were still in their farming hamlets busy with harvesting-related activities but many of the Fulani agropastoralists had left with their herds. The size of their families had to be obtained from local informants who were not always able or willing to provide such information.

Other quantitative information, such as field sizes or yields, was hard to obtain as it was simply not known to the respondents and we were forced to make estimates ourselves. In general, the estimated numbers of cattle were considered too unreliable to be of any use. In the two farming hamlets in Central Mali where in-depth fieldwork was conducted, labour- intensive efforts were made to measure and estimate the size of the often irregularly shaped fields to give an impression of field sizes in the hamlets and, related to family size, land availability per capita.[30] For the year of settlement in the hamlet, estimates had to be made too, especially when respondents said it had taken place in the (distant) past.[31]

In contrast, it was relatively easy to gain basic quantitative information in South Mali from farmers, as this was often used in data collection by the CMDT and ESPGRN on cotton and cereal cropping. Moreover, through village association books (village associations are the local branches of the CMDT), relevant information on individual farmers could be accessed that included details of field sizes, fallow field sizes, and the field surface of cotton, millet and sorghum under cultivation. Census data was available at CMDT level too.

The differences between the two regions had implications for the research. First, more time had to be spent in Central Mali (ten months) compared to South Mali (six months) to obtain information. In both regions but in Central Mali in

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[29] In other situations, however, especially in contested areas, the opposite was true and we had to return without the village chief's representative.

[30] Most farmers in Central Mali were not able to quantify the size of their fields and fallow fields. To get an impression, we made estimates on the basis of footstep measurements and with the help of GPS.

[31] For example it was said 'I found this land with my father' (or 'grandfather' or 'great-grandfather'), or 'before Mali's independence' (in 1960). In addition, the expression 'I found this land with my father' (or 'grandfather' or 'great-grandfather') commonly indicates that a person's family occupied the place before the person was born.

particular, it was important to come back to respondents often and invest in social relationships and build up trust. Second, the importance of settlement histories in Central Mali deserved particular attention. Thirdly, since quantitative information in Central Mali was less available at farmers' and an institutional level and less reliable than in South Mali, basic statistical analysis could only be run for the information gathered in South Mali. It was decided to accept the partly methodological incongruences between the two regions due to the different circumstances, to differentiate methods and present different (quantitative) data sets. In the end, it is believed that the different methods were indispensable to achieving a good understanding of the mobility of farmers and their linkages to access to land and conflict in the two different regions.

Mapping mobility

Mapping mobility is a methodological issue that needed specific attention in this research. The thematic maps presented in this thesis aim to visualize mobility among farmers. The individual maps do not show 'dynamic' mobility but 'frozen' settlements at a given point in time instead, which makes mapping mobility a paradox. Mobility becomes visible only when presenting consecutive settlement maps in time, like the stills in a film presented in sequence. The maps produced show the location of settlements (hamlets and camps) at four distinct points in time (1950, 1970, 1985 and 1999/2001).[32] The information about the time of establishment of the settlement was mainly gained through interviews with people living there. It is realized that, since claims to land and power are involved in a number of cases, the information provided may not be correct.

Another snag relates to visualizing autochthony on maps. The settlements that figure on the maps are not only differentiated regarding ethnicity, which means a distinction has been made between Dogon and Fulani settlements in Central Mali and between Minyanka, Dogon and Fulani settlements in South Mali, but also concerning autochthony, that is being one of the original inhabitants (coming from 'inside') or a migrant (coming from 'outside'). As will be explained in Chapter 2, being an original inhabitant or a migrant is important for one's claim to land and power. To classify someone as an original inhabitant or a migrant, the administrative village boundaries were taken as a starting point. Everybody who was settled on the village territory and who came from the village in which the settlement was located was an original inhabitant or an 'autochthon', while people from elsewhere, that is, without close kinship relations in the host village,

[32] The years 1970 and 1985 were chosen because they were just before and just after the two large Sahelian droughts (1973-1974 and 1984-1985), which are thought to have affected the mobility of farmers. 1950 is not related to a particular event. In interviews, time indications were often vague: 'I found this place with my grandfather (or great-grandfather)', which was categorized as 'settlement present in 1950'.

were labelled as migrants. For example, a Dogon farmer from outside who was settled in a hamlet in Minyanka village territory was called a Dogon migrant, while a Minyanka farmer who had set himself up in a hamlet in his own village's territory was labelled a Minyanka autochthon. It is realized, again, that making such distinctions can be problematic, especially in Central Mali where village territories and boundaries are highly contested as a result of which social groups are not clearly bound to territory. It should be noted that the maps produced do not provide any basis for claims to land and power.

The maps are considered a strong tool insofar as they give an impression of patterns of mobility of farmers in time and place at a single glance. This visual impression, however, is only two-dimensional and is thus limited. The maps reflect the outcome of several underlying processes but these cannot be seen on the maps themselves. The maps therefore have to be considered in combination with the qualitative research data.

Gender aspects and research assistance

Some final remarks will now be made on gender and, related to this, the role of the research assistants. The focus of this research is more on men than on women because 'land' in Mali is typically considered a 'male issue' and, as a result, the strategies followed and decisions made regarding access to land, family farming, conflict and mobility, which are all key issues in this research, are generally made by men, and more specifically by family heads and village leaders. Women (except for older women) and other people with an inferior status in local society based on seniority, such as children and young men, are not supposed to talk about such issues. The same goes for settlement history as a topic. Nevertheless, many women and youngsters were interviewed, also on potentially sensitive issues. Another reason is that, although it is recognized that women have a voice in decision-making backstage and do an important share of the agricultural work in the hamlets (Koenig 1997) and that women's rights to land and their strategies in managing their situation are significant themes (von Benda-Beckmann *et al.* 1997, van den Berg 1997), gender issues are simply not within the scope of this research.

The help and support of several local research assistants in both Central and South Mali was indispensable in the interviews when they introduced me and translated from the local language to French and *vice versa.* A major disadvantage of working with translators is the possible loss of information and the permanent dependency of the researcher on assistants as far as communication goes. However, it also has a number of advantages. First, there is more time to take notes, to reflect and to observe. In addition to their linguistic help, the assistants bridged the cultural differences between me and the respondents. For exam-

ple, they prevented me from asking questions on sensitive issues such as settlement history and conflict too early and rephrased my sometimes direct questions in a form that was culturally more acceptable. Moreover, the assistants' knowledge and understanding of the natural environment and local culture was of huge value. And regarding research assistance, the gender issue was important too. Being a female researcher myself, I decided to make use of male assistants in order to be able to talk to people about various 'male' research topics. The assistants were selected according to ethnic background, status and attitude, which meant that the respondents would feel more at ease with them.

The thesis

The thesis is divided into four parts. The first provides background to the study, the second and third parts present and analyse the empirical data for Central and South Mali separately, and in the fourth part the findings from the two regions are compared and conclusions are drawn.

In the introductory part, a theoretical framework is designed on the premise of political ecology, in which the mobility of farmers is linked to processes regarding access to land and conflict (Chapter 2). These processes take place in the different regional contexts and attention is paid to the key differences between Central and South Mali regarding three sets of farming conditions, namely the natural environment, demographic trends and regional agricultural development, which are outlined in Chapter 3.

The two subsequent parts on Central Mali (Chapters 4-6) and South Mali (Chapters 7-9) have been set up along similar lines to allow a comparison to be made. First, the various waves of mobility among farmers are considered in relation to changing farming conditions in the specific regional contexts. The thematic maps showing the trends of mobility of farmers over time are also presented, while the connection between the mobility of farmers and access to land is central. And lastly, an extended case study on conflict over land and power is presented.

The focus in the part on Central Mali is first on the harsh environment of the Sahel, which, in combination with other drivers, has been a key factor underlying the farmers' agricultural colonization of a former pastoral zone. The mobility of Dogon farmers is considered in conjunction with the mobility of Fulani agropastoralists in the area (Chapter 4). After this, the way villages put forward claims to land and power today is considered through the use of first-settlement narratives that refer to the (distant) past (Chapter 5). Finally, Chapter 6 presents an intriguing case study about a tense and widespread local conflict over land and power that shows how processes of mobility among farmers, access to land and conflict turn out to be closely intertwined and involve many local actors.

The third part of the thesis moves to South Mali where the context and motives for farmers' mobility are different and more recent. Chapter 7 considers five waves of mobility among farmers from varied ethnic backgrounds and status (either original inhabitants or migrants). After this, there is an examination of how, in a situation of increasing land scarcity, these distinct groups have different access to land and follow different paths of land use that may eventually lead to economic and political polarization and the (recurrent) mobility of marginalized farmers (Chapter 8). Another fierce local conflict over land and power is presented in Chapter 9, this time set against the backdrop of the recent administrative decentralization reforms that blur existing local power positions and urge the original inhabitants to adapt their strategies, which are to the detriment of migrant farmers.

The findings in the two different regions are compared and analysed and conclusions are drawn in Chapter 10. This final chapter also reflects on the (theoretical) implications of the study and the impact of recent events in Mali on the research findings.

2

Linking mobility of farmers with access to land and conflict

The political ecology of mobility of farmers

As was argued in the previous chapter, most studies on either mobility or land use assume that farmers are sedentary. To understand the mobility of farmers, a theoretical framework will be conceptualized to analyse the relationship between the mobility of farmers and local political processes concerning access to land and related conflicts. A point of departure in this framework is that the mobility of farmers influences these local political processes, and *vice versa*. These dynamics are not isolated but take place in farming contexts that are continuously changing (see Raynaut *et al.* 1997). Changing farming conditions are thus seen as the dynamic background against which the interaction between the mobility of farmers and local political processes concerning access to land and related conflicts occur. However, there is more to the story than initially meets the eye. By influencing farmers' mobility, the changing farming conditions also impact on local political processes. This way of looking at farmers' mobility automatically brings us to the field of political ecology.

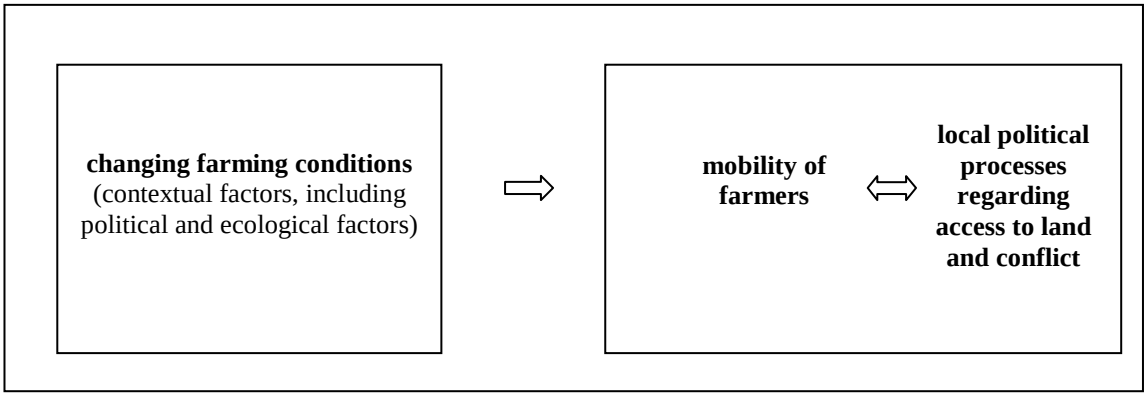
Political ecologists study processes of environmental change (the ecology part of political ecology) and how these processes shape and are shaped by underlying power structures in society (the political part of political ecology). Environmental change is thus considered a political process (Bryant & Bailey 1997: 11) and emphasizes the relationship between people and the environment as interaction, as a two-way process. People 'not only react to their environment but also actively shape and reshape their environment' (de Bruijn & van Dijk 2005b: 9) and the environment is not just an arena where struggles over resource access and

control take place, but a factor that actively shapes and is shaped by human-environmental dynamics as well (Zimmerer & Bassett 2003: 3). The mutual shaping of society and the environment is known as 'co-evolution', a term that originates from biology. In other words, society and the environment both change as a result of their interaction.

Political ecology is a relatively new field of study and has neo-Marxist origins in the 1970s and early 1980s that emerged in reaction to simplistic and a-political neo-Malthusianism (Bryant & Bailey 1997: 10-11, Forsyth 2003: 4). It has close ties with a broad range of sub disciplines within (political) geography, anthropology and sociology but also with history and forestry.[1] It includes various themes at several levels of scale in both western and non-western contexts that all have one main focus in common: human-environmental interactions within a politicized environment (Bryant & Bailey 1997: 28). Topics that are typically dealt with in political ecology can be grouped into four broad categories: degradation and marginalization; environmental conflict; conservation and control; and environmental identities and social movement (Robbins 2004: 13-15). The role of power relationships in mediating access to land is an issue that has gained importance through the work of Blaikie & Brookfield (1987) on land degradation (see also Chapter 1), who are considered the pioneering political ecologists in the regional African context (Logan & Moseley 2004: 4). So far, however, the mobility of farmers and the link with accessing land and conflict have not been an explicit focal point in political ecology.

As it applies to this study, a political ecological framework on the mobility of farmers can be visualized as follows.

Figure 2.1 Political ecological framework of mobility of farmers



[1] See Bryant & Bailey (1997) for a detailed description of the emergence of political ecology as a field of research.

Based on the premises of political ecology, this chapter works out the theoretical relationship between the mobility of farmers on the one hand and local political processes concerning access to land and related conflicts on the other. In doing so, my argument is positioned in relation to the relevant literature. First, I define 'access' and consider the importance of social and political relationships in accessing land. After that, the link between local power and the mobility of farmers is elaborated on, by focusing on the importance and ambiguity of first-settlement, and the strategies this provokes for 'becoming a first-comer'. The relevance of the administrative decentralization reform for local power positions is also considered before exploring what a focus on mobility and local power means for understanding conflict related to access to land. Based on this theoretical framework, the questions in the final section that will guide the subsequent empirical chapters are summarized.

Access to land through social and political relationships

'Access' is a central concept in this study and is mainly inspired by the work of the social anthropologist Sara Berry (1988, 1989a, 1989b, 1993). Based on extensive fieldwork in various African countries, she defines access as the right to use or benefit from a productive resource such as land, labour, capital, social relations and/or knowledge. She distinguishes 'access' from 'control' that, in her terminology, refers to the effective exercise of such rights. In her view, 'access' is related to someone's status or social identity based on descent, age or gender and is regulated through social relations. Such attributes do not automatically produce rights but can be used to legitimize claims (Lund 2011: 74). Social relationships, or 'wealth-in-people', have always been an essential value for African social life (Guyer 1995). Importantly, people need to invest in social relationships continuously to gain or maintain access to resources. Since social relationships are always dynamic, so too is access, Berry argues. Although she explicitly makes a distinction between access and control, she includes a power element in her definition of access as social relationships regulating access are often between people with unequal local power positions. In other words, social relationships that regulate access to land can be considered social and political (or socio-political) relationships.[2]

[2] It should be noted that not only Berry theorized access. For example, Ribot & Peluso (2003) developed a 'theory of access'. While Berry defines access as the *right* to use or benefit from things, they define access as the *ability* to use or benefit from things. In contrast to Berry, they explicitly include power in their definition of access. Access (a bundle of powers) is in their view broader and includes property (a bundle of rights). In addition to property as a mechanism to accessing resources, they identify others too such as technology, capital, markets, labour, knowledge, identities and social relations. More generally, it has to be noted that different scholars from various (sub-)disciplines and working

Berry's understanding of access has several important implications. First of all, it emphasizes that social and political relationships are crucial to accessing land. The emphasis on social and political relationships in accessing land explains why rural people in Africa, who heavily depend on land to build a livelihood, invest so much in social relationships and political positions. Often, people invest more in social relationships than in, for example, physical assets, agricultural technology or soil and water conservation measures (Mazzucato & Niemeijer 2000). Second, the need to invest continuously in socio-political relationships highlights how access refers to a process and not to a single event (Lund 2002, Sikor & Lund 2009).[3] Third, access when seen as a continuous process in which investments are made in socio-political relationships stresses the negotiability of these relationships and the concrete use rights that are its product. Negotiability is even considered a basic characteristic of African society (Berry 1993, Juul & Lund 2002b: 5, Lund 2002, Lentz 2006, 2007). Negotiation in order to access land comprises 'all sorts of tactical and strategic manoeuvres that affect the outcome in terms of changing, transforming or solidifying a land claim' (Lund 2002: 18) and takes place between people with unequal power positions (Peters 2002, Ubink 2008, 2009b).

The recognition of social relationships as being important to accessing land in Africa goes back a long way. Social anthropologists such as Gulliver (1958), Bohannan (1967) and Gluckman (1965) argued that, based on extensive pioneering ethnographic fieldwork in the 1950s and early 1960s, rights to land in Africa should not be understood as a direct man-thing relationship but as a reflection of a man-man (i.e. social) relationship.[4] In Bohannan's (1967: 53) words, '"rights" are attributes of persons against other persons'. This implies that people cannot appropriate land as individuals but that group membership is a prerequisite for accessing it. Accordingly, every group member has a basic right to cultivate a piece of land that belongs to the group, which means that there is an obligation for the chief to provide enough land. 'This then is the principal aspect of African land tenure that can be called communal: the right of every subject to a minimal use of the tribal land' (Gluckman 1965: 80). Shipton (1994) calls this the principle of 'fairness in flexibility', which underlies indigenous tenure systems in Africa. 'According to this principle, access to land should go to those who need and can use it, and no one should starve for special want of it, at least not within a group whose members consider themselves the same people, which usually has meant a kin group or ethnic group' (*Ibid.*: 350).

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on various continents may have different understandings of central terms such as access, rights, claims, entitlements, property and tenure. This makes the vast literature quite fuzzy.

3 See also the influential study by the legal anthropologist Moore (1978) who considers law a process.

4 See also Lund (2002: 12) and Lentz (2006: 1, 2007: 37) who both cite Moore (1998: 33).

If access is to be seen as a process in which socio-political relationships are continuously negotiated, then how should the term 'land' be considered when talking about 'access to land'? Depending on the culture, context and language, the term 'land' may refer to several things such as 'soil and sand, a piece of a map, a political power base, an aspect of divinity, or a resource to be exploited' (Shipton 1994: 348). Anthropologists previously argued that land in the African context should not be understood as something divisible into plots that can be 'held', which is in fact a western perception of land but as 'a spatial dimension of a social group' with people rooted in descent and genealogy (a social map) instead of space (a geographical map) (Bohannan 1967: 59). An important consequence is that land is not a commodity that can be sold on the market. In the same vein, Kopytoff (1987: 22) argues, when referring to the past, that 'African space was above all, social space' and that 'people were relatively indifferent to rootedness in physical space, together with an indifference to a permanent attachment to a particular place'. Its rationale was related to land abundance and the smaller numbers of people in earlier times, which implied a scarcity of labour. Extension of the social group through, for example, slave-raiding was a way of acquiring extra labour. However it can be questioned whether this argument is still valid with today's population growth rates whereby land scarcity seems to be the problem rather than labour scarcity.[5] More recent anthropological studies seem to indicate that, with increasing land pressure, place has gained a greater importance in people's feelings of rootedness (Evers 2002, Spierenburg 2004).

The basic right of every group member in farming societies to use a tract of land belonging to the social group does not mean that each group member has equal rights or guaranteed access. A differentiation is made on the basis of gender, age or status (Berry 1988, 1989a, 1989b, 1993). For example, women and youngsters are two categories that have an inferior position and only have 'derived' rights to farming land (Lavigne Delville *et al.* 2002). Moreover, rights to land have several dimensions and can be found at various levels. Land rights basically figure at two levels of scale: territorial rights at the level of the social group (*droit de feu*),[6] which is often a village but not necessarily, and field rights at the family level (*droit de hache*)[7] (Pélissier 1966). These levels are connected. Rights vested in land are permanent at both levels, which is in contrast to indi-

[5] The question on rootedness in social hierarchy or in physical space is also raised by Lentz in several of her publications (Lentz 2005: 161-162, 2006: 8-9, 2007: 40-41). She argues that boundaries – social boundaries (thus group membership) as well as territorial boundaries – have always been negotiated and contested, also in the past when natural resources were abundant.

[6] *Droit de feu* (French) literally means 'right of fire' and refers to vesting rights in an area by burning the land cover (trees, shrubs).

[7] *Droit de hache* (French) literally means 'right of the hoe' and refers to vesting rights in a field by putting labour there (opening up the field, growing crops).

vidual rights to land that are always temporary, such as the right of a married woman to cultivate a plot allocated to her by her husband. Each level has its own chiefs with land under their control: the village chief manages the village territory, lineage chiefs manage the lineage land, family chiefs manage the family land, etc. In addition, land rights differ with regard to aspects of use and control. The metaphorical 'bundle of rights' (Gluckman 1965) of a group member may range from short-term use rights over permanent rights to the right to complete alienation of land (Shipton 1989, Thébaud 1995). The bundle has several layers, such as the right to use a resource over the long term, the right to control and distribute the harvest or other products of the resource, the right to control how the resource is developed, and the right to coordinate the use of that resource with the use of other resources and interests, for example pastoralists (Crowley 1991, von Benda-Beckmann *et al*. 1997).

With the monetization of rural economies in Africa since colonial times, gaining access to land through group membership (a local practice that is usually associated with customary law) has increasingly encountered other mechanisms, such as market transactions that are regulated by formal property law (which is seen as part of modern state law).[8] The coexistence of several legal (or normative)[9] orders within one social field and at the same time is known as legal pluralism (Griffiths 1986, von Benda-Beckmann 1992). The influential 'evolutionary theory of land rights' predicted that customary rights would automatically evolve into individual property rights due to the influence of increasing population pressure and market integration (cf. Platteau 1996, 2000). This, however, seems not to have happened in West Africa where, despite the growing importance of private land ownership in rapidly expanding (peri-)urban areas (Ubink 2008 for Ghana, Kaag *et al.* 2011 for Senegal) and in irrigation areas, still only 5% of all land is formally titled (Toulmin 2007: 96), which has in part to do with the slow and expensive procedure of land registration (Cotula *et al.* 2004: 3). Berry's (1988, 1989b, 1993, 2006) observation that, despite increasing monetization and privatization, social networks have remained important to channelling access to productive resources in Africa may be more relevant. This does not mean that customary law does not change. For example, land tenure has become more individualized, with land increasingly being held by nuclear families instead of extended families. It is also interesting that hybrid formal-informal forms have developed in various parts of West Africa (Toulmin 2007). In Senegalese cities,

[8] Customary law can be defined as 'law that has emerged in practice and is based on engrained local representations and values' (Abbink 2011: 2). In contrast to such informal regulations, state law consists of formal regulations that have been developed and enforced by state institutions. Customary law is not always traditional, as Berry (1993) argues with reference to examples from various former British colonies in Africa, but was created under colonial rule.

[9] It seems more appropriate to use the term 'normative orders', since 'legal' commonly refers only to state law.

for example, migrants are adapting unwritten rules they are familiar with to the urban context, for example through 'small papers', which, although not strictly legal, provide feelings of tenure security (Hesseling & Eichelsheim 2009, Migot-Adholla & Bruce 1994).[10] Socio-political relationships have thus proved to be a strong and flexible local institution for accessing land that has been able to adapt to changing conditions over time.

The privatization of land rights in Africa is a perennial issue among economists and policymakers that reflects, in part at least, a misunderstanding in informal (or customary) land rights in Africa through group membership and an overestimation of the effects of state law at the local level. It is often assumed that only formal land property rights that are registered in a cadastre can provide tenure security to farmers and facilitate access to credit needed for investments to increase agricultural production (Ubink 2009: 7, cf. Scoones *et al.* 1996). These assumptions are also underlying many titling programmes in developing countries. Various critical studies have, however, shown that formal titles do not provide tenure security *per se* and may in fact even lead to more tenure insecurity, for example among pastoralists (de Zeeuw 1997, Sjaastad & Bromley 1997). In countries with experience in land-titling programmes, such as Kenya, elite groups have benefited in particular, while the most vulnerable groups have lost their rights to the land (Rutten 2008). The registration process itself contributes to a decrease in tenure security as it provokes conflicts (Cotula *et al.* 2004: 3-4). And a disadvantage of formalization is the loss of flexibility, which is otherwise characteristic of informal arrangements. Some are therefore pleading for a hybrid formalization of specific land-use rights for rural people who find themselves in inferior positions (e.g. women, pastoralists, younger men, immigrants). These so-called 'secondary' or 'derived' rights still leave room for adaptation (Toulmin 2007: 99). Moreover, a causal relationship between private land titles and increased agricultural output has not been proven (Migot-Adholla & Bruce 1994: 2). Some critics consequently consider land registration and privatization as an argument used predominantly by government agencies to extend their control over people and resources (Bassett 1993, Bassett & Zuéli 2003: 118). Nevertheless, the assumed advantages of land privatization are still dominant in policy circles.

[10] In reaction to Hesseling & Eichelheim's study, it is argued that urbanization, growing pressure on land and its rising commercial value in Senegal have led to decreasing space for customary rules and state law to coexist and provide flexible solutions, which may involve an intensification of land conflicts and a reduction in tenure security (Kaag *et al.* 2011).

Local hierarchy and the importance of first-settlement

Access to land is closely linked to the mobility of farmers and local power positions in patrilineal farming societies in West Africa, i.e. those organized in kin groups along lines of male descent with a common ancestor (Jansen 1996). Local authority and status are based on seniority and consists of two elements that, when combined, constitute a local power hierarchy. The first rule of seniority states that first-comers in an area (autochthons or original inhabitants) are ranked higher than latecomers (newcomers, migrants, strangers) and a sliding scale in the degree of autochthony is formed, while the second rule is that older men are ranked higher than youngsters within families (Lambert & Sindzingre 1995, Breusers 1999). Every male in the village can thus be placed within the hierarchy, from the oldest men in the first-settled lineages at the top down to young recently settled migrant farmers at the bottom, while women are excluded from local power positions based on seniority. The relationship between a first-comer and latecomer is always relative as someone is a first-comer (autochthon) only *vis-à-vis* a latecomer (migrant), and the other way round. Mobility is at the basis of local hierarchies over time and it is important to consider the order in which the lineages have settled in order to understand who exercises local power.

In patrilineal societies, first-comers have authority over latecomers through the allocation of land. Local chiefs assign the different types of land that belong to the social group. The oldest man in the founding lineage is traditionally the spiritual earth priest. He is the animist village chief and represents the ancestors to whom the land is seen to belong in local perceptions. To reconcile the spirits with whom the founder of the village is believed to have established a pact, the earth priest makes sacrifices in sacred places that are related to the foundation of the village, such as a sacred wood (Venema 1978, Jonckers 1987, Kopytoff 1987: 53, Jespers 1993, Lentz 2005: 157).[11] The tasks of the earth priest are not only ritual but also functional: he allocates virgin land to newcomers and settles land disputes. However with widespread conversion to Islam, and, to a lesser extent, to Christianity, the institution of earth priest is being threatened with extinction. Nowadays it is usually the administrative village chief, who is not necessarily a descendant of the founding family, who exercises these tasks but without making animist sacrifices to the earth. The institution of administrative village chief in Mali, which is the lowest administrative layer, was introduced by the French colonial administration as it needed a local foothold for collecting taxes and recruiting labour. However, a stranger still often has to ‘pay’ a white chicken and a

[11] It is reported that sacred forests in Islamized Minyanka villages in South Mali have been turned into agricultural land (Jonckers 1987: 32).

symbolic amount of cowries or an equivalent in CFA francs to gain access to land.[12]

Land can be allocated by different local chiefs depending on its type and the corresponding tenure regime. While village chiefs allocate virgin land, cultivated land (including fallow) falls under the control of lineage chiefs and family heads. African farmers usually distinguish two types of cultivated land: infields (village fields) and outfields (bush fields) (Toulmin 1992). Infields are small fields near the village and are permanently cultivated because of the application of compost. By contrast, outfields are larger and located further away from the village. Cereals used to be grown here in a shifting cultivation system, i.e. alternating with long fallow periods of up to 30 years. However with the growing pressure on land, the outfields have become more permanently cultivated and fallow periods have been shortened or have even disappeared. In contrast to infields that are, as a rule, indivisible and under the control of lineage chief, outfields (including the fallow parts) are individually controlled by the heads of the nuclear families and can be split up and extended into the bush (Jonckers 1987: 31, Toulmin 1992: 66).

Strangers gain access to land, often a (part of a) fallow outfield, through their relationship with a host, who forms the vital link between a migrant and the new village (Lavigne Delville *et al*. 2002). The host plays an intermediary role in land allocation and remains important to the migrant. For a stranger, it is vital to invest in a good relationship with his host, which includes not provoking him (Bryant & Bailey 1997: 168). In return, the host expects continued loyalty from the stranger. Their relationship can thus be seen as both social and political.

The institution of host, usually called *jaatigui* in African languages and *tutorat* in French, is very common in West Africa.[13] The *jaatigui* facilitates mobility by providing mobile people with an essential attachment outside their own social group. More generally, it can be considered a specific form of patron-client relationship that can be found at various levels throughout Africa (Berry 1993, Guyer 1995, Blundo 1996, Kaag 2001, Chabal 2005, Chauveau 2006, Chauveau & Richards 2008, Bayart 2009). In Ivory Coast for example, the *tutorat* has enabled outsiders, including farmers from the Sahel, to gain access to land in cocoa and coffee areas since colonial times (Chauveau 2006, Chauveau & Richards 2008). Host-stranger relations are also well known among pastoralists, such as the Fulani pastoralists who need a good relationship with sedentary farmers in villages along their transhumance routes to overcome their deeply rooted cultural feelings

[12] In Ivory Coast, however, the symbolic amount of money has become quite substantial in a number of cases. Some village chiefs have enriched themselves with the money newcomers have to pay them to gain permission to establish themselves in the village territory (Chauveau 2006: 225).

[13] *Jaatigui* is a Bamana word that has been adopted in various languages such as Fulani and Wolof. The word for host in the Diola language is *adjiati* (Hesseling & Eichelsheim 2009).

of shame when eating in public or staying with strangers. This type of host-stranger relationship between farmers and pastoralists, in which a central element is the mutual obligation to provide goods, services and protection, will often have been built up over generations (de Bruijn *et al.* 1997). These host-stranger relationships are not restricted to rural areas but also prove to be relevant in the urban context too (Hesseling & Eichelsheim 2009).

A stranger is rarely denied access to land. However, outsiders will never have permanent rights to the land, only temporary usage rights although these may become stronger over time through permanent cultivation. When migrants finally leave the land, it automatically returns to the first occupant. The reclaiming of land by the first occupant and/or the refusal of the migrant to return the land are important sources of conflict at the village level. Many autochthons are therefore increasingly hesitant about giving fallow land to migrants.

The ambiguity of first-settlement

In local hierarchies based on seniority, first-settlement is crucial for holding local power positions, but also highly ambiguous. The work of Kopytoff (1987) is useful in understanding why. He theorizes on why and how local hierarchies in Africa start and the role mobility plays in the process. In doing so, he points out that hamlets are not insignificant places in remote areas but, importantly, have a political meaning.

Kopytoff (*Ibid.*) argues that many recent African societies have started at a 'frontier', which he defines as a geographical area that is politically open ('an institutional vacuum') and where a new social order is shaped (*Ibid.*: 12). From time to time, people are ejected from their villages or driven away by negative incentives such as struggles over land, inheritance issues, political conflicts, accusations of witchcraft and ethnic rivalry. They then go into the bush where they set up a new hamlet. Instead of a total rupture, departure and settlement in a hamlet is often regarded as an elegant solution to local conflicts ('maintaining a continuity amid a break') (*Ibid.*: 19). Over time, these hamlets transform themselves into villages following the enlargement of the group with newcomers (kin, adherents). Villages everywhere in Africa have emerged out of hamlets. When the group of people becomes too large and conflicts arise, people leave and settle in a new hamlet. The mobility of farmers and the establishing of new local hierarchies emerging out of hamlets are thus related and repeated processes.

Conflicts that typically led to group fission and departures were those among half-brothers of one father (a brother-brother relationship called *fadenya*), as Jansen (1996) described for ancient Mande society based on legendary oral traditions in today's West Mali. Often arising after a father's death, these conflicts were about chieftaincy and, as a result, it was the youngest brother who left. He

is considered the warrior who has to move to another village where he gloriously assumes power. The younger brother here is thus associated with mobility and expansion, whereas the oldest brother, who is also highly esteemed, stands for permance and the reproduction of the compound (*Ibid.:* 680).[14]

Departure has not always only been driven by negative push factors. People were also attracted by adventure, economic opportunities and new horizons. Importantly, departure has offered the opportunity to achieve the self-realization of 'being first' and this gives power in a person's life time and will, importantly, allow him to be remembered after his death (Kopytoff 1987: 22).

Being a first-comer in a place presumes that the place is empty. The areas people encroached on and where they set up new hamlets were, however, often already occupied by another group. Sahlins (1961), drawing on examples from the neolithic Tiv farmers in Nigeria and Nuer pastoralists in Sudan, talks about 'predatory expansion', a process he attributes to their loose organizational structure in lineage segments. These are economically and politically independent with social control over their productive resources, land and labour, and they unify only when a common enemy appears on the horizon (*Ibid*.: 323). Due to limited space, the segments compete for land on the borders of the lineage's territory, which pushes people to expand into areas that are already inhabited by others.

According to Kopytoff (1987), two opposing situations could arise in the common situation where newcomers were confronted by others who were already present: either the newcomers seamlessly became part of the existing local hierarchy and no frontier processes took place or they violently overthrew the original people and established their authority. The latter option meant that the original inhabitants were either chased away or their significance was simply reduced as they were integrated into the new hierarchy.

Confrontations between newcomers and first-comers result in farming societies consisting of various categories of people, each with different power claims. Using ancient Yatenga society as an example, Marchal (1983: 267-271) distinguishes three groups: the original inhabitants, the conquerors and the strangers, while the pastoralists are considered 'real' outsiders and are not included. The different groups may still cohabit an area today, each represented by their own chiefs – political chiefs from the group of newcomers (*gens de pouvoir*) and earth priests who represent the group of first-comers (*gens de terre*) and play an important political and ritual role backstage (Izard 1985). The categories are fluid,

[14] In Mande views, *fadenya* is associated with conflict that may cause a segmentation of compounds, contrary to *badenya* (the relationship between brothers of one mother) that represents peaceful cohabitation (Jansen 1996: 661). The relational term *fadenya* can also be used within a genealogy between several patrilineal descent groups. For example, a powerful group may claim the position of 'the youngest brother' amongst other groups. A 'youngest brother' is also associated with a 'stranger' as both are latecomers. This parallel can be made at individual as well as group level (*Ibid*.: 679).

however, as the original inhabitants were possibly once conquerors themselves (*Ibid.*).

Several layers of intrinsically conflicting claims to power and land have thus been established in areas (Fay 1995). Conquerors often simply declared themselves to have been the first-settled and fixed the time of their arrival as the starting point of their settlement history, which legitimized their present power (Kopytoff 1987). Being a first-comer is thus a social construct rather than historical fact. This makes first-settlement or autochthony both ambiguous and contested. As the past is 'misty', no one can reasonably claim to really have been first in a place. When looking further into the past, someone else can always turn out to have settled there earlier (Kopytoff 1987: 56, Geschiere & Jackson 2006).

The paradox of mobility and settlement is reflected in the term 'autochthon'. It literally means 'born from the soil' and suggests being rooted in the soil but refers to a claim to being a first-comer in a place, which presumes movement too (Geschiere & Jackson 2006: 5, Geschiere 2011). Since every autochthon originally comes from elsewhere (Kopytoff 1987), it is impossible to make a sharp distinction between an autochthon and a migrant (Evers 2002, Spierenburg 2004). By presenting himself as a 'son of the soil' or 'master of the land', an autochthon excludes 'the other' (the stranger or migrant).

How to become a first-comer

The ambiguity of first-settlement makes power positions, and the position of an autochthon in particular, variable. An autochthon always risks being 'unmasked' as 'not really belonging' and being classified as 'the other' (Geschiere & Jackson 2006, Geschiere 2011). At the same time, however, the ambiguity of first-settlement also provides room to develop various strategies and to become a first-comer.

In oral contexts, an important strategy towards becoming a first-comer is the narration of settlement histories (Kopytoff 1987, Lentz 2000, 2005). These are used to persuade others of someone's first-settlement. Persuasion is a notion that has been adopted from Rose (1994), who argues that 'property is persuasion'. The oral character of settlement history provides room for multiple versions and competing claims and rarely is there one definitive version.

Oral histories on first-settlement can be considered narratives that people use to assert, defend and contest land claims (Lentz 2005), possibly supported by territorial markers serving as 'evidence'. For example, an earth shrine tells us that the surrounding space was already appropriated by the ancestors (Rose 1994, Lentz 2000). Oral traditions have to be considered as social constructions that reflect the dominant discourse of a group on the past and are relevant to the present (Vansina 1985, Tonkin 1992). Hence, storytellers may manipulate the stories

they tell. In doing so, they renegotiate the past, which serves to legitimate present-day claims and positions (Tonkin 1992, Lentz 2000, 2005, Goheen 1992: 404). Consequently, scholars should be careful with oral traditions and not take them too literally but regard them as hypotheses that need consideration (Vansina 1985: 196).[15] Oral settlement histories, however, are not just used strategically: local people may perceive them as true as settlement histories constitute political realities.

To exercise power or to have authority, power, which is a matter of wielding and yielding, needs to be ascribed (Villareal 1994). This means that a claimant, in order to persuade others of his first-settlement, needs support from other people. Or the claim needs authorization (Lund 2002: 14, Berry 2006: 246) which is a process whereby people grant authorization to the institution that has to legitimate the claim (Sikor & Lund 2009, Lund 2011). To receive authorization, the claimant will have to mobilize his entire socio-political network (Kopytoff 1987, Rose 1994, Berry 2001, Lentz 2005).

Another way of becoming more autochthonous is to actively attach and integrate new, lower-ranked people into a society as a strategy.[16] Local hierarchies based on the principle of double seniority are constructed in a flexible way: every movement in or out the local hierarchy automatically changes the position of others. When strangers arrive (geographical mobility), a new layer is added at the bottom of the local hierarchy, which means that the status of first-comers moves up (social mobility). This is what Kopytoff (1987: 51) calls '"mobility by levitation", in which the rulers were gradually raised higher and higher as new layers of immigrant adherents voluntarily "inserted" themselves under them'. Migrants contribute to a host's prestige (Hesseling & Eichelsheim 2009: 281). In this respect, the aforementioned host-stranger relationships are vital, not only for the stranger to access land but also as a strategy for the autochthonous host to increase his position *vis-à-vis* other autochthons.

Processes of 'autochthonization' are a recurrent theme in anthropological studies across Africa. In addition to persuasion of first-settlement through narratives and the integration of newcomers into a local hierarchy, other strategies are also applied, such as marriage. Strangers, who have been present in a village for a long time, can transform into autochthons by establishing kinship relationships through marriage that are facilitated by ritual collaboration (Breusers 1999: 106).

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[15] It should be noted that although literacy has higher status than orality, it does not make written sources more reliable *per se*. Much depends on the role of any interpreters and informants and on the profession, interests, perceptions, norms and biases of the author (Vansina 1985, Tonkin 1992).

[16] In particular circumstances, it may also be strategic to limit the size of the group or alliance, thus following a strategy of exclusion instead of inclusion, as Schlee (2004: 141-142) shows for the Rendille people in East Africa. This group of pastoralists remains small in response to the expansionist strategies of the Somali pastoralist group living in the area, and has adapted to the limited environmental resources.

'Real' strangers to autochthonous farmers, however, with whom marriage interdictions exist, such as the professional group of blacksmiths and ethnic groups such as Fulani (being pastoralists), will never become an autochthon (*Ibid.*: 117). In the past, strangers in Zimbabwe were easily transformed into 'sons and daughters of the soil' by cultivating in a specific territory: they were 'supposed to [be] honouring the royal ancestor, and [to] participate in rituals devoted to the spirits' (Spierenburg 2004: 16). In Madagascar, where land was abundant until the 1960s, it was also quite easy for a stranger to become a 'master of the land' just by occupying some unclaimed land and establishing a tomb on it (Evers 2002). Under the influence of increased population pressure though (Evers 2002, Spierenburg 2004) and processes of globalization, democratization and decentralization (Geschiere & Jackson 2006, Geschiere 2011), struggles over belonging have intensified and the distinctions between an autochthon and a migrant have become sharper and more relevant (Evers 2002, Spierenburg 2004, Geschiere 2011). This has also been shown in studies in Ivory Coast where, under the influence of the state-led ideology of *Ivoirité*, the distinction between autochthons and outsiders has sharpened (Chauveau 2006, Chauveau & Richards 2008).

Administrative decentralization reform as a new source of power

The various strategies mentioned above to increase local power positions all assign authority to seniority or descent from the first-settler as the basis for holding local power. However there are many alternative sources of power, such as economic wealth, violence and charisma. For this study, the administrative decentralization reform that was implemented in many West-African countries in the 1990s is relevant. With administrative decentralization, certain powers are shifted from the central government to lower levels of the administration, such as the newly formed municipalities that are governed by elected mayors and municipal councils. Their power, which is based on the outcome of democratic elections, is essentially different from traditional local power based on seniority.

The impact of the administrative decentralization reform on local power positions has been discussed in the literature, with questions being raised about the representation and powers of the new local authorities. Are they accountable not only to the state but also to the local population? And what powers have been devolved to the local population (Ribot 1999)? It is argued that locally elected representatives may be weak in Mali as illiteracy is widespread (Kassibo 2001). Some argue that devolving power to existing local authorities can be a way of strengthening their powers to the detriment of the local population (Lavigne Delville 1999). Others question whether the social structure of the village and its traditional power structure in Mali match the new forms of governance (Béridogo 1997).

What is of particular interest to this study is that the local context where administrative decentralization has been introduced is not neutral (Blundo 1996, 1998, Bierschenk & Olivier de Sardan 1997, 1998). A new source of power has been added to what is known as the 'socio-political arena' where certain powers are already being exercised. When new institutions are introduced, old ones do not automatically disappear and multiple power institutions emerge that interact and compete in a flexible and complex way (Kaag 2001). In the same vein, Kassibo (2001) argues that democratic decentralization assumes a shift in power where the roles of different actors are reformulated. However reality is frequently very different and people are not often inclined to give up their status. What is also important is the risk of conflict as administrative decentralization may add a new dimension to the struggle for power. For example, (ethnic) conflict can break out if new territorial boundaries are drawn that do not take into account the various and often competing claims to land and the position of minorities (Blundo 1996, Lentz 2001, Hesseling & van Dijk 2005, van Dijk & Hesseling 2008).

This study is interested in discovering the influence of the introduction of administrative decentralization as a new source of power in local power positions and the relationships between first-comers and latecomers that are crucial to gaining access to land. It also considers how people are using administrative decentralization in their strategies. In other words, how flexible is the institution of seniority in the allocation of local power and what does it mean for the mobility of rural people?

Conflict over access to land

Following the ideas of Berry (1988, 1989a, 1989b, 1993), access to land is a process in which social and political relationships are continuously changing and being negotiated. Conflict not only shows that socio-political relations have come under pressure and need to be re-established but this can also be considered as an alternative way of renegotiating social and political relationships (Lund 2002: 33). This makes conflict an inherent and common element in gaining access to land.

This line of thinking implies that conflict over access to land is not only about the land itself but also about the underlying social and political relationships involved (Blundo 1996, Berry 2001, Kaag 2001, Lund 2002). Conflict over access to land has political dimensions and is multiple-layered with another, often larger power conflict potentially hidden under the surface. What seems to be a struggle over the withdrawal of land may, on closer inspection, include underlying strug-

gles over authority or ethnic tensions. Considering land conflicts as political and multiple-layered is an idea shared by Lund (2002: 11)[17] when he notes:

> We often talk about 'land conflicts', but (...) there is always more at stake. It is never merely a question of land but a question of property, and social and political relationships in a very broad sense. Struggles over property are as much about the scope and constitution of authority as about access to resources.

This is confirmed by Moritz (2006: 21) in his study of farmer-herder conflicts in West Africa:

> In many conflicts political interest plays an important role and farmer-herder conflict functions as a stage for other conflicts, which are only indirectly concerned with natural resources.

The power conflict, including or underlying land issues, can be considered a process with many stages and actors involved over time (Blundo 1994). A process approach to conflict recognizes its historical roots, its possible continuation in the future and its potential transformation. Conflict seen as a process also allows considerable changes in the composition of alliances over time. In conflict analysis it is not only the object that is worthy of note but also the subjects: 'who fights whom and why?' (Schlee 2004). Depending on the context, people may switch from being an ally to an enemy and *vice versa*. The regrouping of alliances in (violent) conflict may be viewed as sometimes *ad hoc* processes of inclusion and exclusion that can surpass ethnic boundaries (*Ibid.*).

The negotiability of social and political relationships also has consequences for people's positions and behaviour and the outcome of the conflict. People involved in conflict may prefer to maintain relationships instead of breaking them off. Maintaining social relationships might offer future opportunities, as a result of which flexible and open-ended solutions are preferred (Berry 1993: 119, Blundo 1994, Kaag 2001). As Berry (1993: 14) explains:

> If access to resources and opportunities depends on one's ability to negotiate, people may be more interested in keeping options open than cutting them off, and in strengthening their ability to participate in and influence negotiations rather than acquiring exclusive control over resources and severing connections which are not immediately profitable (…). Such behaviors are not simply the results of backwardness or altruism. Rather, (...) they reflect people's efforts to keep their options open and to mobilize potential allies and supporters.

Considering a conflict as a social process therefore has important implications for expectations regarding its resolution. For clarity's sake, the terms 'conflict' and 'dispute' can be distinguished. While 'conflict' refers to deeply rooted, long-term and on-going differences between values and interests, 'disputes' can be considered the specific, identifiable episodes that are part of larger continual conflicts and that may flare up from time to time. Applied to this study, it can be argued that conflicts are about social and political relationships, while disputes

[17] See also Sikor & Lund (2009: 2) and Lund (2011: 73).

concern concrete issues, such as land withdrawal. Conflicts over power are often rooted in the past and, with many actors involved, are consequently less easily resolved than disputes (Nicholson 2005: 2-3). In fact, conflicts are often not resolved at all, good relationships are never restored (Colson 1995) and conflict settlement will at most provide a temporary solution that allows any parties involved to continue their relationship for a while (see Lentz 2005). As litigation theory predicts, most disputes are settled by informal local institutions, such as the village chief, while only a minority of all disputes are ever brought before state courts (Galanter 1981, Griffiths 1983). The impact of state court decisions in land disputes is limited, as research in Indonesia has shown, in the sense that the verdict is rarely implemented as intended (von Benda-Beckmann 1984: 31-32). These decisions do however have a jurisprudential effect on the local settlement of subsequent land disputes (*Ibid.*).

Remarkably little attention is paid in the literature on conflict over land in Africa to political conflict amongst farmers. A few important exceptions can be mentioned, such as a study on conflict between first-comers and latecomers in the border region between Ghana and Burkina Faso that points out that first-comers have stronger claims to land and use oral traditions to support their claims and conduct politics (Lentz 2000, 2005). Another example is a comparative study on social change and the roots of violent conflict (in this case, civil war) in Sierra Leone and Ivory Coast, with special attention devoted to rural youngsters' insurgency. It highlights how rural youngsters in Sierra Leone, who were providing labour but had no voice, revolted against their own local leaders (their elders) in an attempt to change the social system. By contrast, in Ivory Coast where the conflict was centred more around the issue of autochthony and *Ivoirité*, rural youngsters who had returned home after migrating due to the adverse economic situation in the 1990s were aiming to preserve their social system and directed their anger towards Sahelian labour migrants who, in their view, were occupying their ancestral land (Chauveau & Richards 2008).

The bulk of the literature on conflict over natural resources in rural Africa concentrates, however, on farmer-herder conflicts. It is often assumed that, with increased land scarcity, the land-use strategies of farmers and herders are no longer compatible (de Haan *et al.* 1990, Moritz 2006: 5, Beeler 2006, Derman *et al*. 2007: 2). This leads to (sometimes violent) tensions over crop damage by cattle (in the farmers' views) and the expansion of fields in grazing areas and their location on cattle tracks heading to water sources (in the herders' eyes). However, many assumptions about farmer-herder conflicts have been challenged by other scholars. The relationship between environmental scarcity and farmer-herder conflict is not simply causal but turns out to be much more complex (Breusers *et al*. 1998, de Bruijn & van Dijk 2005a) and there is no empirical evi-

dence that violent conflict is on the increase (Hussein 1998, Hussein *et al*. 1999). Others have stressed that scarcity in itself does not lead to conflict but may instead produce collaboration (Witsenburg & Wario Roba 2007), the adaption of livelihoods or migration to avoid conflict (Hussein 1998, Hussein *et al*. 1999, de Bruijn & van Dijk 2005a). Moreover, scarcity should be understood in its local context with reference to technology and technological change and with a differentiation between the groups affected. Paradoxically, the level of conflict is relatively low in regions where environmental degradation and resource scarcity can be expected, such as in the Sahel (de Bruijn & van Dijk 2005a: 56-58, cf. Kaboré 2008) whereas increased conflict was reported in periods of resource abundance in Kenya (Witsenburg & Wario Roba 2007). Research has also shown that it is an illusion to think that farmers and herders cohabited peacefully (in symbiosis) in the past and that they now compete for resources. Peaceful cohabitation as well as (violent) competition have always occurred (van Dijk 1996, de Bruijn *et al*. 1997; Breusers *et al.* 1998). Ethnic aspects in conflict may also be overemphasized or even misunderstood. Breusers *et al.* (1998: 368-369), for example, found that Moose farmers and Fulani herders in Burkina Faso exaggerate their differences publicly although in private they may have long-standing relationships based on friendship and trust, with Moose farmers entrusting their cattle to a Fulani herder and Fulani herders leaving their millet with a Moose farmer. Challenging the assumptions underlying farmer-herder conflicts does not mean, however, that these conflicts are not significant. Research in the Ivorian savannah, for example, shows that land-use conflicts between farmers and herders, which occurs at various levels, seriously block the development of integrated crop-livestock farming systems (Bassett 1993).

An interesting question is how to explain the difference between the overwhelming amount of literature on farmer-herder conflicts and the limited attention paid to conflicts among farmers (or among herders). Maybe farmer-herder conflicts are more numerous but precise data are not available. In part, this could again be a methodological issue (see Chapter 1). Many farmer-herder conflicts are described by researchers that have a herders' perspective, in part because pastoral systems in West Africa are increasingly under threat. In this case, research may be biased (Moritz 2006: 14, see Chambers 1991). Another explanation is related to the focus of this study. As farmers' mobility is frequently overlooked in research, conflict between farmers is likely to be ignored too, except for disputes over land withdrawal that constitute the surface layer of conflicts only. To observe and unravel larger power conflicts, extensive and careful in-depth study is needed rather than 'quick and dirty' research methods (see Chambers 1991).

Conclusions

Based on the premises of political ecology, the mobility of farmers can be considered in relation to two different sets of factors that are assumed to interact, namely changing farming conditions and local political processes regarding access to land and conflict. A theoretical relationship has been constructed in this chapter between the mobility of farmers and these local political processes.

Land in West Africa is embedded in local social and political relationships. Access to it is regulated within local power hierarchies that are constituted on the basis of double seniority, which means that first-comers (autochthons) are ranked higher than latecomers (migrants) and, within families, elderly people are ranked higher than youngsters. Through the principle of seniority, the mobility of farmers constitutes local power relations that are constructed around land. Higher-ranked people have authority over people ranked lower through the allocation of land, a process that is under their control. To access land, people therefore need to continuously invest in and negotiate their social and political relationships. For migrants, their relationship with a host can be vital as it is a means by which they may be allocated farming land.

Since a local power hierarchy is never stable due to the ambiguity of first-settlement and people moving in and out of the local hierarchy, people develop strategies to become a first-comer. Important strategies are persuasion of first-settlement through oral histories (narratives) and the creation of support groups including the establishment of host-stranger relationships. Also relevant here is the introduction of administration decentralization as a new political arena.

Since local power positions are continuously being negotiated, conflict is an important element in local political processes concerning land. Conflicts over access to land are not only about land itself but also include long-running disputes involving local power. Conflicts concerning access to land are multi-layered and are processes with many stages, various actors and no immediate end expected in the near future.

The manner in which the interaction between farmers' mobility and local political processes of access to land and conflict develops in two regions with different farming conditions is central in this political ecological study. How are local power relationships between first-comers and latecomers constructed around land? How do autochthons and migrants negotiate their social and political relationships and what does this mean for their mobility? To what extent is first-settlement ambiguous? What is the political meaning of farming hamlets? What strategies do autochthons deploy to become a first-comer and what is the role of oral settlement histories? How does administrative decentralization influence existing local power positions based on seniority and relations between autochthons and migrants? How do conflicts over access to land as a process evolve

and who is involved? What are the positions of autochthons and migrants in conflicts over access to land and what does conflict mean for their relationship?

By taking the mobility of farmers as a point of departure, in contrast to their commonly presumed sedentarity, and by considering the influence of different regional farming contexts, this political ecological study aims to contribute to the theoretical debate on accessing land and conflicts emerging from it. By focusing on the socio-political relations through which local access to land is mediated, and situating these processes against the backdrop of changing farming conditions, it will not only be shown that farmers' mobility and local political relations to accessing land are closely intertwined and that their interaction is intrinsically characterized by a high level of conflict, but also that this interaction is influenced by contextual and constantly changing farming conditions. This makes farmers' mobility a repetitive and reinforcing process that is highly relevant to on-going processes of economic marginalization and decreasing food security for the majority of the rural poor.

3

Regional variation in farming conditions

Introduction

The political-ecological framework developed in this study to understand the mobility of farmers in relation to local political processes regarding access to land and conflict identified farming conditions as the main drivers influencing these processes. Farming conditions (including political and ecological factors) are varied, are shaped at various levels and change over time (see Raynaut *et al.* 1997). They are largely beyond the sphere of influence of individual farmers who respond by adopting one of the options in their repertoire, namely mobility.

Conditions for farming are different in Central and South Mali but can be grouped in three broad themes: (1) the natural environment; (2) demographic trends; and (3) regional agricultural development. As will be seen in later chapters, the key differences in the farming conditions in the two regions have shaped the forms of mobility in time and place.

This chapter focuses first on the natural environment as an enabling and constraining factor when practising agriculture. Climate and rainfall patterns, soil characteristics and the availability of drinking water are all considered, as are demographic trends. We will then reflect on the influence of agricultural development policies in the two regions. For South Mali, the focus will be on cotton growing and regional agricultural developments that were put in place by the parastatal cotton company. And the last section examines legislation (i.e. state law) concerning the use of natural resources and how it affects the two regions.

Natural environment

Climate and rainfall

Agriculture in Mali is mainly rain-fed, which makes sufficient and timely rainfall the most important condition for agriculture. Annual rainfall in Mali ranges from

less than 100 mm in the northernmost areas to about 1400 mm in the extreme south. Accordingly, several broad climate zones can be distinguished: the northern arid Sahara zone, the semi-arid Sahel zone in Central Mali, the more sub-humid Sudan-Sahelian zone and the southern Sudan-Guinean zone.

The present study was conducted in two different climate zones: semi-arid Central Mali (Douentza District) and sub-humid South Mali (Koutiala District). Mean annual rainfall In Douentza District is low and erratic (between 300 mm and 600 mm) and is concentrated in a single rainy season that lasts from June to September (i.e. three to four months). By contrast, the Koutiala area receives higher annual rainfall (about 900-1000 mm) that is less variable and is spread over a longer rainy season lasting from May to October (i.e. about six months). In Mali, the annual rainy season is followed by a dry season, first a relatively cool and then a very hot dry period when the Saharan *harmattan* wind blows. Evaporation is high in both areas due to high temperatures.

While the 1950s and early 1960s were relatively wet, mean annual rainfall has decreased in Mali since then (Hijkoop *et al.* 1991: 21 for South Mali), with notorious droughts occurring in the early 1970s and mid-1980s, although rainfall figures appeared to recover in the late 1990s (Dietz *et al.* 2001, 2004).[1] At the same time, rainfall variability has increased, in particular in Central Mali (Put *et al.* 2004). A decrease in mean annual rainfall is disadvantageous for farmers but not necessarily disastrous as African farmers are able to adapt to a certain extent, for example by growing crop varieties with a shorter cycle (de Bruijn & van Dijk 1995, Scoones 1996, Mortimore & Adams 1999, Dietz *et al.* 2004, de Bruijn *et al.* 2005). What is more problematic is increased rainfall variability, which comprises two elements. First, total annual rainfall has become more variable from one year to the next (inter-annual variation). For example, annual rainfall In Central Mali may vary by up to 40% from the long-term average (de Bruijn & van Dijk 2004: 140). Second, its distribution became more irregular in time and space (intra-seasonal variation) within one year. As a result, droughts occur more frequently between and within years and the amount of rainfall may vary significantly from one place to another, even over short distances.[2] Sudden flooding after heavy downpours is now also a more frequent occurrence.

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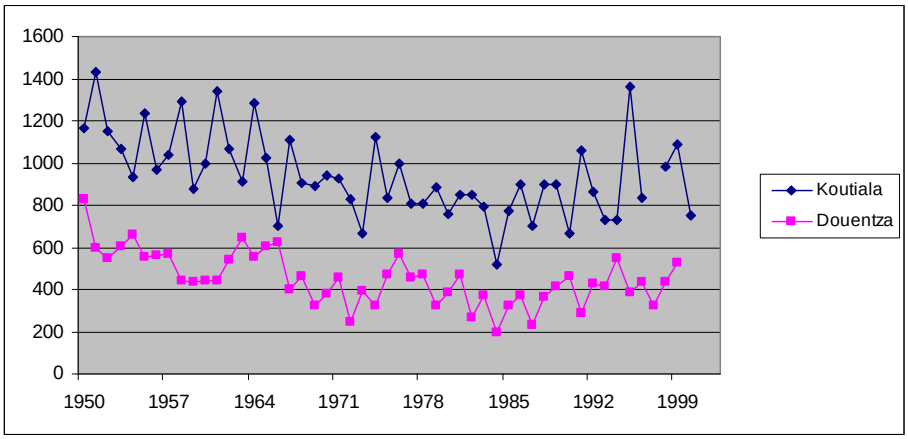
1 Between 1927 and 1970, mean annual rainfall in Douentza Town was 508 mm and was spread over 40.3 days (Gallais 1975: 11, 16). Extremes were measured in 1950 (839 mm) and 1972 (239 mm). Dry periods were recorded in 1931-1933, 1937-1938, 1940-1941 and 1965-1972, while wet periods were recorded in 1935-1936, 1950-1954 and 1957-1958 *(Ibid*.: 20).

2 For example, on 29 August 2002, Malian radio announced that 51 mm of rain had fallen in Douentza Town, while in Petaka Village, which is only 10 km to the east, 105 mm had fallen and mud houses, as well as the mosque, had collapsed as a result of the heavy rain.

Figure 3.1 Annual rainfall (in mm) in Koutiala (South Mali) and Douentza (Central Mali) (1950-2002)



Source: Data adapted from ESPGRN (Sikasso) and SLACAER (Douentza)

Increased rainfall variability makes farming risky and can leave rural people vulnerable. In South Mali, there is sufficient rainfall to grow cotton as a major cash crop in addition to a variety of cereals, and rural families are usually food secure with a cereal stock of one to two years. By contrast, Central Mali is characterized by chronic food insecurity that can lead to famine in successive bad years (Davies 1996) and many families struggle to produce sufficient food from one year to the next. Near-famines are common. If harvests fail, the people have to look for alternatives in the bush, such as the bitter fruits of the *gigile* tree (*Boscia senegalensis*), wild fonio (*Panicum laetum*) and the kernels of a spiny grass known locally as *cram-cram* or *kebbe* (*Cenchrus biflorus*). Or they move away from the area. The notorious Sahel droughts in 1973-1974 and 1984-1985 resulted in food emergency aid being donated to Mali for the first time (Davies 1996: 84). The 1984-1985 drought hit the region particularly severely: cereal and livestock production was halved and while families already had to buy 40% of their food in better years, this figure now rose to 60% (Findley 1994). A longitudinal study of rural people's responses to the 1983-1985 drought in the Kayes Region in West Mali showed that short-cycle circulations of labour (with an absence of one to six months) increased around this time (Findley 1994).

Soil and water

In addition to rainfall conditions, other important natural factors that influence farming practices are agro-ecological aspects, such as soil properties and the availability of drinking water. The research area in Central Mali is an old eroded sandstone landscape made up of plains that are adjacent to the nothernmost part of the impressive Bandiagara Escarpment (*Falaise de Bandiagara*), which stretches 200 km in a southwest-northeast direction and was listed as a UNESCO

World Heritage site in 1989. There is sparse vegetation on the sandstone escarpment, which is barely suitable for agriculture. Tree species along the top of the plateau and the escarpment include *Combretum glutinosum, Sclerocarya birrea, Piliostigma reticulatum, Vitellaria paradox* and *Acacia seyal.* The common grass species here are *Schoenefeldia gracilis* and *Andropogon gayanus.*

The plains form three distinct agro-ecological zones. The northern part, called *Ferro*, is sandstone covered with clay soils that were deposited a very long time and originate from previous inner seas in the Sahara Desert. In the southern part, called *Seeno Manngo*[3] or Seeno in short, the sandstone is covered with eolic sand from the south that was deposited during the Quaternary Period (the last Ice Age) and then formed dunes. In-between is a transition zone where clay deposits from the north are mixed with the eolic sand deposits from the south. As a result, the transition zone consists of intermediate soils (Seijmonsbergen 2002) (see Map 1.2).

The two research villages of Okoyeri Dogon and Douma are in different agro-ecological zones. Dogon Okoyeri is at the bottom of the Bandiagara Escarpment where it reaches its highest point of 800 m. In the one-to-two km valley of loam-clay soils between the village and the first row of dunes, the intensively cultivated village fields of Okoyeri Dogon can be found as well as an ancient cattle and caravan (trade) track along the escarpment that is still demarcated with old planted hedges of *Euphorbia*. Douma is in the western foothills of a (much lower) inselberg on Ferro clayey soils. Farmers' village fields are located to the south, west and north of the inselberg, as are areas for young cattle.

The three agro-ecological zones differ in their land-use patterns. The land-use potential of the clayey Ferro is mainly restricted to pasture, with some grasses and trees. The vegetation on the Ferro is dominated by trees and dense bush in a tiger-skin pattern (*brousse tigrée*), which makes the area particularly suitable for browsers, such as goats. The common vegetation on the Ferro is *Pterocarpus lucens, Boscia senegalensis, Combretum micranthum, Acacia seyal* and *Schoenefeldia gracilis.* A large area southeast of the inselberg is open and covered with gravel because it was an iron-mining and smelting site in the past. Many trees died in the 1984-1985 drought and species, such as the baobab (*Adansonia digitata*), *Pterocarpus lucens, Sclerocarya birrea* and *Grewia spp*., disappeared then or their numbers decreased significantly, which explains why there is a lot of dead wood still lying around (van Dijk pers. comm., de Bruijn & van Dijk 1995: 117). The chemical properties of the clayey soils make them suitable for agriculture but their physical properties (low water-retention capacity) make

[3] Adjacent to the 200 km long Bandiagara Escarpment are the sandy plains called *Seeno Gonndo* (in the south) and *Seeno Manngo* (in the north). *Seeno Gonndo* literally means 'the great sand' in Fulani, while *Seeno Manngo* means 'the other sand'.

them very sensitive to rainfall variations. Too much rain results in stagnant water and flooding, while rainfall shortages rapidly lead to cracks in the soil and seeds not germinating. Clayey soils are also harder to work.

The Seeno dune area in the south that stretches into Burkina Faso was originally pasture for grazers such as cattle and sheep. It is an open landscape with dunes that are covered with both annual grasses (*Diheteropogon hagerupii*) and perennial grasses (*Aristida ssp*.) of excellent quality (Gallais 1975: 136, de Bruijn & van Dijk 1995: 116) and *Combretum glutinosum* shrubs and the spiny *Cenchrus biflorus.* The edges of the dune area are increasingly being used for agriculture, especially the valleys between the dunes that contain more clay and are more humid than the tops of the dunes that have very low soil fertility and poor water-storage capacity due to the low clay content of the soil. In comparison with the clayey soils, the sandy soils are easier to work.

The transition zone where the clayey Ferro area gradually turns into the sandy Seeno dune area is favourable for both farming and herding. Soil fertility and the water-retention capacity of the mixed clay-sand soils are ideal for farming, while the grass is of excellent quality for livestock.

The three agro-ecological zones offer different possibilities concerning the provision of drinking water. Drinking water is a major problem in these drylands due to low rainfall and groundwater tables that are up to 90 m deep in the sandy dune area, which makes the construction of wells and boreholes complicated and costly. The lack of permanent drinking water provision is a major constraint for both farming and cattle keeping. Large, modern wells and boreholes are scarce and only located near villages where groundwater levels are higher.[4] Small, traditional wells are more numerous in the villages, but these are often unreliable due to contaminated water, for example because an animal has fallen into the water or stones in the well shaft that prevent the drawing of water. In the Seeno Mangho, there is only one functional borehole and it is located further south outside the research area,[5] and there is one modern well on the Ferro. In the clay-sand transition zone, efforts have been made to dig modern wells or drill boreholes (see below), but these were all unsuccessful except for a borehole constructed in the late 1990s in the Wayre area.[6] Although the quality of water from a borehole

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[4] Douma has a functioning borehole, four modern operational wells and six small, traditional wells, while Okoyeri Dogon has a borehole and 19 small, traditional wells, of which only five are operational. A reliable, modern well with a large diameter and that provides drinking water all year is to be found in Bamguel, about 10 km south of Okoyeri Dogon.

[5] A small and disputed water basin was constructed in Okoyeri territory in the 1990s too (see Chapter 5).

[6] In the Kampije area, a well was dug in 1970 to a depth of 72 m, but it has never provided sufficient water due to the stones at the bottom. Another well was dug in the Wayre area in 1978, but the quality of its water is quite poor due to a high salt content. In the Coofi area, a borehole at a depth of 86 m was dug in the early 1990s but it broke down in 1998 and has never been repaired. And a borehole

is better than that from a well, rural people usually prefer modern wells because boreholes often break down and require maintenance and repairs by specialized technical experts from town.[7]

The most important sources of water for people and livestock are the many pools in the clay-sand transition zone and on the Ferro that, thanks to the impenetrable underground clay, fill with stagnant rainwater during the rainy season (see Map 3.1). The quality of the muddy water, however, is bad and diseases, such as the widespread Guinea worm (*dracunculiasis*), are prevalent. The pools dry up in the course of the dry season but the speed with which this happens depends on the amount of rainfall received and the soil type.[8] Water levels in the wells then also drop. At the start of the dry season, large herds therefore move to more humid areas, usually the dry-season pastures in the Inner Niger Delta about 100 km to the west. The migratory movement of pastoralists and their herds between two areas is called transhumance.

ODEM

The few improved wells and boreholes in the area have been mainly constructed by the parastatal *Opération de Développement de l'Elevage de la Région de Mopti* (ODEM). It was set up after the droughts in the early 1970s and became operational between 1976 and 1991 thanks to state and donor funding. ODEM was charged with constructing modern wells and boreholes in the entire Seeno Manngo,[9] with the primary aim of improving animal health in its initial stages. Attempts were thus made to construct boreholes and wells and to deepen seasonal ponds on the northern and southern fringes of the Seeno Manngo. However, the project largely failed as the number of permanent water provisioning places realized was much lower than intended, partly because the groundwater depth was underestimated. And many of the sites broke down and were never repaired. In the second stage of the project, an additional focus was on local participation with the establishment of pastoral associations, but this part of the project also failed due to a lack of social cohesion among the mobile pastoralists (Pallier 1996, de Bruijn & van Dijk 1995: 465-495) and because the project was not based on a sound risk analysis of the area itself. The Seeno Manngo was just appointed to serve as an overspill area for the Inner Niger Delta that was supposedly overgrazed. Wells and boreholes thus had to be constructed in the Seeno Manngo to enable cattle to remain there all year. After ODEM ceased operations in 1991 (when donors stopped funding due to disappointing results), various NGOs, such as the Near East Foundation (NEF) based in Douentza, took over its hydraulic tasks in the area (de Bruijn & van Dijk 1995: 465-495). NGOs are often reluctant to construct wells in rural areas though as they easily provoke conflicting claims and generate conflicts over land.

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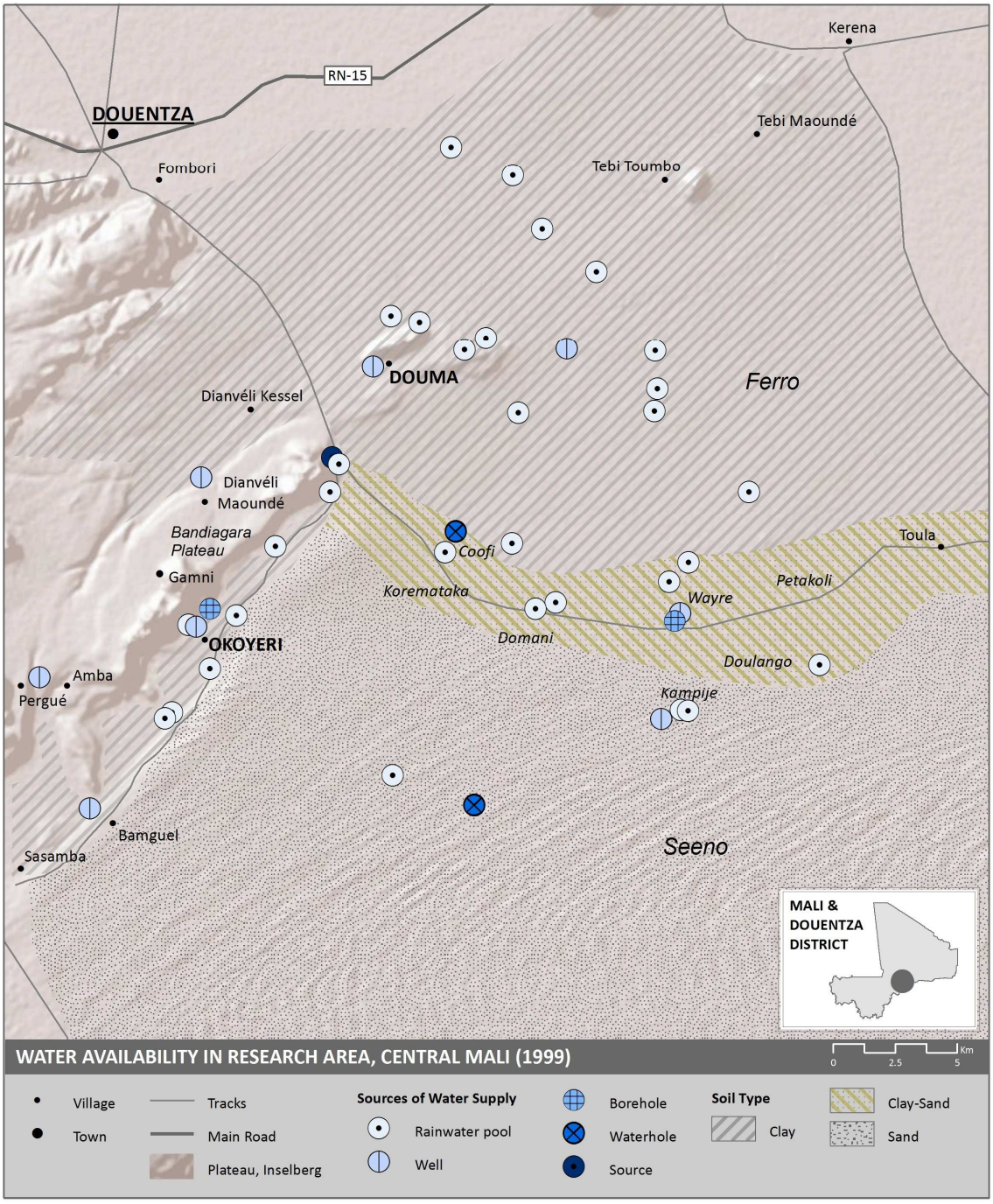
constructed in the Domani area also broke down and is still not operational. At the time of fieldwork in 1999, only the Wayre area had a functioning borehole.

7 Constructing a modern well is more expensive than drilling a borehole. A well costs about FCFA 150,000 (EUR 230) per linear metre depth, which means that a total budget of more than EUR 20,000 is required for a well 90 m deep (Modibo Goita, head of USC/Canada-GAT, a Canadian-funded NGO in Douentza, December 2000).

8 In the dry season, the ponds are covered with a layer of clay to prevent the infiltration of rainwater.

9 Unlike the parastatal ODEM, NGOs are only allowed to work in official villages and not in hamlets or camps as these are not administratively recognized units. Initially, the state also intervened in the area through *Opérations puits*, but since 1986 only ODEM has been working there (de Bruijn & van Dijk 1995: 466, Pallier 1996).

Map 3.1 Water availability, Central Mali (1999)



In Koutiala District in South Mali, the agro-ecological characteristics and drinking-water provisioning are very different. The landscape is quite flat with valleys and lowlands interrupted by meandering sloping plateaux of up to 30 m. Fields are flat or have gentle slopes with a rise of less than 2% (Bodnár 2005: 34). Villages are located in broad, relatively fertile valleys near small rivers. Unlike the plateaux and slopes that are covered with thin layers of gravel and sandy

soils with a very restricted capacity when it comes to retaining soil humidity, the valleys and lowlands with mixed sand-clay soils (loamy sand) are suitable for agriculture. An estimated 42% of all land in southern Mali is arable (Hijkoop *et al.* 1991). However, low-lying areas risk flooding and mud huts can collapse during periods of heavy rain. In the relatively wet 1950s and early 1960s, many farmers were forced to abandon their fields in the lowlands and cultivate higher up the slopes. The slopes of the plateaux are subject to soil erosion and efforts to fight this by the CMDT cotton company (*Compagnie Malienne de Développement des Textiles*) by constructing stone bunds and planting bushes (*Euphorbia balsamifera*) horizontally along the slopes were undertaken between 1986 and 2002 (van Campen 1991, Guindo & van Campen 1994, Bodnár 2005). Notwithstanding the unfavourable soil conditions for farming on the plateaux, the land there has increasingly been opened up since the 1990s.

In contrast to the situation in Central Mali, drinking water is not a problem for the rural population in Koutiala District. Water is plentiful in the many small rivers in the region and groundwater is at only 5-10 m in many of the numerous wells. These are not only situated in the villages but all across the village territories near the hamlets. After independence in 1960, the construction of wells in Mali outside villages was encouraged by a change in legislation that stipulated that it was no longer the privilege of the village chief to dig wells (Toulmin 1992: 34, 142).

In summary, the natural conditions for farming are more favourable in South Mali than in Central Mali, due to better rainfall conditions and the availability of drinking water. Soil erosion is, however, a problem that threatens agricultural production in South Mali.

Demographic trends

Mali had an official population of 14.5 million in 2009, about 90% of whom lived in the southern part of the country, including the capital city Bamako (1.8 million). Only 10% of the population live in the northern part of the country. Over the past decades, the population has grown due to the combination of a sharp decline in mortality rates and a high birth rate, and because Mali has recently seen net immigration, which is likely to be related to conflicts in neighbouring countries (Toure n.d.). Between 1998 and 2009, the Malian population grew rapidly by an average of 3.6% per year. The population is predominantly young with 47% aged under 15 and only 3% are over 65 years of age. Malian women give birth to an average of 6.6 children, although child mortality rates are high, with 18% of children dying before they reach the age of 5. The life expectancy is 53. A continuation of the 3.6% annual growth rate would mean that the

Table 3.1 Mali's annual population growth rate (1976-2009)

Period	annual growth rate (%)
1976-1987	1.7%
1987-1998	2.2%
1998-2009	3.6%

Source: Instat (2010)

Table 3.2 Population figures for Mopti and Sikasso Regions (in millions) (1976-2009)

Region/year	1976	1987	1998	2009
Mopti	1.1	1.3	1.5	2.0
Sikasso	1.1	1.3	1.8	2.6
Mali total	6.4	7.7	9.8	14.5

Source: Instat (2010)

population will double within twenty years (i.e. to 30 million people in 2029), which will impact tremendously on Malian society if no measures are taken to curtail this growth (Instat 2010).

The population grew at a different rate in South Mali (Sikasso Region) over the past decades than in Central Mali (Mopti Region). While the official population of the two regions was still more or less similar in 1976 and 1987, the annual population growth rate in Central Mali was 3% between 1998 and 2009 and it was even higher in South Mali at 3.6% (Instat 2010).[10]

When considering data at district (*cercle*) and municipal (*commune*) levels, the differences are even more extreme. Koutiala District (12,270 km²) has one of the fastest-growing populations in Mali. While the annual population growth in the rural areas of Koutiala District was already 3.2% between 1967 and 1998 (Benjaminsen 2001: 284), it has been even higher since then in the two rural municipalities where the research villages are located. Between 1998 and 2009, annual growth was 7.5% in Kolonigue Municipality (Mperesso Village) and 8.2% in N'Gountjina Municipality (Finkoloni Village) (Instat 2010). These spectacular growth rates mean that the population doubled in only eleven years. The enormous growth rate in Koutiala District is not only due to a natural increase (births exceeding deaths) but certainly also to significant immigration into the area, not only to booming Koutiala Town but also to the rural areas. As a result, the average population density in the rural areas of Koutiala District has increased from 14 people per km² in 1976 to 36 in 2009. The overall average population density for Koutiala District was 66 people per km² in 2009.

[10] Since 1976, there has been a population census every eleven years in Mali.

Table 3.3 Population figures and density, Koutiala District, South Mali (1976-2009)

	1976	1987	1998	2009
Population (including Koutiala Town)	200,019	286,244	374,776	580,453
Population figures for rural areas	175,522	233,630	301,661	439,009
Population density in rural areas (inhabitants/km)	14	19	25	36

Sources: Malian census data, Cissé (1993: 21-22), Benjaminsen (2001: 284), Instat (2010)

Table 3.4 Population figures for Mperesso and Finkoloni, South Mali (1960-2001)

	1960	1976	1987	1998	2001	2009 (*est.*)
Mperesso	160[1]	370[1]	457[2]	649[2]	896[2]	1383
Finkoloni	n.a.	1004[3]	1136[3]	1289[3]	1907[3]	3583

Sources: Fieldwork data (2001),[1] census data[2] and CMDT data[3]

Population data were collected during fieldwork at the village level for the 1960-2001 period. These data confirm that population growth has accelerated, particularly in the last five years (1996-2001). Data at village level after 2001 (when this fieldwork stopped) are not available but can be estimated based on annual municipality growth rates (7.5% for Mperesso and 8.2% for Finkoloni).

Compared to South Mali, it has proved to be much more difficult to provide (reliable) data on demographic trends for Central Mali, in particular at the lower administrative levels. An important reason, apart from the fact that census data are not systematically kept in the archives and population figures are underreported due to the poll tax, is the high mobility rate among people in the region that distorts statistics. Many rural people reside (at least a part of the year) in places other than where they are officially registered.

When considering the 2009 district census data, population growth was very high in comparison to the situation in 1998. While the population had grown 1.5 times in Koro District (in which the two Okoyeris are officially located), it was 1.7 times in Douentza District (where Douma is located). The average population density in Koro District (10,937 km²) is relatively high (33 inhabitants/km²), which is probably due to the intensively inhabited plains in the southern part of

Table 3.5 Population figures and density, Koro District, Central Mali (1987-2009)

	1987	1998	2009
Total population (all in rural areas)	193,625	241,888	362,587
Population density in rural areas (inhabitants/km²)	18	22	33

Sources: Malian census data, Instat (2010)

Table 3.6 Population figures and density, Douentza District, Central Mali (1987-2009)

	1987	1998	2009
Total population	n.a.	148,869	246,625
Population in rural areas	n.a.	n.a.	222,620
Population density in rural areas (inhabitants/km²)	n.a.	6	11

Sources: Malian census data, Instat (2010)

the district. However, it is estimated that population densities are much lower in the northernmost part where Okoyeri Dogon is located. The population density in Douentza District (23,481 km²), where Douma Village is located, is only 11 inhabitants/km².

At the municipal level in 2009, the official annual population growth was 2.6% in Diankabou Municipality (Okoyeri Peul Village) and 3.2% in Kassa Municipality (Okoyeri Dogon Village). The indicated growth of 5.4% in Kerena Municipality (Douma Village) is probably incorrect as it does not match with the 1998 census data.[11]

When considering the village census data, it would appear that the population has increased only slowly over time. It should be noted, however, that these data are likely to be inaccurate due to the high level of mobility among the population. Since the 1980s, the population of Okoyeri Peul has been permanently dispersed and many farmers from Okoyeri Dogon have been living in their rainy-season hamlets. In addition, the numbers of transhumant agropastoralists in Douma may vary widely within any given year. A study in Douma showed that its population fluctuated from 664 in the dry season (March 2002) to more than 5000 in the rainy season (Benjamin 2004: 174). Moreover, the present study shows that

Table 3.7 Population figures for Douma, Okoyeri Peul and Okoyeri Dogon, Central Mali (1953-1998)

	1953	1958	1976	1980	1987	1998
Douma	n.a.	n.a.	n.a.	n.a.	n.a.	4944
Okoyeri Peul	n.a.	n.a.	874	975	1008	1444
Okoyeri Dogon	408	479	548	589	n.a.	667

Sources: Malian census data, village census books

[11] According to Instat (2010), the population of Kerena Municipality (that is made up of Douma Village, Kerena Village and a tiny village called Tébi Toumbo) rose between 1998 and 2009 from 1849 to 3289, which is an annual growth rate of 5.4%. However, according to the earlier 1998 census data, Douma Village alone had 4944 inhabitants and Kerena Municipality had 8601 inhabitants in total. It is probable that these low numbers were in fact for Kerena *Village* instead of Kerena *Municipality*.

many Dogon farmers from outside the area are living in farming hamlets in the research area during the rainy season but they are registered in their villages of origin.

It can be concluded that, although the reliability of the data is questionable, in particular that for Central Mali where people are very mobile, the growth rate and density of the population in South Mali are higher than in Central Mali. Population growth is extremely high in Koutiala District (South Mali) where the research villages are located. This was already the situation during my 1999-2002 fieldwork period but it has since accelerated. The contrast in demographic trends between the two regions has thus increased.

Regional agricultural development policies

Farming conditions in Central and South Mali are not only different with respect to natural and demographic factors but also regarding the agricultural development policies that have targeted Malian regions differently since colonial times. While agricultural development has been supported in South Mali for a long time, interventions in Central Mali have been almost non-existent and the rural population there has always had to rely on themselves. The various agricultural policies will be considered in this chapter against the backdrop of successive political regimes in Mali during colonial and post-colonial times.

The colonial period

Mali was a French colony from 1893 until 1960. It was called French Sudan (*Soudan Français*) from 1904 onwards and, with other French colonies in the region, belonged to French West Africa (*Afrique Occidentale Française*, AOF).[12] Agricultural production came under the direct control of the colonial administration, which was strongly based on centralism. The French were in fact only interested in the development of cash crops and did not focus on areas with low prospects (Toulmin 1992: 24), although seed banks were set up in the whole of French Sudan from the outset. These were later transformed into cereal banks and credit schemes for agricultural equipment (Hilhorst & Toulmin 2000: 9).

Cotton can be grown in the Sudan-Guinean climate zone of West Africa where the annual rainfall is between 750 mm and 1400 mm (Bassett 2008: 46). Due to its favourable rainfall conditions, the southern part of French Sudan was considered suitable for growing cotton to serve the French textile industry.[13] Even in pre-colonial Mali, cotton was produced as a cash crop, but for regional textile

[12] The capital of French West Africa was first Saint-Louis and later Dakar (both in present-day Senegal).

[13] In addition to southern Mali, the French promoted cotton growing in areas that are nowadays situated in northern Ivory Coast, southwestern Burkina Faso, northern Benin, northern Cameroon and southern Chad.

production only. Efforts by the French to expand cotton production significantly in the first decades of colonization failed. Even forcing villages to produce a fixed amount of cotton every year did not increase production structurally. The setting up of extension services to modernize agricultural production and the forced introduction of ploughs in the 1920s were also unsuccessful initiatives (Hilhorst & Toulmin 2000) because the flourishing local cotton market offered farmers better prices than the French did. A breakthrough came only later, around 1950, with the development of a high-yielding cotton variety, new pesticides and institutional reform (Roberts 1996, Benjaminsen 2001b, see also Bassett 2001: 59 for Ivory Coast). The newly established CFDT (*Compagnie Française de Développement des Fibres Textiles*) that was set up in conjunction with the IRCT research institute (*Institut de Recherches du Coton et des Textiles exotiques*) offered farmers a package that included the delivery of cotton seeds and subsidized inputs (chemical fertilizers and pesticides) on credit, access to credit for agricultural equipment, agricultural advice by local extension agents (since cotton growing demands a strict cropping calendar and the correct use of chemical inputs) and the guaranteed purchase of their cotton at attractive prices that were fixed in advance. In claiming a monopsony position (one buyer) in return for the package, the CFDT was finally able to eradicate the local cotton market and substantially increase cotton production (Roberts 1996, Bassett 2001).

Like most colonial regimes, the French colonial administration was notorious for its forced labour, for example in road construction, in addition to the aforementioned forced agricultural production. Labourers from all over French West Africa were recruited to work on the only major public works programme that the French set up through the *Office de la Haute Vallée du Niger* (OHVN or Office du Niger in short) in French Sudan in 1932, namely the irrigation scheme in Niono in Ségou Region. The scheme was initially meant for irrigated cotton cultivation but ambitions switched to large-scale rice cultivation in the 1960s (Dembélé *et al.* 2001: 85). The idea was to construct a canal system to irrigate a vast area of 1.2 m ha of land and to resettle 1.5 m people, but the work proceeded much more slowly than had been expected. The French decided to demand forced labour since only a few farmers opted to join the Office du Niger voluntarily. Until the forced labour scheme was abolished in 1945, every village in the surrounding region had to send two or three families to settle and work on the project for a number of years (Toulmin 1992: 24-28). Many Dogon families were also sent (Dougnon 2007: 64). Even after Mali's independence in 1960, the Office du Niger was still notorious for its hard, coercive working practices. Despite its initial ambitions, it only irrigates an area of 60,000 ha nowadays, which is mainly used for rice growing, although some sugarcane and vegetables are also grown (Musch 2001: 60-64).

A colonial measure that also impacted on farming livelihoods was the introduction of the poll tax, which demanded the annual payment of taxes by each person. And tax also had to be paid on every head of livestock as well as on agricultural tools and equipment. To generate the cash income necessary to pay the required taxes, (male) farmers in the French Sudan were encouraged to grow cotton and peanuts after 1904 (Koenig 1997: 165) and many young farmers started to work as labour migrants in groundnut-growing areas in the coastal regions of Senegal and on cocoa and coffee plantations in Ivory Coast in the dry season from the 1930s onwards (Hilhorst & Toulmin 2000). Another important destination was Ghana where young men worked on the cocoa plantations and in the gold mines. The introduction of the poll tax was the start of the monetization of the rural economy since any money earned was not only used to pay taxes but was also increasingly used to invest in agricultural tools and other goods.

The post-colonial period

Although the French did not explicitly promote cereal production, French Sudan was considered the breadbasket of French West Africa even after Mali's independence in 1960. From the early 1960s onwards however, cereal production in Mali declined and surpluses became shortages, due in part to the growth of the population that exceeded agricultural production (Gueymard 1985, Davies 1986: 80).

Under the socialist and repressive regime of Mali's first president, Modibo Keita, the *Office des Produits Agricoles au Mali* (OPAM) was set up to market cereals and to create a cereal reserve. Farmers were obliged, and sometimes even forced, to sell fixed amounts of their cereal crops to the OPAM at low prices (Toulmin 1992: 27). It, in turn, was supposed to sell these cereals at subsidized prices to the urban population and to people in areas with cereal deficits. But the system failed. The low prices did not encourage farmers to produce more cereals (Gueymard 1985) and many farmers even faced cereal shortages themselves (Jonckers 1987: 193). Moreover, the only ones who benefited and were able to purchase the cereals at a low price were the army and administration officers, while the majority of the population had to buy at higher prices from commercial traders (Gueymard 1985). Under President Modibo Keita's regime, the Office du Niger was nationalized in 1961 and a large rural development project to promote groundnut cultivation, called *Opération Arachide*, was set up in western Mali in 1967 (Rutten 1986: 92).

The top-down agricultural policy, which was initiated by the French and continued after independence, was maintained after 1968 when Moussa Traoré staged a military coup and set up a military dictatorship. He ruled the country with an iron fist until revolts in 1991 forced him to step down. Whereas the focus

of agricultural policies until 1972 had always been on export crops, this shifted under his government towards regional agricultural development, including the promotion of cereal production (Rutten 1986: 92).

Triggered by the Sahel droughts of 1968-1973, many integrated rural development projects called *Opérations de Développement Rural* (ODR) were set up and financed by mixed state and donor funding (de Bruijn & van Dijk 1995: 466). Existing rural schemes, such as the *Office du Niger* and *Opération Arachide*, were turned into ODRs, while the CFDT was changed in an ODR after the Malian state took over a 60% share in 1974. Its name was changed to CMDT (*Compagnie Malienne de Développement des Textiles*) and its tasks were broadened in South Mali from only cotton development to integrated rural development, including cereal production (Guindo & van Campen 1994: 48, Hilhorst & Toulmin 2000: 11).

The approximately 30 ODRs covered large parts of southern Mali (Rutten 1986: 92). Three were set up in Central Mali but all performed poorly. *Opérations Mil Mopti* (OMM) aimed to improve millet production in the drylands of Koro District but never got off the ground during its short existence (Harts-Broekhuis & de Jong 1993: 216). Another ODR called *Opérations Riz Mopti* (ORM) was set up to increase rice production in the Inner Niger Delta but its results were also limited (*Ibid.*: 180). In the drylands of the Seeno Manngo, which are partly in the research area in Central Mali, ODEM was active in constructing improved wells and boreholes but the results were disappointing here too (see Chapter 4).

The ODR aimed to increase farmers' access to credit and agricultural equipment and to set up extension services. Many of them focused on a small group of motivated pilot farmers, i.e. relatively wealthy farmers who were keen to innovate. These small groups had privileged access to credits for modern agricultural equipment (ploughs, tractors) and to other services as well with the aim of increasing agricultural production. Expectations were high at the start. However, they were generally not met for various reasons and Mali was still a net importer of cereals in 1980. Most ODRs that were funded by donors or received loans from the World Bank stopped when their money finished.

Under pressure from the International Monetary Fund (IMF) and the World Bank, state-led agricultural policies changed radically in the 1980s. To improve its negative balance of trade, Mali had to sign contracts for structural adjustment programmes (SAP) that demanded, amongst other things, the liberalization and privatization of the agricultural sector. Liberalization involved the removal of subsidies on chemical fertilizers, a measure that hit the cotton farmers in South Mali in particular. The CMDT has been pushed to privatize since the 1990s and

has to allow private traders to sell fertilizers, seeds and veterinary products to farmers. This process is still on-going today.

Liberalization and privatization started during Moussa Traoré's regime and continued after Alpha Oumar Konaré took power in 1992. Under pressure from international donors, he introduced a system of multiparty democracy and administrative decentralization, which was a radical break with the former one-party political system.[14] Administrative decentralization was established In the 1992 Constitution, and stipulated the setting up of territorial collectivities that are governed by elected representatives.[15] These territorial collectivities include regions, Bamako District, districts (*cercles*), urban municipalities (*communes urbaines*) and rural municipalities (*communes rurales*).[16] The municipalities are the lowest administrative level. By regrouping several villages, they replace the former subdistricts (*arrondissements*). Municipal councils are elected by the people every five years, with the first elections being held in 1999. One of the formal aims of administrative decentralization is to reduce the gap between the administration and the local population by making the administration more accountable (Ribot 1999, van Vliet 2012) and to encourage people's participation in local government (Kassibo 2001). Expectations were high here too. For example, it was believed that decentralization would reduce poverty and the exclusion of marginal groups, that local taxation would discourage corrupt practices, and that decentralized control of natural resources would generate more respect for the environment (Bierschenk & Olivier de Sardan 1998).

After twenty years of democracy, a military coup recently created an upset in March 2012. Democracy was restored soon afterwards with the installation of a transitional government under pressure from African leaders and the international community, but the army seems to have maintained a certain degree of influence (at the time of writing in March 2013). What is more, the northern part of Mali declared independence during the short power vacuum, a situation that lasted until a French-led military intervention in support of the Malian army put an end to this in early 2013.[17] This vast area covers about two-thirds of Malian territory and includes Douentza District (our research area in Central Mali) on its southern

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[14] Under Moussa Traoré's dictatorship, Mali was a one-party state ruled by the *Union Démocratique du Peuple Malien* (UDPM). This political party was set up in 1975 to legitimize the military regime.

[15] Paragraph 97 of the 1992 Constitution states that: 'Les collectivités territoriales sont créées et administratées dans les conditions definies par la loi'. And Paragraph 98 says that: 'Les collectivités s'administrent librement par des conseils élus et dans les conditions fixées par la loi'.

[16] Par. 1 Loi No. 93-008 determinant les conditions de la libre administration des Collectivités Territoriales. The eight regions of Mali are subdivided into 49 districts (*cercles*), comprising 37 urban municipalities (*communes urbaines*) and 666 rural municipalities (*communes rurales*).

[17] The French military intervention is collaborating with troops from various African countries in accordance with UN Security Council Resolution 2085 dated December 2012.

fringes. Although radical Islamists took over later,[18] the Azawad, as the Tuareg call their state, was initially led by a selection of assorted Tuareg factions, some only aiming to establish a secular state, while others wanted to establish Islamic (*sharia*) rule. The Tuareg are in the majority in northern Mali and one of the ethnic groups living in Douentza District. They have been fighting for more autonomy since Malian independence, and led armed rebellions in northern Mali from 1990 to 1995. One of the factors playing a role here is the neglect and lack of development that northern Mali has experienced since colonial times and that has created feelings of resentment. With the military intervention still on-going, it is still unclear what the implications of these events will be for continued peace and democracy in Mali.

To summarize, a regional differentiation has existed in Malian agricultural policy ever since colonial times. The attention of policymakers has always been directed towards possibilities for developing cash crops and cotton which made South Mali a target area for agricultural development, whereas interest in Central Mali has always been less. When agricultural policy in the 1960s expanded from cash cropping to food cropping as well, which had to be realized through the establishment of ODRs, it is noticeable that the southern half of Mali was much better covered than the northern part. In the drylands of Central Mali, only a few provisions for new water supplies were made. It should be noted, however, that many of the ODRs failed and agricultural and economic development has generally lagged far behind the initial policy aims.

Cotton growing and the role of the CMDT in South Mali

In contrast to the situation in Central Mali where ODR coverage was sporadic and ODEM interventions largely failed, the CMDT cotton company in South Mali has had a far greater impact on regional agricultural development. Previously, low-yielding cotton varieties were grown in small village fields by women. The CMDT promoted the large-scale growing of new, high-yielding varieties and facilitated cotton growing by offering credit for agricultural equipment (e.g. ox ploughs, donkey carts), cotton seeds and agrochemical inputs at subsidized prices, as well as agricultural guidance.[19] The successful development of cotton

[18] The radical Islamist group *Ansar Dine,* which is believed to have strong ties with Al-Qaeda in the Islamic Maghreb (AQIM) and the Movement for the Unity and Jihad in West Africa (MUJWA*),* strengthened its position after a couple of months and *sharia* was imposed in the cities of Timbuktu, Gao and Kidal.

[19] A side effect of cotton changing from being a subsistence crop to a cash crop has been that its character has changed from a 'female' crop to a 'male' crop (Moseley & Gray 2008: 13). Paradoxically, however, women's involvement in cotton has increased (Bassett 2001: 143) and, as it provides them with an individual source of income, their economic autonomy within the household has increased too (*Ibid.:* 156).

growing in Mali is often attributed to the organizational set-up of the CMDT. In its initial stages, it focused on the mechanization of cotton growing through a small group of selected farmers but after a reorganization in 1974,[20] local cooperatives called village associations (*Associations Villageoises,* AV) were established. Through these AVs, which channel the distribution of inputs and credits, cotton growing for cash purposes flourished and came within the reach of many South Malian farmers. The poorest farmers, however, were neglected by the CMDT.

To facilitate cotton production, the CMDT has improved the socio-economic infrastructure in South Mali considerably over the past decades. By doing so, it has become an important development agency in South Mali and is conducting tasks that are, in fact, the responsibility of the state (van Dijk *et al.* 2004: 179). As the village associations required board members with basic skills in reading and writing, the CMDT set up literacy centres in the villages. And to enable cotton to be transported by truck, it constructed roads that, as a positive economic side effect, encouraged the development of public and private transport services and the trading of local products at regional markets (Koenig 2008: 195). Other activities the CMDT became involved in include veterinary care, the setting up of maternity clinics and the construction of dams, wells and boreholes. Farmers contribute directly to these public facilities and to the other operational costs of the CMDT through the village association and, indirectly, through the difference between the cotton export price that the Malian state receives and the much lower cotton price paid to the farmers.[21] In fact, the price difference can be considered a kind of taxation, with a considerable (untraceable) part probably disappearing into the pockets of top officials at the CMDT (see Bassett 2008: 49).[22] This supports the image of the CMDT acting as a state within the state.

Cotton was the most important source of cash income in 2004 for more than 170,000 Malian farmers (Bassett 2008: 47) who have an estimated household income that is about five times higher than the national average (Bingen 1998: 271). The Malian state itself benefits in no small measure from cotton exports as it controls the sale of nearly 95% of all the cotton produced in Mali, and which provides almost 50% of the state's income (Moseley 2005: 52). Mali is a main

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[20] The CMDT is a parastatal that is 60% owned by the Malian state and 40% owner by the CFDT in which the French state holds a 64% share (Benjaminsen 2001: 284, footnote 3). The CFDT was renamed Dagris in 2001 and, after privatization in 2010, became Geocoton.

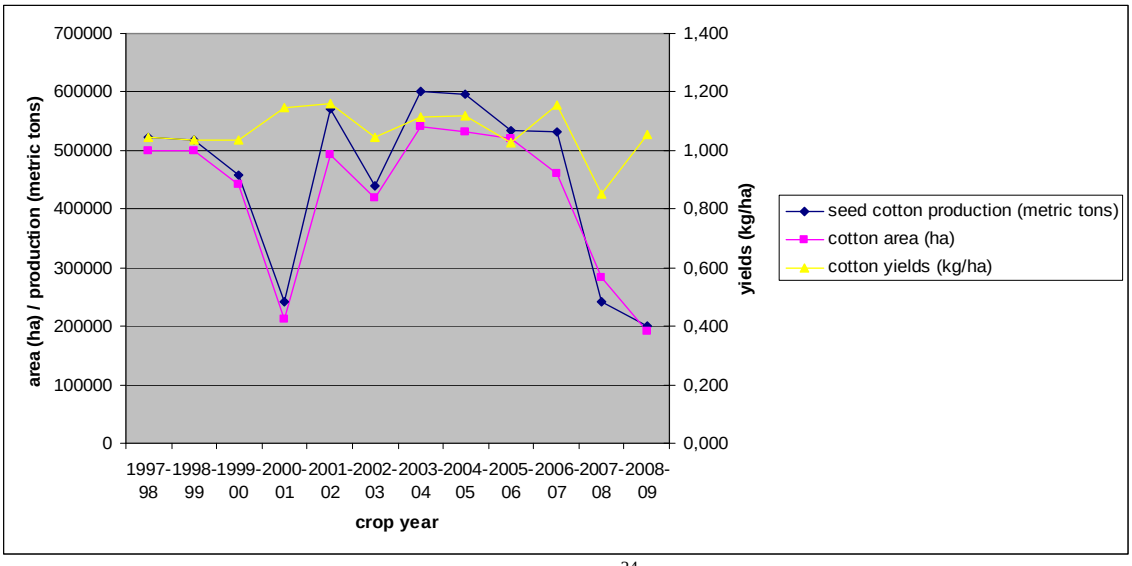
[21] West-African cotton farmers receive a lower share of the world market price than farmers in other countries (Bassett 2001). While subsidized farmers in the US receive 72% more than the world market price, farmers in Burkina Faso received only 39% of the world market price in the mid-1990s, although this rose to 51% later (Gray 2008: 72). In fact, the price farmers receive is affected by their country's pricing policies, including corruption practices, rather than by world market prices.

[22] In the 2003-2004 season, an estimated US$ 16.6 m could not be traced in the CMDT's books (Bassett 2008: 49).

cotton (export) producer in Sub-Saharan Africa (Moseley & Gray 2008: 6-8) but it still only produces 1% of all the world's cotton (FAO 2004: 5), while China is currently the largest producer and the US the largest exporter of cotton worldwide. In contrast to countries on other continents where cotton is a capital-intensive crop produced on large, mechanized farms, cotton is grown in Africa by smallholders in fields of 1.5 to 2 ha under rain-fed conditions and with very low levels of capital investment and large inputs of human labour (Bingen 2004: 113).

Malian cotton production increased between the 1960s and the early 2000s, with a peak in 2003/2004 when 600,000 metric tons of raw material (seed cotton) was produced (or 250,000 metric tons of lint cotton).[23] In more recent years, total cotton production has however declined dramatically to about 200,000 metric tons of seed cotton (84,000 metric tons of lint) in 2008/2009, a trend that is driven in part by worsening macro-economic conditions (Republic of Mali 2008). The total area given over to cotton has decreased likewise while average cotton yields per unit area have remained fairly stable (at around 1100 kg/ha) (see Figure 3.2).

Figure 3.2 Cotton production in Mali (1997/1998-2008/2009)



Sources: Republic of Mali (2008); www.indexmundi.com[24]

[23] Seed cotton harvested consists of two components: cotton lint (fibres) and seeds. In Koutiala factories, the cotton seeds are separated from the fibres after which the raw fibres are exported and the seeds are processed into cooking oil and cotton-oil cake (*tourteau*) that is used as animal fodder. These oil-based products are sold all over Mali. Cotton production and the area under cultivation were almost halved in 2000/2001 due to a strike by cotton farmers (Moseley & Gray 2008: 8-9).

[24] See: http://www.indexmundi.com/agriculture/?country=ml&commodity=cotton&graph=area-harvested-growth-rate, accessed February 2013.

These national data are the combined result of different processes in South Mali (with Koutiala area being the old cotton belt) and West Mali (where cotton has been grown more recently).[25] They mask the fact that economic change is most dramatic in South Mali, and in Koutiala area in particular, and that the problems started earlier. In fact, they began around 1980 with the structural adjustment programmes (mentioned above) that included a reduction in subsidies for chemical fertilizers and the privatization of the parastatal CMDT. In addition, cotton prices paid to Malian farmers have declined, partly due to the 50% decline in global cotton prices since the mid-1990s and partly to higher subsidies from the US government for its own cotton farmers (Moseley & Gray 2008: 22). To express their deep dissatisfaction with the low prices they were receiving for their cotton, many farmers from the cotton farmers' union, the SYCOV (*Syndicat des Producteurs de Coton et Vivriers*), boycotted cotton production in 2000/2001 (Lacy 2008: 213). Huge corruption scandals in the CMDT's higher echelons and bad financial management in the village associations, which have resulted in the splitting up of village associations and even bankruptcy, have contributed to increased social tensions in South Malian villages.[26] Many farmers here have run into debt as they are no longer able to pay back loans and have had to sell their agricultural equipment, and even cereal stocks. Consequently, many have become impoverished and abandoned cotton growing altogether. They are refocusing on cereal production to secure their food security at least. [27]

In an attempt to maintain cotton production and compensate for cotton-yield declines in South Mali since the 1990s, which are often attributed to a decline in soil fertility (see Chapter 8), the CMDT simply expanded into Kita District in western Mali (Kayes Region) in 1995, an area where peanuts were previously grown as a cash crop (Koenig 2008), instead of looking for options to make cotton production in South Mali more environmentally sustainable (Bingen 1998, Benjaminsen 2001a, Moseley 2005). This strategy to uphold total productivity was only effective for a short time as it has declined dramatically since the mid-2000s. Despite unfavourable economic conditions for the growing of cotton since the late 1990s (lower prices, increased prices of inputs), individual farmers in Kita District are still interested in growing cotton as it gives them access to facili-

[25] The CMDT has divided its intervention area into six regions: Koutiala, San, Fana, Sikasso, Bougouni and Kita. Koutiala is the oldest target region (since 1950) and Kita is the most recent (since 1995). The CMDT regions do not overlap exactly with the administrative divisions in districts (*cercles*). The CMDT in Koutiala region (18,600 km²), for example, is more than double the size of the administrative district (8,740 km²) (FAO 2004: 13).

[26] Since the village association is collectively responsible for the repayment of debts, the CMDT responded by remodelling village associations into *Coopératives des Producteurs de Coton* (CPC) with stricter regulations and more autonomy in the selection of its members (Lacy 2008: 212).

[27] See Gray & Kevane (2001: 575-576) for similar developments in the cotton belt of southwest Burkina Faso.

ties such as credit and farming equipment (Koenig 2008, Moseley & Gray 2008: 13).

Legislation regarding the use of natural resources

From a government point of view, farming is not only influenced by agricultural policies but also by legislation regarding the use of natural resources. Malian state law on the use of natural resources has evolved over time in accordance with the subsequent political regimes that switched from centralism to decentralism. The land and forest legislation is particularly relevant. Moreover, a law concerning pastoral activities was enacted for the first time in 2001. Although the legislation is applicable to the whole of Mali, we will consider if and how this might have worked out differently in South and Central Mali.

When Mali became independent, the French left several laws and other regulations concerning natural resources that together constituted an incoherent mixture of French legislation and customary rules. This legal chaos increased as a number of the former colonial regulations were kept, while new ones were added by the various political regimes. The numerous regulations co-existed without concordance and, in fact, there was no general overview of the regulations in force (Hesseling 1994: 34, Coulibaly & Diakité 2007).

The situation changed in 1986 with the enactment of the new Land Law (*Code Domanial et Foncier*) and Forest Law (*Code Forestier*), followed by a regulation concerning water management in 1990. A crucial provision in the Land Law and Forest Law, which is relevant to farmers and agropastoralists, was that all 'vacant' land belongs to the state. Vacant land consists of forest areas and land that has been fallow for more than five years. Local (customary) rights to cultivated land, including land that has been fallow for less than five years, are respected unless the state needs these lands. In addition, the private ownership of land (*concession rurale*) was possible after a complicated procedure (Hesseling 1994: 34). A uniform interpretation of these rules was lacking and this created a lot of confusion among the rural population and allowed for 'flexible application' by the administration and the courts in cases of conflict. Moreover, in the 1986 Forest Law, bush fires were prohibited all year round, wood cutting and the collection of wood for commercial purposes were regulated by a permit system, and the use of wood-saving stoves became compulsory. Failure to comply with the law resulted in heavy fines. The Forest Service (*Service des Eaux et Forêts*), which is in charge of enforcing the Forest Law, was a repressive agency and its agents were much disliked by the rural population. According to Coulibaly & Diakité (2007), the 1986 Forest Law and Land Law did not constitute an improvement over the former colonial-based laws. The new laws were still full of gaps, incoherent, unclear, contradictory and inaccurate and their implementation

was difficult because of missing guidelines and the malfunctioning administration. In contrast with the regulations for farming lands, there was no code regulating pastoral activities. Nor did the Forest Law mention fodder that, as a forest product, is an important pastoral resource.

The spirit of administrative decentralization after the change to a democratic regime in 1992 can be seen in the reform of several laws, i.e. the 1995 Forest Laws[28] and the 2000 Land Law.[29] The first Pastoral Law (*Charte Pastorale*) was enacted in 2001 to regulate the management of pastoral resources.[30] These included access to water, pastures and salt licks, regulations regarding transhumance cattle routes and the prevention and settlement of conflicts. Despite the law's good intentions, it has been criticized as some of its provisions are unrealistic, for example free access to farming land after the harvest and points regarding the settlement of disputes (Coulibaly & Diakité 2007). On the basis of the Forest Law, local (administrative) bodies, such as municipalities, can exercise control over certain natural resources like specific forest areas,[31] while the Land Law designates the public and private domains of territorial collectivities, although it is still not clear how individual or collective customary rights to non-registered land should be interpreted (*Ibid*.). An improvement in the new Forest Law is its authorization of bush fires at the end of the rainy season as they promote the sprouting of new perennial grasses and shrubs. Furthermore, wood-saving stoves are no longer compulsory although fines for woodcutting are still high (Benjaminsen 2000). Another important difference with previous laws is the changed definition of vacant land: only woodlands and land that has been fallow for more than ten years are now considered state property (the period was previously five years). This should allow farmers to restore soil fertility better and not cultivate fallow land again too soon for fear of losing their rights to it. In fact, the former provision of losing rights to fallow land after five years could be considered a legal incentive for farmers to allow soil degradation.

In anticipation of the decentralized Forest Law, co-management, also called community-based land management (*gestion de terroir*), became popular in the late 1980s in donor circles and NGO development projects.[32] These projects were

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[28] Loi No. 95-003 portant l'organisation de l'exploitation du transport et du commerce du bois; Loi No. 95-004 fixant les conditions de gestion des ressources forestières.

[29] Ordonnance No. 00-027 portant Code Domanial et Foncier; Loi No. 02-008 portant modification et ratification de l'ordonnance No. 00-027/P-RM du 22 mars 2000 portant Code Domanial et Foncier.

[30] Loi no. 01-004 du 27 février 2001 portant Charte Pastorale.

[31] See Ribot (1999) for a critical review of the attribution of powers over forest resources to local government.

[32] See Benjaminsen (1997) and Becker (2001) for a historical perspective of political decentralization and the local participatory control of natural resources in Mali. See Cooke & Kothari (2001) for a critique of participatory approaches in the field of development and Leach *et al.* (1999) for a critique of community-based natural resource management. Painter *et al.* (1994) and Breusers (1999) argue that

mainly conducted in the southern part of Mali due to the presence of donors there. Co-management implies some formal agreement between local user groups and the administration regarding resource use and enforcement. The underlying assumption is that local communities take better care of their natural environment if they are responsible for its management. The elaboration of local conventions in South Mali can be viewed against this backdrop.[33] These are written agreements between villages relating to natural resource management that are confirmed by local authorities and some public services, including the Forest Service. A well-known local convention, one of the first, is the 'Siwaa' between six villages including the research village of Mperesso in South Mali. It was part of a larger CMDT programme to fight soil erosion in the cotton-growing areas (see Chapter 8). After a long time in the pipeline (nine years in total), this local convention was finally signed by all parties in 1997. Provisions included determining selection criteria for areas to be opened up, limiting the cutting of firewood for one's own use, the collection of fruits, bush fires and the exclusion of cattle from outside (Joldersma *et al*. 1996, Hilhorst with Coulibaly 1999).

The impact of the local Siwaa convention was, however, limited. The newly established supra-local body, which necessarily included women and youngsters, lacked authority in the villages where power is based on (male) seniority. As Jonckers (1994: 129-131) points out more generally for newly established local structures in South Mali, such as CMDT village associations and savings and credit cooperatives (by NGOs) that are paradoxically supposed to increase local solidarity alongside commercial activities, by disregarding existing (and decreasing) solidarity and power figurations, these structures are likely to fail and may even increase local tensions. Moreover, from a legal point of view, it is doubtful whether this specific local convention is legally binding as it was not developed by decentralized administrative bodies and is therefore not in line with the forest legislation (Nijenhuis 1999, 2001). It cannot be seen as a private contract either since the parties to the contract are not clearly defined (Hesseling 1994) and because of the inclusion of public enforcement provisions. The enforcement of the local convention is problematic since the supra-local body and the population are not allowed to sanction violations whereas the Forest Service is not willing to

development projects based on *gestion de terroir* approaches that presume sedentarity are not compatible with practices of mobility by rural Sahelian people (see Bassett *et al.* 2007).

[33] The development of the local Siwaa convention was elaborated on in a programme on erosion control (*Projet Lutte Anti-Erosive*) that was conducted by a specific division of the CMDT in collaboration with the Netherlands Royal Tropical Institute (KIT) and the Malian research institute *Institut d'Economie Rurale* (IER) between 1986 and 2002. In this project, soil and water conservation measures were taken, including the planting of hedges, the construction of horizontal stone lines on the slopes of the plateaux, awareness-raising among women about cutting less firewood and the promotion of wood-saving stoves (Van Campen 1991, Joldersma *et al*. 1996, Hilhorst with Coulibaly 1999).

sanction those of the local convention. Importantly and despite increased ecological awareness amongst the local population, the local convention has only led to limited changes in local practices regarding natural resource use (Nijenhuis 1999, 2001).[34]

Despite these initial experiences, many other local conventions have been introduced in Mali (Djiré & Dicko 2007) but it is unclear what their impact has been. It should be noted that administrative decentralization and the elaboration of local conventions assume that rural people are sedentary. It is therefore doubtful whether local conventions are a useful tool in areas where people are mobile and need flexible tenure arrangements to continue their migration (Benjaminsen 1997). A few important disadvantages of local conventions include assuming that the village is a homogeneous community, which is not usually the situation (Jonckers 1987, 1994), and the exclusion of non-autochthons and sometimes also women from the development process (Becker 2001: 520). Local conventions risk being used by autochthons as a tool to prevent migrants opening up land needed for agricultural colonization.

Conclusions

Farming conditions in Central and South Mali differ considerably. First, the natural environment is more favourable for farming in South Mali with adequate rainfall and sufficient drinking water available outside the villages. In contrast, low rainfall and increased rainfall variability in Central Mali and shortages of drinking water there are constraining factors for farming. Due to the better farming conditions in South Mali, it has become a major destination for migrants.

Second, demographic trends indicate that the population density is much higher in South Mali than in Central Mali. Although annual population growth is considerable at an estimated 3% in Central Mali, it is spectacular in South Mali, where it is locally more than 8% in the rural areas. In the near future, these rapidly rising population figures are expected to affect farming practices but exactly how still remains to be seen.

Third, when considering agricultural policy since colonial times, it seems that South Mali, due to its favourable rainfall, has always been targeted for agricultural development while Central Mali has largely been out of range. The focus in

[34] An important provision in the local Siwaa concerned reductions in firewood. Although women in the Siwaa area had halved the amount they needed for cooking and producing shea butter (from about ten to five cartloads per women per year; one cartload of firewood equals about 0.5 m^3), which is considerable, the effect had been less than expected. Most women were not able to meet the standard set of three cartloads, while distributed wood-saving stoves had broken down and not been replaced. What is more, the reduced cutting of firewood for commercial purposes could not be regulated in the local convention as the issue fell directly under the Forest Laws (Nijenhuis 1999, 2001). When enquiries were made about the impact of the local convention a few years later, it emerged that the Siwaa convention had become a dead letter by 2002.

South Mali has been particularly on cotton cash cropping, which provides many farmers with their main source of income. Development of the area occurred as a result of the institutional framework of the CMDT. Economic conditions, however, have worsened since the 1990s and many farmers have stopped growing cotton. Until the mid-2000s Mali was able to maintain its cotton production due to expansion into new areas in the western part of the country but since the late 2000s cotton production has fallen in Mali.

Legislation regarding natural resources (land, forests and pastoral resources) is, of course, applicable to the whole of Mali but its relevance varies due to regional differences in land use. In addition, laws may have a different effect due to variations in law enforcement as a result of the (in)accessibility of the terrain and the number of state agents per unit area.

4

Mobility in a harsh environment (Central Mali)

Introduction

At the start of my fieldwork in the remote and seemingly empty research area in Central Mali in 1999, it emerged that a surprising number of settlements were scattered over the vast village territories of Douma and Okoyeri Dogon (see Chapter 1). With the setting up of large numbers of Dogon farming hamlets among Fulani agropastoral camps and the opening up and expansion of agricultural fields, nothing less than a large-scale agricultural colonization process was taking place in this area of former pastures.

The agricultural colonization history of the area will be described in this chapter along the lines of two large stages (or waves) that stretched over the twentieth century. The aim is to discover the various drivers behind these waves, which are related to various farming conditions (see Chapter 3) and have shaped different footprints of mobility in time and place. The starting point of our story is a 1999 GIS map that shows at a glance the settlements or 'frozen mobility' encountered during fieldwork. From there, we will zoom in on the dynamic processes behind this that are not visible on the map. To illustrate the area's agricultural colonization process, a series of settlement maps showing the situation at several points since 1950 will be presented.

We will also 'visit' the hamlets and see farmers' present mobility and the context in which they are operating. Although our focus is primarily on Dogon farmers' mobility, it cannot be considered without taking into account their relationship with Fulani agropastoralists. The two different ethnic groups share a long and, at times, violent past in the area (de Bruijn *et al.* 1997), which has influ-

enced relations. We will explore how Dogon mobility in the twentieth century, through agricultural colonization, has changed these relationships.

The subject and title of this chapter was inspired by the work of the French geographer Gallais (1975), who conducted extensive research in this part of Mali. He showed that building a livelihood is not easy in the harsh and unpredictable natural environment of the Sahel (*la condition sahélienne*) and this has forced the rural people to be mobile in response, not only the (agro)pastoralists who are well known for their mobility but also farmers.

The present chapter is the first of three chapters on Central Mali. While the various time-place dimensions of the mobility of farmers are central in this chapter and also the way these have been shaped by changing farming conditions, the next chapter will concentrate on the link between access to land and the mobility of farmers, more specifically on the role of first-settlement histories when claiming land. In the subsequent chapter, the connection between farmers' mobility, access to land and conflict is analysed through a detailed case study about a conflict over land and power.

The 1999 map of 'frozen mobility'

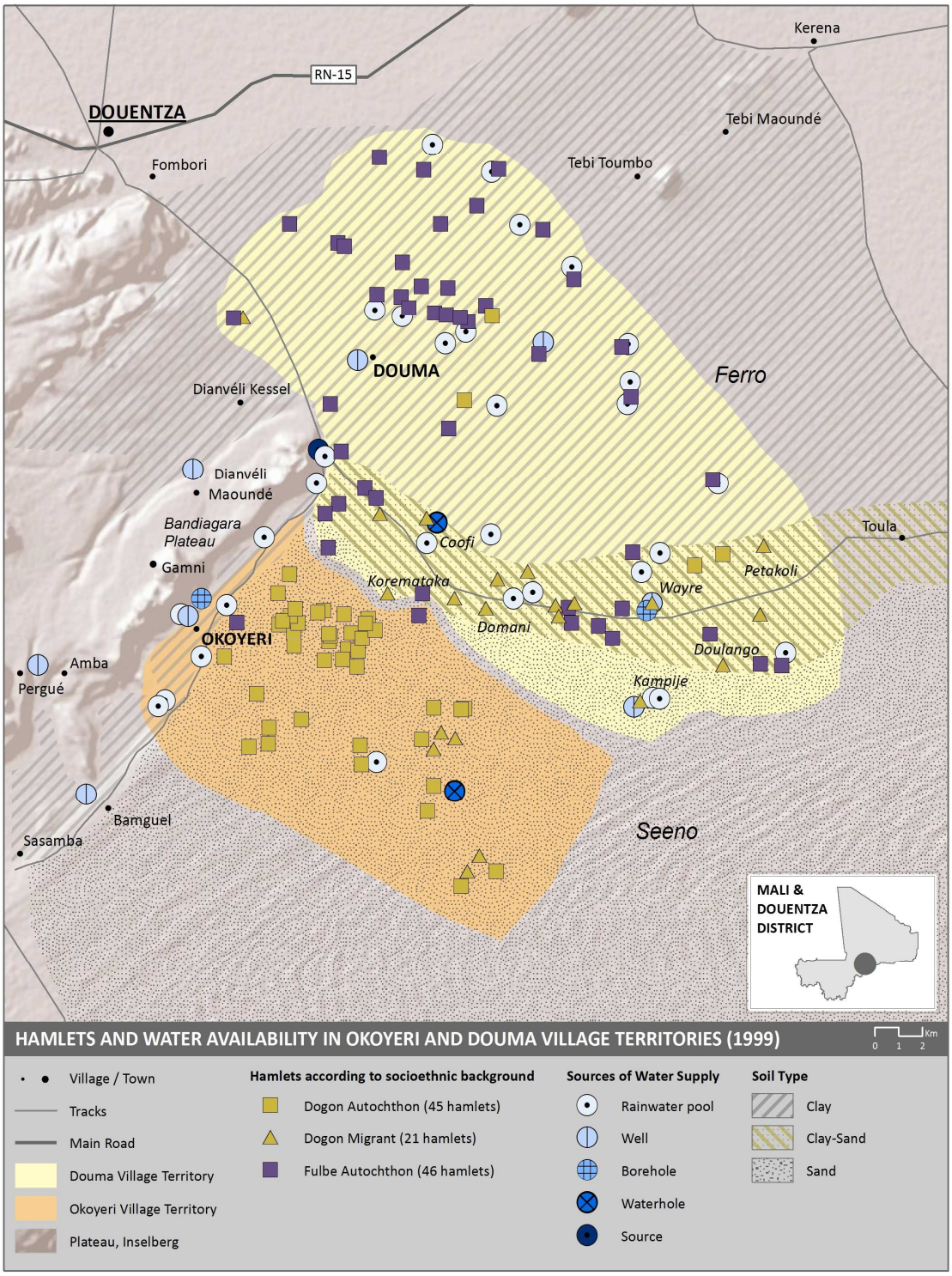
In late 1999, an impressive 112 settlements were registered in the territories of Douma (a Fulani-dominated village) and Okoyeri Dogon (a Dogon village) (see Chapter 1) comprising 66 Dogon farming hamlets and 46 Fulani agropastoral campsites. Map 4.1 gives an overview of the distribution of the settlements in the three agro-ecological zones (clay, clay-sand and sand) and their position *vis-à-vis* the availability of water. A number of interesting observations can be made.

First, when looking at the three agro-ecological zones, a distribution of settlements along ethnic lines emerges. Mainly Fulani agropastoral camps can be found on the clayey soils of the Ferro, whereas Dogon farming hamlets are mostly situated on the sandy soils of the Seeno. By contrast, both ethnic groups have settled in the zone in between where (from north to south) the clayey soils become sandy soils and the vegetation pattern shifts from dense trees to an open dune landscape covered with grasses and scattered shrubs. The maps also show that the numerous Dogon hamlets in the Seeno area are located further away from drinking water sources than those in the clayey Ferro and the clay-sand transition zone.

Second, there is a similar territorial division when considering the origins of the rural people living there (i.e. autochthon or migrant).[1] While the clayey Ferro

[1] See Chapter 1 for the methodological snags encountered when labelling rural people as 'autochthon' or 'migrant' in village territories (see also Chapter 5).

Map 4.1 Hamlets and water availability in Okoyeri and Douma village territories (1999)



and the sandy Seeno are mostly inhabited by autochthons, i.e. Fulani and Dogon who settled in their village's territory, the clay-sand transition zone is, apart from a number of camps of Fulani from Douma, littered with migrant Dogon farming hamlets, i.e. Dogon from outside the area. These Dogon farmers are from a number of villages on the Bandiagara Escarpment, including Dianvéli Kessel, Dianvéli Maoundé, Gamni, Amba and Pergué (see Map 4.1).

The attraction of the clay-sand transition zone for the Dogon strangers is also reflected in the population figures, as can be seen in Table 4.1. The Dogon generally outnumber the Fulani In this five-km strip of land, which includes the nearby sandy Kampije zone where an extraordinary sixty Dogon families live close to a well and rainwater pools. While an estimated 1440 people are Dogon and come from villages on the escarpment, only about 225 are Fulani from Douma. Despite the large number of hamlets, the number of Dogon farmers in the sandy Seeno area of Okoyeri territory is much lower (about 600). The population density is even lower in the vast clayey Ferro area where an estimated 175 Fulani agropastoralists are living in camps.

Table 4.1 Number and proportion of settlements and people in Douma and Okoyeri village territories, and the distribution of people over soil types in Douma village territory (Central Mali), according to socio-ethnic group (1999)

Douma	Settlements total n (%)	People (estimated) total n (%)	clay	clay-sand	sand
Fulani from Douma	44 (69%)	400 (21%)	175	200	25
Dogon from Douma	4 (6%)	60 (3%)	30	30	0
Dogon from elsewhere	16 (25%)	1440 (76%)	0	840	600
Total	64 (100%)	1900 (100%)	205 (11%)	1070 (56%)	625 (33%)

Okoyeri	Settlements total n (%)	People (estimated) total n (%)
Fulani from Okoyeri	2 (4%)	20 (3%)
Dogon from Okoyeri	41 (85%)	570 (92%)
Dogon from elsewhere	5 (10%)	30 (4%)
Total	48 (99%)	620 (100%)

Source: Fieldwork data (1999)

Since administrative census data are known to be unreliable (i.e. underreported), especially in this area where the population is in flux, it is difficult to compare the population figures in the settlement with the population of the villages. For example, according to the 1998 administrative census, 667 Dogon live in Okoyeri Dogon (see Chapter 3), while the fieldwork data indicate that 570 of

them in fact reside in rainy-season hamlets in Okoyeri territory. Nevertheless, it is clear that a considerable part of the rural population in the research area is living in rainy season settlements, and Dogon farmers probably more so than Fulani agropastoralists.

In summary, Dogon farming hamlets in the case-study area can mainly be found in two agro-ecological zones. The first is the clay-sand transition zone that the Dogon share with Fulani pastoralists. Most Dogon settled here are strangers, coming from villages on the Bandiagara Escarpment. The second zone is the sandy Seeno dune area, where notably Dogon from Okoyeri Dogon have settled. This area can be considered their own territory. In the clay-sand transition zone where most Dogon can be found, they outnumber the Fulani.

Agricultural colonization in two waves

The Dogon agricultural colonization process in the case-study area, of which the condensed result is visible on the 1999 settlement map (Map 4.1), extended over the whole of the twentieth century. Two separate waves can be distinguished. The clay-sand transition zone has been colonized since the early twentieth century, while the sandy Seeno dune area has been occupied since the mid-1980s. This means that some Dogon hamlets in the clay-sand transition zone are older, while most of the Dogon hamlets in the sandy Seeno are still fairly recent. Before we turn to these two waves of mobility, the preceding period will be described when the Dogon farmers were still in their villages on the Bandiagara Escarpment.

The preceding period: Dogon on the escarpment

During the greater part of the nineteenth century when the Fulani King Seeku Aamadu ruled the powerful Maasina Empire (1819-1862), the Dogon were pushed back towards the Bandiagara Escarpment. The Maasina Empire, which is often regarded as the peak of Fulani political, military, ideological and economic power was characterized, like a state, by a political and economic organization with surplus extraction and the strict regulation of the use of natural resources called *Diina* (de Bruijn & van Dijk 2001).[2] Its territory covered the Inner Niger Delta and the peripheral drylands in the east, where this current study's research area is located. The drylands formed a buffer against the Tuareg.

Under Seeku Aamadu's rule, the situation on the plains was insecure for everyone around. Being a pious Muslim, he aimed to establish a theocracry (de Bruijn & van Dijk 2004: 143). As a rule, Muslims are not allowed to enslave other Muslims and so the pagan (animist) Dogon constituted a welcome reservoir

[2] These rules included the organization of transhumance and a strict division of land between pastoral groups and cultivators. Further away from the political centre, however, the rules were weaker (de Bruijn & van Dijk 2001).

of slaves, and they were either bought at markets or captured by force to provide labour. Warriors armed with spears and knives controlled the plains on horseback and were aggressive in their demands for cereals, slaves and small livestock by way of a tribute (Gallais 1975: 98). Every Dogon spotted on the plain was captured.[3] The Fulani encountered in the research area still proudly remember their powerful and violent past.

For the Dogon, the 200-km Bandiagara Escarpment was a relatively safe place with villages on the top that were only accessible after a steep climb. Fields were located further down and could be closely watched from the edge (van Beek 2005: 45) and there were additional small fields uphill on the rocky slopes that were sometimes only a few square metres in size. Drinking water was taken from natural sources on the escarpment. However, building an agricultural livelihood in this environment was hard. A variety of crops were grown in permanently cultivated plots (e.g. millet, sorghum, cotton, *niébé* (beans), *dah* (hibiscus), calabash and fonio) but the compost available was generally insufficient. Due to grave land shortages, people faced regular famines.

Between 1862 and 1893, which was the last period of nineteenth-century Fulani rule, the situation in Douentza District was chaotic. The Toucouleur[4] leader El Hadj Oumar, who had overthrown the ruler of the Maasina Empire in 1862, was killed in a battle with Fulani rebels in 1864, and his successor, Tidjani, who ruled until 1893, allied himself with a group of Dogon against the Fulani from Maasina (de Bruijn & van Dijk 2001).[5]

Under Tidjani's protection, the situation was more peaceful for the Dogon. Several Dogon villages or wards, including a ward from Okoyeri Dogon, moved down to settle at the foot of the escarpment.[6] Cautiously, farmers opened up fields a bit further away but the situation was not yet stable during Tidjani's rule. The story goes that when Fulani warriors were noticed, a horn signal was blown and all Dogon further downhill rapidly fled up the hill out of the range of the warriors on horseback.[7] A similar process took place about 100-150 km south along the Bandiagara Escarpment where the Dogon organized labour in large

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[3] Although the Dogon regard the Fulani as their former slave-raiders, they were also captured by the Mossi, Samo, Touareg and Toucouleurs in the past (de Bruijn *et al.* 1997: 252).

[4] Toucouleur (or Futanke) are Fulani from Fuuta Tooro in Senegal (de Bruijn & van Dijk 2001).

[5] Dogon living on the plains on the southern fringe of the Seeno Gonndo towards the frontier of present-day Burkina Faso, formed an alliance with the Fulani of Booni chiefdom in return for protection (de Bruijn *et al*. 1997: 243, de Bruijn & van Dijk 2001: 236). They even raided cattle and probably also paid tribute to the Fulani chief. The Fulani considered them as serfs, a specific category within the stratum of slaves, and thus gave them the Fulani name *hummbeebe*.

[6] It is also reported that other Dogon villagers, such as those living in Badiari, 8 km south of Douentza, descended when relative security was established under the French (Benjamin 2004: 157).

[7] *Al-hajj* Abdoul Alphagalo (councillor, Kassa Municipality), Okoyeri Dogon, October 1999.

male age-groups to defend themselves against Fulani raiders (van Beek 1993: 46).

In Okoyeri, it was said that only the two brothers named Modibo Amidou and his son-in-law Allay Boucary, who were protected by two famous Fulani with spears and guns from the Seeno Gonndo, dared to wander around on the plains. They cultivated plots far away on the Seeno, leaving their wives and children behind in the village. Although harvests on the plain were considered good, it was too risky to live there permanently and wild animals, such as hyenas and lions, constituted another danger there.[8]

The establishment of French colonial rule in 1893 (*Pax Gallica*) put an end to warfare. For the Dogon, however, the security situation deterioriated again compared to the previous period when they were protected under the rule of King Tidjani. They now fell under the jurisdiction of Bandiagara that enjoyed the exceptional status of a French protectorate – which meant that it remained relatively independent of colonial rule – under the leadership of Aguibou Tall, a Toucouleur king who was appointed by the French. As the French were only marginally present in the area, they had no control over the Fulani in Dalla and Booni who started to raid the Dogon villages again until one of the Fulani chiefs was executed (van Dijk pers. comm.).

The first wave: Encroachment of the clay-sandy transition zone

Dogon settlement in farming hamlets started after the French protectorate had come to an end in 1905 and direct colonial rule was established, which significantly improved the security situation for the Dogon. In the same year, the French also formally abolished slavery, although Fulani slavery practices continued until the 1960s as slave labour (working the land or as house slaves) was of major importance to the Fulani economy and French control in the area was limited (Pelckmans 2011). The French set up an administrative system of cantons headed by canton chiefs that controlled several villages and village chiefs (Benjamin 2004: 96).

Driven by serious land shortages, a number of Dogon families from villages on the Bandiagara Escarpment, including Okoyeri Dogon, Amba, Pergué, Dianvély Maoundé and Dianvély Kessel, moved into the clay-sand transition zone. Within a 40-km radius of their villages on the escarpment, the Dogon opened up new millet fields between Fulani pastoral camps. To overcome the distance, the Dogon established simple farming hamlets of reed huts in the fields. It is said that

[8] *Al-hajj* Abdoul Alphagalo (councillor, Kassa Municipality), Okoyeri Dogon, Douentza, November 2000.

the very first Dogon settlers initially came to hunt game (ostrich, deer and antelope) but then stayed to farm, which encouraged others to follow.[9]

Within the clay-sand transition zone, sub-territories can be distinguished including Coofi, Korematakа, Domani, Wayre, Kampije, Doulango and Petakoli (see Map 1.2). Hamlets set up by farmers from several Dogon villages can be found in one sub-territory, while people from various villages regrouped in several hamlets. Hamlets are usually set up by a family, which is then considered the founding family, after which other families, not necessarily relatives, follow. Hamlets have thus developed gradually over time. It is reported that families cultivated their fields for a number of years in the past and sometimes not even every year in the farming hamlets, and then abandoned them, probably due to labour shortages or conflicts with Fulani cattle keepers.

Hamlet life was even harsher then than it is today and many did not succeed. Farming was done using only hoes and many families faced labour shortage. People had to carry water from the rainwater pools to the hamlet and harvests had to be moved from the hamlet back to the village by foot, which was very labour intensive.[10] Many families abandoned their fields and huts in the hamlets and returned to the village in shame because they could not cope. They had tried 'to develop' but failed, feeling that they had 'not worked hard enough', which is unacceptable in Dogon culture.

Very little is known from the colonial archives and the literature about the settlement of Dogon families from the northeastern escarpment in rainy-season hamlets in the clay-sand transition zone. Only a 1958 colonial *rapport de tournée* on Amba Canton mentioned the large fields in Wayre sub-territory. French colonial officers made regular trips by horse crisscrossing the cantons to assess the state of affairs regarding healthcare, agriculture, cattle keeping and tax collection. The French administrator observed that 'villagers from Amba, which is located at the foot of the escarpment, cultivate fields around the village in the beautiful valley, but Amba also has impressive rainy-season fields in Wayre, south of Douma and 20 km east of Okoyeri'.[11]

The Dogon agricultural colonization wave was also driven by severe land shortages that took place simultaneously on the southwestern escarpment about 100-150 km away on the adjoining plains in Koro and Bankass Districts, where the Dogon opened up fields and set up numerous hamlets in corridors 50 km to

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9 Ibrahim Barry, Douma, September 2002.

10 It was reported that for this reason, the Dogon from Pergué settled in a hamlet in Coofi that was used to store their millet halfway to Okoyeri Dogon. *Al-hajj* Abdoul Alphagalo (councillor, Kassa Municipality) from Okoyeri Dogon, Douentza, November 2000.

11 1-E-9 Rapports politiques et rapports de tournées Cercle de Bandiagara 1921-1959. Territoire du Soudan, Cercle de Bandiagara, Subdivison de Koro: Rapport de tournée, objet: récensement du canton d'Amba (1958) (National Archives, Bamako).

80 km in length running perpendicular to their villages of origin on the escarpment (Gallais 1975: 112, Petit 1998: 140).[12] Unlike in the research area, the hamlets soon turned into villages, an impressive 43 in total, as higher groundwater levels enabled the population to dig wells and settle there all year round (Petit 1998: 28). The French tolerated migration to the plains but forced farmers to pay taxes in their villages of origin, which helped maintain ties between the 'old' and 'new' land (Gallais 1975: 124-125, Petit 1998).

After its flying start in the early twentieth century, Dogon agricultural expansion was hampered in the following decades by stagnating population numbers due to recurrent famines that hit the region badly. Apart from the notorious famines of 1923 and 1927-1931, one particularly devastating famine has become part of the collective memory: the 1911-1914 famine known as the *Kitaangal*, which means 'big problem' in Fulani language (de Bruijn & van Dijk 2005c: 254). It had an enormous impact on the population, half of whom either fled or died. Since many children died, there was a sharp decline in the birth rate (Gallais 1975: 103-104). Respondents in the research area also frequently mentioned this terrible period of drought that lasted several years. Information on the major 1911-1914 famine is kept In the colonial archives in Bamako and highlights the worries of a colonial administrator about missing tax income.

The major 1911-1914 famine

In February 1913, the French administrator reported that the 'epidemic' (as he called it) was widespread, especially in Douentza, and he noted that the Dogon were complaining about the massive departure of young people. In October 1913, he wrote that the administration tried to prevent the exodus to Ghana as it was hampering tax collection. In November 1913, when the famine had already been going on for two years, tensions were starting to escalate between nomads and local populations, as cattle were causing considerable damage. In February 1914, it is reported that the famine was dramatic in Sanga and people were fleeing into the bush. Nevertheless, despite the misery, it was business as usual for the French and tax collection was reported to be progressing well. By June 1914, he observed that the rains had already stopped, the plant seeds were lost, and many people had already left the area and would not come back until the new agricultural season. In Douentza, nomads were plundering. In October 1914, he estimated that half of the Dogon population had died or left.[13]

It was not until about 1950 that Dogon population numbers recovered (Gallais 1975: 104). For example, in Dianvély, one of the villages on the Bandiagara Escarpment from where people initially moved into rainy-season hamlets in the clay-sand transition zone, it was reported that the size of the population decreased slightly between 1912 and 1935 and it was only in the two subsequent

[12] Gallais (1975) apparently did not notice the Dogon mobility processes in the vast clay-sand transition zone. He believed that farmers' migration to the plains from the escarpment between Bamba and Douentza, which is roughly the northeastern half, was limited as the Seeno dunes area starts with sandy soils that are not suitable for agriculture near the escarpment. Only herding is possible in such a natural environment (*Ibid.*: 117).

[13] 1E-24 Rapports Politiques et Rapports de Tournée, Cercle de Bandiagara, 1911-1920.

decades that population numbers started to rise again.[14] In other Dogon villages, the decrease in population numbers was even more dramatic, with population levels in the 1930s reaching only a quarter of the figure recorded in 1905 (*Ibid.*).

When the Dogon population started to grow again in the southwestern part of the Bandiagara Escarpment by an estimated 10% to 20% between 1950 and 1960, the agricultural colonization process started again. It is reported that many Dogon from the central and southwestern parts of the escarpment moved to the central and southern areas of the plains around Koro and Bankass, which became overrun with new villages, fields and cattle (*Ibid.*: 105). Fields were cultivated more permanently and, with the disappearance of fallow periods, the environment became depleted.

Although the Dogon are recognized as hard workers who reason that 'if the environment depletes, you should just work harder and longer' (van Beek & Banga 1992: 71), the agrarian intensification of the plains reached its limit around 1970 and this could only have been exceeded if there was a true technical revolution (Gallais 1975: 102). But this failed to materialize. An outflow of people from these plains moved towards more humid zones in southern Mali and the Mossi area in Burkina Faso (van Beek 1993: 51). This movement was accelerated by the severe Sahelian droughts of the early 1970s and the mid-1980s, erratic rainfall and other hazards like plagues of grasshoppers and rodents that destroyed harvests (see Chapter 7). Van Beek (*Ibid.*) saw this migration flow to the south as a sign of ecosystem failure.

The second wave: Switch to the sandy dune area

In contrast to the situation on the southern plains where high population pressure produced an outflow, the agricultural colonization of the clay-sand transition zone continued, although its pace and size went unrecorded. A turning point, however, was the mid-1980s. After the 1984-1985 droughts when many Dogon, in particular those owning cattle, gave up and returned to their villages or even left the region due to cattle loss, numerous new hamlets were established although no longer in the clay-sandy transition zone but in the adjacent sandy Seeno area. New fields were opened up and, with help of ploughs, existing fields doubled or even tripled in size. This development is particularly noticeable in Okoyeri territory where farmers from Okoyeri Dogon colonized the Seeno in three corridors perpendicular to the escarpment that corresponded to the locations of the three village wards. The opening up of new land in this way is peculiarly Dogon and the same style was applied earlier in the southern plains too (Gallais 1975: 112, Petit 1998: 140). As a consequence of this large-scale opening up of

[14] The population of Dianvély was 2113 in 1912, 2135 in 1927, 2088 in 1935 and 2939 in 1954 (Gallais 1975: 104).

new land, the sandy Seeno dunes area has increasingly become the agricultural heart of production.

The sudden increase in agricultural colonization and the switch to sandy soils is visible when comparing four successive settlement maps from between 1950 and 1999 (see Maps 4.2 to 4.5). The 1950 and 1970 maps are quite similar, with most of the Dogon hamlets mainly made up of 'migrants' and showing the situation in the clay-sand transition zone. The number of settlements in 1970 had only increased slightly compared to the situation in 1950. By contrast, a larger increase in hamlets is noticeable on the 1985 map, in particular in the sandy Seeno area and this had become explosive by 1999. The number of new settlements (both Fulani and Dogon) in the clay-sand transition zone has continued to increase slowly since 1950. The rising numbers of settlements over time and their origins are presented in Table 4.2.

Table 4.2 Number of settlements in Douma and Okoyeri village territories (Central Mali), according to socio-ethnic group (1950-1999)

Douma	1950	1970	1985	1999
Fulani from Douma	35	35	40	44
Dogon from Douma	4	4	4	4
Dogon from elsewhere	10	10	12	16
Total	49	49	56	64

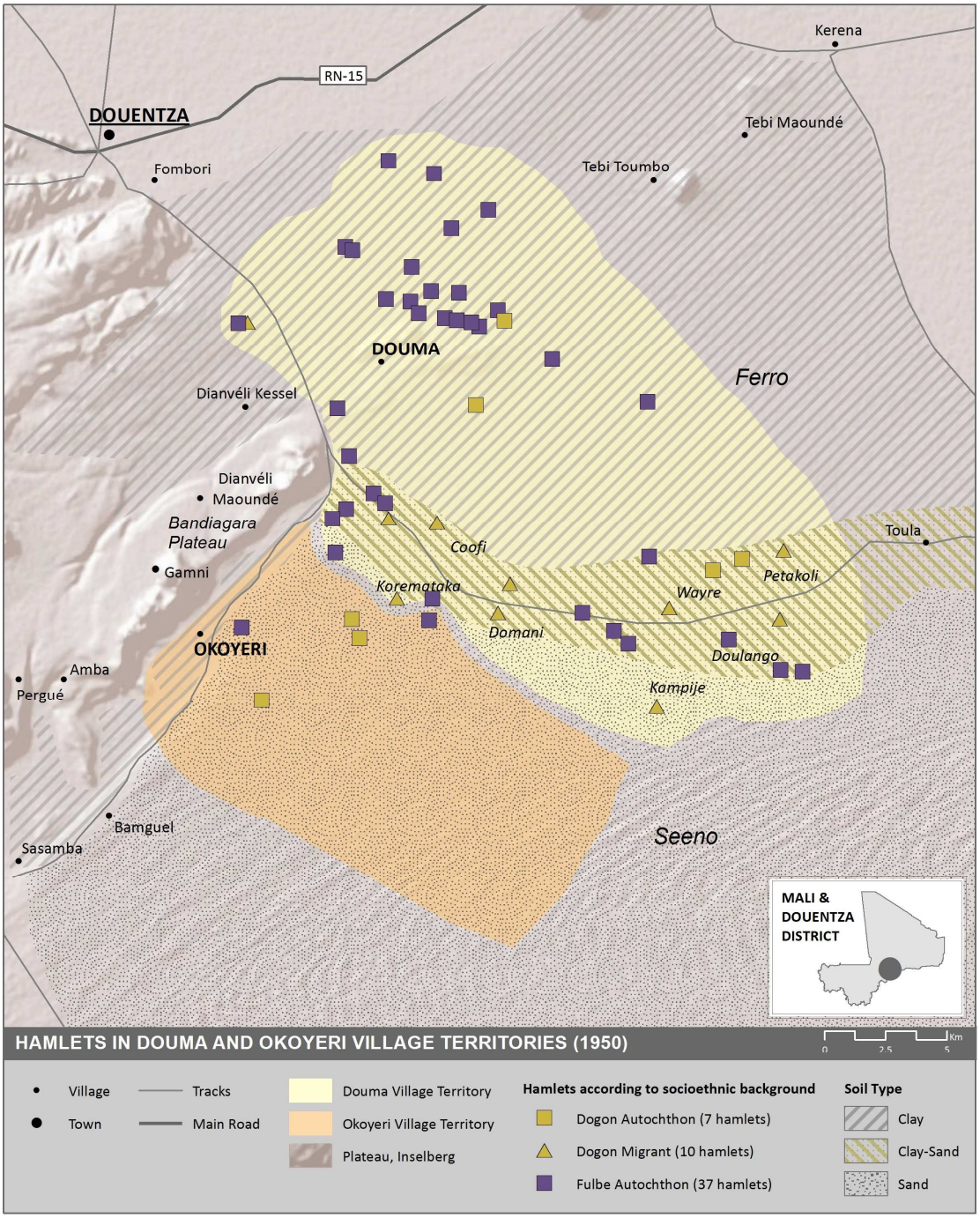
Okoyeri	1950	1970	1985	1999
Fulani from Okoyeri	2	2	2	
Dogon from Okoyeri	3	5	15	41
Dogon from elsewhere	0	0	4	5
Total	5	7	21	48

Source: Fieldwork data (1999)

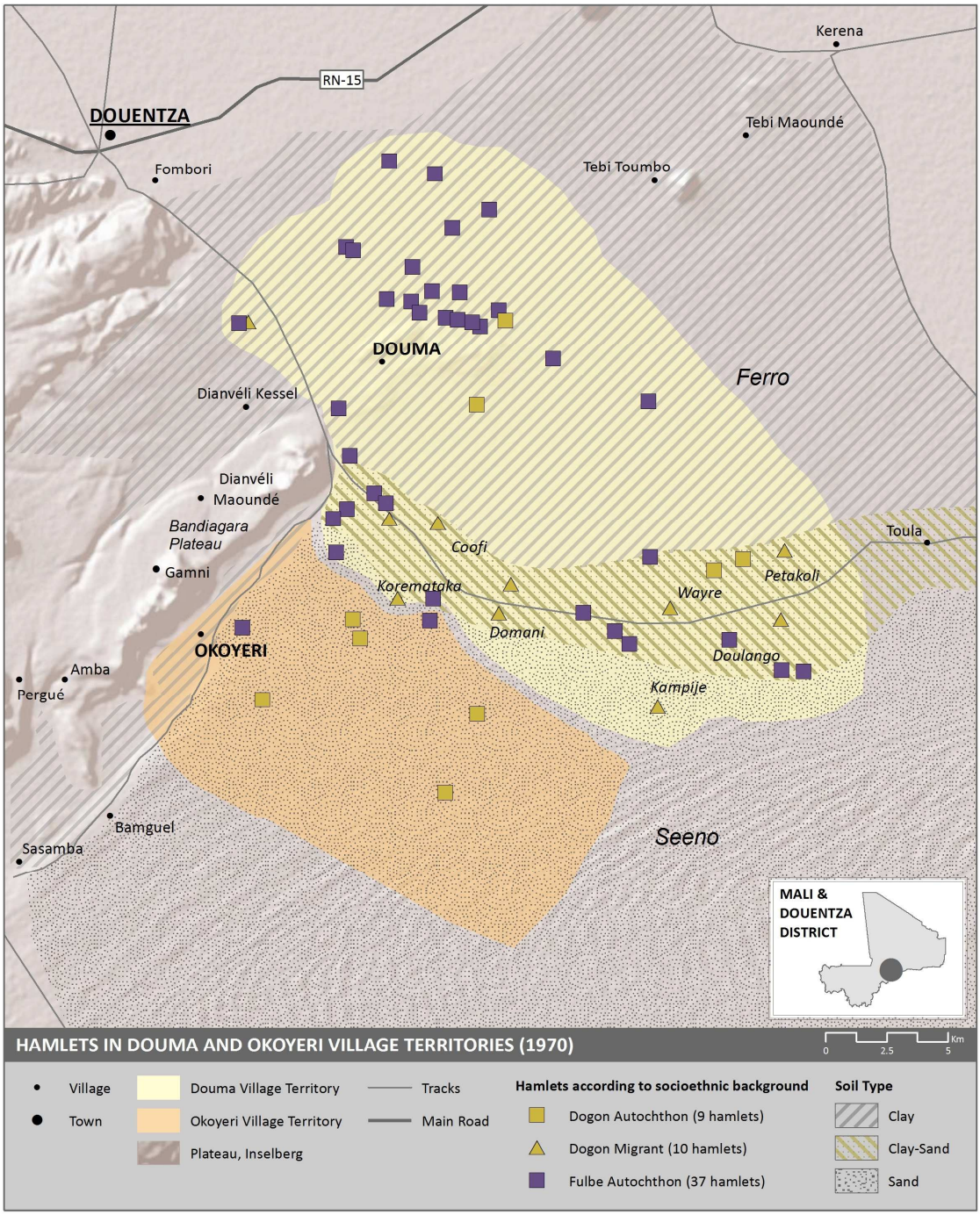
The sudden large-scale opening up of the sandy Seeno area by Dogon farmers is due to a combination of factors. In the absence of sufficient opportunities for intensification and similar to the situation on the southern plains in Bankass and Koro Districts, the transition zone had become overpopulated and there was a need for more farming land. However this does not clarify the inhabitants' preference for sandy soils and the expansion of fields in the area.

First, the opening up of specifically sandy soils, in addition to the more clayey soils, can be considered a response to increased rainfall variability, meaning that the already low rainfall in the region had become more variable in time and place (see Chapter 3). When rainfall is sufficient, farmers prefer soils with a clayey

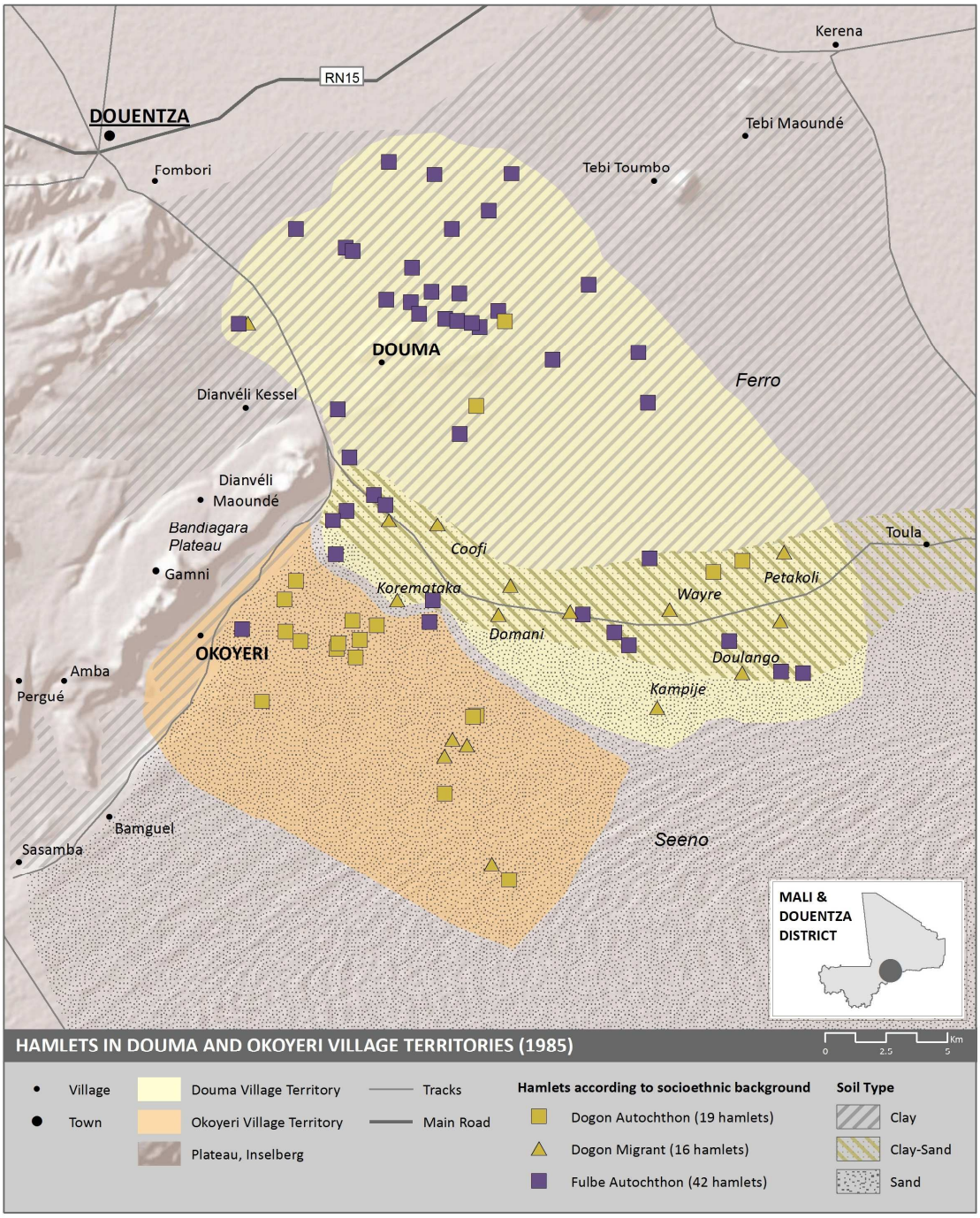
Map 4.2 Hamlets in Douma and Okoyeri village territories (1950)



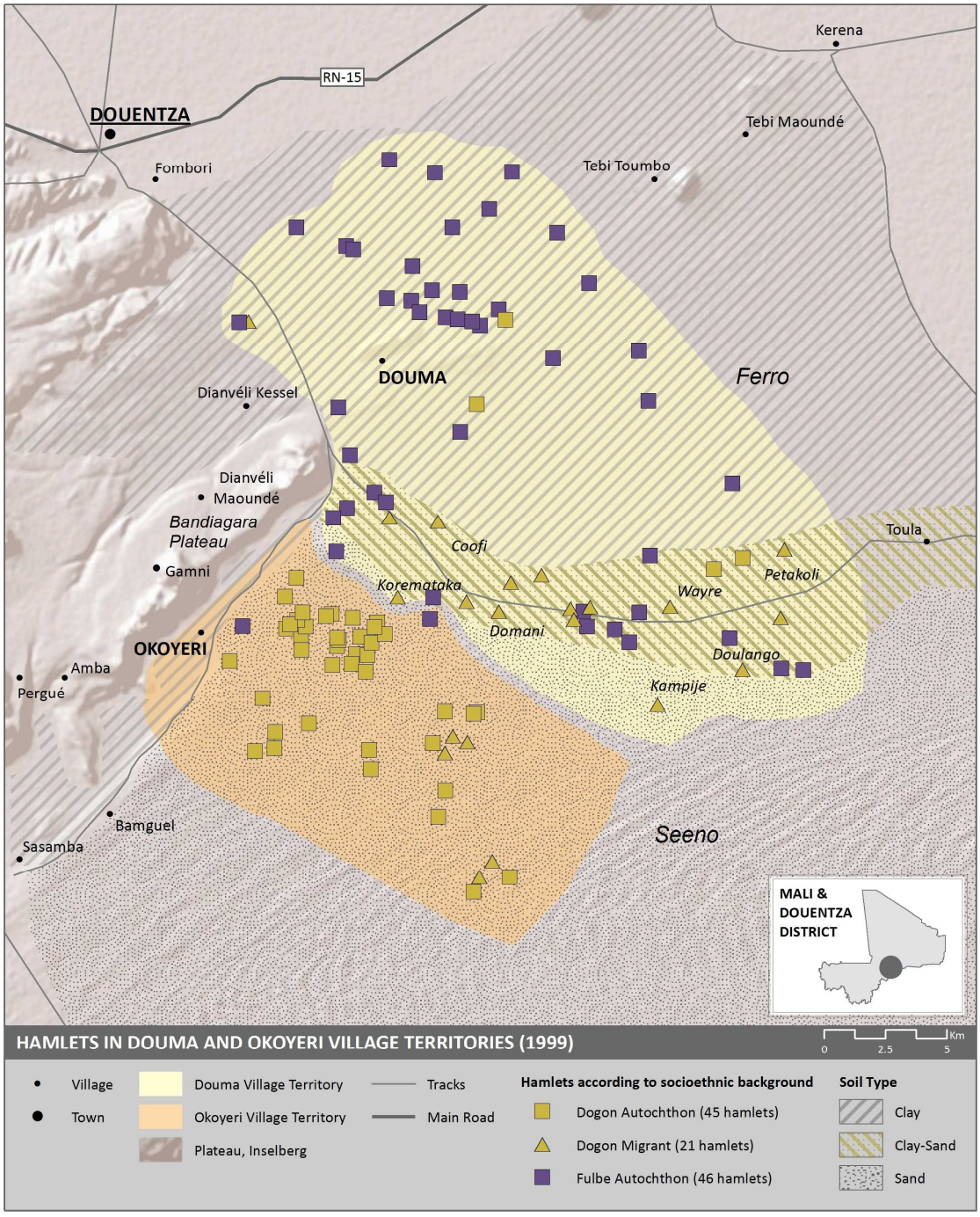
Map 4.3 Hamlets in Douma and Okoyeri village territories (1970)



Map 4.4 Hamlets in Douma and Okoyeri village territories (1985)



Map 4.5 Hamlets in Douma and Okoyeri village territories (1999)



content as they are more fertile and retain their humidity. However if these are insufficient, farmers then prefer soils with a sandy content through which rainfall can easily trickle and humidity may stagnate on the underlying laterite layer at a depth of one metre. Although the water-retaining capacity of clay is better, clayey soils are more susceptible to drought when a clayey soil solidifies and 'breaks' while in situations of abundant rainfall clayey soils become saturated and water starts to run over the fields causing damage to crops. (Millet, for example, can only stand in water for twenty-four hours.) Farmers therefore like to have fields in several locations with different soil properties and, in addition to their existing clayey field(s), they open up additional sandy fields, sometimes located several kilometres away. The distribution of fields over different locations, however, requires adequate labour and spreading one's labour too thinly over distant fields, or concentrating labour in the 'wrong' field, is a risk for farmers.

Second, the opening up of large tracts of sandy soils was a result of the simultaneous agro-technological switch to the plough and donkey cart. Ploughs, drawn by donkeys, oxen or even camels, are particularly suitable for working these light, sandy soils. In contrast to Bankass and Koro Districts where animal traction was introduced several decades earlier (Gallais 1975, van Beek 1993, Petit 1998), ploughs and carts were not introduced into Douentza District until the early 1970s when a development programme was launched by the Ministry of Agriculture in an attempt to raise agricultural output. The plough was expected to replace the hoe and the donkey cart was meant to transport manure to the fields and take the harvests to the storage facilities in the villages. Although the cart was embraced by farmers in Douentza District from the start, many hesitated to use a plough as people were afraid it would 'spoil the soil' or the land would 'not produce anymore'. It was reported that in some cases even when ploughs were given away free, people still refused to use them.[15]

In the clay-sand transition zone, respondents reported that the first plough appeared in the early 1980s, while the first cart was seen a bit earlier. It then took another decade before the use of ploughs became widespread. What eventually convinced farmers to adopt them was the considerable reduction in work when using a plough instead of a hoe. The first harvests, however, were no larger as many farmers initially did not know how to handle a plough properly (Maas 2005: 115). Before the plough was widely adopted, fields increased only gradually in size. With ploughs, however, they doubled or even tripled in area and new fields were opened up. The reverse side was that soil fertility dropped rapidly as deeper layers were turned over and yields declined which, in turn, accelerated the opening up of more new fields. People claim that yields used to be higher from a

[15] Yabilane Maiga (former chief of the *Zone d'Expansion Rurale*, Douentza District), Douentza, October 2002.

1 ha millet field that was worked with only a hoe than from a present-day 2 or 3 ha field that is ploughed.

While the plough has been crucial in expanding the agricultural area, the donkey cart has been key to settlement in the sandy Seeno further away from sources of drinking water. In the past, the locations of hamlets were limited to close proximity to the few wells and boreholes and the numerous rainwater pools. With the help of the donkey cart, drinking water can be transported in large water drums over larger distances. However insignificant and delayed this agro-technological change may seem to western eyes, it has been an innovation of major importance for the opening up of the Seeno dune area as an agricultural overflow area.

It is estimated that by 2002 still only about 30% of the rural people in Douentza District used a plough and 35% had access to a donkey cart.[16] These relatively low figures are probably related to the need to have cash to make such an investment. A price list of agricultural equipment and cattle is presented in Table 4.3. Although the government initially provided five-year credit possibilities for the purchase of new agricultural equipment, many farmers hesitated as they feared indebtedness.

Table 4.3 Price list of agricultural equipment and livestock, Douentza District, Central Mali (1999)

	CFA Francs	Equivalent in Euros
One-wheel plough (for donkey)	8000-25,000	12-38
Three/four-wheel plough (for oxen or camel)	60,000	90
Donkey	15,000-20,000	23-30
Cow/oxen	100,000-150,000	150-230
Camel	100,000-300,000	150-460
Goat/sheep	10,000	15
Cart (for donkey)	23,000	35
Water drum	4,000	6

Source: Fieldwork data (1999)

The widespread adoption of the plough and donkey cart by Dogon farmers in the 1980s and 1990s was connected to labour migration. The first farmers in the hamlets to make these investments all proved to be former labour migrants (Maas 2005: 115). They had not only earned the necessary money but, due to their long periods of time abroad, had also broadened their horizons and now understood the significance of new equipment and were willing to apply it.

Dogon labour migration started back in colonial times in order to pay the compulsory poll tax (see Chapter 3). Driven by low cash-income opportunities in

[16] Yabilane Maiga (former chief *Zone d'Expansion Rurale* Douentza District), Douentza, October 2002.

their home areas, except for the irrigated onion cultivation scheme on the Bandiagara Plateau that was introduced by the French in the 1930s, the Dogon, who are renowned as hardworking and long-distance circular labour migrants, have not hesitated to travel more than 1000 km (usually on foot in the past). The trip from Dogon Country to Kumasi in the Gold Coast (today's Ghana), for example, took 30 to 35 days (Dougnon 2007: 92).

Dogon labour migration in colonial times

The first Dogon labour migrants worked on large colonial railway construction projects in West Africa that were to connect the inland areas with the coast (Gallais 1975: 107). Later the main destinations were the Gold Coast and, after foreigners had to leave the country in 1957 for political reasons, Ivory Coast as well. The coastal areas had booming economies that attracted many people from the Sahelian regions (Dougnon 2007). Labour migrants worked on cocoa and coffee plantations, in the harbours and on construction projects. Other destinations included groundnut areas in Senegal and Cameroon, oil-producing (and exporting) Gabon and the gold mining areas in Burkina Faso. Many stayed away for several years, sometimes as many as twenty years, while others never returned. Some Dogon became rich by setting up banana and/or mango plantations (Gallais 1975: 108) and they then built large houses back home or undertook other private construction work in their home region. When I visited Kassa, a Dogon village on the top of the Bandiagara Escarpment, in 2002, parts of a paved road were visible. Villagers told me that a wealthy former labour migrant had constructed the road many decades previously so as to be able to reach his house by car. It was (and still is) the only paved road for miles around. Many labour migrants returned to their home area after spending a long time in a different environment abroad. Some older labour migrants from colonial times were still in the hamlets and when I was interviewing people in remote hamlets, an often illiterate Dogon farmer would suddenly start to speak French to me. He had learned it in Ivory Coast and sometimes, and even more unexpectedly, a farmer switched to English, which he had learned in the Gold Coast (Ghana) in the 1940s or 1950s.

More recent labour migration also contributed to settlement in hamlets in another way. For many young men who returned after some years of wage labour migration, an important motive behind changing their place of residence was their problem with reintegrating into Dogon social life where they were supposed to share their earnings within the lineage and readjusting to patterns of village and family hierarchy. Settling on the plains enabled a Dogon farmer to cultivate larger areas, sell possible grain surpluses and constitute his herd without interference from his family. This process of disengagement was also encouraged by conversion from animism to Islam, which took place in the course of the twentieth century (Gallais 1975: 124, Bouju 1984: 197).[17]

[17] While animism is still practised in the southwestern part of the Bandiagara Escarpment, and often in combination with Islam or Christianity (or a mixture thereof), nearly all Dogon on the northeastern escarpment have converted to Islam. They abandoned animist practices such as sacrifices, divination, the five-day market cycle and Hogon chieftaincy. The Hogon, a member of the founding family in the village, was or is not only the spiritual Dogon chief but also used to be the political and judicial leader and was surrounded by a council of old village men. In the Dogon villages I visited on the escarpment, some objects, such as the ruins of the Hogon house, are still visible and former Dogon iron places are still noticeable on the plains.

In addition, the Sahel droughts of the early 1970s and mid-1980s accelerated the splitting up of families. Dividing up a family is not a recipe for success but may (or may not) allow the production of sufficient millet by spreading risks, as will be shown in the example of Oumar Hamadoum Alphagalo from Okoyeri Dogon who settled in a farming hamlet in the Seeno in the 1990s, while his brother remained in their village of origin.

A multi-spatial family from Okoyeri Dogon

Oumar Hamadoum Alphagalo (b. 1962) is a Dogon farmer from Okoyeri Dogon's second ward. His elder brother asked him to set up a hamlet in Okoyeri's Seeno in 1996 to keep the family's livestock as there was insufficient space available near the village. The area is sparsely populated with just a few hamlets from Amba village. The two brothers, whose father died in 1980, constitute one family (expressed by 'we eat together') but live in two distinct places in the rainy season: Oumar's older brother remains in the village with his two wives and children where they work the family fields whereas Oumar is in the hamlet with his two wives and children with the family herd where they cultivate a large millet field. Oumar's productivity in the hamlet is low though. He does what he can and grows millet and recently also groundnuts but the soils are too sandy to be very productive. Since they settled there, nearly all their harvests have failed and it is thanks to the family field near Okoyeri that they have not yet faced millet shortages. In order to spread the risk, he cultivates millet on the top of the Seeno dunes as well as in the lower clayey areas and he has enlarged the field with a plough that he bought in 1998. To date, all his efforts have been in vain. In 2002, for example, the harvest from the Seeno field was worse than that in the field close to the village due to the timing of the rains. Near Okoyeri, rain fell at the right moment when the ears of millet were developing, while the rains arrived too late for the Seeno field and the harvest was lost. After the harvest, Oumar returned to Okoyeri Dogon where he waters the cattle, while the children are in charge of the smaller ruminants and the women weave bands of cotton. Watering cattle is an intensive job that prevents him from working as a labour migrant. Instead, a nephew works as a labour migrant in the dry season and sends remittances to the family.

The flexible reorganization of the family into several dispersed nuclear families, but still retaining the extended family in an economic sense (van Beek 1993, 2001, Ruthven & Koné 1995), enables Dogon families to deal with variable rainfall conditions and declining yields. Gallais (1975) calls the flexible socio-spatial organization he observed in the region *la sahelité*. The multi-local spread of production units over different rural areas facilitates expansion and the spreading of risk over a wider area, and relationships are still kept intact (van Beek 1993).

Three forms of family segmentation were encountered in the Dogon hamlets. The most extreme form is a 'separation of the cooking pot', which means an economic division of families and land and the members of the family 'do not eat together anymore' and the family in the hamlet is independent of the larger family in the village. Less rigorous and more frequent is the mere 'separation of cultivation', as we saw in Oumar's case: this is the peaceful geographical spread of family members with the hamlet being the satellite of the village-based family and with the granaries located in the village. The family then remains socially united but while one part continues working on the fields near the village,

another part, often the younger brother(s), settles in a farming hamlet to grow millet. The youngsters are often 'requested' to go by their father or eldest brother or they do so voluntarily. It is often said that it is 'the most intelligent, the most educated and most courageous' son or brother who settles in a farming hamlet. A third, hybrid form of family and land division is among relatives who cultivate separately, for example two brothers sharing one undivided field but 'each in its own corner'. Each small family then grows millet and cooks separately, but 'the younger brother takes his plate to the eldest' and they eat together. In addition, they eat a mouthful from the other's bowl to show that they are eating from the same pot. So economically they are separate, but socially they are still very close. The situation where families separate but still 'eat together' (the second and third versions above) is called commensality. The third situation does not lead to mobility (see Venema 1978), but in the other two situations people are likely to become mobile and disperse to hamlets.

In the literature, Dogon expansion is also explained by some specific features of Dogon culture. The Dogon place high value on fertility but this is no different from many other African ethnic groups. Van Beek (1993: 53) stresses the expansive nature of the Dogon agricultural system 'in which more people are always needed, more fields have to be taken into cultivation, more cattle raised'. More cattle mean more manure and therefore new opportunities for cultivation.

Expansion is also closely related to the Dogon land allocation system on the plateau whereby land is reallocated by the lineage chief. This system is disadvantageous for younger people and may even force them to leave, particularly under stressful conditions (Cissé 1993). From this point of view, the migration of young Dogon to the plains can be considered a revolt against gerontocracy, i.e. the control and distribution of land by the elders (Gallais 1975: 124, Bouju 1984).

Dogon land allocation systems

Dogon land allocation is a complex system that differs between the plateau, the escarpment and the plains. On the plateau, Bouju (1984) distinguished three circles of land with different inheritance patterns: the first is the land nearest to the village, the lineage lands. The eldest son in the lineage always inherits this land, which remains undivided. Land in the second circle (a bit further from the village) is inherited by the eldest sons of the lineage segments, while the land in the third circle (the bush fields far away) is for the eldest son of a nuclear family. 'Such a system is essentially expansionist, since every rise in the male population of a lineage implies the colonization of new land, always further and further from the village' (*Ibid.*: 104-107, translation from Ruthven & Koné 1993: 97). At the escarpment, another system of land allocation is applied in which seniority and relative age also play an important role. Here, a fixed amount of well-manured fields, located near the escarpment, are reserved for the eldest men in the village or clan (*gina na*). These are cultivated by their children who are often allowed to work parts of the land for themselves. Each field corresponds to an elder's hierarchical age position, as a result of which all of these fields are redistributed between elders when one of them dies (Paulme 1940: 95-96, van Beek pers. comm.). In addition, there are outfields further away (at a distance of 3-4 km from the escarpment), which

are less manured, more degraded and therefore less favourable. These outfields are divided between lineages. Seniority is thus considered more important than the lineage system at the escarpment (van Beek pers. comm.). A seniority system like this may similarly promote migration as young people have to work the land under the control of the elders. Land rights are more individualized on the plains than on the plateau and on the escarpment. Outfields on the plain are owned by families, particularly when lineages cannot claim to be the owner of any 'new land' there (Gallais 1975: 125, van Beek 1993: 48).

Conclusion

The agricultural colonization process in the case-study area, including the set-up of numerous rainy-season hamlets in two distinct agro-ecological zones, occurred in two corresponding waves during the twentieth century. Underlying these waves, different drivers can be identified in which the changing natural environment played a prominent role. The first wave to the clay-sand transition zone, which started in the early twentieth century, was driven by land shortages, favourable soil properties and the presence of rain-fed water pools. By contrast, the second wave to the sandy dune area, which started in the mid-1980s, can be considered a response to increased rainfall variability and a related change of preference concerning soil properties. The second wave was facilitated by a simultaneous agro-technological change that allowed the opening up of large tracts of sandy soils (by ploughing) and settlement further from drinking-water supplies (hauled by donkey cart). This process was largely autonomous and not a result of (external) state intervention. Since about 1950, population growth has been a driving factor in the expansion process. The spread of families over several locations was also facilitated by several forms of family segmentation that can be considered a flexible and adaptive social mechanism to deal with changing farming conditions. Interestingly, several mobilities in time and place are connected: long-distance circular labour migration is linked in several ways to short-distance seasonal settlement in farming hamlets. With income from labour migration and an open mind regarding innovation, former labour migrants make investments in agricultural equipment (and cattle) and move into hamlets as small segmented families, since they often cannot adjust to the pattern of village life anymore.

A snapshot of mobility

After having presented the Dogon agricultural colonization process in the twentieth century with a view 'from above', we now offer insight into the mobility of today's farmers 'on the ground'. The mobility of Dogon farmers in the research area, like the mobility of transhumant Fulani agropastoralists, alternates with the rhythm of the seasons as it is mainly driven by the availability of drinking water. Settled in hamlets and camps, Dogon and Fulani inhabit the same area in the

rainy season, particularly the clay-sand transition zone, but in the dry season their lives diverge.

Fulani transhumance

At the early beginning of the dry season when rainwater pools start to dry up (September/October), the Fulani agropastoralists in Douentza District set off with their herds in search of water and fresh pasture. These large herds are taken along transhumance routes to the wet grasslands of the vast Inner Niger Delta between Mopti and Timbuktu, where entrance fees have to be negotiated with the local chiefs (*jowro*) (Gallais 1984). It is estimated that in total more than 1.5 m cattle and numerous sheep and goats are brought to graze here in the dry season (de Bruijn & van Dijk 2001: 221).[18] Due to the entrance fees charged, only the rich move to the Inner Niger Delta, such as a cattle keeper from Okoyeri Peul I encountered who owns more than 1000 cattle.[19] Less wealthy pastoralists with smaller herds move to the freely accessible Bandiagara Plateau where streams can be found. Both areas are about 100 km to 150 km away (in a northwest and westerly direction respectively). Some Fulani even go further towards the San or Djenné Districts in the southern part of Mali.

The Fulani return at the beginning of the rainy season (May/June) and settle with their herds in agropastoral camps as large herds usually cannot be kept near villages. In these camps with their solidly built orbicular straw huts, livestock are kept in kraals (enclosed areas) at night and millet is grown in small fields on the well-manured kraal from the previous year. Such a system means that the kraals and millet fields rotate every year. The millet has a short growing cycle with an early harvest that enables the Fulani to set off sooner for dry-season pastures. Millet growing is of less importance to the Fulani, which can be seen from the low investments made in agriculture. Most of the Fulani agropastoralists did not have ploughs and, in comparison to some Dogon millet fields, their millet plants often looked weaker.

Fulani livestock in this area are watered at rainwater pools and from the (few) wells and boreholes. Usually only one family settles at the camp but in a few places, for example in the Korematakа area (see Map 1.3), several dozen Fulani families were encountered. In addition to herding their own livestock, the Fulani have additional income-generating activities including cattle fattening and working as hired herders. Fulani women usually sell milk and other dairy products and also produce mats.

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[18] It should be noted that the Inner Niger Delta is not just a paradise for livestock. Respondents reported that few of the notorious livestock diseases, particularly those that affect goats and sheep, are prevalent.

[19] By way of comparison, one cow is equal to about EUR 200.

The somewhat ambivalent Fulani attitude towards millet growing is deeply rooted. Cereals are needed to complement their dairy diet but the Fulani are too ashamed to grow it themselves. In the past, slaves, who constituted the lowest layer of non-noble people in the highly stratified Fulani society, used to work the land for their masters (the religious and political elite). But with the abolition of slavery in 1905 and particularly after the terrible famine of 1911-1914 when many masters were no longer able to feed their slaves and had to let them go (Pelckmans 2011), the Fulani had to grow their own millet themselves.[20] Dogon respondents confirmed that many Fulani agropastoralists in the area (*jallube*) did not grow millet initially but do so now although they despise having to engage in farming as it is not considered noble in their culture. If possible, buying or exchanging millet (for milk products or manure) through their relations with Dogon farmers is considered a better alternative and is also vital as Fulani millet yields are usually insufficient.[21]

Dogon moving up and down from rainy-season hamlets

The Dogon are subsistence farmers who have established themselves in farming hamlets located between the Fulani agropastoral camps within a 40-km radius of their villages on the Bandiagara Escarpment. They primarily grow millet in large fields, while beans and groundnuts and other minor crops are grown on smaller plots.

The Dogon live in simple dwellings consisting of a few straw or loam (*banco*) huts with the typical slanting thatched roofs or the more solid and comfortable one-storey loam dwellings with a flat roof (for the elderly), and occasionally several loam millet storage places with the entrance higher up to keep rodents out. The millet is usually transported to the village and millet storage places are only built if family members remain there in the dry season. Generally, the storage places are more solid constructions than the huts, which underlines the value of millet as the staple crop. The huts and storage places are frequently surrounded by millet fields, while additional fields may be located up to several kilometres away.

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[20] In Fulani society, a basic distinction used to be made between free and non-free people, which is still relevant today (de Bruijn & van Dijk 2005c, Pelckmans 2011). Slaves (*maccube*) and now liberated slaves (*riimaybe*), constitute the lowest stratum of Fulani society. Other social categories comprise the political elite (*weheebe*), the religious elite (*moodibaabe*), the merchants (*jawaambe*), the artisans (*nyeeybe*) and the pastoralists (*jallube*) (de Bruijn & van Dijk 1995: 4). The abolition of slavery introduced a large change in Fulani society. The ties between the Fulani elite and their former slaves have changed from master-slave into parenthood relationships and relationships between the social layers have become weaker. For liberated slaves, obtaining their freedom has also had a reverse side as it may well have meant the breakdown of their safety net (Pelckmans 2011).

[21] It should be noted that *riimaybe* cultivators do not settle in farming hamlets in the research area. For this reason, they have not been included in this study even though they were encountered in Douma villages where they grow millet in fields nearby.

All the able-bodied family members in the hamlet participate in agricultural work, with a gender division in tasks. The men work the family fields, while the women assist with the weeding and the harvesting. They are also responsible for the domestic work, take food to the men working in the fields and work their own small fields. The agricultural equipment used is basic: in addition to the hand hoe, a family usually owns one or more simple donkey ploughs and a donkey cart. Oxen and camel traction exists but is less common.

While the old and larger hamlets tend to be located in the vicinity of rainwater pools that are crucial for drinking-water provisioning, the smaller and more recently established hamlets are further away in the sandy dunes. Water collection is a very demanding daily task that is carried out by the men who transport it in goatskin sacks and/or large drums on donkey carts, and by women who carry jars on their heads. The water is, however, of bad quality and carries diseases such as Guinea worm (*dracunculiasis*).

The hamlets are inhabited by one or more families living together, not necessarily all from the same village. In the larger hamlets, the social and political village structure is copied, with a chief (the oldest man from the first-settled family in the hamlet), his councillors and even a youngsters' association with its board. The hamlets, however, are not independent of the village that founded the hamlet but are considered satellites instead. There are a couple of words in the Dogon language that reflect the hierarchical relations between settlements of different importance.

Alla and gallu

The terms *alla* and *gallu* express the hierarchical relationship between any kind of settlements such as towns, villages, wards and hamlets. The terms are dialectical. *Alla* always denotes the main settlement, while *gallu* refers to the less important settlement. For example, Pergué Village is *alla* compared to its farming hamlet Coofi (*gallu)* and the first-established ward in Pergué is called *alla* compared to the other wards that were established thereafter and are *gallu.* Likewise, a distinction is made in Coofi between Coofi 1 (*alla*), which is the first and most important ward, and Coofi 2 (*gallu*) that emerged later.

After harvesting is finished and the water in the rainy-season pools has dried up, usually one or two months after the last rains, the Dogon families return to their villages and the area falls almost silent. Only if a family owns a small herd that cannot be kept near the village do a few youngsters remain behind and take the livestock to the wells and boreholes in the area. For example, the large modern well in Bamguel (see Map 4.1) is one of the rare water sources in the area that provides water throughout the dry season. Some families may also stay a bit longer after the harvest if they have made a manure arrangement with a Fulani herder in return for water for the herd and millet. The herder is then allowed to let his herd go onto the field to provide manure that is used to improve soil fertility.

The time when farmers return to their villages after the harvest may vary considerably from one year to the next. Between 1999 and 2002, this ranged from September (in 2002) to March (in 2000, after the 1999 rainy season) depending on rainfall and the results of the harvest.

Return after the harvest
After the 1999 rainy season (until September) many Dogon farmers returned to the village by mid-March 2000. The late return was due to abundant rainfall that had resulted in a fair harvest and long-standing rainwater in the ponds. The following rainy season, however, was less good with low rainfall and significant crop diseases. As a result, many farmers returned by December 2000. In 2001, rainfall was even lower but crop diseases were largely absent, resulting in a better millet harvest than in the previous year and there were still reserves to overcome the 'hunger period' at the start of the following rainy season. In that year, however, despite a fair harvest, many farmers had to return to their villages early because the pools dried up quickly due to low rainfall. By November 2001, most farmers had left. The 2002 rainy season was disastrous and resulted in widespread crop failure. By mid-August, millet prices in the market had already risen to FCFA 22,500 (EUR 34) per 100-kg sack, which was 50% higher than the price of FCFA 15,000 (EUR 23) in the same period in a 'normal year', and almost three times the price (FCFA 8000) in periods of millet abundance immediately after the harvest. Farmers compared the situation with the large Sahel droughts of the mid-1970s and mid-1980s. Across the region, most farmers did not wait for the end of the rainy season and a massive exodus was taking place by September, heading for the large cities and abroad in the hope of finding work. In early October 2002, buses from Douentza were heading for the capital Bamako (800 km away) crowded with young Dogon farmers.

When they arrive back in the village, many young Dogon men continue to work as labour migrants during the dry season. Labour migration is by far the most important way for Dogon farmers to earn a cash income. Popular destinations (between 1999 and 2002) were the informal sector in Bamako and, at least until the civil war in the early 2000s, the cocoa and coffee plantations and the harbour in Ivory Coast where living standards are generally higher. Harvesting rice or sugar cane as a hired worker is also common, either in the wetlands of the Inner Delta Niger or in the irrigated areas of the *Office du Niger* around Niono (Ségou Region). Female labour migration also exists, such as (unmarried) girls who work, often in miserable conditions, as domestic servants in Bamako but this is on a smaller scale and not only limited to the dry season. Labour migration in the dry season only, which is done in addition to agricultural work at home in the rainy season, can be considered an adjustment to risk (Mortimore 2001). Dry-season labour migration not only provides additional income for the family but also means a welcome reduction in the number of family members that need to be fed.

It is mostly Dogon women, children and the elderly who stay behind in the village during the dry season. The men dedicate the relatively quieter period to construction and repair work on the loam (*banco*) houses and storage areas. Heavy rainfall damages the loam coating (a mixture of clay and millet stalks), which

necessitates regular renewal. The dry season is also the period for celebrating ceremonies, such as weddings, and enjoying dancing.

The Dogon do not only move up and down from the village with the changing seasons but also within the rainy season. As mentioned earlier, families usually spread their family members and their labour over various locations to deal with risk. A part of the family remains in the village, while another unit spends the rainy season in a hamlet that serves as a satellite for the family. Multilocality is facilitated by polygamy as the farmer may leave, for example, one wife in the village and take the other(s) with him to the hamlet (Brandts 2005). Ties between the families in the village and the hamlets are therefore generally strong.

It is not only the people who are mobile. Their fields move from one year to the next and they expand, shrink, shift or abandon and displace fields every year. The cultivated part within a field (about two-thirds of it) also rotates. Due to insufficient organic manure to restore the soil's fertility and the total absence of chemical fertilizers because they are too expensive and depend on labour availability, a depleted tract of land may be laid fallow while another area is cleared. This also explains the very irregular field shapes in the area. If land nearby is not available, fields further away are opened up.

New hamlets are usually established by a single young family consisting of unmarried or recently married young brothers with their wives and young children. Over time, the hamlet develops through new-borns and relatives who join family members already present. In situations of famine or family conflict, for example due to matters of inheritance, families may decide to split up. And their fields and equipment are also divided. This does not necessarily lead to a relocation of huts as farmers often move only after a family split to be closer to their field.

The mobile lifestyle of Dogon farmers over time becomes apparent when considering their life stories. A good example is that of the dynamic *Al-hajj* Diadié Alphagalo from Okoyeri Dogon. Although he may seem extremely mobile, he is in fact not that exceptional.

Mobility and diversity

Al-hajj Diadié Alphagalo from Okoyeri Dogon was born in 1946 in his family's hamlet in Coofi area and has been involved in farming since the age of nine. After his family abandoned the place and returned to the village around 1960, due to a conflict with the Fulani of Douma, Diadié's father set himself up in a new hamlet in the extensive sandy Seeno dunes area in 1967, being the first farmer there from Okoyeri. A handful of other families from Okoyeri joined Diadié's father, who was also with him in Coofi at the time and had followed him back to the village afterwards.

In addition to regular seasonal circular labour migration, Diadié worked for many years (1986-1990 and 1991-1994) in various countries including Ivory Coast, Gabon, Guinea, France and parts of North Africa, as can be seen from the many souvenirs in his house in Okoyeri Dogon. Two of his brothers are still in Gabon. By 1977, he was wealthy enough to make the *hajj* – the annual Muslim pilgrimage to Mecca (Saudi Arabia) and one of the five

pillars of Islam – which gave him the honorary title of *Al-hajj* and is very prestigeous among Muslims.

After his long stays abroad, he returned and set himself up in a hamlet in 1994, a stone's throw from his family's hamlet. The area here consists of sand dunes that are mixed with some clay deeper down which, according to Diadié, 'unites the best of the two'. He opened up the field with a plough that he had purchased with the money he earned. In the mid-1990s, he was one of the first farmers in Okoyeri to switch from the hoe to the plough. A year later he took the initiative to dig a waterhole as the nearest rainwater pools were 7 km away. He also expanded his large field to a vast 70 ha, which helps to feed the 37 members of his family: himself and his three younger brothers and their wives and children. As his family is too small to provide all the labour needed, he mobilizes the youngsters' association (*ton*) from the first ward in Okoyeri Dogon, where he officially resides, to assist with harvesting in return for a good meal. When I visited *Al-hajj* Diadié's hamlet for the first time in October 1999, about twenty to thirty young men from the *ton* were hard at work.

Aged 56 in 2002, *Al-hajj* Diadié is still a dynamic man. In October 2002, shortly after the rainy season, he is 'retiring' (as he puts it) and will live in his unique two-storey loam house in Okoyeri Dogon's first ward. He used to work every dry season as a labour migrant in the harbour in Abidjan in Ivory Coast but due to the political events there, including violence against (foreign) Sahelian labour migrants that was developing into civil war, he had decided to stay in Okoyeri that dry season. Sitting around and doing nothing, however, is not his way of life, so when I met him in October 2002 he was busy trading ploughs he had purchased in Bamako, 800 km away, a bus journey that takes at least 12 hours from Douentza Town.

He is highly esteemed in Okoyeri Dogon Village and when the old village chief died in early 2002, he was asked to become the new chief. Okoyeri's chieftaincy has always been in his family. He refused, however, because a village chief is supposed to live in the village, receive visitors and reconcile conflicts and such a sedentary existence does not fit the mobile way of life and autonomy that he prefers.

In addition to labour migration, the Dogon also perform other off-farm activities to earn a small income. For example, they work as traditional healers, Islamic teachers or mechanics, or they transport and sell wood and bricks at the weekly regional market in Douentza Town. Dogon women often produce traditional materials to sell at the market, such as the well-known indigo-dyed cotton fabrics (*bogolan*).[22] Due to the frequent harvest failures and low agricultural productivity, there are seldom food surpluses that can be sold in the market.

In summary, both Fulani agropastoralists and Dogon farmers are mobile with the changing seasons but in different ways. In the rainy season, they live in settlements. Driven by drinking-water shortages, the Fulani then move away with their herds while many young Dogon men, after returning to their villages, continue to work as labour migrants in Bamako and in the coastal regions in the dry season. Labour migration is necessary for many Dogon families to earn a cash income.

[22] The division of various tasks related to indigo material production runs along class lines. Women from noble families spin raw cotton that they buy at the market and pass the threads on to the village weavers who make long bands out of them. After that, the women of the lower-ranked artisan class dye the bands with indigo and sew them into wraps.

Expansive agriculture and diversity in Coofi

Subsistence farming in the volatile natural environment of the Sahel is part of a constant struggle for survival. The agricultural performance of Dogon farmers in hamlets, however, is very diverse, even within the same agro-ecological zone. While some farmers occupy large areas, use animal traction, own numerous heads of cattle and usually produce sufficient millet for their families, others toil with just a hand hoe in their small, depleted fields and face near-famine conditions almost every year.

The diversity in agricultural performance will be demonstrated by taking Coofi as an example. It is a hamlet spread over two distantly located wards (known as Coofi 1 and 2) in the clay-sand transition zone where fifteen families live together and constitute a small community. Most of them come from Pergué Village on the escarpment and so are named Pergourou, in addition to their family names of Guindo or Guiré. Guindo indicates the family are 'noble' Dogon farmers, while the Guiré belong to the lower-ranked class of artisans (weavers and leather workers).

The sizes of the farming fields and fallow fields of these eleven families were estimated by way of footstep measurements.[23] It turned out that a Dogon family in Coofi, which comprises 15.8 people on average, cultivates 22.3 ha (i.e. 1.3 ha per person) and has a fallow area of 18.2 ha (i.e. 1.0 ha per person) on average. The fallow area comprises entire fallow fields as well as fallow parts within larger fields.

The agricultural area available in the hamlet (cultivated and fallow land together) per person is considerable, ranging from 0.7 to 4.0 ha per person (see Table 4.4), which shows how extensive agriculture is. It should be noted that harvests are often shared with family members in the village, so the average area per capita is probably lower. In addition, a communal millet field and groundnut fields are also cultivated in Coofi.[24]

Although millet yields in Coofi were not considered, a study of the agricultural performance of three Dogon farmers in nearby Wayre hamlet (5 km away) re-

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[23] See Chapter 1 for the methodological challenges encountered when conducting fieldwork in this area.

[24] With the revenue, the people in Coofi hope to purchase a communal plough or cart. However, their incomes vary considerably from one year to the next. In 1999, for example, they were low and just enough to buy sauce ingredients to celebrate the end of Ramadan. In 2000, revenues were better (EUR 22). After we had donated FCFA 40,000 (EUR 60) in 2001 to the Coofi community to buy groundnut seed for the communal field as a gesture of gratitude for them letting us do our extended fieldwork there, the 2002 harvest was very good. From the 22 sacks of groundnuts harvested (50 kg each), 16 sacks were sold at the Douentza market, 4 were reserved as seed, 1 sack was given to Douma's village chief, and 1 sack was given to me. The farmers in Coofi ascribed the good harvest to our presence and believed we had brought them prosperity. They even offered me a sheep (with a value of about EUR 15), a precious gift that I was not able (expected) to refuse. I kept the sheep, which was named Coofi, in my compound in Douentza.

vealed that millet production varies widely between farmers and fields. In 1998, these ranged from 450 kg to 722 kg per ha (Maas 2005). In a preceding and much larger study conducted among Fulani cultivators (*riimaybe*) and herdsmen (*jallube*) in the same clay-sand transition zone but about 75 km to the east in 1990 and 1991, lower but also highly variable production data were recorded. Millet yields ranged from 141 kg to 568 kg per ha, which was partly related to a combination of specific soil properties, manuring, labour inputs, rainfall conditions and other hazards (de Bruijn & van Dijk 1995: 273).

Table 4.4 Field and fallow field area (ha/person) in Coofi hamlet (n = 174), Central Mali (2000)

	Mean size	Range	SD
Cultivated field (ha/person)	1.3	0.5-2.1	0.4
Fallow field (ha/person)	1.0	0.2-2.4	1.3
Area available (ha/person)	2.3	0.7-4.0	1.7

Source: Fieldwork data (2000)

Seven of the fifteen families in Coofi own livestock, four of which have cattle. The other families there do not own any livestock or have lost their animals to disease or drought, or as a result of a forced sale in order to buy millet. As there are too many fields near the hamlet that the animals could damage, the herds are kept further away. It was reported that one herd was wandering on the Seeno near the border with Burkina Faso, another was in the Ségou Region and a third was in South Mali near Koutiala. Although not all the families own livestock, each of the eleven families studied owned at least one donkey plough and seven also had a donkey cart. Only one wealthy family used camel traction with a large plough.

Although nearly half of the families in Coofi own livestock, maintaining soil fertility was reported as a major problem by all of them. Various strategies are applied in combination, such as leaving the millet stalks in the field, digging tree leaves into the soil, producing compost with household waste (if any is available), millet-bean crop rotation, intercropping and/or establishing a manure agreement with a Fulani. However, even the use of manure is not unproblematic as if it is combined with insufficient rainfall, it can ‘burn’ the maturing millet. Chemical fertilizers are not used at all as most farmers lack sufficient cash income and they are not available in the regional markets in any case, according to the farmers. Fallowing is still the most extensive soil-fertility strategy applied.

The contrast between farmers’ agricultural performance in Coofi is illustrated below by the stories of two farmers: Oumar Guindo, a successful farmer, and

Table 4.5 Agricultural performance of a successful and a poor farmer in Coofi, Central Mali (2000)

	Succesful farmer: Oumar Guindo	Poor farmer: Djibilirou Guiré
Year of family settlement in Coofi	Mid-1930s	Mid-1950s
Family size (persons)	50	12
Total area (in ha) (field and fallow)	189	13
Area per person (ha/capita)	3.8	1.1
Ploughs	6	1
Year of purchase of first plough	1982	1995
Carts	3	0
Year of purchase of first cart	1984	n.a.
Donkeys	13	1
Pairs of oxen	1	0
Camels	2	0
Livestock	60 cows, numerous goats and sheep	0

Source: Fieldwork data, 2000

Djibilirou Amadou Guiré, one of the poorest farmers in Coofi. First, their main agricultural characteristics are summarized in Table 4.5.

Oumar Guindo: A successful farmer

Oumar Pergourou Guindo (b. 1962) is the head of a large family (of about 50 in 2000) in Coofi. His grandfather, Apouralou, settled there in the mid-1930s, being the second to settle after the first-settled family to whom he was closely related through marriage. He first cultivated a field near his huts but has relocated the field and these huts several times, the last time being in 1960. The family has become prosperous, particularly since the early 1990s when Oumar took over the daily management of the family. It is probably the wealthiest Dogon farming family for miles around with at least 40 family members involved in agricultural production.

Oumar is the sixth of his father Sory's fifteen children and is an entrepreneurial and innovative man. Thanks to his time in Gao, Timbuktu and Bamako as a labour migrant between 1988 and 1991, he speaks several languages, such as Songhai, Bamana, Fulani, Tamacheck and some basic French, in addition to Dogon. As a labour migrant, he took up several activities. He studied the Koran with a *marabout* (Islamic teacher) who gave him a cart and he was then able to transport wood and salt in the north until a Tuareg rebellion started in 1990 striving for autonomy in northern Mali and Niger. After that, he cut herbs in the Inner Niger Delta, where he got married and had children. When his brother urged him to come home, he returned to Coofi with his young family. In addition to his agricultural work, he has continued transporting construction materials in Coofi,

such as sand for the construction of a new primary school in Amba. He is also a skilled mechanic, something else he learned as a labour migrant.

Since Oumar began managing the family, it has made significant investments in ploughs, draught animals (oxen, donkeys and even camels) and livestock. Oumar was not keen to share the exact number of livestock they owned but it must be considerable since four of Oumar's brothers work as full-time herders, two with cows (about 60 in total) and two with goats and sheep. And from time to time they herd Fulani cattle too. The family herds roam on the Seeno. In 1984, Sory was the first farmer in Coofi to buy a plough, followed by five other large ploughs later. His draught animals include two camels, a pair of oxen and thirteen donkeys. During his period as a labour migrant in the north, Oumar learned how to use ploughs better, knowledge that he passed on to his relatives in Coofi.

With his family expanding and investments in agricultural equipment, the family has been able to open up and extend two large fields over time. One field (110 ha) of clay and clay-sand soil is near the hamlet, while a new, 80-ha sandy field was opened up 10 km away in the early 1990s. To chase away cattle and birds, Oumar posted his younger brother there with a rifle in a temporary hut. Various crops are grown in the two large fields: millet, sorghum, sesame, groundnuts, calabash, sorrel, beans, watermelon, okra and cotton. In addition, the family has a small rice field (from his maternal side of the family) near Douentza Town but it is not cultivated every year as it is 25 km away.

Djibilirou Guiré: A poor farmer

The story of Djibilirou Amadou Pergourou Guiré is very different from Oumar Guindo's success story. Djibilirou was also born in Coofi in the 1960s and his small family of four persons set up a hamlet in Coofi in the mid-1950s. But this still only numbered 12 persons in 2000: Djibilirou (as family head) and his two wives, his brother who married only one wife, and seven children in total. Although the five adults are all involved in agricultural work, the family faces labour shortages. In 1995, Djibilirou bought a simple one-wheel plough and a donkey, which enabled him to double his field area and made the work much easier. He is too poor to buy a cart and the few cattle that he once owned have all died. He told us that he has never been able to sell cereal surpluses at the market and he has hardly any financial room for manoeuvre in times of crisis.

Djibilirou has two fields, a 7-ha sandy field near Coofi and a smaller 5-ha clayey field further away. The clayey field was the field where his father started, whereas Djibilirou opened up the sandy field in the late-1970s as well. He always starts his agricultural work in the sandy field because if he does not, the weeds become rampant and prevent the millet from growing. As he has no cattle to provide manure, he just applies simple measures to improve soil fertility: applying

millet chaff; adding tree leaves to the soil, and leaving the old millet stalks from the previous year in the soil. He knows that the fertility of the soil is declining when the millet stalks go yellow and become very thin. Water is collected in a nearby waterhole but as he does not have a donkey cart, which would enable him to settle further away from a source of drinking water, he cannot let the land lie fallow.

His harvests often fail and 1999 was a bad year. He only cultivated his sandy field because when he arrived on his clayey field, it was already too late to cultivate it as the field was covered with weeds. Although the rains were abundant that rainy season, the millet stalks suffered badly from disease and were infected with white worms (*kara*). As a consequence, the harvest provided enough millet for only one month. He decided to go to the Inner Niger Delta to earn some money for two months in the dry season by harvesting rice, something he does almost every year. Sometimes he also performs *banco* reconstruction work on houses in towns. In 2000, the harvest was bad once again. This time, locusts were the problem, affecting the millet plants when they were only 10 cm high. He had felt very tired that year as he had worked on his sandy field for 26 days and on his clayey field for 16 days, but all his efforts were in vain and there was no option but to abandon the fields for the rest of the rainy season.

Diversity in farming

Although Oumar and Djibilirou are about the same age, live in the same hamlet and farm (at least partly) in the same agro-ecological area, their agricultural performances are very different. They both face low agricultural productivity as neither of them is able to sell millet surpluses, but the micro variation in agricultural characteristics clearly makes a huge difference. Whereas Djibilirou struggles just to stay alive, farming in a hamlet offers opportunities for Oumar. Djibilirou has almost nothing, not even a cart, that allows him to collect water from further away and expand or relocate his fields. He appears to be a prisoner in Coofi and is doomed to continue farming his depleted field. In contrast, Oumar is an entrepreneur who spent many years as a labour migrant and brought his knowledge and money home, investing them in cattle and agricultural equipment. He manages a large family that constitutes a good-sized labour pool and is thus able to cultivate several large fields with distinct soil properties. This provides him with more opportunities to expand the cultivated area and gives room for manoeuvre in hard times. Diversity, however, is not a guarantee of success. Spreading risk also means that Oumar might spread the family's labour too thinly to be successful in all areas. Moreover and partly due to his wealth, he is deeply involved in a conflict over land and power with and among Fulani from Douma (see Chapter 6).

A farmer's agricultural performance is influenced by many factors. First of all, sufficient and timely rainfall is important but so too are labour input, animal traction, soil properties, management skills and the absence of plagues and pests. Periods of drought (but also flooding) threaten crop growth at various stages. At the beginning of the growing cycle, three subsequent attempts at sowing are not unusual before the millet plants start to grow and then dry wind, sand storms and low soil moisture may threaten the young seedlings (Maas 2005). Weeding (often in two rounds) is an important stage to give the young plants sufficient strength, which also requires labour input. After that, the flowering period is crucial and sufficient soil moisture is key here (de Bruijn & van Dijk 1995: 236). A drought of more than two weeks at flowering time, for example, is disastrous for crop development. At different stages, locust plagues, insects, worms, rodents and birds can all constitute a danger, as do roaming cattle. Being successful or not is, for a considerable part, beyond the sphere of influence of an individual farmer.

In addition, social and cultural factors play a crucial role that may lead to diverse farming strategies. As de Bruijn & van Dijk (1995: 224) emphasized for herding and farming practices in Central Mali:

> People do not just make rational decisions based on the 'best technical means' at their disposal, they do so within social and cultural frameworks. This may lead to radically different strategies of individual cultivators, and herdsmen, who nevertheless belong to the same society, dispose of a similar resource base, use the same ecological environment, and share a common history.

Along the same lines, a case study conducted in Dianvély Maoundé, one of the Dogon villages on the Bandiagara Escarpment and from where farmers have set themselves up in hamlets in the clay-sand transition zone, shows that differences in economic success among farmers are related to people's different status and their flexibility to diversify livelihood activities (Brandts 2005). Four occupational groups are distinguished in Dogon society, each with a different status: farmers, blacksmiths, weavers and leather workers (in decreasing order of importance). The Dogon have a strong work ethic (van Beek & Banga 1992: 71), and their notion of work consists of four elements: the instrument (hoe), the object (land), time (working from dawn to dusk) and the person (being courageous) (Dougnon 2007: 39). They consider farming to be 'respectable work' as it necessitates physical effort. By contrast, livestock keeping is not 'genuine work' in their eyes since 'a herding stick is not a working tool' (Dougnon pers. comm.).

> *Status and economic (in)flexibility*
> The lower-ranked craftsmen (weavers and leather workers) in Dianvély Maoundé did not work the land originally but provided services to noble farmers in return for millet. When this barter system could no longer be sustained in the early twentieth century and with all the land near the village already occupied, the craftsmen (*Dem*) opened up land and set themselves up in hamlets in the Petaka area 25 km away, where they started farming and developed economically. By contrast, the noble farmers (*Ongoiba*) who (still) define themselves

as 'real cultivators' and feel ashamed of working outside agriculture, have diversified their livelihood activities to a much lesser extent and this has largely reduced their ability to deal with risk (Brandts 2005).[25]

Conclusion

It can be concluded that subsistence agriculture in the agricultural colonization area, where land is still abundant, is extensive but this varies greatly between families and depends on the availability of farming equipment and labour. Agricultural performance, such as yield, is variable and is influenced by various factors, not only rainfall conditions, soil properties, manure availability and labour input but also by management skills, the experience of labour migration, earnings from labour migration and the flexibility to diversify livelihood activities.

Agropastoralists' responses to drought

While many Dogon farmers have responded to drought and other hazards by spreading their fields and families out into hamlets and diversifying their livelihood activities in some ways, including long-distance labour migration, the Fulani agropastoralists in the area have reacted differently. Two contrasting strategies were encountered: either they left the region permanently with their herds or they became impoverished and had to focus on farming.

Mass departure with herds: The case of Okoyeri Peul

At a short distance from Okoyeri Dogon's first ward, there used to be another village called Okoyeri Peul. It was a Fulani village, as the name indicates (the Fulani are called *Peul* in French). It was a very lively place with weekly horse races and regular beauty contests, events that are still remembered by the elders in Okoyeri Dogon today. It was also a large wealthy village that outnumbered Okoyeri Dogon in terms of population and, in particular, cattle. According to the 1975 census, 874 Fulani owning 3903 cows were registered there in total, whereas 548 Dogon and only 373 cows were registered in Okoyeri Dogon.

Driven by increasing drinking-water shortages for their livestock, all the Fulani families in Okoyeri Peul left the area between the late 1960s and mid-1980s. The wealthy families with large herds moved to the Inner Niger Delta, while the poorer families with only a few animals moved to the Bandiagara Plateau or

[25] Millet plays an important role in Dogon society. It is not only the staple crop but also an object that shows respect, which is an important value in Dogon social life (van Beek & Banga 1992: 69).

towards San and Koutiala Districts in South Mali.[26] Only ruins remain of Okoyeri Peul Village today.[27]

In some cases, the departure was in stages. For example, I encountered a Fulani family on the Bandiagara Plateau in 1999 who had abandoned Okoyeri Peul during the 1984-1985 drought. They had first gone to Bankass District, the following year to San District in South Mali, and they migrated to the Bandiagara Plateau in the early 1990s (see de Bruijn & van Dijk 2003).

Other families stayed a bit longer in Okoyeri territory and relocated their huts from the village to camps where they continued to spend the rainy seasons. The number of Fulani families that still return to their camps in Okoyeri has dropped however. In 1990 there were only a few camps with three or four families and the situation was the same in 1999, while only two Fulani families were still returning every rainy season by 2002: the family of the village chief and the family of the young Diadié Boubou Hamadou Barry (see below). These are the autochthonous Fulani from Okoyeri who are indicated on the settlement maps.

Rainy-season return to Okoyeri Peul

Diadié Boubou Hamadou Barry is a young agropastoralist (b. 1969). With the departure of the Fulani population from Okoyeri Peul, Diadié's family decided to settle in a small camp a bit further away from the village in the first row of dunes. A few cows are kept near the seven huts, and two herds of goat and sheep circulate on the Seeno. In a small field next to their huts and from where they have a splendid view over the valley towards the escarpment, they grow millet, sorghum, groundnuts, *niébé* (beans) and *dah* (hibiscus).The family spends the dry season on the Bandiagara Plateau where water for their livestock is more abundant.

The 1984-1985 drought was nothing less than a catastrophe for Diadié's family. Their family was then one big family that included Diadié's father Boubou and his brothers, wives and children and it was prosperous with a large herd. After the droughts, however, only four cows remained. Diadié's old father (b. circa 1920) decided to stay in Okoyeri Peul, but all his brothers left. Diadié and one of his five brothers also left and went to Ivory Coast to work as hired herders. With the money they earned, they have slowly built up a new herd of sheep and goats but they still have only a few cows. They used to go on transhumance with their herd to the Inner Niger Delta every dry season but since their herd was decimated, they have gone to the Bandiagara Plateau.

Diadié's eldest brother is now a cattle trader and three others are herders. Diadié, who is not in good health and cannot work as a full-time herder, and his youngest brother take care of the field but very few investments have been made in equipment to improve agricultural production. There are donkeys but no carts or ploughs, and the millet harvests are usually miserable, as was the case when I visited him in September 1999.

Although the Fulani's departure may seem permanent, they still dream of returning one day (see Chapter 5) and so are collecting money to construct a modern well.

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[26] Fulani families from Okoyeri Peul were found in Konna Town as well as in camps near Bandiagara Town. Ten Fulani families were visited in their camps on the Bandiagara Plateau: four from Okoyeri Peul and six from Douma. Most of them had moved away in the late 1970s.

[27] Villages that have vanished and from which only ruins are left are not uncommon in this region. For example, Gallais (1975: 105) reports a former village called Dogouma near Dianvéli.

Impoverishment and focus on farming

While many Fulani left the area with their herds as a reaction to periods of severe drought, others lost their cattle and had to switch to farming as a main source of income generation. The large Sahel droughts and the 1984-1985 drought in particular hit the Fulani agropastoralists hard and many became caught up in a cycle of progressive impoverishment (de Bruijn 1999: 292, de Bruijn & van Dijk 2004). For example, veterinary estimates (that may be considered more reliable than the census data) indicate a dramatic cattle loss of about 80% in the area and the number of cattle in Douentza District dropped from 250,000 in 1982 to 50,000 in 1985. Building up new herds after the drought was a slow process and the number of cattle was still only 66,000 in 1989.

Some impoverished Fulani in Douma were cultivating small fields near the village before the bad drought of 1984-1985 while others were allocated plots by the Fulani chief of Douma later. These fields were situated in a former pasture for small livestock (*harima*) near the village. The Fulani village chief explained that he wanted to allocate land to 'all people in need of it'. Fulani cattle keepers were, however, furious about the village chief's actions, which they believed were not a work of charity but rather an attempt to thwart them. The relationship between cattle keepers and the village chief in Douma, although they are all Fulani from the same family, is tense and the cattle keepers feel that they are not being supported by their chief (see Chapter 6). But the impoverished Fulani were grateful to the village chief. One of them is Mamadou Barry, who lives in Douma Village.

Forced to farm

Mamoudou Djibilirou Barry (b. 1964) was the head of a Fulani family of 14 persons in 2002. In the glorious distant past, the family used to be rich with plenty of cattle and slaves who, now as former slaves (*riimaybe*), are living in another ward in Douma. With the droughts of the mid-1980s, however, Mamoudou's family lost its entire herd of more than 100 cows and numerous oxen and sheep. Where they previously practised agriculture as a minor activity alongside their primary occupation as cattle keepers roaming to and from the Inner Niger Delta, they have remained in Douma all year round since the loss of their herd and have had no option but to focus on farming. For this reason, the village chief of Douma allocated Mamoudou's family a clayey field on previous pasture land where they started to grow millet, sorghum and groundnuts. Farming is not easy though. Mamoudou does not own a plough (although he sometimes hires someone with a donkey plough). When I visited his fields with him in early September 2002, the millet on the clayey field was in a bad state as the plants had not grown beyond small stalks despite several attempts at sowing. And large parts of the field were uncultivated, which was due to a shortage of labour and poor rainfall. Over the past few years, he has been working as a hired herder in Burkina Faso and Ivory Coast in the dry season to make ends meet, leaving his family behind in Douma. Last year, for example, he moved herds all the way from Douentza to Niger on foot. Since the loss of his large herd in 1985, he has been able to rebuild a new smaller one that now consists of about 30 goats, which are herded on the Seeno.

For the Fulani who see themselves as proud livestock keepers, this massive loss of cattle due to the 1984-1985 drought was not only an economic disaster but also an existential crisis, particularly when they were forced to start farming. In Fulani eyes, wealth (which is symbolized by cattle) and nobility are related (de Bruijn 1999: 294). Consequently, poverty (i.e. owning no cattle) and farming are considered shameful. To uphold their identity, many Fulani have developed alternative strategies, such as becoming pious Muslims (de Bruijn 1999). Not everyone has succeeded in finding ways of doing so however. Some 'became insane, ill or died out of misery' or they silently left their families and migrated southwards (*Ibid.*: 304, see also Chapter 7).

Not everybody in Fulani or Dogon society was hit by drought or other hazards to the same extent. de Bruijn & van Dijk (2004, 1995), who conducted extensive research into Fulani ways of dealing with insecurity in Central Mali in the early 1990s, argue that it depends at least in part on the 'risk position' of specific social categories in society. 'Risk position' refers to exposure and vulnerability to ecological and other risks, including access to networks and resources to mitigate the consequences of risk. Under the influence of drought and political change, amongst other things, risk positions may change. While the risk position of former slaves (*riimaybe*) who were farmers, for example, improved over the course of the twentieth century, the risk position of the pastoralists (*jallube*) deteriorated. The former slaves have consequently coped better with the droughts than the pastoralists and are doing better economically as a result (de Bruijn & van Dijk 2004: 151). The improved risk position of the former slaves is related to several factors including their flexibility in diversifying activities, which is needed to survive in a volatile environment. This is in contrast to the noble Fulani who are hindered by feelings of shame related to doing 'unnoble' work. A similar reversal has taken place, as mentioned earlier, among the Dogon, where status is also related to (in)flexibility and economic development (Brandts 2005). What contributed to the improved risk position of the former slaves was their enrolment in education and they were also given advantages as a group under the socialist regime of Modibo Keita (1960-1968), which had a general emancipating effect (Pelckmans 2011).

Agricultural colonization of a pasture: Changing Dogon-Fulani relationships

The Dogon and Fulani have lived side by side in the area for a long time in a complex and multifaceted relationship that has included elements of both rivalry and solidarity (de Bruijn *et al.* 1997). While in discourse and oral accounts the Fulani and Dogon may seem to hold opposing views, their relationship can also be cordial in daily life (*Ibid.*, Breusers *et al.* 1998 for farmer-herder relations in

Burkina Faso). In spite of their (old) reciprocal relationships, however, and their shared religion (Islam), which is a factor that would be expected to unite them, feelings of mistrust between Fulani and Dogon persist (de Bruijn *et al*. 1997: 262).

Their positions changed fundamentally in the twentieth century, alongside the mobility of Dogon farmers and the increasing impoverishment of Fulani pastoralists. The economic success and political status of the Dogon have improved, while the Fulani, and particularly the pastoralists, have become more marginalized. This change in political and economic positions has affected their relationship. The Dogon agricultural colonization of previous Fulani pasture areas in the twentieth century can be seen as an expression of this process.

Since French colonization put an end to the Maasina Empire, the Fulani have lost terrain to the Dogon politically. They have not been able to stop Dogon agricultural expansion onto their pastures that, from a colonial and post-colonial legal point of view, were considered 'vacant' land and therefore fell under state law relating to private property (de Bruijn & van Dijk 2004: 145-146). The Fulani also have lost their territorial control over cattle tracks (Bonte 1999). By contrast, Dogon political power has increased over the past decades, with clansmen being ministers in the Malian government since the 1960s and holding other senior positions at national level that have influenced local politics and backed Dogon expansion, as the example below shows (adapted from de Bruijn & van Dijk (2004).

Political protection and Dogon expansion
In 1964, the Dogon chief of Dianvéli asked the Fulani chief of Dalla for permission to open up fields on the Seeno Manngo. He refused but after he died and after the devastating drought in the early 1970s, the Dogon started to clear land and established a farming hamlet. They felt protected as the son of Dianvéli's chief had obtained an influential position in the Ministry of the Interior. The encroachment of the Seeno made the Fulani angry and they attacked the sub-district chief who sided with the Dogon. As a result, the Fulani were put in prison. They negotiated with the district chief so that the Fulani would stop collecting tax money in return for the Dogon's departure. The Seeno Manngo would then be preserved as a pasture area. In 1984, however, it is said that the Dogon bribed the district chief and obtained permission to cultivate on the Seeno Manngo (de Bruijn & van Dijk 2004: 148-149).

From an economic point of view, it would seem that, in comparison to the Fulani, the Dogon have coped better with the droughts of the past few decades by diversifying their livelihood activities. This had in fact already started in the 1950s with labour migration and investments in cattle, family segmentation and a geographical dispersion of families and, since the 1980s, an expansion of the fields they cultivate too. By contrast, with livestock being fragile capital and prone to disease and drought, many Fulani pastoralists have lost their herds. These have not yet been fully replaced and, compared to the Dogon, the Fulani do not seem to have been able to broaden their activities to the same extent.

The change in their relative positions has impacted on their relationship, although they still need each other to a certain extent. This is clear when considering the development of the *jaatigui* (host) relationships between Fulani and Dogon (see Chapter 2). In the past, sedentary Dogon used to act as a host for transhumant Fulani cattle keepers along their tracks, a relationship that was beneficial to them both. For the Fulani, the *jaatigui* relationship offered a solution to their feelings of shame regarding eating in public or with strangers and they also gained access to pasture and water for their herds along the route. In return, the Dogon received manure and milk and, if a Dogon owned only a few cattle, these were entrusted to the Fulani herder. The relationship also reflected a strict division between farmers and herders concerning patterns of work (de Bruijn *et al*. 1997: 254-256). Since the Dogon have increasingly constituted their own herds since the 1950s, financed by income from horticulture and labour migration (Bouju 1984, de Bruijn *et al*. 1997: 253), their interest in *jaatigui* relationships has decreased and they have become less economically dependent on the Fulani. Impoverished Fulani pastoralists (*jallube*) still make use of these old relationships but no longer as mobile people. It is reported that some have settled next to their former Dogon *jaatigui*, with whom their relationship goes back generations. They may even have become dependent on their charity (de Bruijn *et al*. 1997: 256).[28]

Mobile Dogon farmers, in turn, have increasingly needed a Fulani *jaatigui* to set themselves up in hamlets in the clay-sand transition zone, which the Fulani of Douma consider to be their own area, although a few Dogon villages on the escarpment contest Douma's authority and claim that the area is theirs (see Chapter 5). Although this agricultural colonization may seem to illustrate the Fulani's powerlessness to stop Dogon expansion in their area, the Fulani may also have extended their influence over the Dogon who have no other place to go to grow the food crops that are essential to their personal survival.

In summary, the institution of *jaatigui* was resilient during the twentieth century. Influenced by Dogon mobility, however, the way it has been applied between Dogon and Fulani has diversified, including a reversal of host-stranger roles. The *jaatigui* is still proving to be essential to facilitating the mobility of all mobile people, regardless of their ethnic background.

[28] The authors understand this phenomenon as proof of stronger solidarity networks within (sedentary) Dogon society compared to (mobile) Fulani society where families split up and leave in times of hardship instead of supporting each other. However, this view does not seem correct. As was seen earlier, the Dogon may also respond with family segmentation and mobility in times of crisis.

Conclusions

Dogon subsistence farmers from the Sahel in Central Mali are necessarily mobile in response to constraining farming conditions. Depending on labour availability, many of them combine the growing of food crops in their nearby rainy-season hamlets with long-distance wage-labour migration in the dry season or for longer periods. These two forms of mobility in time and place are connected. While some Dogon families have diversified their livelihood activities quite successfully, many others are not or are only just managing to cope.

As farming conditions in Central Mali have changed over time, so too have the temporal and spatial dimensions of farmers' mobility. Throughout the twentieth century, Dogon farmers opened up former pasture areas in large and partly overlapping waves that corresponded to two different agro-ecological zones, with the 1980s as a turning point. Three changing farming conditions can be identified that have shaped these two waves of agricultural colonization.

The first refers to the harsh natural environment of the Sahel (Gallais 1975). Low and extremely erratic rainfall results in frequent harvest failures and (near) famines, in combination with land scarcity close to villages. This has driven Dogon farmers to move into a clay-sand transition zone with appropriate soil properties and drinking water nearby. Drinking-water availability is a major constraint for all-year settlement, which compels seasonal mobility and prevents permanent villages being set up. Rainfall has become more variable in time and space since the late 1960s and this has required farmers to cultivate fields with different soil properties. The resulting large-scale expansion of cultivation into a vast adjacent sandy dune area (where drinking water is absent) since the 1980s has been facilitated by the widespread adoption of the plough and the donkey cart, which has enabled settlement further from sources of drinking water.

Second, limited income-generating opportunities in the region are driving young farmers to work as labour migrants. Long-term labour migration has encouraged settlement in hamlets back home in various ways. First, revenues are invested in cattle and agricultural equipment. Second, returning labour migrants, who have broadened their scope and are keen to invest in new technology, often do not fit in anymore in the village hierarchy and want to cultivate their own fields independently. The area's agricultural development, which is driven by agro-technological change, has been an autonomous process, without any external interference by the state or NGOs.

Third, the combination of population growth (since the 1950s), low soil fertility and fallowing practices has, in line with neo-Malthusian reasoning, encouraged the expansion of fields. The opening up of the sandy dunes since the 1980s, which is a gigantic, new agricultural area, naturally decreases possible incentives for intensifying farming (as Boserupians predicted would happen) or for out-

migration which has been seen on the southern plains of Dogon Country since the 1970s. Furthermore, the risks of intensification are very high, especially given the erratic rainfall.

Dogon farmers' mobility is facilitated by the flexible organization of families as economic units that have split up and expanded over territories over time. Similar to the variability of the natural environment and mobility in time and place, various forms of family segmentation into smaller units have also developed. Either hamlets are satellites of large farming families based in the village that have spread labour over several locations or they are inhabited by (initially) small segmented families that may grow over time and divide later. Depending on its age, the size of the hamlet may vary from a single family (in the sandy dunes) to many dozens of families from various villages that make up a new community in the clay-sandy transition zone.

The Dogon agricultural colonization of former Fulani pasture areas, in which the Dogon generally outnumber the Fulani, has happened alongside a reversal in their economic and political positions. In general, the political position of the Dogon has improved while that of the Fulani has deteriorated and the Fulani have clearly not been able to prevent agricultural expansion. In reaction to the bad Sahelian droughts in the early 1970s and mid-1980s, many Fulani left the area and/or started to focus on farming due to the loss of their livestock. The individual and multifaceted *jaatigui* relationships between Fulani and Dogon have not disappeared but have been reversed to some extent.

Against this backdrop, access to land for farming purposes can be considered a thorny issue. The next chapter looks at how different groups in the area with different power positions have claimed land in the 'empty' agricultural colonization area. And the subsequent chapter highlights the several layers of claims in a large local conflict over land and power and the results for Dogon farmers who have settled in hamlets on the disputed territory.

5

Access to land: Contested layers of claims (Central Mali)

Introduction

The large-scale Dogon agricultural colonization of former pasture areas, as described in the previous chapter, raises questions about how the various Dogon farmers gained access to the land and what role mobility played in this process. The connection between the mobility of farmers and access to land is central in this chapter.

In the perception of farmers, land belongs to the first family to settle in the area and all families that settle later have to request permission before establishing themselves. Local power hierarchies are thus constructed with the family of first-occupants at the top of the hierarchy and last-comers at the bottom (Lambert & Sindzingre 1995, Breusers 1999). People gain access to land through membership of the social group to which the land belongs (Berry 1988, 1989a, 1989b, 1993). Outsiders (migrants, strangers) access it through a *jaatigui* (host) (see Chapter 2). The local hierarchy becomes clear, for example, when people in a farming community, such as a village, ward or hamlet, are asked to provide the names of the families living there. The families are automatically indicated based on their order of settlement. Such a hierarchy does not only exist between families but also between social groups such as clans, which are usually organized in villages, over a wider area.

Since being a first-comer is of major importance in claiming land and local power, settlement history is extremely important. At the same time, however, it is also ambiguous. People in Central Mali have always been very mobile and since settlement history is mainly oral, with no written sources or land register (Lentz

2000, 2005), the past remains misty and many villages, clans or families may claim to be first-comer in a particular place (Kopytoff 1987, Geschiere & Jackson 2006). The ambiguity of first-settlement offers opportunities to become a first-comer. In people's strategies, persuasion through the narration of oral settlement histories may play a major role (Kopytoff 1987, Rose 1994, Lentz 2000, 2005). In fact, people's claim to being a first-comer can be considered the most widespread narrative strategy in West Africa for legitimizing land rights (Lentz 2005: 169).

What makes the situation more complicated in the case-study area is that the Dogon and Fulani have cohabited the area, but for different purposes. While the Dogon use it primarily to grow millet in fields, the Fulani mostly use it for herding their livestock. Consequently, they have a different view of the land. In addition, power and economic positions between Dogon and Fulani have shifted over time (see Chapter 4). As a consequence, various and conflicting 'layers of claims' have been vested in land and power that are in part based on different sources of power (Marchal 1983, Izard 1985, Fay 1995). The agricultural colonization area can thus be considered a turbulent 'socio-political arena' (Bierschenk & Olivier de Sardan 1997, 1998) or 'frontier' in Kopytoff's (1987) terminology with both Dogon and Fulani competing for land and power.

This chapter considers settlement histories that are used to support claims to land and power at two levels. First, we will consider oral migration histories of various villages that have a present-day interest in the agricultural colonization area. By taking Dogon migration trajectories as a starting point, the settlement histories of the Fulani villages of Okoyeri Peul and Douma are considered as well. Then we will zoom in on a few specific sub-territories within the agricultural colonization area and discuss the various claims that different villages have made. By presenting these accounts, we aim to show how people in a mobile context make use of oral settlement histories and alternative sources in order to claim land and power.

Village migration histories

The present-day location of villages in Africa is usually the product of repeated migratory movements in ancient times that were often driven by warfare. Dogon villages are no exception. Being already largely fixed during nineteenth-century Fulani rule, however, and with the French formalization and consolidation of villages in colonial times, including the appointment of administrative village chiefs to extend control at the local level, the movement of entire villages became rare in the twentieth century.

To understand claims to power and land in the agricultural colonization area today, the oral migration histories and the related status of Dogon villages are

relevant. The Dogon settled on the Bandiagara Escarpment in the fifteenth century where they chased away the Tellem people (Gallais 1975: 97, van Beek 1991: 150, 2001: 16-17, Petit 1998: 20). Prior to the Tellem who arrived in the eleventh century, the Toloy people inhabited the area in the second and third centuries but nothing is known about the period in between (Bedaux & Lange 1983, van Beek & Banga 1992: 66, van Beek 1993: 44-45). Despite their claims of authenticity, it is evident that the Dogon were not the first people to settle on the Bandiagara Escarpment.

The Dogon generally emphasize their common descent from the Mandé region in today's western Mali, which is probably a myth but nonetheless essential for Dogon identity (van Beek 1993, Bouju 1995). In reality, various other ethnic groups crossed the plains seeking refuge on the escarpment. They were fleeing drought, war and slave-raiding by the emperors of Ghana, Mali and Songhai and the chiefs and kings of the Mossi, Sao and Fulani, and assimilated with the Dogon they encountered on the escarpment (van Beek 2005).

Below the surface of 'common descent', the Dogon are in fact an amalgam of different ethnic groups that have assimilated over time. It appears that the Dogon make a sharp distinction as to which of them are to be considered 'original' Dogon and thus have a higher status. This has become a sensitive issue. 'Original' Dogon are those who are believed to have come from Mandé originally, sometimes with one or more intermediate stops before finally settling on the escarpment, in contrast to those of various ethnic origins who assimilated with the Dogon. Based on the order of settlement on the escarpment, a further ranking between villages exists with earlier-settled villages ranked higher than those that settled later. Inhabitants of a few villages in the research area are considered 'original' Dogon. These include Pergué, Dianvéli Maoundé and Douma. Villages with assimilated Dogon include Okoyeri Dogon and Amba. Douma is an interesting case as the village, now dominated by Fulani, has Dogon roots.

'Original' Dogon villages

• Pergué

Pergué, a name that refers to the caïlcedrat tree (*Kaya senegalensis*),[1] is a scenic village of dark red, mud houses on the top of the Bandiagara Escarpment. Its inhabitants originally came from a village called Perou, Pè, Per or Pel (probably various pronunciations of the same name), which used to be located on the Seeno Gonndo Plains in Koro District about 100 km to the south. Prior to this, they were in Mandé: 'Perou was the first stop after our departure from Mandé'. They probably settled on the escarpment as a result of trouble with Mossi invasions, as

[1] Groups of family heads in Pergué, February 2000.

a 1958 colonial report claims,[2] during the Yatenga Kingdom in the eighteenth and early nineteenth centuries. They were accompanied on their journeys by their Songhai blacksmiths (*Maiga*) as Dogon usually move with these craftsmen who provide them with any agricultural tools they may need. Today there are still relations between Pergué and Perou, notably through marriage, and Pergué considers Perou as its 'brother village'.[3]

When they arrived on the escarpment, they initially settled halfway up the slopes in a place where the nearby Amba village is now located. The elders in Pergué claim to be the first-settled village in the area and when the people from Amba arrived, probably Songhai from Hombori about 150 km away, they had to ask Pergué's permission to settle. Pergué moved uphill but apparently became anxious because Amba was growing so rapidly. Dianvéli Maoundé is also a later-settled village that had to ask Pergué permission to settle. The assumed 'authenticity' of the Dogon of Pergué is also written down in the aforementioned 1958 colonial report, which claims that 'Pergué, Okoyeri and Amba all came from elsewhere, but only Pergué is an authentic Dogon village'. [4]

Once the first family settled in Pergué, others joined soon afterwards. The founding family in Pergué is called Pergourou, which means 'the house of Pergué'.[5] Their family name is Guindo. Other weavers (artisan) families, called Guiré and Diungo, settled later. The noble Pergourou (Guindo) family on the one hand and the lower-ranked Guiré and Pergué families on the other live in separate wards. Three wards are inhabited by the Pergourou (Guindo) families, while the Guiré and Diungo live together in a fourth ward. The Maiga (blacksmiths) live with the Guindo in the first ward that was established. The division of tasks between the families is sharp. In addition, only the noble families hold any political power, while blacksmiths and artisans act as intermediaries in village conflicts (Brandts 2005). Marriage rules are strict and confirm the noble status of the Guindo. A Guindo will never marry a Dem, Guiré, Dioungo or Maiga, preferring another Guindo or an Ongoiba who may also be considered noble. Ongoiba can be found in Dianvéli Maoundé village, for example (*Ibid.*). Guiré and Dioungo families intermarry but a Maiga limits him/herself to other Maiga families of blacksmiths.

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2 1-E-9 Rapports politiques et rapports de tournées Cercle de Bandiagara 1921-1959 (National Archives Bamako). It says that Pè was located in Séno Togol Canton.

3 Group of family heads in Coofi 1, November 2000.

4 1-E-9 Rapports politiques et rapports de tournées Cercle de Bandiagara 1921-1959 (National Archives Bamako).

5 *Ourou* means 'house' in the Dogon language.

• Dianvéli Maoundé

The Ongoiba in Dianvéli Maoundé are considered to be 'original Dogon' too. They belong to the Ono clan that, driven by the Fulani threat in the nineteenth-century Maasina Empire, crossed the Seeno Gonndo Plains several times. After settling in Dianvéli Pè on the southern fringes of the Seeno Gonndo in the early nineteenth century, they sought refuge among the Songhai in the mountains near Hombori, about 150 km to the north. After a few decades, they left but split into two groups. One returned to the southern Gonndo and established six villages called Poromou-Kou, with Mondoro as the main village (which was destroyed in 1850 leading to another trip back and forth over the Seeno), while the other group moved to the northeastern flank of the escarpment and established Poromou-Dodiou, nowadays called Dianvéli (Gallais 1975: 98, Brandts 2005: 76-79) and also written as Diamweli (meaning 'peace is good' in the Fulani language) (Brandts 2005: 73). Currently, there are two Dianvéli villages that are located close to each other, Dianvéli Maoundé and Dianvéli Kessel that split off later (Brandts pers. comm.). Dianvéli Maoundé is older than Dianvéli Kessel, which also follows from their names as *maoundé* means 'large' or 'old' in Fulani language, while *keso* means 'new' (Brandts 2005: 73).[6] Dianvéli Maoundé consists of three wards. The first two are inhabited by Ongoiba, while the Dem blacksmiths, traders, political intermediaries and indigo dyers live alongside each other in the third ward (*Ibid.*).[7]

When they arrived on the escarpment, the members of the Ono clan asked permission to settle from Pergué Village that had settled earlier (Brandts 2005: 73). Pergué elders stated that: 'Pergué settled Dianvéli. We even authorized them to settle in the village.'[8] As there was not enough space in Pergué, however, Pergué 'showed' them a place near Dah, a tiny village that does not exist anymore that was settled in Gamni's territory. 'Showing a place to someone' is a common expression for 'being first'. One family from Pergué was positioned in Dianvéli Maoundé 'to keep an eye on the village' (Brandts 2005: 78). However, not eve-

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[6] Dianvéli is an old name that was already in use in their earlier place of settlement on the southern fringes of the Seeno Gonndo. The Fulani name of this Dogon village suggests the inhabitants are indeed *hummbeebe*, as Gallais (1975: 98) indicated. These are Dogon from the plains who allied with the Fulani in the nineteenth century and were considered serfs by the Fulani. Today, however, the Dogon in Dianvéli consider the name *hummbeebe* to be insulting (Brandts pers. comm.).

[7] Dianvéli Maoundé is a village that is currently split into two political camps over the issue of chieftaincy. Despite the Dogon custom of chieftaincy within the first-settled family, chieftaincy here is in the hands of the descendants of another Ongoiba who had negotiated the position of administrative village chief with the French in the early twentieth century. He ruled the village all his life with an iron fist and the population suffered. After his death in 1996, the villagers hoped to revive the old chieftaincy but their efforts were in vain as the chief's family refused to give up its position (Brandts 2005).

[8] Hamma Maiga (Songhai bard, Douma), Douma and Douentza, November 1999; Group of family heads in Pergué, Pergué, February 2000 (interview in Pergué with Aline Brandts).

rybody supports this version of the local settlement history. The Fulani chief of Douma, for example, stated in an interview that Dianvéli Maoundé was not settled by Pergué but by Gimbel.[9]

• Douma

Today Douma is a large Fulani village where *riimaybe* (former Fulani slaves), Bamana, Songhai and a handful of Dogon live. Although most Fulani are not keen to admit it, these Dogon are believed to have founded the village long before the Fulani arrived and took power. A bard in Douma of Songhai origin recounted its history:

> The Dogon of Douma consisted of two distinct families, one from Mandé and another from Koro Region. The Koro family settled north of the inselberg, while the Mandé family settled on the opposite side after previously living in a nearby village called Ouakara. Ouakara had sent the family away because their millet grew much better every year. This was ascribed to the powerful fetishes (*fétiches* in French, i.e. objects with believed magical powers) of the Mandé family and made the people of Ouakara suspicious. The Mandé family actually wanted to settle in Okoyeri territory but Ouakara warned Okoyeri about their power, so Okoyeri refused.
>
> The two families did not know each other initially. The story goes that one day, two children from the Mandé and Koro families met each other by chance. The child from Koro wanted to have the Mandé's child's wooden bracelet and offered a handful of soil as a means of payment. It is said that the Mandé family became the owners of the land in this way. The story continues that the elders of the two families then decided to form an alliance to prevent further exchanges of land.[10]

Currently, only the Mandé family by the name of Issebere inhabits the village, headed by its descendant Mahamadou Atji. Due to their powerful fetishes, the Mandé family is still much feared by the other villagers, including the Fulani.[11] The distinctive position of the Dogon in Douma is reflected in the exclusive position of Mahamadou Atji as a councillor to the Fulani village chief. In addition, his family's land is recognized by most Fulani, which is apparent from the fact that, according to the Songhai bard in Douma, 'Fulani cause a lot of damage to fields with their cattle but they do not dare to let their cattle stray on the Dogon's land'. Other Fulani, however, explicitly contest his position and question 'if Mahamadou Atji is a "real Dogon" as his mother is a former Fulani slave'.[12]

According to the Songhai bard in Douma, the Dogon of Douma maintain cordial relations with the Dogon from Pergué, which can be traced back to an ancient story that goes as follows:

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9 Amadou Nouhoum Barry (village chief, Douma), Douentza, December 2000.

10 Hamma Maiga (Songhai bard, Douma), Douma and Douentza, November 1999.

11 A Fulani woman in the village chief's family told a 'secret' that in the past, Mahamadou Atji's grandfather had put a fetish on a water source on the slopes of the hill to prevent it from 'coming down'. He had also put fetishes on baobab trees on the slopes (Maryam Barry, Douma, September 2002).

12 Ibrahim Barry, Douma, September 2002.

> The Dogon of Pergué went to the Seeno to settle. They found a well but Douma refused to offer them drinking water. The Dogon of Pergué, however, were thirsty and went down into the well to get water. When the Dogon of Douma threw lances and knives at them, they did not get hurt. Apparently, the Dogon of Pergué were protected as the weapons did not touch them. They were therefore considered brave and the Dogon from Douma established a friendship with them. Every year they meet with the Dogon from Gimbel and Okoyeri: they are closely related and are all considered 'courageous Dogon'.[13]

It is not known exactly when the Fulani settled in Douma. They are reported to be from the Seeno Gonndo Plains originally, after which they first moved to Dary Fittuga, a village northeast of Douentza. It is said that their ancestor, Hamane Diam, had a violent conflict with his elder brother about a horse. Being the younger brother, Hamane Diam had to leave. He stayed in villages near Douentza (first Gimbel and later Almina) and had three sons: the oldest called Hamadi Hamane Diam Barry dit Gau (Gau means 'hunter') moved to Douma, the second (Samba Hamane Diam Barry) settled in nearby Kerena and the third son (Yero Hamane Diam Barry) headed for Ban (Foy) in the north of present-day Burkina Faso. The relationships between the Fulani of Douma, Kerena and Foy are still very close ('we are brothers') and it is known, for example, that Douma and Kerena raided the Dogon family of Ongoiba from Mondoro in the past and even the Fulani from Booni, an important Fulani town at that time. The close relationship has always been noticeable. For instance, the Fulani from Douma and Kerena intermarry and, under the 1999 administrative decentralization reforms, they opted to form one municipality with the small village of Tebi, with Kerena as the main village.

When the Fulani arrived in Douma, 'they found the Dogon here'. This is the expression used by Douma's bard, who narrated their first meeting and what happened subsequently:

> The Dogon were settled on the hill and at night there was a fire. One Fulani noticed it and settled next to the Dogon under the pretext of collaboration. This Fulani was vicious, however. Dogon women were stolen and when captured became concubines and the Fulani population grew rapidly because the children of a slave woman automatically belong to the master.[14]

The Dogon called the village Dungo. However, as the Fulani could not pronounce the name properly, they changed it to Douma.[15] During the Fulani hegemony over the Seeno Plains in the nineteenth-century Maasina Empire, the Dogon from Douma lived higher up the slopes and stone relics of their houses on the slopes are still visible today. In those days, water was a huge problem. There were two wells but they were at the bottom of the hill. With improvements in the

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[13] Hamma Maiga (Songhai bard, Douma), Douma and Douentza, November 1999.
[14] Hamma Maiga (Songhai bard, Douma), Douma and Douentza, November 1999.
[15] Hamma Maiga (Songhai bard, Douma), Douma and Douentza, November 1999.

security situation in the region at the end of the nineteenth century, the Dogon descended from the escarpment and cleared small fields near the village.

The Fulani in pre-colonial Douma were notorious for their warfare against Dogon and other Fulani. In Okoyeri Dogon, it was reported that one day, Douma 'went to kill' Dalla about 30 km to the east because Dalla taxed the Douma herds. Dalla Village used to be the capital of the Fulani kingdom of Dalla. Douma won and has been independent ever since and afterwards, Douma declared war on several Dogon villages, such as Dianvéli Maoundé, Okoyeri and Amba.[16]

The relationship between Douma and Dianvéli Maoundé is tense today and this goes back to a violent conflict among Fulani in the nineteenth century. This bloody history was reported by several Fulani in Douma[17] and, in a slightly different version, by a Dogon from Pergué in Coofi:[18]

> The nineteenth-century Fulani chief Allay Boucary had a brother who was notorious for cattle raiding. One day, the chief's brother came to Douma and killed herders and raided cattle that were grazing on the hill. The Fulani from Douma, however, killed him and took the animals. Allay Boucary was furious and wanted revenge. He went to Dianvéli Maoundé to conspire against Douma. A meeting was planned in Dianvéli Maoundé with Fulani from Douma, while Allay Boucary and his troops would hide behind the hill. When certain Fulani from Douma came into view, Allay Boucary would appear and kill them. However, other Fulani from Douma came to the meeting but Allay Boucary killed them anyway. And Douma killed the whole population of Dianvéli Maoundé in revenge, as it had conspired with Allay Boucary, 'except for one pregnant woman from whom Dianvéli Maoundé originates'.

The present-day Fulani village chief recognizes the settlement of the Dogon as being there prior to the Fulani's arrival. However, Fulani took over power as they became wealthier ('more people, more horses, more cattle') which implies more cavalry and more capacity for violence. Logically then, the Fulani reason that they themselves obtained the chieftaincy, since 'it is not allowed to contradict someone who is wealthier than you are'.[19] The role of the Dogon in Douma as first-comer has been largely ignored by the Fulani.

Douma's Songhai bard ascribes the accumulation of Fulani 'wealth' (i.e. population growth) to several factors: slavery, religion and survival in times of famine.[20] Due to the inclusion of numerous slaves in Fulani society, the population initially grew rapidly. In addition, it is believed that the Fulani gained strength from benedictions by Seeku Aamadu (who ruled from 1819 until 1862) and people observed that each time the Fulani received his blessings, their wealth

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16 *Al-hajj* Junus Alphagalo, Okoyeri Dogon, December 2000.

17 Binta Alei Sangaré Barry, Douma, November 1999; Ibrahim Barry and Hamma Barry (councillor, Douentza District), Douma, September 2002.

18 'Allaye Boucary wanted to conquer the whole region. He intended to kill the Fulani of Douma, but had no means to do so. He hid in Dianvéli Maoundé and made a plan. When the Fulani of Douma attended the meeting, he killed them all.' Oumar Pergourou Guindo, Coofi, February 2000.

19 Mahamadou Atji (Dogon from Douma), Douma, September 2002; Amadou Nouhoum Barry (village chief, Douma), Douentza, December 1999 and August 2002.

20 Hamma Maiga (Songhai bard, Douma), Douma and Douentza, November 1999.

increased, i.e. the population and their number of livestock grew. A third reason is to be found in the terrible 1911-1914 famine. The Fulani were able to survive thanks to their cows' milk whereas many Dogon died or left the area. As a result of this drought, no member of the original Dogon family in Douma from Koro Region stayed, although it was rumoured in Douma that the fetishes of the Mandé family eliminated the Koro family. The village chief of Douma, however, said that when the Fulani outnumbered the Dogon, the Fulani expelled the Koro family after Fulani cattle damaged a Dogon field. The other Dogon family from Mandé was 'defeated', the village chief claimed, i.e. he was either killed or taken as a slave. 'Only one child escaped and grew up in a village north of Douma. When he returned to Douma later, the Fulani recognized him as being originally from Douma.'[21]

The power switch from Dogon to Fulani also had consequences for land management in Douma village territory as the land around Douma was previously managed by the two Dogon families. Roughly speaking, the land north of the Douma hill was managed by the Koro family, while the land southeast of the hill was under the control of the Mandé family. Dogon descendant Mahamadou Atji argues that signs visible today still prove the Dogon's longstanding presence in the area, namely iron-smelting sites on the Ferro and wells dug by Dogon. By contrast, the Fulani have never dug a single well on the territory except for one Fulani who wanted to do something beneficial for the village after he made the *hajj* to Mecca. 'But this particular Fulani had asked my permission first,' Mahamadou Atji explained.

Assimilated Dogon villages

Due to warfare, there were many migratory movements in the region between the sixteenth and early nineteenth centuries. Songhai from the east dominated the region until the late sixteenth century, while the Mossi from Yatenga (in today's northern Burkina Faso) tried to control the Seeno in the eighteenth and early nineteenth centuries (Gallais 1975: 97-98), before the Fulani took power in the Maasina Empire. The establishment of Amba (Songhai) and Okoyeri Dogon (Mossi) should be viewed against this historical background. Various ethnic groups sought refuge on the escarpment and assimilated with the Dogon.

• Amba

Several informants recalled how the Dogon from Amba were originally Songhai who fled from their village near Hombori in the Gourma, about 150 km to the east.[22] They crossed the Seeno where they spent two nights as their chief had be-

[21] Mahamadou Atji (Dogon from Douma), Douma, September 2002.
[22] Amadou Nouhoum Barry (village chief, Douma), Douentza, August 2002.

come ill and died. With the authorization of Okoyeri Dogon village, 'his body and soul' were buried there.[23] According to the above-mentioned 1958 colonial report in which their Songhai origins were also reported, displacement took place in the so-called Askia era from the late fifteenth until the late sixteenth centuries.

Informants from outside the Amba commonly agree that these Songhai asked Pergué permission to settle. 'Amba is a stranger to Pergué' or 'Pergué settled Amba', it is said. Pergué reportedly offered these Songhai refuge and called them 'Dogon from Amba' in order to protect them from raiders from Hombori so they could say 'there are no Maiga [i.e. Songhai blacksmiths] hidden here'.[24] Unfortunately, I have not been able to discuss the issue of first settlement with people from Amba so their views on the subject are not known. Despite its presumed latecomer position, Amba was assigned by the French colonial administration as the principal village in Amba Canton, to which also Okoyeri Dogon and Pergué belong.

• Okoyeri Dogon

Okoyeri Dogon was probably established as a signpost of Mossi garrisons from the Kingdom of Yatenga in present-day northern Burkina Faso as the Mossi invaded the area repeatedly in the eighteenth and early nineteenth centuries with the aim of controlling the Seeno Plains (Gallais 1975: 98). In Okoyeri Dogon, people told me they were from the Ouahigouya region (Ouahigouya Town used to be the capital of the eighteenth-century Yatenga Kingdom) originally, more specifically from the village of Domnou.[25] Due to a conflict with their 'brother village' of Pomourou, both populations moved in a northeasterly direction and founded several villages on the Bandiagara Escarpment.[26] The move from Domnou to Okoyeri took place before Seeku Aamadu set up the Maasina Empire in 1819. The descendants of Domnou and Pomourou have maintained social relationships through marriage and still celebrate ceremonies together. The French administrator who made a trip on horseback in 1958 in the former Amba Canton (to which Okoyeri Dogon belonged in colonial times) wrote in his *rapport de tournée* that the Dogon from Okoyeri were 'originally Mossi'.[27] The report states

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[23] Amadou Nouhoum Barry (village chief, Douma), Douentza, December 2000; *Al-hajj* Junus Alphagalo, Okoyeri Dogon, December 2000.

[24] Initially there were two families in Amba: the first-settled were called Ken, followed by the Songoi. Arriving in Amba, they changed their family name to Kamoko. *Al-hajj* Junus Alphagalo, Okoyeri Dogon, December 2000.

[25] *Al-hajj* Junus Alphagalo, Okoyeri Dogon, December 2000.

[26] The people from Domnou settled in Okoyeri, Bamba, Beni, Nindé-Omo, Andé, Kono and Sorouni, while the people from Poumourou settled in Dianvéli Maoundé, Dianvéli Fombori, Douentza Fombori, Petaka, Gono, and Boumbam. The 1958 colonial report says that Darikanda village in Kassa Canton has the same origin as Okoyeri.

[27] 1-E-9 Rapports politiques et rapports de tournées Cercle de Bandiagara 1921-1959, National Archives Bamako.

that the Mossi had completely assimilated and had intermarried with Dogon. And although they still had relations with the Ouahigouya area in Burkina Faso near the border with Mali, they had fully adopted the Dogon language and customs.

It can be questioned though whether the Dogon in Okoyeri are 'original Mossi' as this ethnic group from the Yatenga Kingdom was in itself an amalgam of original inhabitants (the Kibse and Fulse), conquerors (the Mossi) and strangers (the Songhai). Mossi from the south conquered the original population in the sixteenth century and set up the Yatenga Kingdom that lasted until French colonization in 1895. Interestingly, the Kibse, who were considered the 'original inhabitants', were originally Dogon (Marchal 1983: 267-271, Izard 1985: 5),[28] which indicates that 'original' (or the starting point of first occupancy) is not a historical reality *per se* but is instead determined by those holding power (Kopytoff 1987).

When they came to the northeastern Bandiagara Escarpment, they settled in three separate wards at the top of the hill, one for each family. The wards, which were a short distance from each other, were not fixed but were relocated further uphill several times and the names changed each time. The current three wards further downhill correspond to the previous three wards uphill.[29] The first ward descended between 1864 and 1893 when the area became more peaceful under the Fulani rule of Tidjani (see Chapter 4). The other two wards stayed near the top of the escarpment and descended only many years later when peace was fully established.[30]

The first ward's descent is confirmed by Fulani from Okoyeri Peul who stated that they first settled close to Margué (the first ward), which was the only one at the bottom of the escarpment at the time.[31] However, the second ward also asserts that it was first and supports its argument with 'evidence': when the Fulani abandoned Okoyeri Peul, they allocated their land to Dogon from the first ward who descended last and, since the Fulani were already present, did not have sufficient land as a consequence.[32]

It is not known if Okoyeri asked prior permission to settle. What is known though is that Okoyeri Dogon used to have a powerful position as it hosted the

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[28] Marchal (1983: 267-71) calls the original inhabitants *gens de terre* (people of the land), while he considers the conquerors to be *gens de pouvoir* (people holding power).

[29] The name of the first downhill ward is Margué, the second is called Anakaga and the third is Okodiouma, but since Mali's independence, the administrative authorities have simply indicated the wards by ranking number, which has been adopted in the village too.

[30] The first ward's family heads, Okoyeri Dogon, October 1999; Diadié Boubou Hamadou Barry (Fulani from Okoyeri Peul), Okoyeri, September 2002.

[31] Diadié Boubou Hamadou Barry (Fulani from Okoyeri Peul), Okoyeri, September 2002; Yousoufi and Mousa Bilaly Tamboura (former slaves from Okoyeri Peul), Cambel, September 2002; Hamma Hamma Barry (first councillor, Okoyeri Peul), Konna, September 2002.

[32] *Al-hajj* Abdoul Alphagalo (councillor, Kassa Municipality) and five other men from Okoyeri Dogon's second ward, Okoyeri Dogon, August 2002.

Hogon, the traditional animist Dogon high priest who ruled over more than thirty Dogon villages.[33] According to the respondents (from Okoyeri's second ward), this traditional chieftaincy alternated between Okoyeri's second and third wards. The Hogon even controlled an iron-mining and iron-smelting place between Wayre and Kerena about 15 km from Okoyeri.[34] 'Oko' means 'foreign king' or 'a king who moves', which may refer to the former Hogon.

With conversion to Islam, the institution of Hogon disappeared in Okoyeri Dogon. In Okoyeri it was reported that the first Dogon became Muslim around 1920.[35] In Pergué village, however, Islam was introduced into the village under Seeku Aamadu's rule (1819-1862).[36] The two respondents in Okoyeri, both devout Muslims who had made the *hajj* to Mecca, seemed convinced that animism was not practised in the village anymore: 'Everyone is praying now'. It is highly probable, however, that a number of people practise a mixture of both. It was observed, for example, that a number of old men in Okoyeri still have animist first names and not Muslim ones. It is common that when someone converts to Islam, s/he adopts a Muslim first name.

As in Douma, the Fulani in Okoyeri settled later than the Dogon but the difference is they have not taken over power but established a distinct village: Okoyeri Peul. The Fulani from Okoyeri Peul reported that their ancestors lived in Gurti Sémégé Village on the central Seeno Gonndo.[37] Their family name is Barry, one of the four important Fulani clans in the region.[38] Although they have

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[33] *Al-hajj* Junus Alphagalo and *Al-hajj* Abdoul Alphagalo (councillor, Kassa Municipality), both from Okoyeri Dogon's second ward, Okoyeri Dogon, December 2000. Many of the more than 30 villages have disappeared. The remaining villages include Okoyeri Dogon, Gamni, Pergué, Beni, Gimbel, Douma (Dogon), Tebi-Toumba, Eweri, Almina, Walo, Anong, Nadami, Newe, Kine, Da, Tanin, Bourkom, Doumeman, Komdo, Erja, Lajem, Toro ire and Kalakere.

[34] Apparently a relative of the Hogon's councillor who lived in Gamni village disappeared one day and returned seven years later. It appeared that he had stayed in a large village on the Seeno between Wayre and Kerena that was wealthy due to iron-mining and iron-smelting activities and livestock keeping. The Hogon therefore decided to start a war against the village. The man who had returned knew a secret about the village, namely that the people there would change into trees. The warriors thus cut down all the trees, and blood flowed. The stolen loot was divided among all the Dogon villages except one that had refused to join in the warfare (Koumboi). From then on, the iron-mining and iron-smelting place was managed by the two villages of Okoyeri Dogon and Tebi. *Al-hajj* Junus Alphagalo, Okoyeri Dogon, December 2000.

[35] Group of family heads in Okoyeri Dogon's first ward, Okoyeri Dogon, October 1999.

[36] Group of family heads in Pergué, Pergué, February 2000.

[37] Hamma Hamma Barry (first councillor, Okoyeri Peul) and Idrissa Gouro (village chief, Okoyeri Peul), Konna, September 2002.

[38] Four Fulani clans can be distinguished: the Barry, Diallo, Ba and Sow. Some state that the Fulani in Douma are not Barry but Dicko who belong to the Sow clan. Others, however, say their full name is Sangaré Barry. The Sangaré belong to the Barry clan and their name refers to their occupation as livestock keepers. Most Fulani interviewed in Douma named themselves Barry. Among the Fulani, family names not only indicate ethnicity but often also class or profession. Sangaré, for example, is a Fulani name for pastoralists or *marabouts* (Koranic teachers). Diallo, Ba and Barry are also pastoralists, while the Dicko are the political elite of the chiefs. Cissé is a name adopted by several ethnic groups for *marabouts*. Barrys are also found elsewhere in the region (Van Dijk pers. comm.).

the same family name as the Fulani in Douma, they are not closely related.[39] In those days, the Seeno Gonndo was ruled by the above-mentioned Fulani chief or 'King' Allay Boucary in Diankabou who was considered a powerful warrior. It is said he not only captured many Dogon and other sedentary farmers but also killed Fulani by patrolling the plains on horseback.

The current village chief of Okoyeri Peul asserts that his family was the first to settle in Okoyeri Peul, which was under Seeku Aamadu's rule. Their departure from Gurti Sémégé was due to a lack of water for their livestock. One family after another left and only a few stayed behind. In Okoyeri Dogon it was said that the ancestor of Okoyeri Peul's chief had fled from King Allay Boucary because he had refused to give him a cow and was kept hidden in Okoyeri.[40] After peace was established, the other Fulani families came to Okoyeri, one by one. Few families stayed behind and there is still contact between Gurti Sémégé and Okoyeri Peul.

The first Fulani to move to Okoyeri settled close to the first Dogon ward called Margué. The Fulani interviewed were not unanimous about whether they had asked the Dogon chief of this ward for permission to settle. The village chief of Okoyeri Peul denied this and argued that 'no one was there'. According to the Dogon however, the first Dogon ward was downhill although they still cultivated uphill: 'no one dared to cultivate downhill due to the threat of rebels'.[41] Two families from Okoyeri Peul, a Fulani and a *riimaybe* family, who still inhabit their farming hamlet in the rainy season in the first row of dunes, had a different story. 'No Fulani here owns a field. If he says so, he is lying because no Fulani are originally from here. They have arrived from elsewhere and settled with authorization from Dogon from the first ward called Margué (while the other two wards were up the escarpment). The Dogon were here before us. They received us and gave us land.'[42] Since the number of Fulani cattle increased and caused damage to Dogon fields, the Fulani village was moved twice, each time a bit further away from Okoyeri's first ward.

In contrast to the water shortage they experienced on the southern Seeno Gonndo Plain, they encountered ideal conditions in Okoyeri for herding and farming: abundant rainfall, nutritious herbs and good millet harvests.[43] Dogon from Okoyeri, however, said that Fulani did not cultivate fields initially and only

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39 Amadou Nouhoum Barry (village chief, Douma), Hamma Maiga (Songhai bard, Douma), Hamma Hamma Barry (first councillor, Okoyeri Peul), and Boucary Barry and Ibrahim Barry from Douma.

40 *Al-hajj* Junus Alphagalo, Okoyeri Dogon, December 2000.

41 Hamma Hamma Barry (first councillor, Okoyeri Peul) and Idrissa Gouro (village chief, Okoyeri Peul), Konna September 2002.

42 Diadié Boubou Hamadou Barry (Fulani from Okoyeri Peul), Okoyeri, September 2002; Yousoufi and Mousa Bilaly Tamboura (former slaves from Okoyeri Peul), Cambel, September 2002.

43 Hamma Hamma Barry (first councillor, Okoyeri Peul), Konna, January 2000 and September 2002.

later did they start to clear plots on the slopes of the first row of dunes, while their cattle were herded further away on the Seeno pastures.

The two Okoyeri villages were nearby. Okoyeri Peul characterizes the relationship with the Dogon in those days as mutual and there was a friendly relationship between good neighbours.[44] In Okoyeri Dogon, it was merely said that it was a predominantly economic relationship: Fulani milk and Dogon millet were exchanged and sometimes Dogon were hired to work in Fulani fields. When someone died, condolences were presented but cordial relations or even casual conversations were rare.[45] Dogon claimed that conflicts over crop damage caused by Fulani cattle were also very common.

The migration history of Okoyeri Peul goes deeper, as was described earlier (see Chapter 4). Between the late 1960s and the mid-1980s, all Fulani abandoned the village and have been living dispersed ever since over the Inner Niger Delta, the Bandiagara Plateau and even further south. Only a few families return to Okoyeri territory every season to inhabit their agropastoral camps where they keep livestock and grow millet.

Conclusion

The pre-colonial village migration histories described here show how the rural people in this area were very mobile in the past, usually due to warfare. Each village in the area comes from elsewhere originally and moved to its present location in stages. This goes for Dogon as well as Fulani villages. The Dogon make a distinction between 'real Dogon' villages and those 'coming from elsewhere', the latter having a lower position. The various versions of 'being first' in a place (including from uphill to downhill on the escarpment in the late nineteenth century) denote the competing claims of villages to land and power. The case of Douma is interesting, where the Fulani took over power from the Dogon and reduced their role as first-comer, and so is that of Okoyeri Peul, a village that settled close to Okoyeri Dogon and then left again later.

Competing for land at a 'frontier'

Dogon mobility continued into the twentieth century but in a different form. Past migration by entire villages or clans was replaced by more individual forms of mobility by small families. Farmers from several Dogon villages on the escarpment colonized a former herding zone (see Chapter 4). We will now consider how they claim first occupancy in this area by looking at several arguments, including a reference to ancient migration trajectories. This will be demonstrated by focusing on a few places in the agricultural colonization zone (Korematakа,

[44] Hamma Hamma Barry (first councillor, Okoyeri Peul), Konna, January 2000.
[45] *Al-hajj* Abdoul Alphagalo (councillor, Kassa Municipality), Okoyeri Dogon, December 1999.

Kampije, Wayre and the Okoyeri Seeno) where the claims of different stakeholders have been vested by Dogon as well as Fulani villages. As these claims are intrinsically conflictual, they can quickly turn into conflicts. Map 5.1 provides an overview of the disputed sub-territories in the agricultural colonization area, i.e. areas where at least two villages have claims to the same place.

Korematakа area

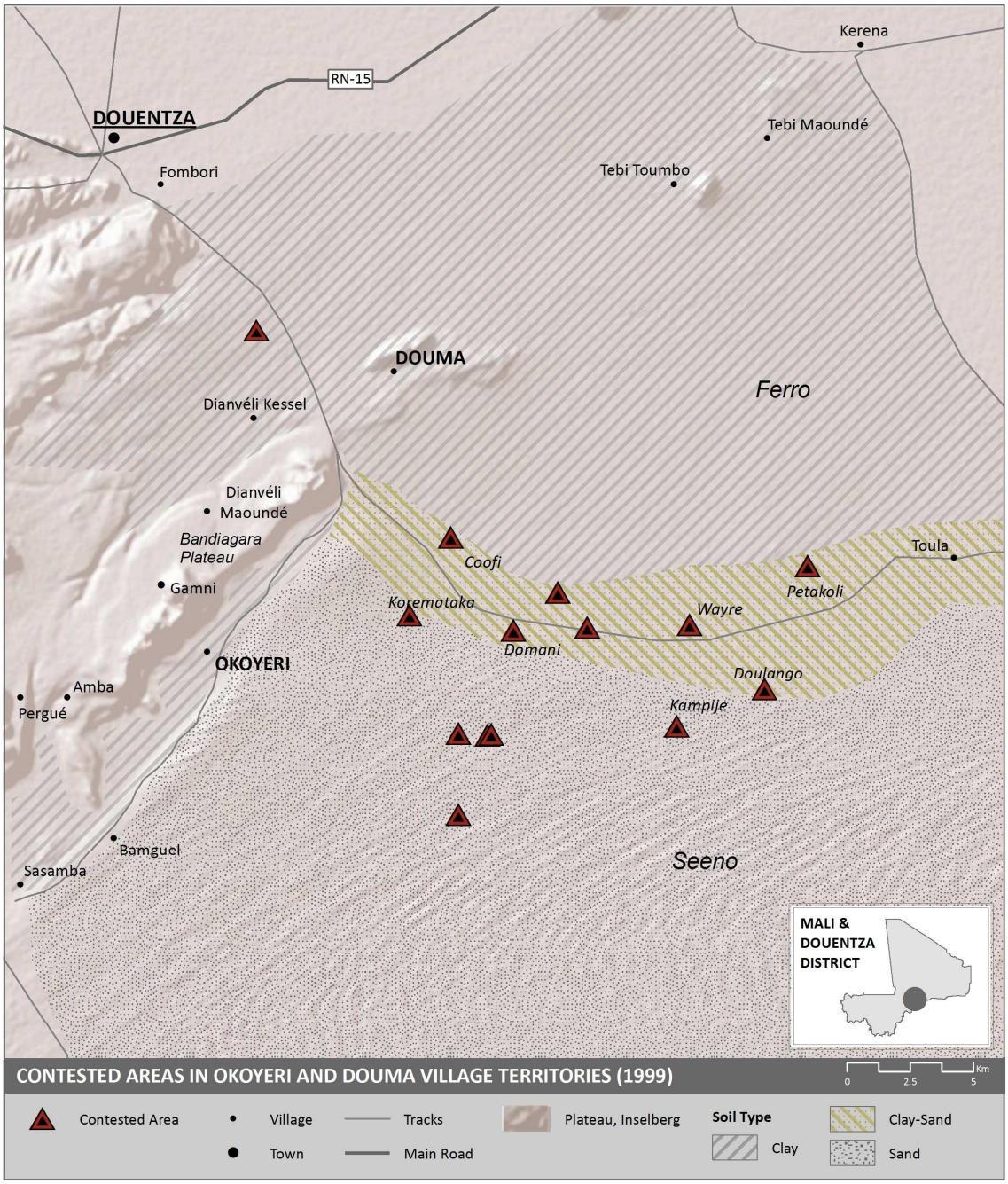
Korematakа is in the westernmost part of the clay-sand transition zone, less than 5 km from the Bandiagara Escarpment and Okoyeri Dogon. Here a large Dogon hamlet of about 100 people is headed by the old *grand marabout* Cheik Ibrahim (b. 1921). He is a wealthy man from Dianvéli Maoundé who owns a large herd, numerous donkeys and at least six camels that were quietly lying down during my visit to his hamlet in December 1999. He even owned a 4WD car with his name printed on it and that is regularly spotted in Douentza Town. He lives in the hamlet with his five wives (one more than Muslim rules allow), his descendants and many Koranic students. The pupils, who also constitute a labour force, are spread over the hamlet, Dianvéli Maoundé and Douentza Town. He frequently moves between these places and a hospital in Markala (Ségou Region) for medical treatment.

He stated that his great-grandfather settled in the Korematakа area a long time ago but that due to soil depletion, they often had to allow fields to lie fallow and move from place to place. Although Cheik Ibrahim, in the presence of a representative from Okoyeri Dogon who accompanied us during the visit, admits that his great-grandfather asked Okoyeri Dogon for permission to settle in this area, he behaves himself like a first-comer by allocating land to whoever is in need. Recently, he gave some land to a farmer from Okoyeri Dogon. ‘If someone is in need of land for agriculture, I cannot refuse’ is his argument. He even asserts that his great-grandfather gave the Fulani permission to settle nearby. At a stone’s throw from the hamlet, there is a very large Fulani camp with several dozen families from Douma. Cheik Ibrahim would prefer this camp to leave as soon as possible as the Fulani herds cause serious damage to his millet fields.

The allocation of land to newcomers and the annual expansion of his fields is a thorn in Douma’s side.[46] The *marabout*, in turn, considers the Fulani attitude incomprehensible: ‘The Fulani prevent me from allowing others to cultivate here because they say it is an area reserved for pasture. But they, too, allocate farming land to Dogon.’

[46] Hamma Barry (councillor, Douentza District), Douma, January 2000.

Map 5.1 Contested areas in Okoyeri and Douma village territories (1999)



Due to Cheik Ibrahim's behaviour in Korematakа, tensions between Douma and Dianvéli Maoundé run high and the Fulani from Douma are very angry. Violent clashes in the past were only prevented by the intervention of Douma's Fulani village chief. An old Fulani woman in Douma told us that she was worried that violent conflict would spread to other villages. 'The relationship between Douma and Dianvéli Kessel has always been good but the Dogon always show solidarity and, in cases of trouble, Dianvéli Kessel will, naturally, choose the side of Dianvéli Maoundé. This is dangerous as there are many weapons in the area.'[47] While Douma and Dianvéli Maoundé are at odds, Okoyeri Dogon is not raising its voice despite its possible first-comer status.

Kampije area

About 35 km east of the Bandiagara Escarpment at the other end of the mixed clay-sand strip of land in the case-study area is the Kampije area where two hunters from Amba (the brothers Daouda and Seidou) established a hamlet a long time ago (probably around 1900) as the conditions for farming were fairly good there.[48] Over time, the hamlet attracted many other farmers, also from other Dogon villages, and it has become exceptionally large, with about 60 families making up the community here in 2000. Its size (about 600 inhabitants in total) gives it every appearance of being a village, but it is not recognized administratively as such.

The Dogon of Amba consider themselves to be the first occupants of this area but the Fulani from Douma deny this and claim that their grandfather, Souleyman Hamidou, settled before this in a camp nearby. Conflict arose in the past between Amba and Douma about who the land belonged to and the issue was even taken to the District Court. When I visited Kampije in December 2000, people told me about a verdict by the court of Bandiagara in 1943.[49] Different interpretations were given by various people. According to the hamlet chief in Kampije, the land belongs to Amba but they have to allow Fulani herders passing with their herds to the water ponds to use it. This confirms the hamlet chief's view that 'Amba is the first occupant in Kampije as it used to be a pastoral area'.[50] In contrast, informants from Douma and Okoyeri Dogon told me that, according to the verdict, the land belongs to Douma, but that Douma had to allow Dogon cultivators to

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47 Binta Alei Sangaré Barry, Douma, November 1999. Being a livestock keeper, she had spent most of her life in several pastoral campsites in Douma territory and the Inner Niger Delta until she became old and settled in Douma Village around 1980.

48 Issa Alaye Kamoko from Amba (hamlet chief, Kampije), Kampije, November 2000; Ibrahim Barry, Douma, September 2002.

49 I was unable to access a written copy of it.

50 Issa Allaye Kamoko from Amba (hamlet chief, Kampije), Kampije, November 2000.

work their fields.[51] Whatever the details of the verdict may have been, different understandings exist and the Dogon villages are not unanimous.

Wayre area

Wayre area, also called Njemegoko by the Dogon, which means 'the chosen place' (Maas 2005: 96) or Pete Laube, which means 'the pond of Laube', is located roughly in the middle of the east-west clay-sand transition zone.

There are various versions concerning Wayre's settlement history. One says that Wayre hamlet was founded about 1900 by Dianvéli Maoundé, where the hamlet population still has to pay its taxes (Maas 2005). The Fulani in Douma, however, offer a different settlement history. According to them, the Fulani were present in the area prior to the Dogon ('the Dogon found the Fulani here')[52] and the first Dogon in Wayre were not from Dianvéli Maoundé but were woodcutters from Dianvéli Kessel who came to cut a species called *ède*, which is used to produce wood calabashes.[53] The Dogon settled, one by one, near the Fulani 'as there was a lot of manure'.[54] The Fulani respondents underlined that Douma 'has no problems' with the Dogon from Dianvéli Kessel, unlike those from Dianvéli Maoundé. When asking Dogon from Pergué in nearby Coofi hamlet about who the land in Wayre belongs to, however, they answered very diplomatically: 'Some say Wayre is the territory of Douma, others say it belongs to Dianvéli Maoundé, others say it is from Amba'.[55]

In the above-mentioned 1958 colonial report, tensions between the three villages over the 'issue of Wayre' are reported.[56] As noted earlier, Amba claims authority over the land in Wayre based on the argument that their former customary chief died there as they were escaping over the Seeno and they buried him there. Their argument finds support in the 1958 report that says that Wayre was the first place where these Songhai people settled when they moved into this region in the Askya era (late fifteenth to late sixteenth centuries). In addition, the administrator refers to two regulations from 1938 and 1945 that confirm customary rights of Amba on these terrains, although the regulations also compel Amba to give the Fulani from Douma access to the water pools and to allow the *Hummbeebe* (Dogon) from Dianvéli to cultivate their fields in Wayre. In Okoyeri Dogon, however, it was claimed that Amba had asked Okoyeri Dogon for permission to bury their chief. However, Amba never fulfilled the payment condi-

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[51] *Al-hajj* Abdoul Alphagalo (councillor, Kassa Municipality) from Okoyeri Dogon, Douentza, November 2000; Amadou Nouhoum Barry (village chief, Douma), Douentza, December 2000.

[52] Ibrahim Barry, Douma, September 2002.

[53] Ibrahim Barry and Hamma Barry, Douma, September 2002.

[54] Boucary Barry, Douma, August 2002.

[55] Mousa Pergourou Guindo, Coofi, February 2000.

[56] 1-E-9 Rapports politiques et rapports de tournées Cercle de Bandiagara 1921-1959 (National Archives Bamako).

tions set of one blanket, one bundle of millet and one sheep.[57] This implies that Amba does not recognize Okoyeri Dogon's authority in the area.

The Douma chief rationalized that Wayre could not possibly be located in the territory of Dianvéli Maoundé or Amba as that would mean their territory was not continuous. And even more importantly, he knew that 'Amba and Dianvéli do not have their own territory at all. It is Gimbel Village that allocated land to Dianvéli and it is Pergué that allocated land to Amba'. To underline his statements, he added that: 'Their assertions about Wayre are lies. I speak the truth and Allah is my witness'.[58]

Okoyeri Seeno

The Seeno in Okoyeri's backyard was mainly used as pasture until it was colonized in the 1980s and 1990s just after the Fulani from Okoyeri Peul left. One of the first Dogon settled in the Seeno was *Al-hajj* Diadié Alphagalo's father (see Chapter 4). *Al-hajj* Diadié became involved in a conflict with the village chief of Amba about a claim to farming land (*revendication de terre de culture*) and although the dispute was formally between two individuals, everyone saw it as a conflict between the two villages (Okoyeri Dogon and Amba) over the fundamental issue of which village the territory in *Al-hajj* Diadié's place belonged to.

Amba is not well respected in the region by the Fulani or by the other Dogon villages. Douma and the other Dogon villages strongly denounce Amba's expansionist attitude, each for their own reasons. Douma is suspicious of Amba's intentions since 'someone who is wealthy eventually wants his own territory',[59] while Amba has a peculiar position among the Dogon villages. Although the village is a latecomer to the region and of Songhai origin, which gives it low status among the Dogon villages, it was nominated by the French in 1924 as the capital of a canton to which Okoyeri Dogon and Pergué also belonged, which increased Amba's position and feeling of self-worth.

Several Dogon and Fulani villages supported Okoyeri Dogon in the court case against Amba on the construction of a waterhole in 1994 by *Al-hajj* Diadié near his remote hamlet deep in the Seeno of Okoyeri and far from other water sources. *Al-hajj* Diadié had even requested the ODEM office in Mopti provide funding for the work, but this was not granted. Nevertheless, Diadié took on the work and was assisted by a large group of youngsters from Okoyeri Dogon.

Amba, however, claims the waterhole is constructed on its territory. As the dispute could not be settled informally, the case was taken to court, first in 1995 to the District Court in Koro and the following year an appeal was launched at

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[57] *Al-hajj* Diadié Alphagalo from Okoyeri Dogon, Douentza, September 2002.
[58] Amadou Nouhoum Barry (village chief, Douma), Douentza, December 2000.
[59] Hamma Maiga (Songhai bard, Douma), Douma and Douentza, November 1999.

the Regional Court in Mopti. *Al-hajj* Diadié Alphagalo was assisted by two lawyers and had brought a group of 'witnesses' who supported his claim, mainly chiefs from neighbouring Dogon and Fulani villages, including the Fulani village chiefs of Douma and Bamguel,[60] and the Dogon village chiefs of Dianvéli, Gamni, Pergué and Beni. By contrast, Amba's village chief, called Boureima Kamoko, had no legal assistence or witnesses. People said that Amba would never be able to find witnesses for the court case who would support its claim to territory.[61] While Amba was said to be in the right in the first instance, Okoyeri Dogon won the case in appeal.

Amba vs Okoyeri Dogon

In the verdict (dated 31 July 1996) and the annexes, it is stated that farmer Diadié Alphagalo had dug a waterhole on the contested plot of 888 m^2 in the centre of the Seeno, 3 km from the farming hamlet of Okoyeri Dogon, 11 km from Okoyeri Dogon village, 28 km from Amba Village and 12 km from the farming hamlet from Amba called Kampoudié (Kampije).[62]

Diadié Alphagalo argued that the land belonged to the Dogon of Okoyeri as they were the first occupants. However, farmer Boureima Kamoko from Amba stated it was Amba's territory by invoking two arguments. First, Amba used to be the principal village of the former canton, denominated by the French. Second, their former chief was buried on the Seeno near the water basin. He thereby refers to a 1948 convention concerning a former dispute in which it was said that Dianvéli Maoundé had dug a water pond in Wayre on land borrowed from Amba, as a result of which it could not obtain this land. Boureima Kamoko states that, on the basis of this convention, Amba is the oldest village around to which all the land belongs and that Okoyeri Dogon cannot obtain village property by digging a water hole.

Diadié Alphagalo, however, replied that Amba was not the oldest but the most recently settled village in the area instead, a statement that was unanimously confirmed at the meeting of the court by his witnesses from the surrounding villages. When the Songhai fled from Hombori region, their chief became ill and died on the Seeno where he was buried with Okoyeri Dogon's permission. The Songhai then continued their journey and settled near Pergué Village on the escarpment, with Pergué's permission, and where their village was set up and called Amba.

Considering the arguments raised by both parties, the Regional Court in Mopti concluded that the plot in which the water basin is located is the customary property of Okoyeri Dogon as the first occupant, of which the usufruct right was given to Diadié Alphagalo. The court declared that the 1948 convention concerning the graveyard was not applicable to this case because it referred to Wayre area, which is more to the north. The fact that Amba has customary rights in Wayre according to this regulation does not mean that it also has rights to this place, the court stated.

In summary, the court rejected all Amba's arguments. Amba was not settled on the Seeno, as they were only passing through, and the graveyard of their village chief during this passage did not establish a village territory. Someone from Okoyeri Dogon added that the court president, who was from Kayes (in western Mali), had clarified his verdict by saying

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60 Amadou Nouhoum Barry (village chief, Douma), Douentza, December 2000.

61 Abdoul Alphagalo (councillor, Kassa Municipality) from Okoyeri Dogon, Douentza, November 2000.

62 As an annex to the verdict, a hand-drawn map was also included, indicating the field, the villages of Amba and Okoyeri, the farming hamlet of Camp Bodié (likely another spelling of Kampije) and the tracks connecting the field with the villages and the farming hamlet.

that if he died and was buried in, for example, Mopti, it would be impossible that this would subsequently become the territory of Kayes.[63]

When discussing the conflict with *Al-hajj* Diadié Alphagalo, he said that Amba's motivation for claiming the land was jealousy because of his wealth. 'I am a rich farmer who was in Gabon'. Furthermore, he thought that Amba was afraid that the waterhole would be given his name and then the entire area would become Diadié's property. In other words, Amba feared that digging a waterhole would consitute a land title and this would not only restrict the place of the water hole itself but would be expanded to include 'the entire area'. All the villagers in Okoyeri Dogon had supported *Al-hajj* Diadié and the village chief had replied to Amba: 'You already have a problem with the Fulani of Douma over Wayre. Now, you are looking for problems with us?' According to *Al-hajj* Diadié, the village chief had argued: 'His father has been cultivating the place where *Al-hajj* Diadié dug the waterhole for more than twenty years. I have never heard that the land there belongs to Amba. Even the village chief of Douma says the territory belongs to Okoyeri.'

The place of the Amba graveyard in the Okoyeri Seeno, which is marked with stones, used to be called *Amo Ouro*, meaning 'the graveyard of the people of Amba'.[64] After the court verdict in 1996, Okoyeri Dogon changed the name of the area to *Titèmèn*, which means 'the field I found with my father'.[65] Three farming hamlets from Amba are still situated in this area (see Maps 4.4 and 4.5).

Douma's village chief interpreted the court's ruling as further confirmation of his view that 'Amba has no territory. It is Pergué that allocated land to Amba. There is not a boundary between Douma and Amba, Douma has a boundary with Okoyeri.'[66] In addition, an informant from Okoyeri Dogon understood the Regional Court's argument to be a matter of physical distance: 'The court said that the place was for Okoyeri Dogon because it is closer to Okoyeri Dogon than to Amba village'.[67]

Conclusion

It may be concluded that various Dogon and Fulani villages hold competing claims in specific sub-territories in the agricultural colonization zone, each based on first occupancy, which means a claim to holding power. In addition, other arguments have been raised, such as a position attributed to a village by the colonial administration (as was the case with Amba). Often, the claims are latent, and

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63 *Al-hajj* Diadié Alphagalo from Okoyeri Dogon, Douentza, September 2002.
64 In Dogon language, *amo* means 'cemetery' and *ourou* means 'house'.
65 *Al-hajj* Diadié Alphagalo from Okoyeri Dogon, Douentza, September 2002.
66 Amadou Nouhoum Barry (village chief, Douma), Douentza, December 2000.
67 *Al-hajj* Abdoul Alphagalo (councillor, Kassa Municipality) from Okoyeri Dogon, Douentza, October 1999.

not all villages claim their authority (for example, Okoyeri Dogon), but these can easily result in overt conflict. Various arguments have been raised in court to justify claims to land. Interestingly, Fulani and Dogon villages worked together against another Dogon village (Amba) in this specific court case, which is unanimously considered expansionist and not 'being first'.

Okoyeri Peul's dreams of return and claims from a distance

Amba is not the only village in the area that claims land from a distance. Okoyeri Peul does so too and from an even greater distance. Although the village has physically disappeared (see Chapter 4), Okoyeri Peul Village is, remarkably, still a reality, not only in the minds of its Fulani inhabitants but also administratively.[68] The relatively wealthy Fulani from Okoyeri Peul, who live dispersed over the Inner Niger Delta, meet regularly at the weekly Thursday market in Konna Town, about 150 km from Okoyeri as the crow flies.[69] The village council is still intact and council members have been replaced over time. The Fulani continue to pay taxes as Okoyeri Peul's population in Diankabou Municipality (previously Diankabou sub-district). For that purpose, the village chief and his councillors travel large distance every year to visit the dispersed population in their camps and collect taxes.

What makes the situation more bizarre is the fluidity of the boundaries between the village territories of Okoyeri Dogon and Okoyeri Peul and their apparent overlap. This is an area with ill-defined boundaries that falls under the jurisdiction of two different municipalities at the same time. A Fulani from Okoyeri Peul stated that 'there is no boundary between Okoyeri Peul and Okoyeri Dogon'.[70] The administration has not clarified the situation either. The two villages belong to two different municipalities, as was the case in the previous situation of two sub-districts (*arrondissements*). The administrative decentralization that was introduced in the late 1990s clearly did not change the ambiguous situation. Mostly for ethnic reasons, Okoyeri Dogon joined Kassa Municipality (*commune rurale*), while Okoyeri Peul chose for Diankabou Municipality. Nor is it indicated on official maps either as to which village the territory belongs or how it is divided.

In Okoyeri Dogon's view, the land belongs to Okoyeri Dogon as they settled first while the Fulani of Okoyeri Peul merely hold usufruct rights. By contrast, the Fulani from Okoyeri Peul I met stated that the territory was theirs. In their

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[68] I found out about Okoyeri Peul's administrative existence by coincidence when I visited the Koro District Headquarters in Koro Town in November 1999 and asked for the Okoyeri census data. To my surprise, I was asked: 'Which Okoyeri do you mean? Okoyeri Peul or Okoyeri Dogon?'.

[69] This was also the place and time for me to hold interviews with several Fulani from Okoyeri Peul residing in the Inner Niger Delta (January 2000 and September 2002).

[70] Hamma Hamma Barry (first councillor, Okoyeri Peul), September 2002.

view, only the land on the escarpment and a very small strip adjacent to it belonged to the Dogon. In the valley and on the Seeno, Dogon are entitled to cultivate the land but it does not belong to them. There is a 'boundary' marked by a stone in a pond, with the Fulani village of Bamguel about 12 km to the south, while the boundary with the Fulani village of Douma to the northeast is near a water source. On the Seeno to the southeast, there are no boundaries. 'All Fulani from the Gonndo – the *Gonndokoobe* – are relatives so the whole Seeno up to Burkina Faso is ours'. To confirm their position, the Fulani in Okoyeri Peul have entrusted their fields to some of their *riimaybe* who remained and to Dogon from the first ward of Okoyeri Dogon. To keep an eye on matters and to maintain claims to land, many families from Okoyeri Peul regularly send a 'child' to Okoyeri on a visit.

Keeping an eye

Areeni Hamadou Barry is a Fulani from Okoyeri Peul who moved to a village on the Bandiagara Plateau in the early 1980s where he had previously gone only in the dry season. In Okoyeri Peul, he used to grow millet in a field alongside the first row of dunes. When he left Okoyeri Peul for good, he trusted the field to a councillor from Okoyeri Dogon's first ward. After the Dogon councillor died, his son continued working the field. In the early 1990s, however, due to conflicts over crop damage, the Fulani decided to take the land back from the councillor's son and give it to a *riimaybe* family living in Bamguel village territory and promised not to take it away. This family, originally Mossi from Burkina Faso, were the former slaves of another Fulani family in Okoyeri Peul. The Fulani of Okoyeri Peul maintains cordial relations with the *riimaybe* to whom he allocated the field and when I visited the hamlet in September 2002, the Fulani landowner was present.

The withdrawal and reallocation of the field caused many tensions between Okoyeri Dogon and Okoyeri Peul and it was only after interventions by Okoyeri Peul's village chief that a part of the field was returned to the Dogon councillor's son. 'A field cannot be withdrawn from someone who has cultivated it for so many years' was his argument. The reality is, however, that after the incident, the field had been managed by the *riimaybe* family instead who, in turn, had allocated a part of it to another Dogon from Okoyeri.

In 2002, a curious situation arose whereby the field was being cultivated by three different families, each occupying a horizontal strip on the dune: the *riimaybe* at the top, the Dogon councillor's son in the valley and the other Dogon in the middle strip. The lowest part has the best soil properties (a mixture of sand and clay) but the highest part was more valuable in the past because of the cattle dung from the large Fulani herds that had been there.[71]

The fuzzy boundaries and overlapping village territories of the two Okoyeris have not turned into overt conflict as the opening up of the Seeno close to Okoyeri by Dogon farmers has mainly taken place since the Fulani left, while the area was clearly divided in the past. The Dogon farmers only cultivated small fields near the village and the cattle keepers roamed the Seeno where they also set up camps.

[71] Areeni Hamadou Barry (Fulani from Okoyeri Peul) and Yousoufi and Mousa Bilaly Tamboura (former slaves from Okoyeri Peul), Okoyeri, September 2002.

However, the Fulani of Okoyeri Peul dream of returning one day. What prevents them is the shortage of drinking water for their herds and this is frequently discussed when they meet in Konna Town. About three times a year, the Fulani village chief sends a message to the village chief of Okoyeri Dogon that he 'has not forgotten about the land'. Following the administrative decentralization reform, the Fulani of Okoyeri Peul even started negotiations in 1999 with representatives of both Diankabou Municipality (to which Okoyeri Peul belongs) and Kassa Municipality (to which Okoyeri Dogon belongs) about the construction of a large well near Okoyeri. When I visited them in Konna (in January 2000 and September 2002), they were actively collecting the requested FCFA 12 m (about EUR 18,320) from the local inhabitants.

They did not seem to be bothered about the Dogon presence in hamlets in the Seeno, their ancient pasture area, when asked about it. A return to Okoyeri by large Fulani herds (some of more than 1000 cattle) might well cause problems for the Dogon farmers of Okoyeri Dogon who currently live in the hamlets. Even more remarkably, the Dogon said they did not fear any farmer-herder conflicts either. A large, modern well would be welcomed though instead. Kassa Municipality, to which Okoyeri Dogon belongs, is also very interested as it sees opportunities to earn money from returning Fulani by taxing all the cattle coming on their territory. When I visited Kassa Village in December 2000, the municipal council was busy writing such a regulation. Fundraising for the well, however, did not progress as expected and by 2002, only a third of the money required had been collected. The mayor's first councillor from Okoyeri Dogon therefore advised the Fulani to seek funding at NGO level in Douentza.

This was the situation in late 2002 when I finalized fieldwork in the area. However an Internet search showed that an existing well in Okoyeri Dogon had been improved in early 2005 with the help of a small French NGO. Apparently, it was extended to a depth of 16 m and the stone shaft was replaced by a concrete construction. The total costs were EUR 7890, to which the Dogon population had contributed almost 20% (EUR 1525).[72] The website does not mention anything about returning Fulani of Okoyeri Peul.

The case of Okoyeri is unusual as one territory is shared by two different villages that belong to different municipalities (previously sub-districts), without a clear division of boundaries, a situation that is recognized administratively or at least has not been discontinued. Within a context of mobility and fluidity, the populations of both villages use the administrative structures to legitimatize their claims to land. In fact, there is a 'legal' situation of multiple layers of claims in Okoyeri that is potentially explosive. The case shows the paradox that an admin-

[72] See http://www.villages-dogons.org/le-puits-okoyeri.html, accessed September 2007.

istrative entity like a village can be on the move and detached from its physical place, yet still hold claims to it.

It should be noted that when I was doing fieldwork in the area between 1999 and 2002, the administrative decentralization reforms were still new, with local councils unaccustomed to their position and role, and the effects of the process were not yet clear. A few years later, it appeared the reforms were importantly serving as an alternative way for former political elites in the region to take up positions in local governance (Pelckmans 2011), which is a way of either continuing or restoring local positions of power. For example, the Douma village chief was elected mayor in 2005.

Fulani reply to Dogon claims to land

Dogon farmers and Fulani agropastoralists have different interests in land and therefore also have differing views of land (see Chapter 2). Originally, the Fulani were not interested in specific plots for farming but in larger areas for herding. In the meanwhile, the areas they used as pastures have been increasingly used for agricultuaral production and herding zones have consequently shrunk.

One might wonder why the Fulani have allowed this to happen. The Fulani mayor of Dalla Municipality explained that Dogon just came 'in search of millet', initially without the aim of permanent settlement and they were not given the land.[73] In other words, the colonization process progressed gradually and was almost unnoticed until it was suddenly a *fait accompli*. A Fulani from Douma added that the Dogon farming system is expansive and that the Dogon claim the land they once occupied: 'After a few years of millet cultivation, a Dogon relocates his field due to soil depletion, but he does not allow others to cultivate it later'.[74]

Over time, the Fulani have become 'tired' of the Dogon settled next to their camps and tensions are running higher. They complain that Dogon fine them for crop damage by cattle and that the Dogon grow crops on pastures and cattle tracks. 'We are Fulani and live from livestock keeping. But now, there are fields everywhere on the Seeno. We need cattle tracks; where do we have to go with our animals?'. In the same vein, a group of Fulani youngsters in Douma angrily said: 'There is such a huge number of farming hamlets around Douma now; it is not possible anymore to reach Douma Village with a herd of 200 or 300 animals'.[75] It was reported that some Fulani have even tried to uproot the Dogon's millet in places where fields were created over previous cattle tracks. Early in 2000, it was also reported that a number of powerful and angry Fulani in Douma

[73] Mousa Dicko (mayor, Dalla Municipality), Douentza, January 2001.
[74] Ibrahim Barry, Douma, September 2002.
[75] Group of Fulani youngsters (family of the village chief), Douma, August 2002.

wanted to prevent Dogon from elsewhere from making use of the large well in Douma. On various occasions, the Fulani village chief of Douma apparently intervened and prevented possible outbreaks of violence.

It should be noted that Fulani pastoral interests in land were not legally protected throughout the twentieth century. Only recently, by way of the *Charte pastoral* (2001), did regulations on grazing areas and cattle tracks come into force. In contrast to regulations for farming lands, such as the *Code domanial et foncier*, there was never a pastoral code regulating pastoral activities.

When discussing the process of agricultural colonization with the Fulani, it turned out that they have formulated a counter-narrative on Dogon claims to land by adopting the Dogon discourse on first settlement. It would appear to be a strategy in the absence of legal support to prevent farmers from opening up their pastures. This narrative essentially claims that the Fulani were settled in their pastoral camps prior to the Dogon's arrival. 'When the first Dogon (from Dianvéli Kessel) settled in farming hamlets in the clay-sand transition zone,[76] they "found the Fulani there"', it is often said.[77]

In the nineteenth century, the situation outside the villages was not only dangerous for the Dogon but, due to the presence of bandits and wild animals, particularly lions and hyenas, also for the Fulani. Young herders tended to group together in small camps, where they often stayed for just a few days. Only after the security situation improved did the Fulani settle in camps for longer periods. Hamma Maiga, the Songhai bard from Douma, formulated the Fulani process of settlement in camps as follows: 'You are a herder and you herd animals in the bush. The only thing you want is a good place for your animals. You stay somewhere for two or three days. Later, you return to that place, you settle there and you stay many days. In this way settlements are constituted.'[78] In the pastoral camps, agriculture was of minor importance and practised only on previous kraals where cattle had dropped their dung and there was improved soil fertility. For this reason, the fields and huts were relocated every year.

Fulani in Douma told me they occupied vast areas by marking the corners of the land. A Fulani 'climbed on his horse and made a tour' as the Fulani village chief described it, and the Fulani marked corner points by felling trees, planting trees or putting down marking stones.[79] Although a Fulani often only cultivated a

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[76] Fulani are not unanimous when indicating the order of the areas the Dogon settled in hamlets. Some say Wayre was occupied first, followed by Coofi, Kampije and Domani areas (Ibrahim Barry, Douma, September 2002). Others claim that Kampije was the last of the four areas to be occupied by Dogon from elsewhere (Boucary Barry, Douma, August 2002).

[77] Hamadoum Mamoudou Barry (called Ba Mudda) and Boucary Barry, Douma, August 2002; Ibrahim Barry, Douma, September 2002.

[78] Hamma Maiga (Songhai bard, Douma), Douma and Douentza, November 1999.

[79] Amadou Nouhoum Barry (village chief, Douma), Douentza, November 2000; Alaye Hamadi Barry, Coofi, September 2002.

small part of the land, while the rest remained uncultivated, he considered the entire area located within these borders as belonging to him. The Fulani chief of Douma emphasized that ‘there were no fields on the Seeno’ and when the Dogon arrived in the Coofi area ‘the land had not yet been divided as there was sufficient land for everyone, herders and farmers’. It was naturally in his interest to underline the fact that land is ‘undivided’ land, or ‘independent’ land as he also put it, since the village chief rules all the land that is not cultivated whereas cultivated land is managed by family chiefs. This political issue is part of the conflict presented in Chapter 6 in which Douma’s village chief is one of the main actors.

Fulani land ownership is recognized in some Dogon hamlets in the agricultural colonization area or at least it is recounted when asked about, for example, by the Dogon from Pergué who have settled in the Coofi area. By doing so, they recognize Fulani authority. Other settled Dogon farmers, however, openly contest Douma authority over the territory, especially the Dogon from Dianvéli Maoundé Village (who settled in the Korematakа and Wayre areas) and from Amba Village (who settled in the Wayre and Kampije areas). They stated they did not ask Douma permission before settling and, therefore, the land is theirs. Fulani commonly complain that many Dogon from these specific villages are annoying as they do not ask permission from Douma before settling but just cultivate the land for a couple of years and then forbid others to cultivate it later. They also settle on cattle tracks. It was reported some even allocated land to the Bella, the group of former slaves of the Tuareg, and to other Dogon.

Conclusions

The mobility of rural people in Central Mali is central in processes whereby land for farming purposes is accessed. These can be considered as territorial strategies since claims to specific tracts of land importantly involve claims on local power positions over a wider area.

In the agricultural colonization area that was opened up in the course of the twentieth century, several Dogon and Fulani villages now compete for land and power, which makes this seemingly remote area a disputed ‘socio-political arena’ (Bierschenk & Olivier de Sardan 1997, 1998, Blundo 1998) or ‘frontier’ (Kopytoff 1987). In a rather pragmatic way, claims to land and power are legitimized with reference to various sources. Based on the leading seniority principle that constitutes power positions in farming societies (Lambert & Sindzingre 1995, Breusers 1999), Dogon villages commonly refer to their ancient settlement histories to legitimate present-day claims in agricultural colonization areas (Lentz 2000, 2005). Past and present mobilities are thus connected. In addition, however, they may also refer to other sources of power such as the past or current ad-

ministrative recognition of their position *vis-à-vis* other villages or incidental court verdicts.

Whereas farming villages derive their power from holding claims to land, agropastoralists have a different view of land and power. However, within the context of the growing Dogon colonization of former pastures and in an attempt to stand up for their rights, they seem to have adopted the farmers' discourse about first settlement by claiming that they had settled in the area prior to the Dogon. In this respect, the diversification of their livelihood activities through farming is helpful as rotating kraals (fenced places where cattle are kept at night) are then cultivated the next year and can serve as a justified (farming) claim to the land. Like farmers, agropastoralists also use various administrative structures to support their claims to territory, as the example of Okoyeri Peul shows.

The use of a mixture of sources of power simultaneously, not only by farmers but also by agropastoralists, has resulted in the establishment of various 'layers of claims' (Marchal 1983, Izard 1985, Fay 1995). These layers, which are intrinsically conflictuous, are evoked and become visible in concrete disputes over land between individuals. They should, however, be understood as conflicts over territory and power positions between villages. The issue that claim prevails depends on the power of the different parties to persuade others of the legitimacy of their claim (see Rose 1994). Persuasion comprises the mobilization of a sociopolitical network (Kopytoff 1987, Rose 1994, Berry 2001, Lentz 2005), including the judiciary, if applicable. The composition of such a network of villages is *ad hoc* and may cross ethnic boundaries (Schlee 2004), as the court cases between Amba and other villages showed.

In this respect, the recent (temporary) establishment of Islamist power in the northern part of Mali (Azawad) (March 2012 to January 2013), which includes our research area in Central Mali, is relevant. The balance of power has been reshuffled and offers an opportunity for local-level tensions to resurface as both Dogon and Fulani may take this opportunity to reassert their positions.

This chapter has clearly demonstrated that the mobility of rural people does not match the administrative boundaries of a territory, which presumes people's sedentarity. Moreover, due to mobility, the administrative boundaries in this area are vague in themselves. It appears that the territorial strategies of a group or a village exceed the boundaries of the place where they officially reside. Mobile people may hold claims to various places and maintain them from a distance. This includes claiming land outside the area where people administratively belong, such as the claims of Dogon villages in a 40-km radius in the agricultural colonization area. Or the reverse situation where people do not reside anymore in the territory where they administratively belong but nevertheless maintain claims there, such as the bizarre case of Okoyeri Peul shows.

The next chapter presents the case study of a large local conflict in which the mobility of farmers and various ways of claiming land and power come together. While the conflict seems to be limited to a land dispute at first sight, with a farmer having been evicted from his land, the case turns out to be deeply rooted in the past and more complex and multi-layered on closer inspection, with many more actors involved.

Photo 1 A Dogon family in their rainy-season hamlet with their failing millet crop, which will force the young men to migrate to the urban areas in search of additional income (Central Mali)

Photo 2 Livestock being watered in a rainy-season pool that will dry up during the dry season (Central Mali)

Photo 3 A Dogon farmer and his donkey cart in Central Mali preparing to collect drinking water from a well 5 km away

Photo 4 Water being drawn from a well (possibly as deep as 90m) using a camel (Central Mali)

Photo 5 An agropastoral camp in the dunes in the Okoyeri's Seeno area that belongs to a Fulani family from Okoyeri Peul, one of the very few that still return every rainy season, and with splendid views of the Bandiagara Escarpment in the background (Central Mali)

Photo 6 Conducting interviews in Coofi hamlet where competition for land is fierce (Central Mali)

Photo 7 Sharing space: a Dogon farming hamlet (in the background) and a Fulani agropastoral camp (in the foreground) just a stone's throw from each other in a clay-sand transition zone where Dogon farmers have moved near to Fulani camps (Central Mali)

6

Conflict over land and power in a volatile context (Central Mali)

Introduction

A detailed case study is now presented of a conflict in Coofi in the clay-sand transition zone where farmers from Dogon villages on the Bandiagara Escarpment have settled in rainy-season farming hamlets near Fulani camps since the early twentieth century.[1] In this specific case, a Dogon farmer was chased off his field by a Fulani agropastoralist. At first sight, this may just seem to be a farmer-herder conflict, a category that is not unusual in the Sahel (de Haan *et al.* 1990, de Bruijn & van Dijk 1995, van Dijk 1996, de Bruijn *et al.* 1997, Breusers *et al.* 1998, Hussein 1998, Hussein *et al.* 1999, de Bruijn & van Dijk 2005a, Moritz 2006, Beeler 2006, Derman *et al.* 2007, Kaboré 2008, Witsenburg & Wario Roba 2007). When digging deeper, it may appear to be a conflict about the withdrawal of land between first-settled and later-settled groups, a category of conflict that is also quite common in West Africa (Lentz 2000, 2005, 2006, 2007). On closer investigation, however, the land dispute turns out to be part of a larger on-going struggle over power between two influential Fulani from Douma.

Conflicts over land in Africa are often complex, multifaceted and multiple-layered processes with many actors involved, for the simple reason that disputes over land are usually not just about land. There is frequently more at stake (Berry 2001, Lund 2002). As explained earlier, access to land has to be considered a process in which social and political relationships are continuously being negotiated (Berry 1993). These are usually between two actors (or groups of actors)

[1] This chapter is based on K. Nijenhuis (2009), Reconsidering conflicts over land in the Sahel as conflicts over power. In: A. Böcker, W. van Rossum & H. Weyers, eds., *Legal anthropology from the Low Countries, Special Issue Recht der Werkelijkheid*, pp. 69-99. Amsterdam: Reed Business.

with different positions of power in a local hierarchy. An example is the host-stranger relationship (*jaatigui*), in which access to land is exchanged for loyalty. A conflict over land not only signals that the underlying social and political relationship has come under pressure, but can also be considered a form of negotiation to redefine the relationship (Lund 2002), which implies that conflict is not exceptional but essentially part of the processes related to access to land. Seeing conflict as a way of redefining relationships also means that parties in a conflict may prefer open-ended solutions and a continuation of their relationship rather than a radical break (Berry 1993, Blundo 1994, Kaag 2001).

This case study considers how the conflict over land and power in Coofi has evolved as a process; the various stages and manifestations of the conflict; the actors involved; and how relations have developed alongside the evolution of the conflict. How various 'layers of claims' to land and power have been established over time and how this is related to the mobility of farmers will also be considered. We will analyse too the strategies that actors follow to justify and strengthen their claims today. Do they refer, for example, to oral and old first-settlement histories (Lentz 2000, 2005) and/or apply to alternative strategies?

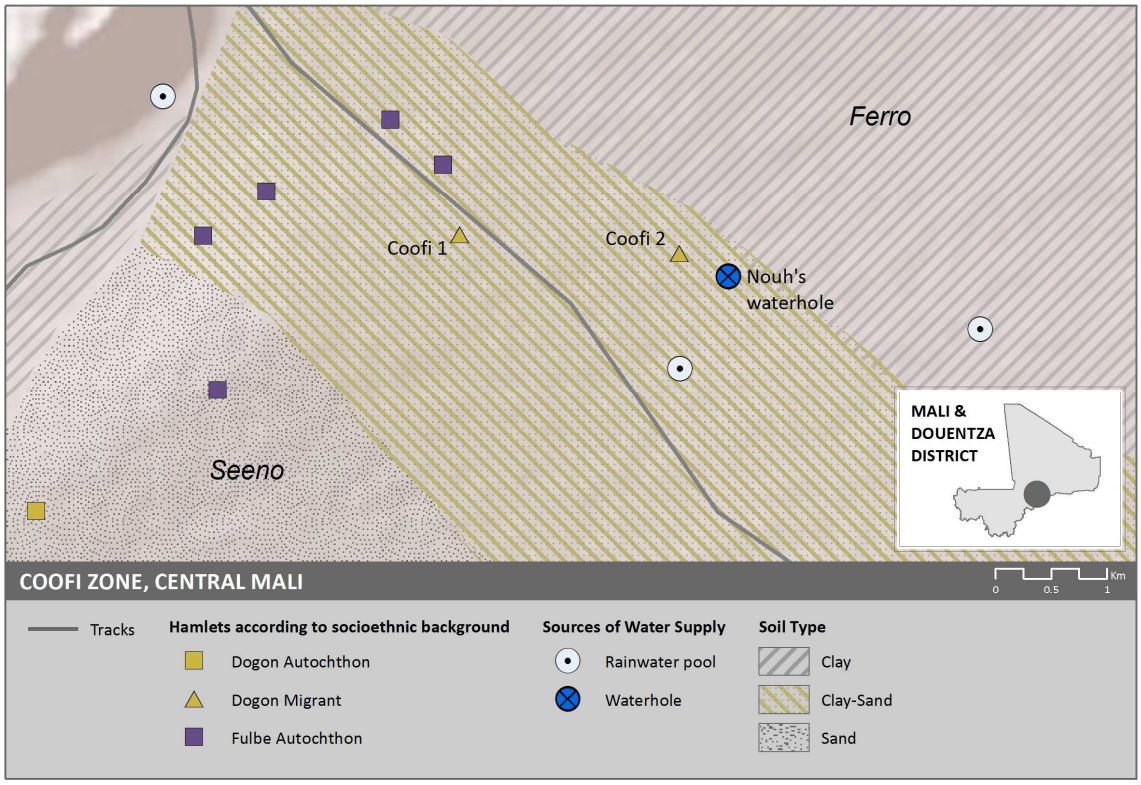
Settlement history in Coofi

Coofi 1 and Coofi 2

The land conflict presented here concerns a field in Coofi where the clayey soils gradually turn into sandy soils (see Map 6.1). The Coofi zone is currently made up of two farming hamlets, namely Coofi 1 and Coofi 2, that are located at close proximity. Coofi 1 is just south of a dirt track that runs northwest-southeast and divides the clay-sand transition zone in two, while Coofi 2 is to the north where the soils are slightly more clayey. The distance between the two farming hamlets is no more than 2 km and since fifteen families live here (eleven in Coofi 1 and four in Coofi 2) and constitute a small, organized community with a chief, a youngsters' association with a board, and a communal groundnut field, Coofi could also be regarded as one farming hamlet with two spatially separated wards. Most of the families in Coofi are from Pergué Village about 25 km away high up on the Bandiagara Escarpment where farming land is scarce. The people from Pergué in Coofi are called Pergourou, in addition to their family name of Guindo or Guiré, which refers to the different clans. Coofi 1 is the largest, oldest and thus most important of the two settlements and the oldest man from the first-settled family is automatically the chief. On the basis of fieldwork data (2001), Coofi's rainy-season population is estimated at about 255.

Coofi's settlement history can be traced back to the first decades of the twentieth century and some of its huts have been replaced several times. The first

Map 6.1 Coofi zone, Central Mali (1999)



farmer from Pergué settled in (what is now called) Coofi 1 in the 1910s or 1920s and his grandson, Mousa Pergourou Guindo, is today's chief. The second lineage to settle in Coofi was Sory's (b. 1930) and it is also called Pergourou Guindo. After his father had settled in Coofi 1 next to the first family to which he was closely related by marriage, he decided to cultivate a clayey field in the northernmost part of the transition zone deep in the forest and he moved his hut from Coofi 1 in 1943. He had asked prior permission from the Douma village chief and, to his surprise as the clayey area was reserved as a pasture area, permission was granted. In 1960, his son Sory Pergourou Guindo relocated the family huts to the place that is now known as Coofi 2. The third lineage (Pergourou Guiré) arrived in Coofi in the 1950s. All the families in Coofi from Pergué belong to one of these three lineages that have split up over time and were joined by relatives in the 1950s and 1960s.

Every year after the harvest, the majority return to Pergué due to drinking-water shortages and young men usually go off to work as seasonal labour wage migrants in the cities or coastal areas. Drinking water in Coofi is obtained from seasonal rain-fed ponds nearby and from a well in Wayre some 5 km away. In the early 1990s, an 86-metre-deep borehole was drilled in Coofi but it broke down in 1998 and attempts to repair it failed. A reliable water supply would al-

low people to live in Coofi all year round. At present, it is only the chief who lives there permanently as he owns a small herd that cannot be kept in Pergué. In the dry season, his herd is watered at the large well in Bamguel on the way to Pergué, about 13 km away.

Previous settlement

Sory and the other Dogon from Pergué living in Coofi 2 are not the first Dogon to have settled there. In the past, Dogon from Okoyeri Village headed by a man called Nouh established a farming hamlet there in the 1910s or 1920s among Fulani camps where he cultivated millet and other crops, though not every year. Four other families from Okoyeri joined him over time and the five families formed a small community.

Okoyeri's farming hamlet in Coofi expanded as rainfall and harvests were abundant. The land was abundant too: they cultivated clay and mixed clay-sand fields nearby and when a field was depleted, it was left fallow and an adjacent tract of land was cleared. Nouh's grandson, *Al-hajj* Diadié Alphagalo, who was born in Coofi in 1946 and currently lives in a rainy-season hamlet in the Seeno of Okoyeri (see Chapter 4), estimates that, by 1960, the rainy-season hamlet in Coofi was a large settlement comprising 23 families (with about 375 people). To access drinking water, Nouh dug a waterhole that was called *Nouhtakara* after him (Nouh's pond). After the harvest, they all returned to Okoyeri.

Farming in Coofi was relatively easy and successful but this changed in about 1960 following a conflict between Nouh and the Fulani from Douma. Stories differ about the conflict but as they do not contradict each other, there is likely to be an element of truth in them.

The Fulani from Douma claim that they chased away the Dogon from Okoyeri since the Dogon wanted to turn Coofi into a new village headed by Nouh. The Dogon from Pergue presently living in Coofi 2 confirmed that the Dogon from Okoyeri had to leave because they claimed the territory was theirs. The immediate cause of tension was probably the waterhole that Nouh had dug in his field. Digging waterholes is a delicate issue as it is considered the privilege of landowners or as an act that claims land and power in an area. This behaviour was undoubtedly a thorn in Douma's side; Douma considers Coofi as part of its territory and would never allow the creation of a Dogon village there.

Nouh's grandson *Al-hajj* Diadié confirmed that the problems started with the digging of Nouh's pond: it was 'a matter of pride'. After his grandfather died, the village chief of Douma reclaimed the land and allowed the Dogon to stay there on condition they gave them a bundle of millet every year. Nouh's descendants refused because they considered themselves to be the first occupants of the land. 'We have never asked permission to cultivate the land.' Offering millet would

imply recognition of Douma's land ownership, while refusing to present the millet was interpreted by Fulani as 'looking for power'.

An old man from Okoyeri who was living in Coofi at the time stated that the reason for their departure was a violent conflict. An angry youngster from Okoyeri had killed a Fulani from Douma with his hoe because the Fulani's wandering cattle had caused considerable damage to the Dogon's field. In response to the murder, the Fulani from Douma sent a patrol to the area. Although the offender had been arrested, the Dogon from Okoyeri in Coofi decided to return to their village as they feared Fulani retaliation. The village chief of Douma said in more general terms that the Dogon had left due to 'problems with herders'.

Whatever the facts, Nouh's descendants returned to Okoyeri in about 1960 and all the other families followed out of solidarity in the same year. As a result of their departure, it remained unclear whether the land in Coofi belonged to Okoyeri or Douma.

Fulani claims to first occupancy

The Fulani from Douma have clearly laid claims to Coofi. They currently state that the clay-sand transition zone, including the area where Coofi is located, belongs to Douma as they were the first occupants and marked their personal territories by cutting down trees.

The Dogon from Pergue occupied land in what is now called Coofi 2, which was probably claimed by the Dogon of Okoyeri. Nevertheless, the Dogon from Pergue have recognized the land as belonging to Douma, as can be seen from acts such as offering a part of their annual millet harvest and allowing the Fulani owner of the field to enjoy extra labour for a couple of days for weeding or harvesting work. Coofi's Chief Mousa recounted how, when his grandfather settled in Coofi, all the land had already been apportioned by Fulani from Douma. When asked about it, the family chiefs in Coofi were prepared to specify the Fulani owner of each of their fields. It emerged that all the fields in Coofi belong to a limited number of Fulani from Douma. Most of the clayey fields in Coofi, for example, belong to a man called Ba Mudda and six of the fifteen Dogon families in Coofi occupy at least one field belonging to him.

The contours of the fields in Coofi are highly irregular, similar to most fields in the agricultural colonization zone. According to the farmers in Coofi, this was because of the way a Fulani owner showed a Dogon the place where he was allowed to cultivate. The Fulani did not indicate the exact boundaries but only the corners, which used to be trees in the past. Tree markings disappeared with the Sahel droughts in the early 1970s and mid-1980s but 'we still know them', the Dogon in Coofi assured me.

The first layer of the conflict: The land issue

The withdrawal of land

Shortly after the departure of the Dogon from Okoyeri in about 1960, Sory grabbed his opportunity and moved to the place of Okoyeri's former settlement in what is now called Coofi 2, built a mud and straw hut and started to cultivate Nouh's former field that was well manured and had a central waterhole. It was the former Douma village chief who had allocated the field to Sory, and his son Amadou Nouhoum Barry (b. circa 1940) holds this position today.

In the mid-1960s, another Fulani from Douma visited Sory's father and claimed the land, arguing that he was the owner. As a sign of recognition of ownership, Sory's father had to 'pay' him a symbolic bundle of millet after the annual harvest. He accepted and gave him the millet every year unless their harvest was too poor, a practice that continued peacefully for many years. Three subsequent generations cultivated this field, Sory's father, Sory and, since the early 1990s, Sory's son Oumar. They enlarged the field step-by-step as their family grew (Sory has seven sons) and purchased agricultural equipment. As a result, it has become a large and profitable field of about 78 ha, of which about a third is fallow. Oumar was able to harvest 400-500 bundles of millet from this field in the mid-1990s, which is considerable for this area.[2]

However, the situation changed dramatically in 1997 when Hamadoun Guidado Barry, who is better known as Ba Mudda (meaning 'father of Mudda' in Fulani language), succeeded his paternal uncle, who had passed away, as a family chief. Ba Mudda is an old man (b. circa 1930) with visible Fulani characteristics: he is tall and slim, with a long face and light-coloured eyes. He returned from the Inner Niger Delta where he used to be with his family herds and settled in Douma again. It was rumoured in Coofi that he used to be a troublemaker in the Inner Niger Delta. Now he was the family chief, he summoned Sory to pay him the annual bundle of millet. Coincidentally however, two consecutive poor rainy seasons resulted in very bad harvests and Sory was not able to give away any millet. Ba Mudda became very angry as he considered Sory's behaviour a repudiation of his ownership. So in 1999, he took back the field that Sory had been cultivating for almost 40 years.

The younger brother of Douma's village chief attempted to mediate in the dispute and proposed giving two bundles of millet, but when this was suggested to Ba Mudda, he demanded money instead. Sory offered him FCFA 5000 (EUR 7.50), but Ba Mudda wanted FCFA 7500 (EUR 11.50). Ba Mudda was still not satisfied and wanted to chase Sory's family off the land, urging them 'to uproot

[2] One bundle of millet is about 25 kg, depending on the quality and quantity of the grain. After threshing, the net weight of the millet ranges from 16 kg to 20 kg (Maas 2005: 111).

their huts' because they were built on the contested field. He made it clear that Sory had to leave Coofi.

Sory subsequently requested help from his friend, the Fulani village chief of Douma, whose father had allocated his family the field in the past. The village chief, who is normally a calm old man, took the case to the District Court in Douentza. The court session took place in September 2000 and, based on witness statements, decided in favour of Ba Mudda.

As a result of the court's decision, Sory left the contested field fallow. Ba Mudda did not occupy the land himself, but allocated a part to another Dogon from Pergué but who was living nearby. The relationship between Sory and Ba Mudda has been frosty ever since and when my research fieldwork in Central Mali ended in early October 2002, Sory and his family had not yet left their reed huts and loam houses in Coofi.

The withdrawal of land due to conflicts between a first-comer and a newcomer is not unusual in Mali and more widely in West Africa (Lentz 2000, 2005, 2006, 2007). However, there are some remarkable aspects to this case. Why was it the village chief who took the case to court instead of Sory? What was the village chief's interest in doing so? Apparently, the conflict was not between Ba Mudda and Sory (a Fulani-Dogon conflict) but between Ba Mudda and the village chief (a conflict between two Fulani). Before turning to the court case and the broader issues in the conflict, let us consider Sory and his son Oumar, their relationship with Douma's village chief, and this specific field. Sory is by far the wealthiest farmer in Coofi with the largest and most profitable fields. Is it just a coincidence that Ba Mudda took back Sory's most lucrative field?

Sory's wealth and the contested field

In 1943, when Sory's father moved his huts from Coofi 1 into the forest, the family consisted of only four persons. The clayey soils were fertile and heavy to work with a hand hoe. Since his move from the forest to Coofi 2 in 1960 however, Sory has become a very successful farmer, particularly since the early 1990s when Sory's son Oumar (b. 1962) succeeded him as the daily manager, although his old father Sory is still the family chief. Since Oumar is in charge, significant investments have been made in ploughs, draught animals (camels, oxen and donkeys) and livestock. This large family of some 50 people is the only one in Coofi that uses camel traction.

With the growth of the family and investments in agricultural equipment, the family has been able to enlarge existing fields and open up new ones. It now has three large fields, two in Coofi (a clay and a clay-sand field) of about 110 ha together and another sandy field of 80 ha about 10 km away from Coofi that was opened up in the early 1990s to spread the risk over fields with distinct soil prop-

erties. Oumar explained that ‘If the rainfall is good and well-timed, then the harvest on the sandy soils is good and on the clayey soils extremely good. When rainfall falls short, then the harvest on the sandy soils is still fairly good, but on the clayey soils it is disastrous.’ Depending on the soil’s properties, different crops are grown: millet, sorghum, sesame, groundnuts, calabash, sorrel, beans, watermelon, okra and cotton.

The two large fields in Coofi have become one over time. Sory started in 1943 on the clayey field in the forest at the northerly point and gradually enlarged it southwards towards Coofi 2 where the clay soil is mixed with sand. Reversely, when he started on the clay-sand field in Coofi 2 in 1960, he expanded it towards the clay field. Together, the two fields now constitute one large elongated piece of land running nearly 110 ha in a north-south direction (about 450 m x 2500 m). The northern clayey part in the forest is about 31 ha, while the southern clay-sand part in Coofi 2 is about 78 ha. The northern clayey part is very fertile but growing crops is riskier than on a sandy field because clay soils are much more sensitive to shortages and excesses in rainfall. The southern clay-sand field is thus preferred. It is this southern part in Coofi 2 that is the contested field.

When Sory and his son Oumar had to abandon the disputed clay-sand field in Coofi, they reacted in two ways. First, Oumar simply enlarged a new sandy field 10 km away although the distance was a problem and hampered the allocation of labour to other fields. Second, while they had to leave the southern part fallow, they opened up the old northern clayey fallow part again. Oumar ploughed this part as far away possible from the contested section. It was a part that had been fallow for six years but all signs of agriculture had already faded; it was densely covered with vegetation and looked like normal bush, with several types of trees and shrubs.

The variety of fields, the crops and the flexible allocation of labour allowed room for manoeuvre. For example, the harvest in 2000 was bad on the Seeno soils near Coofi due to locusts, with some families not able to harvest anything at all. Oumar’s family on the other hand did not suffer too much. Although the sorghum harvest had failed on the clay field in the forest and the clay-sand field in Coofi was not cultivated at all due to the conflict, the millet harvest from the sandy field was fairly good because the crops were hardly damaged during the growing season. Oumar harvested even more millet than in the previous year when he cultivated the contested field.

Ba Mudda had withdrawn the most profitable field from Coofi’s wealthiest farmer but, although he certainly damaged Sory’s position, Sory did not suffer too much in terms of losses as he was able to use his two alternative fields. What seemed to be more important to Ba Mudda than Sory’s wealth was Sory’s relationship with the village chief of Douma.

The friendship between the village chief and Sory

Sory is loyal to the Fulani village chief of Douma. Their warm relationship can be traced back to their mothers who were friends as children. Sory's mother comes from a small village near Douentza, a place where the Fulani from Douma used to herd. An expression of the present friendship between the village chief and Sory are their regular visits. For example, when the village chief passes through Coofi, he always stops to greet Sory. The village chief is highly esteemed by the Dogon in Coofi because 'he is not a prejudiced man'. Oumar gave as an example an incident with a Fulani of Douma, who had entrusted him with sixteen cows. One day the Fulani wanted his cattle back but they had disappeared. The owner accused Oumar of theft and wanted to go to the police but the village chief intervened and proposed a two-month period of investigation. It was a delay that allowed time for the animals to be found.

The relationship between the village chief and Sory is apparently a thorn in Ba Mudda's side. He noticed with obvious envy that 'Sory is a rich man who gives a lot of presents to the village chief, while the village chief accepts everything and always wants to be better. Other Dogon also do a lot for the chief, but Sory does the most: he gives four or five sacks of millet every year, money and sometimes even animals.' Although it is rumoured in Douma that the village chief is a person who takes what he can get, it seems that Ba Mudda has an exaggerated image of the gift relations between the two men. Oumar claimed they had never given money to the village chief and only small amounts of millet. According to Oumar, there was gossip when he sold a bull at the weekly Douentza cattle market during the land dispute. However, the money was meant for the dowry that had to be paid by Oumar's younger brother, not for the village chief.

It seems likely that the reason for Ba Mudda's repossession of Sory's field had nothing to do with the specific field or bad feelings towards Sory. Instead, the close relationship between Sory and the village chief was almost certainly at stake and, by hitting Sory, he would hurt the village chief. Ba Mudda's actions were probably due to a mixture of jealousy and resentment and a display of power. After the court case, Ba Mudda said he wished that Sory had come to him to discuss the matter beforehand and not gone to the village chief. The village chief felt that Ba Mudda had chased Sory off his field because he wanted to frustrate him (the village chief). This was the reason why the village chief took the case to court. Even Oumar considered the court case to be a family conflict between the village chief and Ba Mudda. 'It is a conflict between two Fulani. Therefore, it is wise to keep away from this dispute,' he warned.

The struggle for power between two Fulani

One might wonder why Ba Mudda reclaimed the land and why it was the village chief (and not Sory) who took the case to the District Court in Douentza. The repossession of Sory's field was apparently not in itself the central issue between the village chief and Ba Mudda. When reading the arguments that were used in the verdict, it emerges that the struggle was not about this specific field but essentially about the power to allocate land to a stranger. Who is entitled to allocate land to strangers and with what legitimacy? Ba Mudda and the village chief clearly had divergent notions.

The court case

The public session at the District Court in Douentza on 28 September 2000 was on the reclamation of fields called Windé Niouï[3] at Coofi (spelt Thiofy) between Amadou Nouhoum Barry, the village chief of Douma (litigant) and Hamadoun Guidado Barry, i.e. Ba Mudda (defender), who was surprisingly indicated as a cultivator in the verdict.[4]

The arguments of both parties are clearly expressed in the verdict.[5] The village chief underlined at the public session that he was not demanding the land as a private person but in his capacity as the village chief who was protecting village interests. He argued that 'the field is integrated into the village territory, which belongs to the village as a collectivity, not to a single person'. He regretted that Ba Mudda had claimed the land as a private owner and had even chased the Dogon off the land, while he, the village chief, had authorized them to settle there in the first place and exploit the land. He asked the tribunal to confirm that the field belonged to the village and that he, in his role as village chief, was the only person who could authorize the use of the land.

Ba Mudda then argued that first his grandfather, then his father and now finally he could allocate the land to whoever they wanted to. In return, to symbolize that the land belongs to Ba Mudda's family, the authorized person always has to offer remuneration in the form of bundles of millet. 'Everybody in Douma knows about this,' he stated, articulating his indignation at the village chief's behaviour 'who just publicly expresses hard feelings against me without being frank'.

The court did not give an elaborate written reason about how it arrived at its decision and the verdict was, according to the text, fully based on witness state-

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[3] A Fulani youngster from Douma, a family member of both Ba Mudda and the village chief, explained that the place was formerly indicated as Winnde Nuuyi. Respondents explained that *wiinde* refers to 'the place where sick animals stay', while *nuuyi* refers to 'termites' in the Fulani language. More generally, *wiinde* refers to a deserted camp that can be cultivated (de Bruijn & van Dijk 1995: 310).

[4] Justice de Paix de Douentza, 30 October 2000, No. 39/jugement.

[5] I received the verdict from Ba Mudda Barry himself, who always keeps it in a small, dirty plastic sandwich bag in his *boubou* (long robe).

ments. The court allowed the village chief to appeal in his capacity as village chief but since no witnesses confirmed that the contested land belonged to the collectivity, which would justify the village chief's authority over the land, the court judged his arguments to be weak. By contrast, as witnesses confirmed that the Dogon were settled by Ba Mudda (or his father or grandfather) and that he had always received bundles of millet in return, the court decided that the contested lands customarily belonged to Ba Mudda. No legal motivation with reference to applicable legislation or customary rules was provided in the verdict.

Notwithstanding the apparent weight of the witness statements, their names and numbers are not mentioned in the written verdict. It is known though that three witnesses were present, all called by Ba Mudda. The village chief took two witnesses but they were not accepted: one was ill on the day of the public hearing and the other, aged 87, was considered too old to appear. The village chief had apparently underestimated the situation. As his family is larger and richer than Ba Mudda's, he had not expected anyone to have the courage to challenge him.

Many believed the trial was not fair and rumours circulated that the judge was corrupt. The village chief's principal councillor in Douma asserted that the judge had accepted FCFA 100,000 (EUR 150) from Ba Mudda in return for a favourable judgment. This might have been true. Bribery is common in the Malian judicial system, which means that justice is (often) for sale. Amounts ranging from FCFA 200,000 (EUR 300) to FCFA 1,000,000 (EUR 1500) for a verdict at Douentza District Court are not unusual, and this constitutes an attractive supplement to a magistrate's relatively modest monthly salary of about FCFA 150,000 (EUR 230) (de Langen 2001: 58).

What becomes clear from the verdict is that Ba Mudda and the village chief have different perspectives regarding the power to allocate farming land. According to Ba Mudda, his right is based on first occupation of the field, while the village chief feels the territory is undivided and that he, in his role as chief, can rule as he wishes. In fact, the village chief holds a territorial view whereas Ba Mudda considers land as if he were a farmer who has rights to a field. Paradoxically, this seems to contradict their backers' views: Ba Mudda is supported by livestock keepers in Douma, while the village chief is supported by farmers.

Land allocation through Ba Mudda's eyes

Despite having livestock keeping as its main activity, Ba Mudda's family consider themselves the owner of a number of fields in Coofi 2 that have been allocated to Dogon. These tenant farmers give them part of their harvest in return, unless the harvest is poor. The family also has a field in the Inner Niger Delta that farmers cultivate in return for the use of Ba Mudda's ploughs.

In the view of the Fulani, the first people to settle in Douma territory were Fulani livestock keepers from Douma who went there to pasture their herds and then also cultivated fields near their camps. These fields, established on kraals on which cattle dung was dropped, were rotated every year depending on the location of the previous kraal. The Fulani simply divided the clay-sand transition zone amongst themselves by marking corner points.

The Coofi area – more particularly its northern clayey part – used to be an area where the sick animals of the Fulani in Douma were isolated at times of livestock epidemics. This was confirmed by several villagers from Douma. As a result of the herds' presence, the soil was enriched by the animals' dung and was excellent for agricultural purposes. Ba Mudda claims his family was the first to cultivate fields near their pastoral camp. Leaving their fields fallow for a few years, they moved with their herds to another area. And as the first cultivator in Coofi, Ba Mudda considers himself the owner of the land, which in turn gives him the right to allocate it to strangers.

Another perspective from the village chief

The village chief denied that Coofi was a place where sick animals were kept and that Ba Mudda's family had cultivated there. According to him, Coofi was just a transitory stopping place between an area where ill animals were brought and another where healthy animals were pastured. More fundamentally, he does not consider first cultivation as a legitimate basis for allocating land to strangers. According to the village chief, a field is not private property but belongs to everyone, i.e. to the whole community. The territory is to be considered undivided and only the village chief can allocate land. This means that the field is not Ba Mudda's ('he did not even cultivate the place'), but belongs to him as village chief. He states that his father, the previous village chief, had allocated the land to Sory. The village chief therefore holds the view that if outsiders definitely leave Douma territory, such as the Dogon from Okoyeri in 1960 did, the land returns to Douma and is represented by the village chief. Coofi's chief Mousa knows the Fulani view whereby the land automatically returns to the village chief as soon as it is abandoned.

It appeared, however, that the village chief was not completely sure of his own story, although he never hesitated and swore in Allah's name that Ba Mudda's ancestors had never settled in Coofi. Oumar, Sory's son, reported that, shortly before the court session in September 2000, the village chief had visited Coofi with a police officer to take an official statement from Sory about his first settlement. However, Sory was not there. The village chief wanted him to continue cultivating the land but Sory refused pending the court's decision.

Remarkably, as a starting point in Coofi's settlement history, the village chief always mentions Sory's settlement, omitting the prior presence of the Dogon of Okoyeri. *Al-hajj* Diadié Alphagalo, the grandson of the first-settled Dogon from Okoyeri in Coofi 2, claimed that the village chief had asked him during the court case if he had heard from his grandfather who the field belonged to: to his grandfather Nouh, to 'that Fulani' (Ba Mudda) or to him (the village chief). *Al-hajj* Diadié claimed he had never heard anything about it from his grandfather. 'I know it is Douma's territory. In those days there were Fulani present, but my grandfather never asked [anyone's] permission. He just found a place and cleared it.'

Previous rivalry and today's revenge

The conflict between Ba Mudda and the village chief is not an isolated incident. There have been previous tensions between these two Fulani, who are distant relatives: Ba Mudda is the village chief's paternal uncle. It is said that their strained relationship can be traced back to their fathers who had a falling out many years ago. Nowadays, their families live in different wards in Douma and, as ward chief, Ba Mudda is a councillor to the village chief. It is said, however, that people in Ba Mudda's ward refuse to pay their taxes to the village chief, which means they do not accept his authority.

It was rumoured that there was a personal feud between Ba Mudda and the village chief that started due to rivalry over a woman more than 50 years ago. The present village chief had seduced a woman, Kadidja Diallo, who was married to Ba Mudda's older brother. She got divorced in order to marry him as his second wife (the chief divorced his first wife). This happened but it was claimed that Ba Mudda then wished to take revenge on the actual village chief. Kadidja Diallo is old now but is still a lively and strong woman who lives in the village chief's home in Douma.

Their rivalry clearly also has to do with power. When the previous village chief died, they both dreamed of becoming the new one. Coofi's Chief Mousa reported that Ba Mudda, being the oldest male member of the family, felt passed over when his younger nephew was chosen. This is understandable as it was not always evident in Fulani history that a new chief is chosen from the next generation. The system was introduced under Seeku Aamadu's rule (1818- 1862). Beforehand, a new chief was primarily chosen from within the deceased chief's generation, for example, one of his brothers (de Bruijn & van Dijk 2001: 229).

Political coalitions and polarization

Both Ba Mudda and the village chief attempted to expand their power base in Douma in the past by using their own positions to create a support group by of-

fering attractive incentives. In doing so, they emphasized the differences between farmers and livestock keepers. This polarization was not along ethnic lines, thus not between the Fulani and the Dogon but along sedentarity and mobility lines instead. A distinction was deliberately made between groups of sedentary farmers and mobile livestock keepers, especially by the village chief.

Ba Mudda appointed himself as an intermediary for the livestock keepers from Douma in the Inner Niger Delta for whom he negotiates entry fees with the local chief (*jowro*). These are the rich livestock keepers with large herds, whereas the poorer ones with the smaller herds cannot afford to pay the entry fees. Herders with small herds move to the freely accessible Bandiagara Plateau. In Douma it is said that 'the village chief does nothing for the Fulani because he always lives in Douma. In contrast, Ba Mudda truly benefits the Fulani in the Inner Niger Delta. He frequently goes there and negotiates cattle entry fees with the *jowro*. He is a powerful man.'

The village chief did, however, do a lot for the sedentary *riimaybe* (former Fulani slaves) and impoverished Fulani by allocating them farming land, especially after the devastating droughts in the Sahel in the mid-1980s when many livestock keepers lost their cattle and were forced to turn to cultivation. These allocations made him popular with farmers but antagonized the pastoralists as he allocated land near the village that was supposedly reserved for young cattle. He justified this by claiming that there was no other area left to cultivate. This made the Fulani livestock keepers of Douma furious and they revolted against him, but in vain.

In conflicts between farmers and livestock keepers, the village chief often takes the side of farmers, which makes him popular among farmers ('the Dogon in Douma love the village chief') but very unpopular with the Fulani ('the village chief is opposed by the Fulani'). As a Bamana farmer from Douma explained: 'The village chief has never frustrated a farmer's efforts at cultivation'. It is said the village chief even reported violent conflicts among Fulani to the police.

Remarkably, the Fulani village chief considers himself a representative of the sedentary people in Douma 'because they are always there: in times of famine as well as in times of abundance'. Most of the time, however, the village chief himself is not present in Douma, where he officially resides. He can often be found in Douentza where his third wife and their children live. He also frequently travels to Burkina Faso to seek treatment for an abscess on his leg and to attend meetings of a regional livestock keepers' NGO for which he is a Malian representative. During his absence, he is replaced by his principal councillor.

In the conflict between Ba Mudda and the village chief, the majority of the Fulani population of Douma sided with Ba Mudda, regardless of whether he was right or wrong. As a former slave of the village chief's family explained, they

feared that if the court's verdict went against Ba Mudda, this might create a precedent in other similar situations in Douma where the Fulani had lent land to Dogon farmers from outside the area. The village chief, however, interpreted the massive Fulani support for Ba Mudda as jealousy. 'They do not love me or Ba Mudda either, but they are against me because I am the village chief, so therefore they supported Ba Mudda.' According to a young Fulani in Douma, it was rumoured in Douma that 'Ba Mudda is wrong' and that it had always been Ba Mudda who caused problems with the village chief. This was also rumoured in Coofi.

The aftermath of the court case: The struggle for power continues

The conflict did not end with the court's verdict. On the contrary, the outcome served as input for a new stage in the conflict, involving many more people than before. The aftermath confirms that the land dispute is essentially part of a conflict of power. Both Ba Mudda and the village chief have continued their own struggles for power: Ba Mudda has focused on Coofi while the village chief has directed his attention to Douma.

Ba Mudda spreads discord in Coofi 2

After the court's verdict, Ba Mudda visited the Dogon of Coofi 2 to claim money. Oumar reported that Ba Mudda wanted the Dogon to contribute as they had benefited from the verdict. 'He was very angry that no one had even paid him one franc.' He tried to make them believe that he had encountered additional expenses at the court in order to let Sory continue cultivating. Three farmers from Coofi 2 that cultivated Ba Mudda's land paid him money, in total FCFA 120,000 (EUR 185), of which Sory contributed most (FCFA 100,000). And, not insignificantly, they decided to stop offering him their annual bundle of millet. Thus the bizarre and paradoxical situation arose whereby Ba Mudda urged the Dogon from Coofi 2 to cover the costs he had incurred in an attempt to bribe the jury but that had eventually led to a judgment that was not to their advantage.

Ba Mudda then split the contested field in two, allocating one part to Idrissa, a Dogon farmer from Pergué who lived in a nearby farming hamlet. Initially Idrissa refused and asked Ba Mudda to let the field to Sory but Ba Mudda only agreed to Sory keeping a part if Idrissa cultivated the other. This was only the start of Ba Mudda's attempts to spread discord among the Dogon in Coofi.

The Dogon in Coofi and Pergué were upset with Idrissa for agreeing to cultivate the disputed field, which they considered an act of betrayal. The elderly in Pergué convened two village meetings. At the first, after a representative had verified whether Idrissa had really agreed to cultivate Ba Mudda's field, they reprimanded and fined Idrissa. He had to provide a bull for the elders, who slaugh-

tered it and then ate it. Idrissa was not only considered to have acted wrongfully but, more importantly, they were dissatisfied with Ba Mudda's attempts to divide the Dogon community. Oumar pleaded at the meeting that 'Everybody knows the field does not belong to my father Sory. Our unity and solidarity is more important than this field. Therefore the field should be given to Idrissa in its entirety.' The older people, however, demanded that Idrissa abandon the field. At a second meeting, Idrissa was given the opportunity to explain why he had agreed to cultivate for Ba Mudda. The elders then agreed that Idrissa had had no other choice than to accept. Ba Mudda had created a problem to which there was no simple solution.

In the next rainy season, in 2001, both sowed and cultivated their parts of the field: Idrissa a small piece and Sory the larger part. In the subsequent dry season however, Ba Mudda enlarged Idrissa's share at the expense of Sory. And, more importantly, he entrusted the management of the entire field to Idrissa, which meant that Sory became subordinated to Idrissa. Sory, who settled in Coofi before Idrissa, was deeply offended and abandoned the field in 2002. His son Oumar said, 'We cannot bear the idea that Idrissa's children will say some day to our children: your field has been withdrawn and we have managed the field ever since.'

Meanwhile, Idrissa's collaboration with Ba Mudda intensified. He built a millet store for him and trusted his herd to Ba Mudda. The village chief of Pergué was astonished at Idrissa: 'So you want to be his slave?' Idrissa retorted that he had paid the fine and therefore cleared the debt, so he felt free to do whatever he wanted. As a result, Idrissa became increasingly isolated from the Dogon community in Coofi and Pergué, while his relations with Ba Mudda became warmer.

At an individual level, the relationship between Sory and Idrissa has deteriorated. Sory's son Oumar feels betrayed by Idrissa's actions, all the more so as he had done a lot for Idrissa in the past and their relationship was good. They had even become relatives since one of Sory's sons married Idrissa's daughter. 'When Idrissa settled here, he had nothing, not even a donkey to transport water.' To help him, Oumar transported wood for him so he could construct his hut and when Idrissa's brother was chased off his field, it was Sory who went to negotiate. Oumar expressed his anger: 'You save someone from the well and in return he pushes you in it.' Remarkably, Oumar was more shocked that Idrissa trusted his herd of fat, prize-winning, high-quality cattle to Ba Mudda. According to Oumar, in Dogon eyes, trusting a herd to a Fulani means that you will lose your animals.

Ba Mudda had not yet finished. In an obvious attempt to confront the village chief with his powerlessness, he took back more land in Coofi 2 in 2002, this time a field from Issa. With the help of a wealthy farmer and Islamic teacher

from a nearby village, Issa found another field but it has an unfavourable location and is several kilometres away on Okoyeri territory. The old Issa is still in his hut in Coofi 2 but his family has already moved to the new field. Ba Mudda also demanded that the most recently settled family in Coofi leave Coofi 2 because it is his territory. This farmer cultivates in Coofi 1 but lives in Coofi 2. In 1999, he relocated his huts and granaries from Coofi 1 to Coofi 2 to be closer to Nouh's waterhole, since he does not have a donkey cart to transport water. In October 2002, he had not yet left. The Dogon in Coofi speculated that if one farmer from Coofi 2 left, the others would follow in solidarity, like the Dogon from Okoyeri four decades earlier.

The village chief strikes back in Douma

Since the court case, the village chief of Douma has not helped the Dogon who lost out in Coofi but has instead tried to take revenge on the Fulani herders in Douma that supported Ba Mudda in the court case and attempted to restore his battered position. This shows that the conflict is essentially about power, not only for Ba Mudda but also for the village chief.

Shortly after the court's ruling, he urged Sory to continue cultivating the field, in spite of the its decision. However, Sory refused, pending a solution to the conflict. As a result, the village chief was angry at Sory, as I observed early in December 2000. Instead, Oumar started clearing the northern part of the field behind an erosion gully, which was in fact an overgrown fallow field of Sory's. Oumar also enlarged their sandy field to its current 80 ha.

In addition, the village chief allowed Sory to compensate for his loss of field by expanding the cleared fallow field further north into the clayey areas. 'Sory is allowed to expand as far as he wants; the boundary is indefinite,' he said. Apparently, however, this act was not intended to help Sory but to frustrate the Fulani herders because the area is reserved for herding. The Fulani of Douma were indeed furious. The village chief wanted to express his power by allocating land to whoever he wanted to, even if it concerned pasture land. He literally said: 'I have given Sory a field in a grazing area, without limits, to show the Fulani that I am the chief.'

As he was furious about the verdict, he frustrated the herders of Douma by refusing to organize a new cattle track to and from rainwater pools. The livestock keepers were suffering because of the expansion of the Dogon fields on ancient cattle tracks that were well manured.

With the escalation of the conflict, the village chief of Douma asked *Al-hajj* Diadié Alphagalo, the grandson of the first-settled Dogon from Okoyeri in Coofi, to cultivate the contested field again. But *Al-hajj* Diadié refused for reasons of pride and loyalty and because he felt that recultivating the field would have

worsened the conflict. ‘In line with my father, I will not pay a bundle of millet to the village chief of Douma. Resettling there would be an act of betrayal of all the families who returned with my father.’

In one final attempt, the village chief himself dug a hole in Coofi, as a mark of land ownership and power, a way of continuing the conflict in a traditional way. Digging holes is similar to making other signs such as burying jars that can be dug up many years afterwards or planting trees.

The chief himself was angry and felt aggrieved. On the last day of my fieldwork in Douentza in early October 2002 when I talked one last time about the conflict, he said ‘The Dogon were the first cultivators there, not Ba Mudda, and my parents authorized them. In Allah’s name, Ba Mudda’s ancestors have never cultivated here. I have never had such a terrible thing in my life. Since my childhood, Ba Mudda has caused problems. I have been ruling for 33 years now and I have never been so angry. I don’t want to hear the name of Ba Mudda anymore.’ These were his last words to me as I left him in October 2002.

I do not know how the conflict continued. After my fieldwork was finished, however, I heard through my research assistant that the Douma village chief was elected mayor of Kerena Municipality (to which Douma belongs) in 2005 although I do not know who voted for him. Apparently he has continued to have a position of power, yet not as a village chief but in a new position as mayor. Maybe the Malian administrative decentralization reform, with its second mayoral and municipal council elections in 2005 (the first were in 1999), provided him with the opportunity to continue the old power struggle along new lines.

Analysis and conclusions

In Central Mali, where people have always been mobile in response to the volatile environment and other farming conditions (see Chapter 4) and where village territories and power positions are consequently vaguely defined and contested (see Chapter 5), this detailed case study demonstrates the close ties between the mobility of farmers, access to land, local power positions and conflict. The case highlights a number of fascinating points.

First, the withdrawal of the land Sory cultivated has to be interpreted as an episode, or upper layer, in a larger conflict over local power (Lund 2002). This power conflict has multiple sides, with land withdrawal as the visible part of the conflict that has come to the surface most recently. In this case, a Fulani landowner (agropastoralist) from Douma took back a field from a Dogon tenant farmer from Pergué who had been settled in a rainy-season hamlet in Coofi for many decades. In the wider area, village territories are highly contested. In this specific case where the Dogon farmer recognized that Coofi was part of Douma’s territory and (until the land dispute started) the Fulani was the landowner, their

relationship can be seen as a host-stranger relationship. The land withdrawal indicates that their relationship has become disturbed and needs redefinition. In the landowner's eyes, the tenant farmer did not behave respectfully by not offering him an annual bundle of millet, which he understood as a repudiation of his status. The dispute can be regarded as a way of negotiating their relationship and re-establishing conditions that failed to materialize.

The underlying power conflict is to be seen as an on-going process with deep roots in the distant past and no logical outcome expected in the near future. Such conflicts change over time and go through several stages in which other actors become (temporarily) involved and other issues may seem to be the most prominent – yet are all related to the same conflict. In this particular conflict, two prominent Fulani from Douma (including the village chief) have been struggling with their local power positions for many decades. While in the past, rivalry over a woman and competition for the village chieftaincy were central (as were probably many more issues), the focus is now on the power to allocate land to newcomers. The latest episode has been played out through the field withdrawal in Coofi, to the detriment of the Dogon farmer who has been evicted from his field.

Second, the case shows that within a context of high mobility and oral history, it is unclear who initially settled in Coofi and cultivated the specific field first. Many actors (both villages and individuals) have vested 'layers of claims' (Marchal 1983, Izard 1985, Fay 1995) over time that are fluid and can be evoked at any time. It is not only the two Fulani from Douma who claim the land is theirs, based on different arguments, but also Dogon of Okoyeri were settled in Coofi prior to the Dogon of Pergué and maybe even others who have not yet made their voices heard. While some village claims in Coofi are currently dormant (Okoyeri Dogon) or seemingly non-existent (Pergué), others are very explicit and highly debated (Douma).

The two Fulani of Douma justify their claim to land and power in Coofi with reference to very different 'bodies of legitimacy'. While the village chief (in his position as village chief) refers to a herder's discourse that says that the territory is undivided and the village chief has the authority to allocate land to newcomers, the other prominent Fulani (in his position as *agro*pastoralist) uses a farmer's discourse of first settlement. The diversification of his livelihood activities (farming the former camp where sick animals were kept) has broadened the range of arguments at his disposal in his struggle for power. Curiously, however, the discourse the two Fulani use seems to be in contrast with the supporting groups that they have mobilized to find support for their position (Lund 2002, Lentz 2005). In doing so, they have polarized the local population along farming and herding lines, which is not necessarily an ethnic division (Schlee 2004).

Third, what is interesting is the role of the court in this conflict. The case was presented to the District Court at a demarcated stage in the conflict process. The outcome of the court case did not end the conflict but provided the opportunity for input for a new stage and it has continued along new lines with new actors involved. This shows, amongst other things, the limited ability of the courts to find permanent solutions to seemingly isolated land disputes that are in fact part of larger conflicts in which other actors are also involved. As the head of an NGO in Douentza and a magistrate in Douentza District Court put it:

> Most land conflicts are fought right up to the High Court in Bamako because people are very fierce when their land is at stake. Without land, they have nothing. But even then land conflicts are not solved because the conflicts are often not about land as such but more essentially about social relations that have been disturbed. So people put aside the verdict. And afterwards, violence is often used, as a result of which land conflicts then become penal cases.[6]

In all probability, the court's verdict should be considered, at most, as a temporary redefinition of the parties' relationship. Of course, rumours of corruption do not contribute to the easy acceptance of the court's ruling. However, although a sound legal reasoning (which is now lacking) would increase confidence in the judiciary and the verdict, it would probably not end the struggle for power between the two Fulani that underlies this land dispute. The question that remains unanswered in this study is why these two Fulani have fought so ardently and for so long for power in Douma.

A final observation should be made about the relationship between the recurrent mobility of farmers and conflict. In this area, farmers have had to be very mobile in response to their natural environment. Farming in sub-territories such as Coofi is vital for Dogon farmers from the Bandiagara Escarpment in order to secure food production as they face land shortages near their own villages. To deal with increased rainfall variability, they have needed to spread their fields over distinct soil properties (see Chapter 4). Their mobility increases further, however, in a situation where their position is insecure and they risk being chased off their land due to external conflicts. Given land abundance, relatively wealthy farmers (the Dogon farmer in this case) still have room to manoeuvre as they have the means to spread their fields and labour and to invest in agricultural equipment. However, poorer farmers are less fortunate. For them, the ambiguity and conflict of positions of power and territory may be a constraint, with land repossessions threatening their very means of existence. But the ambiguity of

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[6] A study of the verdicts from Douentza court covering the period from 1990 to 2000 showed that on average 10 out of every 120 cases (i.e. 8%) taken to court every year were conflicts over land. Other cases involved penal cases (55%) concerning cattle theft or other property, while civil cases apart from land conflicts usually relate to inheritance issues or divorce (45%). Although the figure regarding land conflicts in the region may seem low, 50% have been taken to the Appeal Court in Mopti, which is significantly higher than for other types of conflicts (4% to 28%) (de Langen 2001).

land and power positions also offers them flexibility to access fields in several places. Delimiting fields and legalizing rights to land, for example, would certainly not help vulnerable farmers in Central Mali, who need to be mobile, to deal with their harsh environment.

7

Waves of mobility among farmers (South Mali)

Introduction

The previous chapters on Douentza District (Central Mali) examined farming conditions that have shaped patterns of farmers' mobility in time and place and the relationship between farmers' mobility and local political processes regarding access to land and conflict. Two different waves of mobility were distinguished along the lines of agro-ecological zoning. Dogon farmers have set up rainy-season hamlets and opened up large fields, firstly in a clay-sandy area (since the early twentieth century) and then in an adjacent sandy dune area (since the mid-1980s). These areas are former pastures and this highlights the interaction with transhumant Fulani agropastoralists in the area. Mobility is a permanent feature of all rural people in these drylands and produces ambiguity regarding first-settlement and present-day power positions. Our case in Central Mali has shown that changing farming conditions, including shifting political and economic Dogon-Fulani relationships, have made farmers' mobility a continuous process and one that is intertwined with local conflicts over land and power.

The focus now shifts to Koutiala District in South Mali.[1] In comparison with the situation in Central Mali, today's mobility among farmers here can be seen to be on a large scale too but it started much later (in the 1960s) and the context is different. Differing farming conditions include higher population pressure; more favourable rainfall conditions that allow farmers to grow a wider variety of cere-

[1] Parts of this and the following chapter are based on K. Nijenhuis (2005), Migratory drift of Dogon farmers to Southern Mali (Koutiala). In: M. de Bruijn, H. van Dijk, M. Kaag & K. van Til, eds, *Sahelian pathways; Climate and society in Central and South Mali*, pp. 190-215. Leiden: African Studies Centre.

als crops and in combination with cotton as a cash crop (see Chapter 3); and the presence of wells that provide drinking water and enable farmers to inhabit their hamlets all year round. As a result, a farmer's 'action space' (Painter *et al.* 1994) is generally much smaller. And in contrast to Central Mali where farmers cohabit with agropastoralists, farming has always been the dominant way of life for the rural majority in South Mali.[2]

This chapter starts by presenting a number of GIS settlement maps from between 1950 and 2001 to show trends in farmers' mobility. Based on these maps, five waves of farmers' mobility will be discerned according to socio-ethnic group, which is different from the distinction of waves of mobility along agro-ecological zones in Central Mali. For each wave, the process of agricultural colonization and its specific and relevant underlying drivers will be identified and illustrated.

This chapter is the first of three on South Mali. While the mobility waves and their underlying drivers are central here, the following chapter focuses on the ways the different socio-ethnic groups have gained access to land, given that farming land is becoming increasingly scarce, and the implications for land-use strategies. A fierce local struggle for land and power in Mperesso that is being fought out against the backdrop of Mali's administrative decentralization reform is then presented in Chapter 9. Although the context of this conflict is different from that presented for Central Mali (see Chapter 6), farmers' mobility, access to land and local power positions also turn out to be interwoven in this case study of a conflict in South Mali.

Mobility at a glance

In contrast to what was seen in Central Mali, the agricultural colonization processes in the research area in South Mali started many decades later and along different lines. This becomes apparent from the maps that, similar to those of Central Mali, indicate the location of farming hamlets in the two research village territories at four points in time (1950, 1970, 1985 and 2001) (see Maps 7.1 to 7.8). We will first consider the maps that reflect the situation in 2001 and compare it with earlier maps.

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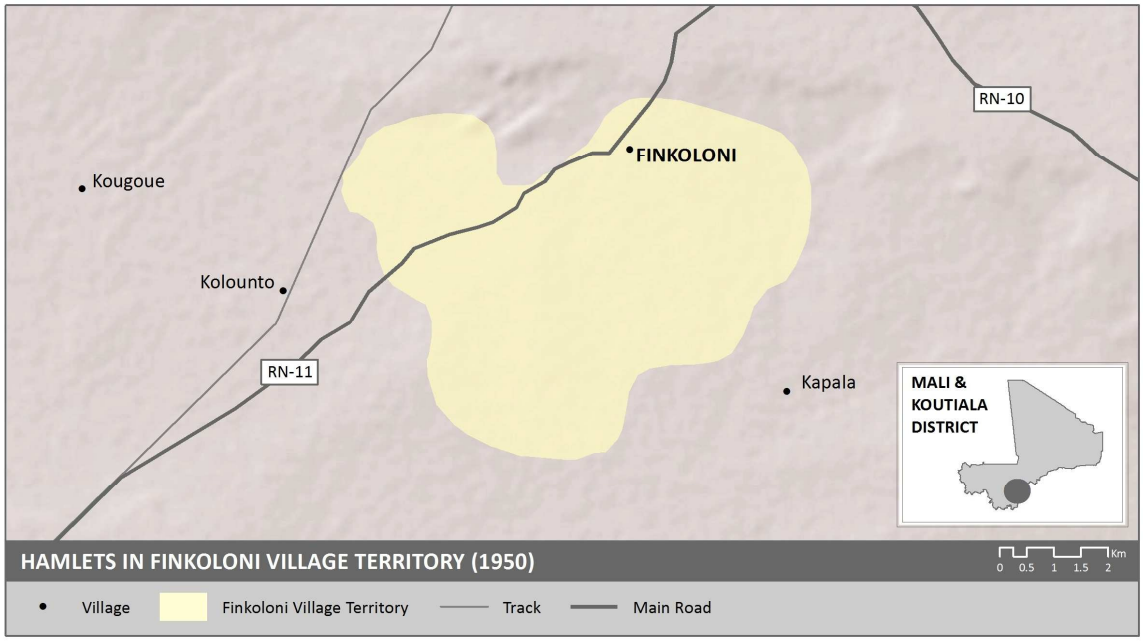
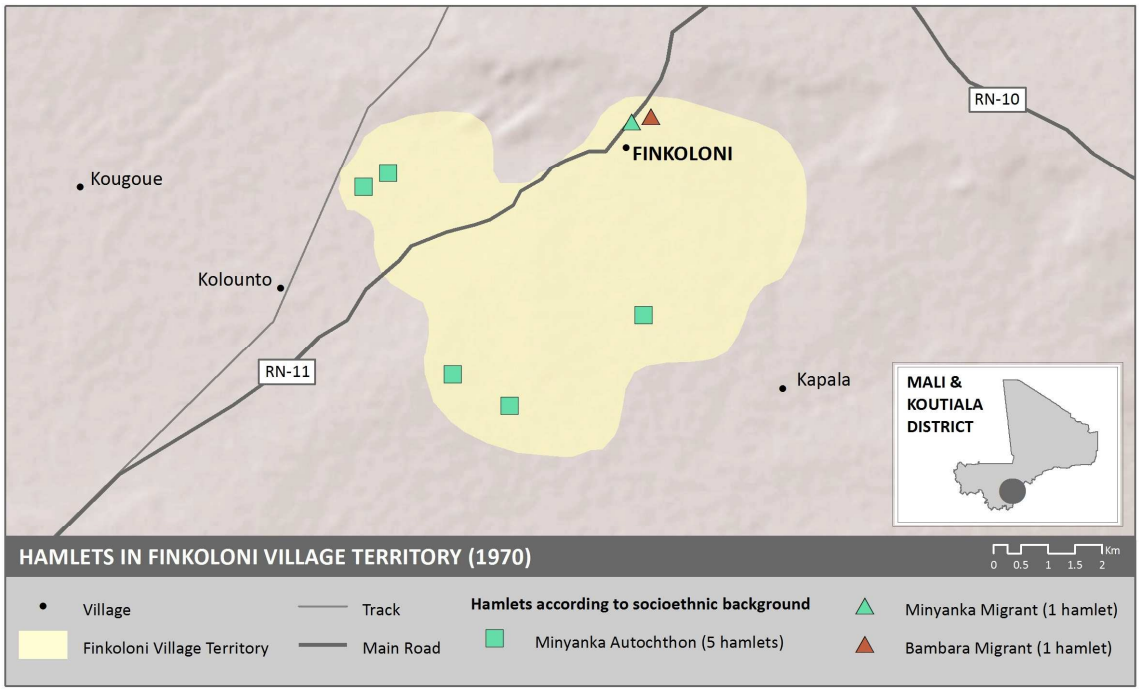
[2] A distinction is made in this study between Koutiala District and Koutiala Area. Koutiala District refers to the administrative division (*cercle*), while Koutiala Area refers to the Koutiala Intervention Area of the CMDT cotton company. The CMDT identified six 'regions' in the southern part of Mali (which are further subdivided into zones), with Koutiala being the oldest region. A CMDT region should not be confused with an administrative region (of which there are eight in Mali plus Bamako, as the capital) (see Map 1.1). The CMDT regions do not overlap exactly with the administrative districts. The size of the CMDT's Koutiala region (18,600 km²), for example, is much larger than the administrative Koutiala District (8740 km²).

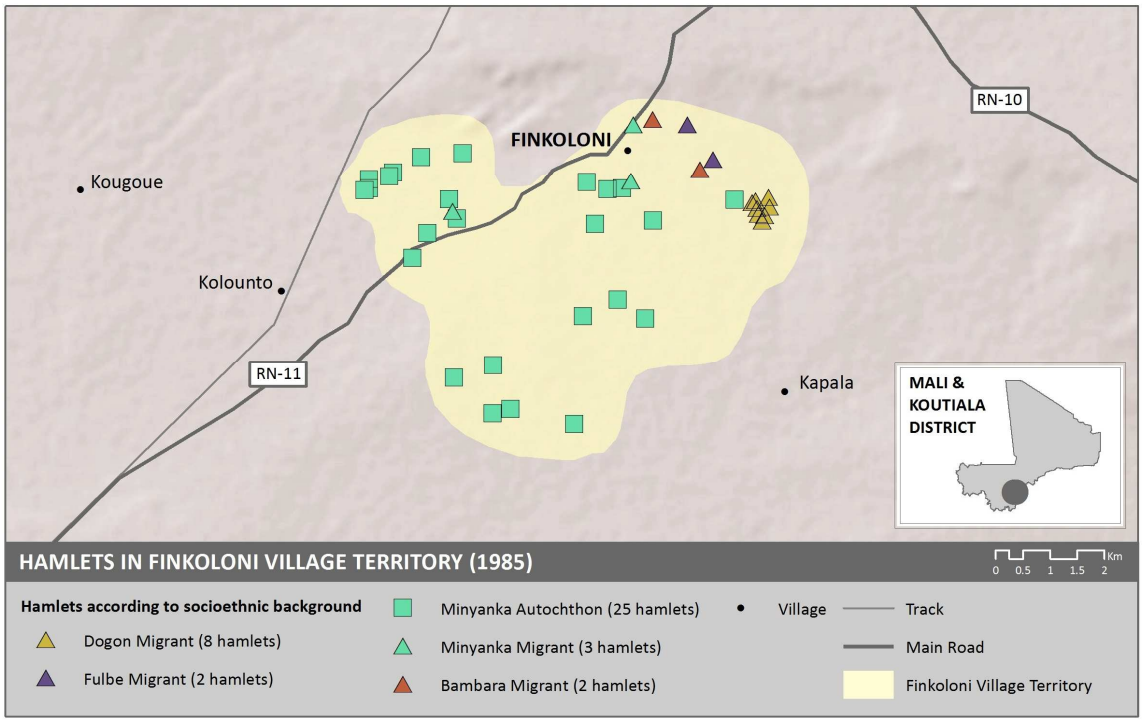
Map 7.1 Hamlets in Finkoloni village territory (1950)



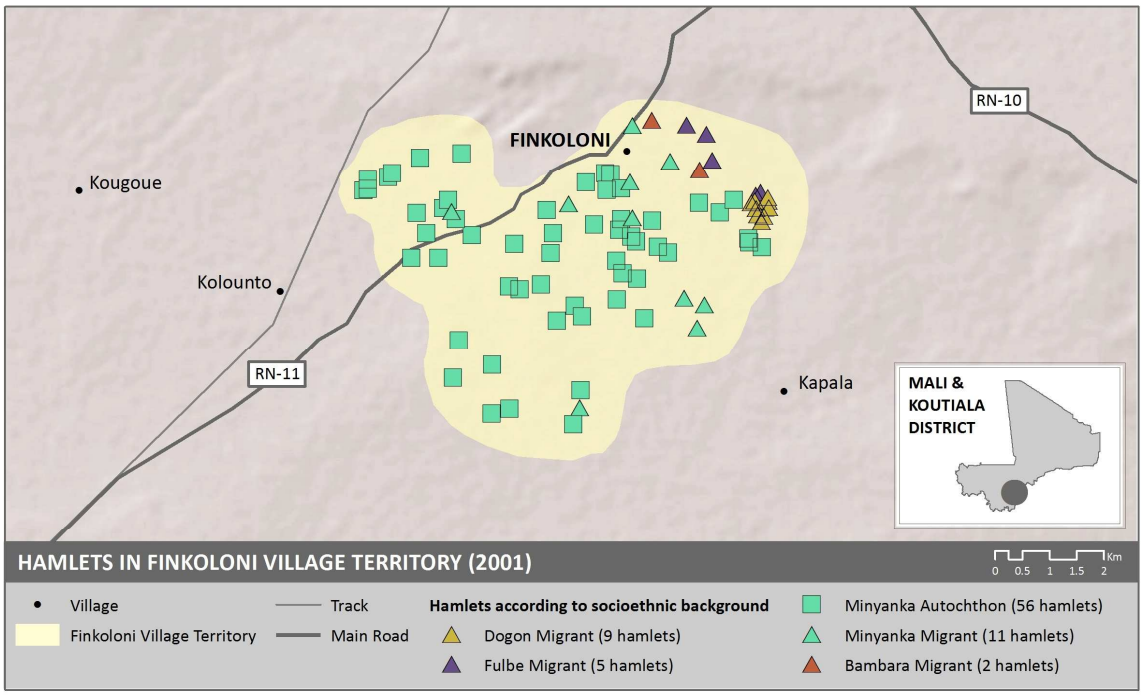
Map 7.2 Hamlets in Finkoloni village territory (1970)



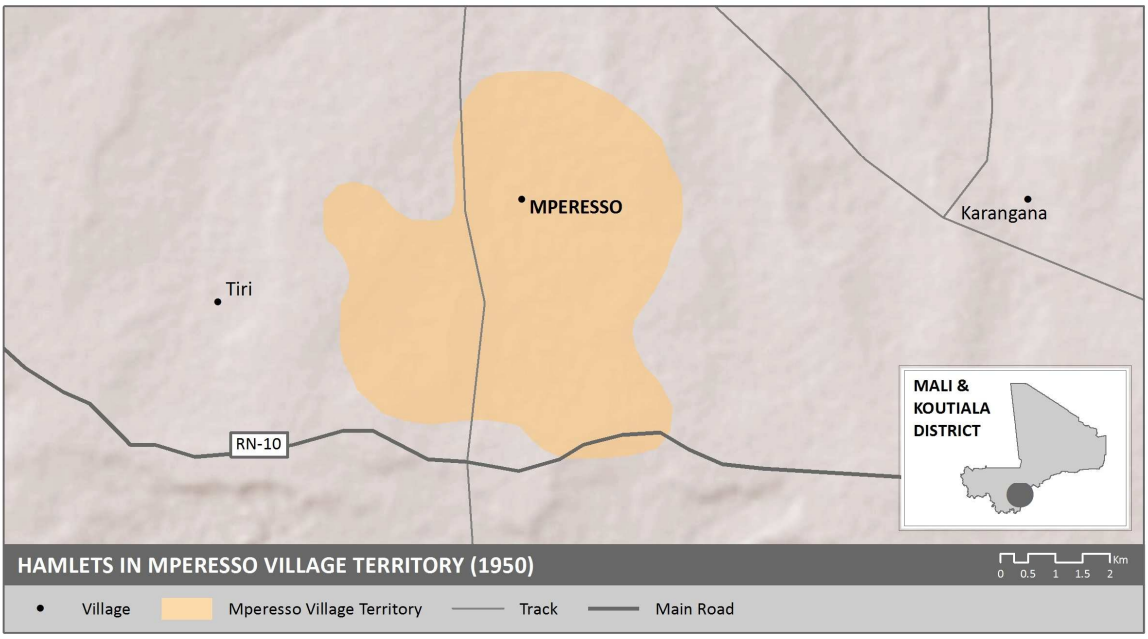
Map 7.3 Hamlets in Finkoloni village territory (1985)



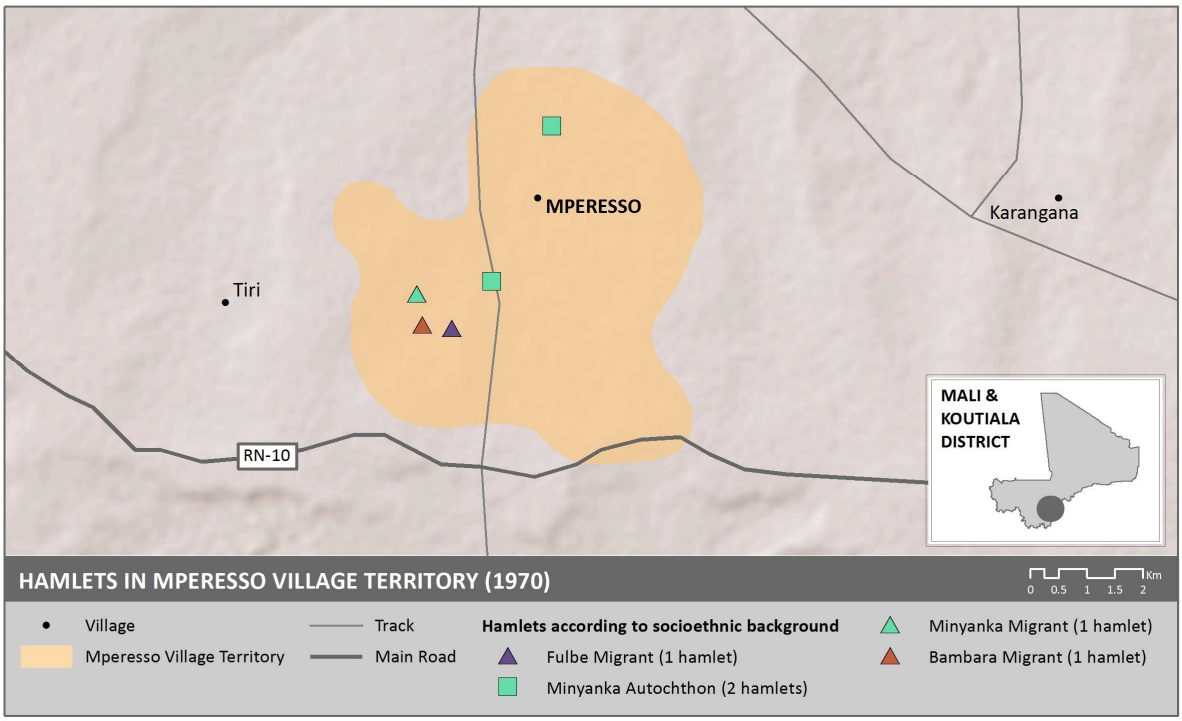
Map 7.4 Hamlets in Finkoloni village territory (2001)



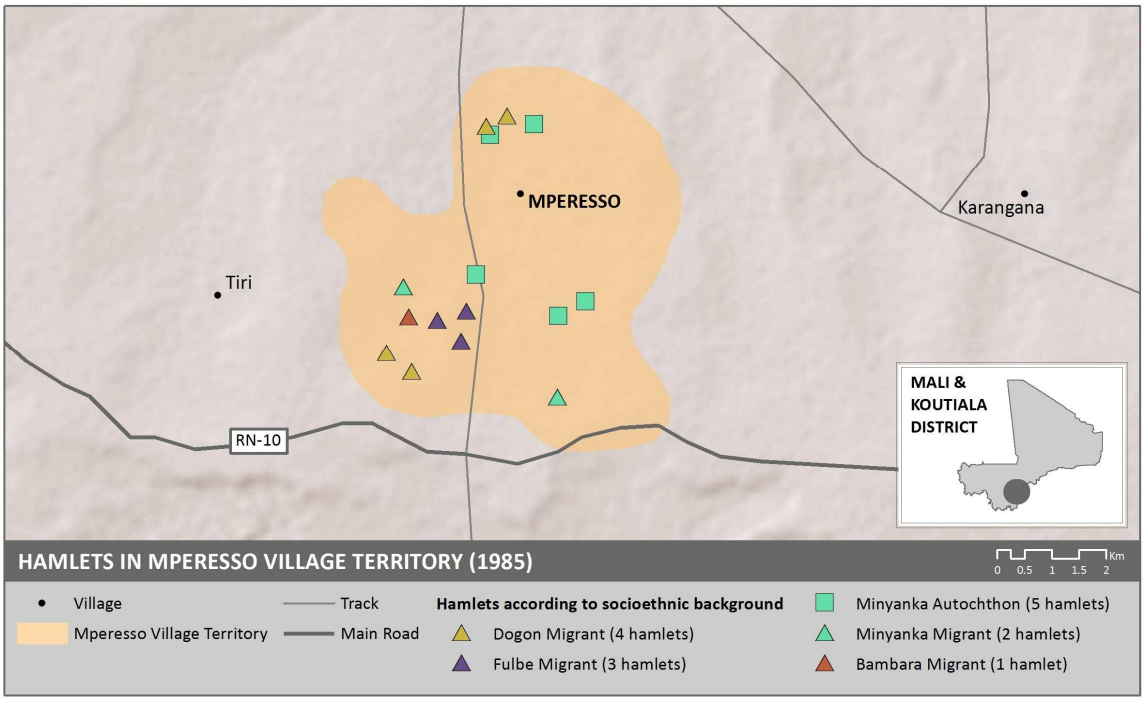
Map 7.5 Hamlets Mperesso village territory (1950)



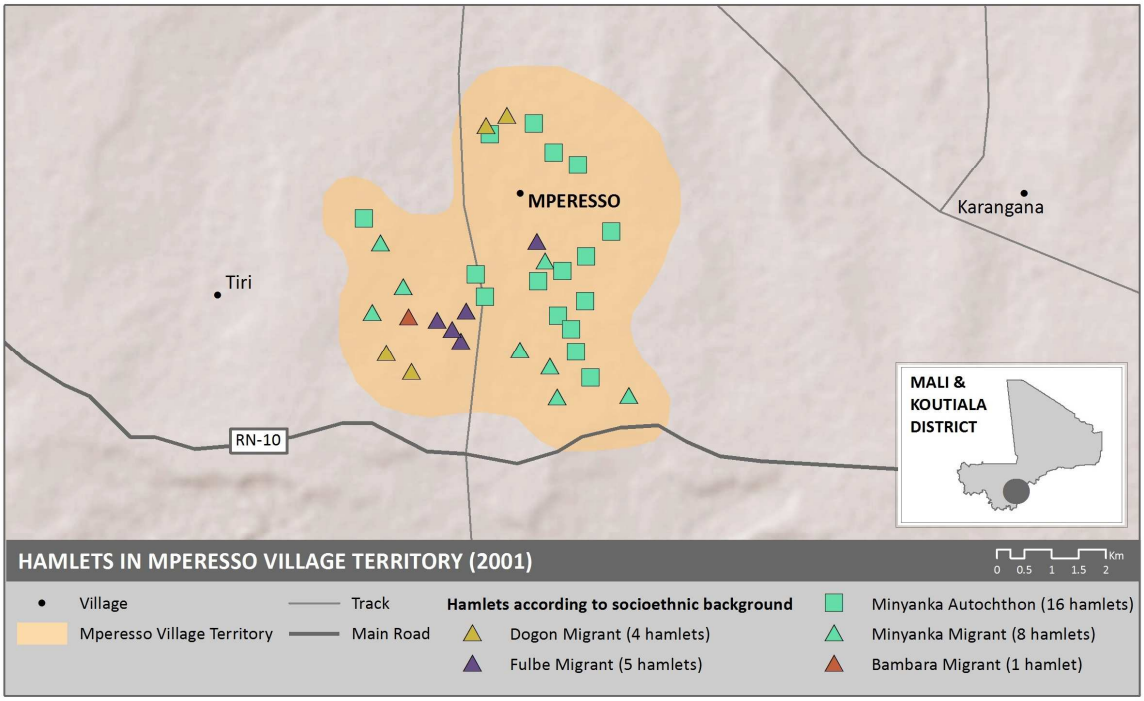
Map 7.6 Hamlets Mperesso village territory (1970)



Map 7.7 Hamlets Mperesso village territory (1985)



Map 7.8 Hamlets Mperesso village territory (2001)



The 2001 maps indicating the territories of the two research villages Finkoloni and Mperesso show 117 farming hamlets in all: 34 in Mperesso and 83 in Finkoloni. Although the total number of settlements is more or less similar to that in Central Mali, two features are essentially different. First, on the Central Mali maps not only farming hamlets but also agropastoral camps are indicated, with 'only' 66 of the 112 settlements being farming hamlets, while the South Mali maps show that all the settlements are farming hamlets. In addition, the two research village territories in Central Mali are undoubtedly much bigger, although the boundaries are blurred. This means that the 'hamlet density' (the number of hamlets per unit area) in South Mali is higher but this does not automatically mean that a larger share of the village population is living in these hamlets as the hamlets in South Mali are generally smaller and are inhabited by only one single family (except for one Dogon hamlet where six families live together). The hamlets inhabited by just one family might also be labelled as homesteads.

The ethnic diversity is noticeable when comparing the 2001 maps of the two regions. While only Dogon farmers have settled in hamlets in Central Mali (alongside Fulani agropastoralists in camps), the ethnic composition of the farming hamlets in South Mali is more diverse. In these hamlets not only Minyanka are encountered, who are considered as the original inhabitants of the area, but also Fulani, Dogon and Bamana farmers. Although the number of migrant hamlets is considerable (including Minyanka migrants), Minyanka autochthons constitute the largest group in the hamlets.

While the maps referring to Central Mali show a spatial distribution of ethnic groups over distinct agro-ecological zones, this distribution is less perceptible on the maps referring to South Mali. This does not mean, however, that there is no link between ethnicity and agro-ecological zones. It turns out, as will be seen later, that non-Minyanka migrants are increasingly allocated less favourable farming areas, such as on the meandering rocky plateaux (about 30 m high) and its gentle slopes and in low-lying areas (*bas-fonds*) that are fertile but prone to flooding. Moreover, non-Minyanka migrants in Finkoloni village territory have been allocated one specific sub-territory where they are clustered.

The contrast between the 2001 and 1950 maps is huge and reflects the acceleration of the process of agricultural colonization in South Mali. While no single hamlet was present in 1950, the two village territories are strewn with farming hamlets in 2001. The first few hamlets, mainly inhabited by Minyanka autochthons, appear on the 1970 map. The process of agricultural colonization then gradually continued with an increase in the number of migrants (Fulani, Dogon and Minyanka) but this has exploded since 1985 due to the departure of Minyanka autochthons who have left to go to live in farming hamlets. It is notewor-

thy that the mid-1980s were a turning point in both Central and South Mali after which farmers' settlement in hamlets increased significantly.

The numbers of hamlets between 1950 and 2001 are shown in Table 7.1, as are the number of people living in hamlets in 2001. Each hamlet comprises on average 17 people. It also emerges that a considerable proportion of the rural population is no longer living in a village but in a hamlet: an estimated 63% in Mperesso and a remarkable 75% in Finkoloni.[3]

Table 7.1 Number of hamlets (1950-2001) and inhabitants (2001) in Mperesso village territory (South Mali), according to socio-ethnic group

Mperesso	Hamlets					Inhabitants		
	1950	1970	1985	2001		2001		per
	n	n	n	n (%)		n (%)		family
Minyanka autochthons	0	2	5	16	(47%)	274	(49%)	17.1
Minyanka migrants	0	1	2	8	(24%)	111	(20%)	13.9
Fulani migrants	0	1	3	5	(15%)	71	(12%)	14.2
Dogon migrants	0	0	4	4	(12%)[4]	92	(16%)	10.2
Bamana migrants	0	1	1	1	(3%)	12	(2%)	12.0
Total	0	5	15	34	(100%)	560	(100%)	16.4
Total village population[2]						863		
% of village population living in hamlets						63%		

Sources: [1]2001 fieldwork data; [2]1998 census data

Table 7.2 Number of hamlets (1950-2001) and inhabitants (2001) in Finkoloni village territory (South Mali), according to socio-ethnic group

Finkoloni	Hamlets					Inhabitants		
	1950	1970	1985	2001		2001		per
	n	n	n	n (%)		n (%)		family
Minyanka autochthons	0	5	25	56	(67%)	1085	(75%)	19.3
Minyanka migrants	0	1	3	11	(13%)	142	(10%)	12.9
Fulani migrants	0	0	2	5	(6%)	62	(4%)	12.4
Dogon migrants	0	0	8	9	(11%)	102	(7%)	11.3
Bamana migrants	0	1	2	2	(2%)	62	(4%)	31.0
Total	0	7	40	83	(100%)	1453	(100%)	17.5
Total village population[2]						1907		
% of village population living in hamlets						75%		

Sources: [1]2001 fieldwork data; [2]1998 census data

[3] Official census data are often underreported due to links with poll taxation. Consequently, the share of the total village population living in hamlets may be lower.

[4] Nine Dogon families in Mperesso are spread over four hamlets. Three families live in single hamlets, while six families live together in one other hamlet.

Five mobility waves in four decades

Five waves of farmers' mobility can be discerned in the research area in South Mali that correspond to socio-ethnic group and period: Minyanka autochthonous pioneers (in the 1960s), Fulani migrants (since the late 1960s), Dogon migrants (since the mid-1970s), Minyanka autochthons (since the 1980s) and Minyanka migrants (since the late 1960s but with a peak in the 1990s). The five waves partly overlap as they all (except for the first wave of pioneers) started at a certain point in time and continued afterwards with each wave characterized by different drivers. Before turning to the waves and their drivers, farmers' mobility (and sedentarity) in the area in the past will be briefly considered.

Mobility and sedentarity in earlier times

The Minyanka are considered the original inhabitants of Minyankala (Minyanka Country) and were named after the area they inhabited (Jonckers 1987: 6, Jespers 1993: 134).[5] Oral accounts of their migration history can be traced back to the thirteenth century when armed Mandé warriors from the Mali Empire that was ruled by the legendary Sunjata Keita occupied the northern part of Minyankala (Jonckers 1987: 119). As various ethnic groups and clans moved into the area and adopted the Minyanka language and customs, the Minyanka can be considered an amalgam of 'original' and assimilated 'stranger' clans, which is similar to the Dogon in Central Mali (see Chapter 5). The Coulibaly and Dembélé clans claim to be originally Minyanka, while the stranger clans, bearing other names, include Mandé, Bamana, Dioula, Soninke (or Sarakole), Wagadu, Senoufo, Malinke and even Fulani (*Ibid.*: 5-9).[6] Today the Minyanka feel that they are related to the Bamana.

Not much is known about the period immediately after the thirteenth century. Historical accounts resume in the nineteenth century, which was a violent period of war for Minyankala as it was a politically marginal area that fell under the spheres of influence of the kings of Ségou and Sikasso. It was invaded by the Bamana, Fulani and Dioula. Armies plundered the area for millet and cattle, burnt villages and raided slaves (*Ibid.*: 5) as Minyankala was considered an important reservoir of slaves (*Ibid.*: 122). Due to continuous violence, the Min-

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[5] Minyankala (around 15,000 km²) lies between the Bani River to the north and two of its branches called Banifing to the south and east. Minyanka's immediate neighbours are the Senoufo and Dioula to the south, the Bobo Fing and Bwa to the east, the Bamana to the north and the Dyonka to the west.

[6] The Coulibaly are concentrated in Koutiala area while the Dembélé were the first occupants more to the east. The other Minyanka clans with 'stranger' ethnic origin are spread over Minyankala. Their names are Traore (Dioula origin), Sanogo (Soninke origin), Berte (Wagadu origin), Kone (Bamana origin) and Sissuma (Dioula origin). In addition, the Male, Keita (Goita), Dao and Sogoba clans have Soninke and Malinke roots, while the Sidibe and Diallo clans have Fulani origin (Jonckers 1987: 5-9). The assimilation of Fulani in Minyanka society is interesting as farmers usually consider pastoralists as the ultimate outsiders who do not become part of the local hierarchy (Izard 1985: 5).

yanka lived in small autonomous villages (*Ibid.*: 17), only working nearby fields as they were afraid to open up fields further away in the bush (*Ibid.*: 38-39). The people often suffered from food shortages and lived in an insecure situation that continued until the early twentieth century. Although the French colonization of Mali (French Soudan) had started in 1890 out of Ségou, it was slow and the conquest of southern Mali was particularly violent. In 1893, Koutiala Town was declared the capital of Koutiala District (*cercle de Koutiala*) but many villages in the area resisted French colonial rule and refused to pay any taxes. After a decisive and legendary battle in which the last King of Sikasso was defeated, southern Mali was finally brought under French colonial rule in 1898 (*Ibid.*: 132, Bassett 2001: 27-28).

Minyanka farmers, unlike the Dogon in Central Mali, did not move out into farming hamlets in colonial times despite the improved security situation, probably because the population pressure was low and land was still plentiful in close proximity to the villages. Some Minyanka farmers established temporary hamlets in their bush fields further away from the village but these served mainly as shelter from heavy rain. And the absence of wells prevented permanent habitation in hamlets.

The first wave: Pioneering Minyanka autochthons

The first farmers to settle in a hamlet were a handful of Minyanka autochthons: one family in Finkoloni (1961) and three in Mperesso (around 1966). The main reason for setting up a hamlet on a family outfield was to keep the family's livestock. Livestock cannot be held in the village as disease easily breaks out, especially in the rainy season, and wandering livestock may damage crops in nearby fields. Holding livestock close to distant fields also makes manure transport redundant. Setting up a hamlet, however, was not without its risks in those days as wild animals prowled around in the densely vegetated bush. Outfields were clustered, often in groups of two or three, to reduce damage by monkeys and squirrels.

The livestock held in hamlets included small herds of goats, sheep and around fifteen cattle per family, which the pioneer farmers had built up from various income-earning activities, such as groundnut cultivation; the production of *soumbala* (the fermented seeds of the fruits of the *néré* tree (*Parkia biglobosa*) that serve as a cooking ingredient); petty trade in cloth and fish; and the exploitation of a fruit-tree plantation (mango, guava, oranges, lemons). One of them, a former soldier (*ancien combattant*) who had fought in the French army during the Algerian War of Independence in the late 1950s also received a pension from the French state.

The pioneering farmers with livestock were relatively wealthy at the time and once they were settled in the hamlets, they soon increased their wealth even further. They were able to purchase ox ploughs and donkey carts (the first in their village) through the *Compagnie Française de Développement des Fibres Textiles* (CFDT) cotton company that would later be the *Compagnie Malienne de Développement des Textiles* (CMDT), and they opened up and expanded fields. It was reported that one of them sold a large stock of millet to purchase agricultural equipment. The CFDT encouraged the growing of new, high-yield export varieties and focused on a small group of wealthy farmers who were ready to cultivate large tracts of land of at least 15 ha to 20 ha with modern agricultural equipment (ox ploughs, tractors, donkey carts) (Jonckers 1987: 189). These pioneering cotton farmers were offered agricultural guidance, credit for agricultural equipment and agrochemical inputs (fertilizers, pesticides) at subsidized prices (Moseley 2005) (see Chapter 3). The pioneers in the hamlets were thus also cotton pioneers: they started to grow cotton as a cash crop and invested their earnings in more cattle and agricultural equipment. They thus increased their cotton production and herds at least ten to fifteen years before the majority of the other Minyanka farmers in the villages started to grow cotton as a cash crop (circa 1980).

Being the first in their hamlets and expanding their fields with ox traction provided the pioneers with a major economic advantage over other villagers, which they have maintained ever since (at least up until 2002 when fieldwork ended). The village association books in Mperesso, in which individual cotton production data are recorded, show that the three pioneer farmers are among the top five local cotton producers and that they earned up to EUR 3000 in 2001. They are also leading local political figures (see Chapter 9). Economic wealth and local political power apparently coincide, at least for this group. The story of pioneer settlement and economic development in a hamlet are illustrated by the case of Karim Coulibaly from Mperesso.

The case of Karim Coulibaly, a pioneer farmer

Karim Coulibaly's father comes from Mperesso Village where his family earned a cash income from peanut growing that they invested in livestock in the 1960s. Karim's father was the youngest brother and broke away from his family in 1966. While the older brothers stayed in the village, he settled with his family of five in a hamlet on a family outfield in a sub-territory called Kangasigue. The reason for moving from the village into a hamlet was connected to his livestock: he did not want his animals to cause damage to crops in village fields and it also overcame the problem of transporting manure. The small family started to grow millet, sorghum, peanuts, beans and a plot with a traditional cotton variety in the hamlet. After some time, Karim (b. circa 1950) succeeded his father as head of the family.

After he had settled in the hamlet, Karim's father bought an ox plough and a cart through the CFDT, as he was one of the first farmers in Mperesso. He immediately expanded his 3 ha cotton field to 4 ha. He had observed a few farmers in neighbouring villages using an ox plough and understood its importance for agricultural development. The cotton field was expanded little by little over the following years and by 2002 it measured 11 ha.

Karim's family was already a big cotton producer by the time the village association, the local structure that links farmers with the CMDT, was set up in Mperesso in 1977. This encouraged the majority of the villagers to start cotton cropping: 'We were able to fill two trucks with cotton,' Karim proudly reported. Normally, the cotton from all the farmers is weighed jointly in a central place in the village, after which a CMDT truck transports most of it to the cotton factory in Koutiala. Karim, however, produces so much cotton every year that a truck comes all the way to his farming hamlet. As the third-ranked cotton producer in Mperesso in 2001, he produced more than 11 tons of cotton, which earned him an impressive EUR 2600. But Karim was not satisfied and complained that yields had declined over the years. While his 6 ha cotton field was sufficient to fill a truck in the past, even 11 ha is not enough nowadays.

Karim has become a wealthy farmer who not only produces a lot of cotton but also cereals (he more than doubled the size of his cereal fields) and owns two herds of more than 150 cattle. Soil fertility is not a big issue for him as a Fulani herd from the north has been corralled on 4 ha of virgin land during the rainy season over the past ten years and this has provided him with sufficient manure for his cereal fields. The only problem he currently faces is a labour shortage since his family of 14 is too small to cultivate the entire 30 ha area they occupy (divided into 11 ha of cotton fields, 11 ha of cereals, 4 ha of fallow and 4 ha of virgin land). Finding hired labour in the village or surrounding villages is not easy though as all the young men work their own fields.

The second wave: Sedentarization of Fulani agropastoralists

Fulani agropastoralists are the second group that settled in hamlets. In both Finkoloni and Mperesso village territories, five Fulani families have settled since the late 1960s, arriving one by one. Although their settlement here coincided with periods of drought in the Sahel in the 1970s and 1980s, they are not directly related as these Fulani did not come straight from their home area in the Sahel as their families had been roaming with their herds in South Mali for a number of decades. Their mobility was mainly driven by a search for water and pasture and also because of conflicts over damage to farmers' crops caused by Fulani herds.

Fulani mobility patterns have changed due to the influence of ecological, political and social transformations (Bassett 1993, de Bruijn & van Dijk 2003). Fulani have left the Sahel and spread across West Africa over many decades. Some assimilated with the original populations, such as the Sidibe and Diallo clans that were chased away by the Toucouleur in Fouta Djallon (today's Central Guinea) and trickled into Minyankala in the eighteenth and nineteenth centuries (Jonckers 1987: 8). In the twentieth century, a large number moved southwards to work in towns (see Djedjebi 2009 for Benin) or to other rural areas (de Bruijn & van Dijk 2003).

Southern Mali has become an important immigration and/or region of passage for pastoralists and their herds. For example, it is reported that many Fulani from western Burkina Faso, driven by political and ecological motives, moved to the south in successive stages, first to southern Mali (San, Koutiala and Sikasso Districts) in the 1950s, and from there to northern Ivory Coast from the early 1960s onwards (Diallo 2001, Bassett 1993). Another study shows that Fulani herdsmen

from Douentza District in the Sahel have moved southwards into the densely populated cotton-growing area of Koutiala District and the adjoining Yorosso District near the Burkina Faso border (where the population density is lower) since the early 1960s (de Bruijn & van Dijk 2003). Others started to move gradually with their herds into the forest zones of the coastal countries of Ivory Coast, Ghana, Benin and Nigeria in the second half of the twentieth century, where economic growth increased the demand for meat (*Ibid.*). Migratory movements have also been reported to the sub-humid savannahs of Ivory Coast, Sierra Leone, Cameroon and the Central African Republic in the past few decades (Bassett 1993). The reasons for Fulani pastoral movements are varied and depend on pastoralists' wealth, drought, restricted access to pastures, the quality of pastures, population densities, land-use competition, crop damage, political tensions and the proximity of cattle markets and veterinary care (*Ibid.*).

Fulani moving southwards often become engaged in herding-related activities. For example, they work as hired herdsmen or trade or breed cattle (see Bassett 1994 for northern Ivory Coast, Quarles van Ufford 1999 for Benin), while the women sell milk and milk products. Many of them have, however, taken up other activities as well, such as agriculture and Koranic education (van Steenbrugge 2005). While some have become impoverished, others are managing well and are visibly in better health than the Fulani who are still living in the Sahel (de Bruijn & van Dijk 2003: 303). Hardly anything is known about the majority of the Fulani who moved away since they are not registered administratively and have disappeared into the bush (*Ibid.*: 295).

In a study of 34 Fulani families in Koutiala District, it was found that around 40% had arrived in the area before the mid-1960s. Some of the older migrants wanted to avoid having their cattle confiscated by colonial administrators, while others arrived in search of food, better pastures and water for their cattle or just wanted an 'adventure'. Fulani who came before the 1950s often arrived directly from the Sahel, while those coming later moved more there gradually. When deciding to migrate southwards, the presence of kinship networks proved to be an important factor (van Steenbrugge 2005: 222-223).

Livestock keeping as a main livelihood activity became increasingly difficult for the Fulani in the south due to rising population densities and reduced space for herding. In addition, some had lost cattle due to drought or disease or had to sell their livestock to buy cereals. The impoverished Fulani increasingly had no option other than to focus on growing crops. 'Being a Fulani was not interesting anymore', an old Fulani expressed. It was reported that few other Fulani who had initially settled in a hamlet in the research area had continued their pastoral livelihood by moving further south towards the border with Ivory Coast where more space was available.

The Fulani encountered in the hamlets had shifted towards agriculture, although most of them still keep livestock (two out of ten families even own more than 100 head of cattle) and have become more settled. Their settlement in hamlets can thus be considered a process of sedentarization.[7] This does not mean, however, that they remain fixed. After a number of years, strangers are often summoned by their Minyanka landowner to leave their field and find another, especially if they have many cattle and soil fertility has been restored. In this way, recurrent mobility reduces their economic opportunities to farm. Fulani involvement in agriculture, and cotton growing in particular, is still modest, which is certainly in part due to undisguised contempt by Fulani who see themselves as proud livestock keepers and do not want to be involved in manual labour.

The immigration and sedentarization of Fulani pastoralists in South Mali is illustrated by the case of Hamadou Sangare.

The case of Hamadou Sangare, a Fulani migrant

The family of Hamadou Sangare (b. circa 1940) was from Mopti Region (Central Mali) but they left there in the 1930s before Hamadou was born. They have been living near Mperesso since the 1960s. Before that, they were roaming around with their herds in a previously pastoral area about 30 km northeast of Koutiala close to the small town of Sourbasso where an important regional cattle market is still held. This area is nowadays characterized by extreme pressure on land.

When Hamadou Sangare married in 1964, he settled close to Mperesso, first near Kaniko Village and a few years later in Try village territory where he started to cultivate cereals. He dislikes agriculture but had few other choices since milk alone, which he used to exchange for millet with Minyanka farmers, was not sufficient to feed his family. In 1967 (‘one year before Mali’s first president Modibo Keita was arrested’ he remembers), he went to Mperesso because a farmer from Try had opened up a new field near his hamlet, which his large herd (about 100 cows) had damaged.

The administrative village chief in Mperesso is Hamadou’s host, having inherited the position from his father, the previous village chief who died a long time ago. Hamadou went to the earth priest (the traditional village chief) with a Bamana farmer who had arrived at the same time and they were both allocated a piece of land in an area that was uninhabited rough terrain with wild animals such as monkeys, hyenas and crocodiles. The Minyanka from Mperesso were afraid of the place, not least because it was considered to be a ‘place of devils’ but Hamadou Sangare was not afraid and set up a hamlet. He was able to keep his herd nearby and his family of ten grew cereals on a 2 ha field. To facilitate the work, Hamadou bought a cart in about 1970, which was relatively expensive and for which he had to sell a bull first. After having lived more than 20 years in this place, he had to leave it in 1990 because his cattle damaged the crops of his Bamana neighbour. Hamadou moved to another place in Mperesso territory where he was living in 2002. Unfortunately, however, the soil properties of his current field are less favourable for agriculture.

Hamadou had many cattle at the time, an estimated 300 cows and 100 sheep. Until the mid-1980s he used to practise seasonal transhumance to wetlands about 25 km south of Mperesso, returning to Mperesso with the first rains to grow crops. With the 1984-1985 drought, however, ‘when the wind was red’ (with Sahara dust), his family and herd split up.

[7] See Bassett (1993) on (failed) Fulani sedentarization schemes in northern Ivory Coast and Wario Roba & Witsenburg (2008) on pastoral sedentarization in northern Kenya.

Five of his seven sons moved further southwards, each with his own herd. Hamadou remained behind with two sons and 30 head of cattle.

Shortly afterwards, in 1986, Hamadou bought a plough and a pair of draught oxen and started to cultivate cotton. He has expanded his fields gradually and currently cultivates 1.5 ha of cotton and 4 ha of cereals, which feeds his family of 15 persons. In addition, he has a fallow field of 1 ha. His herd is limited to about 30 cows because space is restricted and fodder (cotton oil cake called *tourteau* that is produced by the CMDT) is expensive. Hamadou keeps the cattle in a kraal nearby. The manure and compost his animals produce enable him to cultivate the fields permanently. He is not a big cotton producer and, in spite of having sufficient manure, he still has to spend money on chemical fertilizers and pesticides: 38% of his gross earnings. He produced 1553 kg of cotton in 2001 and this made him a modest EUR 292, which is only 10% of what the top Minyanka cotton producers in Mperesso earn.

The third wave: Dogon ecological refugees from the Sahel

The third-settled group in hamlets in Finkoloni and Mperesso village territories are Dogon farmers from the Sahel. Unlike the Fulani migration to South Mali, Dogon migration has been more directly linked to the Sahel droughts in the 1970s and 1980s. Many left their villages on the plains adjacent to the south-western part of the Bandiagara Escarpment in Central Mali and headed southwards (see Chapter 4). Ten families settled in Finkoloni's village territory and nine in Mperesso's village territory. Some came straight from their native village, while others first stayed in other villages in the south. Migration via a series of places can be categorized as 'stepwise migration' (Johnston *et al.* 1994: 380). Leaving does not mean a total rupture with the home area but is more of a risk strategy in which families and land are split up successively: each time, some family members stay behind, while others move on. Social networks may expand over vast areas in this way.

The first Dogon to arrive in the research area in the mid-1970s came without any point of contact in the south but others who arrived later came through networks created by these early migrants (see Cissé 1993: 47). This becomes clear when looking at the specific area of origin and the religion of the migrants: in Finkoloni, most Dogon families come from Koro District and are Protestant, while in Mperesso the majority came from Bankass District and are Muslim. The Dogon in the south have social relationships with other Dogon living nearby who come from the same area, but not with Dogon from other areas. For example, the Dogon in Mperesso indicated six other communities within a 50-km radius with whom they had social relations, but they had never heard of the Dogon in Finkoloni who were only 15 km away. Within the Dogon communities regrouped in the south, social relations are strengthened through marriage. For example, all nine Dogon families in Mperesso have become related to each other by marriage over the years, in some cases quite recently.

The dispersal and regrouping of Dogon families now living in South Mali is illustrated by the case of two Dogon brothers in Mperesso.

The case of two Dogon migrant brothers

Mohammed Beri (b. 1949) and his younger half-brother Daouda (b. 1966) are living in a farming hamlet in Mperesso village territory with other Dogon families. Their parents left their native village in Bankass District (Mopti Region) in the 1960s as 'the family had become too large' and they joined family members in Tominian District (Ségou Region), some 100 km to the south where Daouda was born. Meanwhile, Mohammed was raised by his father's brother but joined his parents in the early 1970s. While some of the brothers have stayed here, others have moved away. Some settled in Yorosso District (east of Koutiala) and in Burkina Faso to cultivate and another brother went to Abidjan (Ivory Coast) to trade and work in shops. Mohammed settled in Mperesso in 1981, while Daouda first settled near a village 15 km south of Mperesso and joined his brother and his in-laws (he married a Dogon woman from Mperesso) in 2001.

In 1981, Mohammed chose Mperesso as a destination since he had heard about a Dogon from his home area called Issa Tesouge who had moved there. Upon arrival, in the middle of the growing season, Mohammed addressed himself to the brother of the current village chief, a Minyanka called Zoumana Coulibaly. As it was not the right time for settlement, he had to return after the harvest. Mohammed thus stayed another five months in Koutiala Town before returning to Mperesso. The villager, who acted as a host, helped him to find a field but it had been fallow for two years and was of poor quality. Mohammed cultivated the field for seven consecutive years. He abandoned it when its soil fertility became very low, but more so because of cattle roaming nearby that belonged to his host's nephew and caused damage to Mohammed's crops. The nephew instructed Mohammed to look for another field so he went back again to his host for help and was given a 4.5 ha field on the rocky slopes of the plateau that had been cultivated by another migrant earlier. Here, Mohammed started to grow cotton for the first time in 1995 on a small plot with the pair of oxen and a plough that he had bought. His host had taken him to the secretary of the village association in Mperesso to register as a member. From the start, Mohammed also cultivated another field, which he considered good land that had been allocated to him by another villager. This field was withdrawn by the owner in 1999, however, due to a conflict in the village (see Chapter 9) and the villager reallocated the field to another Dogon. In twenty years, Mohammed's family has doubled from five to ten people. His agricultural equipment is basic with a pair of oxen, a small plough, a large plough (*multiculteur*), a seeder and a donkey cart, and he owns no other livestock.

Mohammed's half-brother Daouda, being a stranger, worked a disadvantageous low-lying field in the previous place he stayed for six years. Low land is prone to flooding, which resulted in a dramatic loss of his cereal harvest and was the immediate reason for moving on. Arriving in Mperesso in 2001, his father-in-law did not present Daouda to his own host but to another prominent villager. This is unusual and had to do with a split in the village association in Mperesso shortly before that had completely polarized the village (see Chapter 9). Daouda was allocated a 5 ha parcel of land on the rocky plateau where he started to clear the trees and shrubs to grow millet and peanuts; cotton would follow later. When I visited him again in 2002, he had doubled the small field (2 ha now) but had not yet started growing cotton. The family numbered seven members, of which only Daouda and his son work in the field.

The migratory drift of the Dogon to the south since the mid-1970s can be considered a new stage in their long history of mobility (see Chapter 4). Driven by land scarcity, many Dogon live on the southwestern part of the Bandiagara Escarpment and in the established hamlets on the adjacent plains. These were in-

habited all year round and soon evolved into villages (Petit 1998: 28). When the plains became overpopulated and further agricultural intensification was not feasible, an outflow to South Mali and central Burkina Faso started (van Beek 1993: 51), accelerated by the Sahelian droughts of the 1970s and 1980s. Dogon mobility to the south can thus be regarded as a response to several constraining factors (Cissé 1993) and an attempt to restore the region's ecological balance.

From the literature, little is known about 'spontaneous' Dogon migration to South Mali. Some studies deal with Dogon migration to other parts of South Mali in the 1970s and 1980s where they were initially attracted by large infrastructural projects, such as the construction of a dam, an artificial lake and an irrigated perimeter (see Dougnon 2007), while other Dogon followed later more spontaneously (Cissé 1993, Koenig *et al*. 1998, 1999). The percentage of Dogon in the total population in these areas is considerable and is estimated to be 10% in some places (Cissé 1993).

The Dogon arrive in the south as small, young families, which could indicate their reasons for leaving: they are either expelled from their family in the struggle for land or they set off on an adventure and take the initiative to build a new life. During my fieldwork, I frequently asked the Dogon why they had come to the south but they were not keen to answer this question. It was clearly a sensitive issue. The initial answer was often only 'I have come to cultivate' or 'it was Allah's [or God's] will for me to leave' and most of them denied having problems in their home area. Only a few mentioned bad harvests caused by insufficient or irregular rainfall and the grasshoppers and worms that destroy millet at various stages in its growing cycle. Dogon respondents stressed that it is the more courageous young people who leave for the benefit of family members left behind in the native village. The women were often more open and said that they had left Dogon Country due to a shortage of land. It could be that the Dogon, who consider themselves to be 'real cultivators', are ashamed to admit that they did not perform well in their region of origin (van Beek 1991). It is reported that some Dogon farmers even committed suicide during the Sahel droughts by jumping off the Bandiagara Escarpment, which is taboo in Dogon society (van Dijk pers. comm.). It is remarkable that the opportunity to cultivate cotton in the south is hardly ever mentioned as a pull factor. Apparently push factors in local society are more important reasons for leaving.

Although Dogon migration to South Mali might be too recent to assess, it seems to have a permanent character. None of the Dogon encountered were thinking about returning, except for one old man and another younger man who was being summoned by his family to return. Nevertheless, social relations with the native village are still close. Dogon migrants in South Mali keep in touch with their kin through regular family visits, marriages arranged between villagers

and migrants, and young migrants, both men and women, are sent for a couple of weeks to their parents' native village to get to know their relatives there.

In the south, the Dogon appear to be quite isolated groups that barely integrate in village social life and, since only a few Dogon farmers grow cotton (see Chapter 8), most of them are not members of a village association. The Dogon women in Mperesso are not members of the local women's association either, unlike all the other married women (except the recently married), including the Fulani. However their isolated position seems to be changing. For example, in contrast to the Dogon settlers who speak only Bamana with the Minyanka, the new generation of Dogon that has grown up in the south speaks the Minyanka language fluently. It was also reported that a Dogon girl in Mperesso had married, quite exceptionally, a Fulani with the permission of her father but (initially) against the will of the other Dogon in the community.

The influx of Dogon slowed down in the 1990s and a first outmigration of Dogon due to the bad quality of their land and land shortages was reported in Finkoloni and in other villages in the area in the late 1990s. The first Dogon to arrive there was allocated a specific sub-territory in which all other Dogon arriving later were allowed to settle too. Such limitations do not exist in Mperesso. Another reason mentioned for leaving was a shortage of agricultural equipment, such as donkey carts and ploughs. It was reported that Dogon move to the countryside near small towns northwest of Koutiala, such as M'Pessoba (40 km away), Bla (75 km away) and Niono (at 270 km), probably because other Dogon are living there who can serve as a point of contact in a new environment. Some Dogon have migrated to urban centres like Koutiala and Sikasso to make a living, while others have moved further south towards the Banifing River (50 km from Koutiala) where land is more abundant. Also in Mperesso, where outmigration has not yet started, the move of Dogon from neighbouring villages to the river has been reported. It was also said that some returned a few years later due to the hostile attitude of the autochthons they met in their new environment.

The fourth wave: Minyanka autochthons and the rush for 'white gold'

The majority of Minyanka autochthons spread into hamlets in the 1980s and 1990s. This wave of mobility was largely driven by cotton growing and was undertaken in two steps. First, the area under cotton and cereals was rapidly expanded and cotton revenues were then invested in livestock. After this, but not always, farmers settled in hamlets on their family outfields, either to accommodate their livestock or as a nuclear family that had become independent of the family in the village.

The cotton boom in South Mali is closely related to the establishment of village associations (*Associations Villageoises*, AV) that happened in Mperesso in

1977 and in Finkoloni a few years later. These are local CMDT cooperatives that organize cotton production (see Chapter 3). The facilities provided by the AV were attractive and encouraged farmers to start growing cotton: they distribute cotton seeds and the necessary agrochemical inputs (chemical fertilizers, pesticides) to farmers, weigh the harvest and transport it by CMDT truck to the cotton factory in Koutiala, and then pay the farmers prices fixed by the CMDT in advance. Farmers buy inputs on credit and the costs are deducted from the final payment they receive. In addition, they have access via the secretary of the village association to credit for agricultural equipment (e.g. ox ploughs or donkey carts) and luxury goods (e.g. motorbikes) at the BNDA (*Banque Nationale de Développement Agricole*) agricultural bank. All cotton farmers are automatically members of a village association, which, at its peak, amounted to an estimated 80% to 90% of all farmers.

Cotton (known as 'white gold') has become the most important cash earner for farmers in South Mali. In 1980, people were very excited, according to a famer in Finkoloni: 'Everybody wanted to grow cotton. People even worked their field at night by torchlight'. Previously, cash cropping was only performed on a small scale and earnings from peanut growing were limited as were the possibilities for salaried work in the region (Jonckers 1987: 165).[8] To meet daily expenses and the costs of agricultural equipment and ritual ceremonies, labour migration (*exode rural*) in the dry season (or for longer periods of time) was common. Similar to what was noticed among the Dogon in Central Mali, young farmers used to work as labour migrants in Bamako (in construction work and shops, etc.) or in other countries, for example on the coffee and cocoa plantations in southern Ivory Coast and Ghana, and in the harbour in Abidjan. Many were also engaged in railway construction work between Ivory Coast and Burkina Faso in the 1940s and 1950s. With the large-scale introduction of cotton as a cash crop, labour migration lost its importance as a source of family income in South Mali.

The growth in cotton growing encouraged the opening up of former outfields and the clearing of new ones. Farmers in Finkoloni remember that there were still one or two hectares between cultivated fields around 1980, whereas the cultivated fields were all adjacent to each other in 2001. The ox plough has been key to the expansion of cultivated areas. Not only has cotton production increased but so has cereal production as cotton and cereals are cultivated in a two- or three-year rotation system with cereals benefiting in the following years from the organic and chemical fertilizers that cotton receives. CMDT studies indicate that

[8] In Koutiala Town, for example, there are only two factories, both of which were owned by the CMDT, one to separate the cotton fibres from the seeds and the other to process cottonseed into cooking oil and cattle oil cake. The two factories together employed only 212 workers in 1974 (Jonckers 1987: 165).

for every hectare under cotton, more than one hectare in cereals has been opened up (Bingen 1998: 271, Benjaminsen 2001b: 263-264). As a result, the food-security situation in South Mali has improved significantly in the past few decades.[9]

The expansion of cotton as a cash crop has contributed to the settlement of Minyanka autochthons in hamlets. Two types of hamlets can be distinguished and embody two different economic and social developments: 'satellites' from families based in the village and new independent hamlets consisting of nuclear families. Nine out of the sixteen autochthonous hamlets in Mperesso village territory in 2001 were satellites, while the other seven were independent hamlets.

Satellite hamlets are set up on distant outfields to accommodate family livestock. As described earlier, not many livestock can be kept near villages due to the risks of livestock disease and crop damage to village fields. By spreading their family members, livestock and agricultural equipment over several locations, families become multi-locational (Breusers 1999).

Livestock numbers have grown considerably in South Mali over the last few decades and Sikasso Region has become Mali's leading region in terms of livestock (Bosma *et al.* 1996: 29-30). Cattle numbers rose from an estimated 250,000 in 1960, after a small drop in the mid-1980s due to drought, to about 1 million in 1990 and around 1.4 million in 2010 (Ba 2011: 32, Bosma *et al.* 1996). The increase in the 1980s can in part be related to earnings from cotton that were invested in livestock. It is reported that farmers owned relatively high numbers of cattle in the Koutiala area in the late 1980s: about 70% owned more than six head of cattle, and most had more than fifteen. It should be noted, however, that most cattle in South Mali do not belong to farmers but to Fulani pastoralists and, more importantly, to wealthy traders, civil servants and CMDT officials (Bosma *et al.* 1996: 32, Hijkoop *et al.* 1991: 35).

The second type of hamlets are independent hamlets inhabited by nuclear families. These are frequently the result of family conflicts. When families split up, their agricultural fields also become fragmented: the elders remain on the intensively used infields while the breakaway unit obtains the more distant outfields where they set up hamlets (Jonckers 1987: 31, 1994: 122). A common type of conflict that leads to family segmentation concerns the management of cotton revenues. Such conflicts arise between the family head (the father or eldest brother) who is responsible for the family's financial management and the younger brothers who provide the family labour but do not have a formal say in decisions. Tensions between young and old concerning financial issues can easily arise. For example, there can be disagreement about the payment of taxes, a

[9] Average cereal production in South Mali is 336 kg/person, which exceeds the FAO/WHO standard of 117 kg/person (Benjaminsen 2001a: 286), but the year of reference is not indicated.

plough can break but no financial reserve is available to cover repairs or an ox has to be sold because loans cannot be reimbursed. A loss of agricultural assets is always harmful as the area of cotton and/or cereals decreases the following year, which in turn results in less income. Jealousy may also play a role, for example when more money is spent on ceremonies (weddings, funerals) for the eldest brother than for younger brothers. 'Free rider' behaviour among lazy family members or youngsters who prefer to cultivate the cotton fields of the smaller family unit instead of working on the lineage's cereal fields can also be a source of tension (Jonckers 1994: 126). If family members do not cooperate, yields inevitably tend to decline.

The establishment of independent hamlets by small, nuclear families on their former family outfields reflects a broader process of individualization in rural societies. This has not only been triggered by the increased monetization of the rural economy, which is considered the largest economic and social change in Minyanka society in the twentieth century (Jonckers 1987: 195), just as in other societies in West Africa.[10] Increased Islamization has also contributed to the process of individualization because under Islamic inheritance law, land is inherited by sons instead of brothers (Venema 1978: 122 for Senegal).

The increase of farming units due to a combination of family segmentation and an influx of migrants appears from the village association books that show that the number of cotton-farming units has risen from 48 to 72 between 1986 and 2001 (see Table 7.3). The increase took place particularly over the last five years.

Table 7.3 Number of cotton-farming units in Mperesso, South Mali (1986-2001)

Year	Number of cotton-farming units
1986	48
1993	51
1996	55
2001	72

Source: Village association books in Mperesso

The agricultural expansion and economic development of a Minyanka family is illustrated by the case of Bacary Coulibaly from Mperesso who set up a satellite hamlet in his family's sub-territory.

[10] See, for example, Venema (1978) for the Wolof in Senegal and Mazzucato & Niemeijer (2000: 81-83) for the Gourmantche in eastern Burkina Faso.

The case of Bacary Coulibaly, an autochthonous farmer

The family of Bacary Coulibaly (b. 1944) originally came from Kankoun, a previously distant ward of Mperesso that was completely destroyed during the colonial Senoufo War of Kenedougou in 1898 (ESPGRN n.d.). The families from Kankoun subsequently dispersed. While Bacary's family settled in Mperesso's second ward, others moved to different villages or to Koutiala Town. Bacary is considered an autochthon of Mperesso.

His family has two fields in Kankoun sub-territory where the soils are considered to be of good quality: one large field of 20 ha and a smaller one on the plateau. Bacary set up a farming hamlet on the large family field in the early 1980s and had started to grow cotton a few years earlier when a village association was set up in Mperesso. An ox plough was also purchased by his paternal uncle, a relatively wealthy man who owned cattle. A part of the family still lives in Mperesso's second ward and another part in Bacary's hamlet, but they work together on the two family fields.

Bacary's main reason for settling in a hamlet in Kankoun sub-territory was to keep livestock and to be able to transport manure from the village to the field more easily. Bacary expanded his cotton field bit by bit. He invested his earnings from cotton in more livestock and agricultural equipment: first a cart, the following year a seeder and so on up to its current level of eight ploughs, five ox teams, two donkey carts, twelve cows and sixteen sheep and goats. Cotton growing and field expansion went hand in hand with investments in cattle and agricultural equipment and the family grew in size at the same time, which meant more mouths to feed but also more hands to help with the work.

Before the family started growing cotton, Bacary and his brother cultivated a 5.5 ha cereal field, without a plough. After Bacary had married his wife and his brother had married two wives, and a younger brother returned from labour migration in Ivory Coast, a lot of children were born, and the growing family was able to expand its activities rapidly with the agricultural equipment purchased.

In 2001 the family numbered 40 members. Its labour force expanded from 2 to 13 (8 men and 5 women) and the area under cultivation grew from 5.5 ha to 21.5 ha (13.5 ha of cereals; 8 ha of cotton) in 25 years. In addition, the family has a 7 ha fallow field that serves as a reserve for future needs. Some family members are also involved in honey production and carpentry (carts, house doors, etc.) as income-generating activities. The women engage in petty trade and sell baobab leaves and peanuts at the market, which provides them with a small income.

Many farmers started to grow cotton with great enthusiasm initially as it gave them the opportunity to earn a serious cash income and the area under cotton expanded rapidly. Cotton is, however, a risky crop for farmers as it is sensitive to rainfall levels and requires sufficient and timely labour and agrochemical inputs (Gray 2008: 73). Cotton growing moreover encountered a serious setback in the 1990s with the abolition of subsidies on chemical fertilizers, low cotton prices and corrupt practices in the higher echelons of the CMDT and the village association boards (see Chapter 3). The abolition of subsidies and the privatization of the CMDT were part of structural adjustment programmes that Mali signed with the IMF and the World Bank. Farmers consequently have to buy inputs at free-market prices. In 2000, many farmers in southern Mali went on strike in protest against the low cotton prices.

Farmers have become disillusioned with cotton cropping due to indebtedness and impoverishment as they can no longer repay their debts due to high interest rates and have had to sell agricultural equipment, cattle and sometimes even ce-

reals at unfavourable prices (Gray 2008). The CMDT's notorious late payments to farmers, up to six months after the harvest, have made things even worse. For farmers who are in debt, it is difficult to obtain additional loans, which in turn hampers new cotton growing (Gray 2008: 78). Many farmers have completely abandoned cotton growing in recent years and have refocused on cereal production to ensure food security. Labour migration is expected to increase again as an important way of generating a cash income.

The fifth wave: A constant influx of Minyanka migrants

The steady influx of Minyanka migrants since the late 1960s can be considered a fifth wave of mobility. Migrant numbers increased rapidly in the 1990s and Minyanka migrants were most numerous in hamlets in 2001 after Minyanka autochthons, constituting 10% to 20% of the hamlet's population (see Tables 7.1 and 7.2). A Minyanka migrant is a Minyanka from elsewhere who has no close kinship relations in the host village, in contrast to those who have a link in the village through their maternal uncle and who are thus considered autochthons.[11] In contrast to other ethnic groups, such as the Bamana who make a distinction between close and distant strangers (*kèrèfè dounan* and *yorodian dounan*), there are no separate words to describe the Minyanka. In Minyanka language, an autochthon is called *kouloutia* which means a 'son of the village', whereas all strangers are called *ninantji* which means 'coming from elsewhere'. In Mperesso it is simply said that 'everybody who is not a Coulibaly is a stranger'. In practice, however, as will be seen in the next chapter, the various migrant groups do not have equal opportunities when it comes to land holding.

Like other migrant families, Minyanka migrants usually arrive in a new area as a small, nuclear group. The motives for moving are multiple, for example family segmentation due to conflict among brothers over the management of cash income from cotton growing, as described for Minyanka autochthons. As their family land in the village territory was insufficient to divide between all the children in a family, some have to move elsewhere to an area where they may not have close relations. Other conflicts that prompt departure may be related to cattle that caused damage to the fields of other villagers. And long-term labour migration may prevent someone's return to the village. One Minyanka migrant explained how: 'After I had been working for 15 consecutive years on a cocoa plantation in Ivory Coast, I had become a stranger in my village and could not return.'

[11] Four Minyanka farmers were encountered in Mperesso who had settled in hamlets between 1981 and 1995, with a father from elsewhere but a mother from Mperesso. They gained access to land in Mperesso through their mother's brother who had asked the village chief for permission to settle.

The inmigration of Minyanka migrants to Mperesso village territory is represented by the story of the old Mamoudou Berte who has lived in various places in South Mali and has become increasingly impoverished.

The case of Mamoudou Berte, a Minyanka migrant

Mamoudou Berte is an old Minyanka blacksmith and farmer (b. circa 1930) who lives in a hamlet in Mperesso village territory. He is from Basso originally, a large village about 50 km to the north. He moved with his wife to Sikasso Town, the regional capital, after his marriage in the late 1950s, where he worked in several jobs, such as construction, tree felling and as a blacksmith.

He decided to return to his native village to farm in about 1960 because his earnings were insufficient to provide for his young family in town. Being his father's only son, he had inherited numerous cattle but a lack of grazing forced him to leave in 1987 and he settled, with his two wives and four children, in a better grazing area about 25 km south of Mperesso. He lost his entire herd over the following years, however, due to disease and drought.

In addition, the landowner claimed his land back in 1995 and Mamoudou was evicted from the land. It was a fierce conflict that was eventually taken to the District Court in Koutiala Town. Mamoudou stated that the land had been permanently allocated to him by the village chief, and not on a temporary basis, but all the witnesses and his host disagreed with him, something that Mamoudou is still very angry about. The conflict ran so deep that both parties were even prepared to eat pounded cawry powder, an old and resolute Minyanka method to determine who is right. (It is believed that the one who is in the wrong will die.) The magistrate's verdict went in favour of the other party, which was, according to Mamoudou, due to bribery amounting to FCFA 100,000 (EUR 150). Mamoudou had to leave the field.

He moved with his family and ten remaining cows to Mperesso in 1997, where a friend of his son was living in the second ward. This man asked the village chief to let him settle there. Together with the village chief, they selected a parcel of land and sacrifices were made. The field is on the rocky plateau and Mamoudou and his sons built a house and started to grow cereals and cotton, as he had done in the previous area. Mamoudou had already purchased a plough in the 1960s with the income he had earned from the ox-team yokes he made as a blacksmith. Between 1998 and 2001 they did not grow cotton because one of his two sons went to work as a labour migrant. Four other sons had already left the family earlier: one went to Sikasso Town and the others went to other villages near Koutiala. Mamoudou had a bad relationship with them (one even ran away, after which he was imprisoned for two months) and he is not in contact with them anymore. In 2001, after the return of his son who had been working as a labour migrant, they started growing cotton again but only on a very small scale initially. In the meantime, their herd had been further reduced and only some goats and sheep were left.

Over time, Mamoudou has gone from being a relative wealthy to an impoverished farmer with hardly any cattle or cotton. But Mamoudou was reluctant to ask for a (small) loan from the village association or another organization as he feared high interest rates and other administrative costs would double the cost of the loan.

The position of blacksmiths like Mamoudou Berte in agrarian societies is special.[12] Being producers of the materials that can make the soil productive, animists believe blacksmiths have a special link with the cosmic world. They

[12] Minyanka clans of blacksmiths include the Balo, Diabate, Sogodogo, Keleman, Berte and Denso (Jonckers 1987: 171).

also often fulfil the role of intermediary in local communities (Jonckers 1987: 86, Brandts 2005: 73) but, with Islamization, their local status has lost its original importance. However, the widespread adoption of new agricultural equipment (ox ploughs, seeders, etc.) related to the expansion of cotton production has led to many blacksmiths becoming wealthy through the maintenance of these new types of agricultural tools and the local production of simple donkey ploughs that many farmers prefer as they are cheaper than the larger ploughs for ox traction that are purchased through the CMDT.[13]

Conclusions

The five mobility waves distinguished in this chapter that correspond to socio-ethnic group and period (Minyanka pioneering autochthons in the 1960s, Fulani migrants since the late 1960s, Dogon migrants since the mid-1970s, Minyanka autochthons since the 1980s, and Minyanka migrants since the late 1960s but with a peak in the 1990s) show the various micro processes of agricultural colonization in South Mali in the past few decades. Numerous farmers have settled in hamlets and nearly all the possible arable land has been put into production, particularly since the 1980s when cotton cash cropping became popular. While Minyanka autochthons were the largest group in the hamlets in 2001, the proportion of migrants of various origin is considerable (ranging from 25% to 50%). An impressive two-thirds of the rural population currently live in hamlets that are inhabited all year round and nearly all by a single family.

The specific underlying drivers differ per socio-ethnic group. The combination of livestock keeping and cotton growing has been, either directly or indirectly, a key driver for Minyanka autochthons and migrants, while Minyanka migrants are also driven by conflict in their village. In hamlets, the Minyanka have opened up land for cash crops (mainly cotton) and food crops (sorghum, millet, maize) that are grown in rotation. This has generally contributed to improved food security and better living standards. Cotton revenues are being invested in agricultural equipment and livestock, which accelerates agricultural expansion even further.

Two types of autochthonous hamlets reflect different processes, both related to cotton cash growing: (i) satellite hamlets of wealthy multi-locational families that spread their labour and (increasing numbers of) livestock; and (ii) hamlets consisting of young, nuclear families that, after intra-generational conflict over financial management or land inheritance issues, have become independent of their family in the village and have settled on a family outfield. The increase in independent hamlets reflects a process of individualization in which families and land are divided. However, cotton growing has become less attractive for farmers

[13] The CMDT also set up a special skills training programme for local blacksmiths (Jonckers 1987: 180).

since the late 1990s due to the worsening economic conditions that can be viewed as a forerunner to the collapse in the cotton sector in Mali in the mid-2000s.

By contrast, the motives of Fulani and Dogon migrants for settling in hamlets in South Mali are primarily related to food production and to a much lesser extent to cotton growing. Their involvement in cotton growing is generally still modest. Individual Fulani and Dogon families from the Sahel often arrived in stages, with the Dogon being directly driven by the severe droughts in the 1970s and 1980s in combination with land scarcity due to their seniority system that disadvantages farmers with inferior positions such as youngsters. While many Fulani were already in the south with their herds, Fulani settlement in farming hamlets can (paradoxically) be considered a process of sedentarization as livestock keeping has become increasingly difficult in the past few decades due to a lack of areas for herding. A loss of cattle has forced many Fulani to start growing crops instead.

8

Access to land and agricultural colonization (South Mali)

Introduction

Many farmers in the research area in South Mali have settled in farming hamlets and expanded the agricultural area there in a number of subsequent and partly overlapping waves of migration since the 1960s, as was outlined in the previous chapter. The periods of agricultural colonization correspond to the different socio-ethnic groups in the area who have varied motives for being mobile although they tend to be related to either cotton cash cropping in combination with livestock keeping or to subsistence cereal farming. Guided by three main questions, this chapter takes a closer look at processes of agricultural colonization in relation to local power positions and access to land.

Based on the seniority principle that shapes local power hierarchies, farmers belonging to different socio-ethnic groups hold different local power positions and consequently have differential access to land or, more precisely, they have different positions in socio-political processes that mediate access to land (see Chapter 2). The first question to be considered in this chapter is how (mobile) farmers with different local power positions have gained access to land for agricultural colonization over the last few decades. As land and local power are closely related, the expansion of agricultural areas and what this means for local authority over land and people is also examined.

In the processes of agricultural colonization, farmers have apparently expanded the area under cultivation rather than intensifying its use. The question this raises is under what conditions farmers expand and/or intensify land use. A number of land-use studies will be reviewed that are relevant in the South Malian

context. For the sake of clarity, the terms 'agricultural expansion' and 'intensification' first need to be defined. Agricultural expansion can be understood as an increase in the total area being cultivated, while agricultural intensification refers to an increased use of capital and/or labour per unit of land and hence increased agricultural productivity per unit, which is expressed in yield (kg/ha). Defined in this way, intensification and expansion are not, strictly speaking, opposing processes and may go hand in hand. The opposite of intensification is 'extensification', which refers to decreasing quantities of inputs and productivity per unit of land (Oksen 2001: 305, Bodnár 2005: 47).[1]

Drawing these two aspects together, the third question that emerges is about the influence of unequal local power positions and access to land on farmers' strategies regarding agricultural expansion and/or intensification given that land for farming is becoming increasingly scarce. While the relevance of local power positions and access to land on farmers' land use has been acknowledged in various political ecological studies that were conducted against the backdrop of the Malthus-Boserup controversy, farmers' mobility is usually neglected in the analysis of land use (see Chapter 1). Quantitative and qualitative data will thus be combined in an attempt to shed light on this issue.

The focus in this chapter is on the three-cornered relationship between farmers' mobility, access to land and land-use practices. The role of conflict will be discussed in Chapter 9.

Accessing land for agricultural colonization

Minyanka society is primarily organized along the lines of patrilineal lineages (*gbun*).[2] In such societies, land and power are closely related (see Chapter 2). Land in a village territory traditionally belongs to the lineage of first-comers (autochthons) that is represented by the village chief (today the administrative village chief and in the past the earth priest). Latecomers (migrants) always have to ask his permission to settle in the village territory and open up land. They thus become part of the new local hierarchy through the allocation of land and a local hierarchy emerges with first-comers at the top and last-comers at the bottom (Lambert & Sindzingre 1995, Breusers 1999). Access to land is gained through socio-political relationships within the local power hierarchy. For a migrant

[1] The terms expansion, extensification and intensification are not always used uniformly. For example, intensification may refer to a larger input of either labour (Boserup 1965) or capital (Lele & Stone 1989) per unit of land. And the opening up of fallow land can be viewed as either expansion (Boserup 1965) or intensification (Oksen 2001). Extensification is also sometimes used as a term that includes 'expansion' (Bassett 2001).

[2] Social relationships also exist outside the lineage through male and female age groups (*ton*) that function as labour groups. *Tons* are important groups in Minyanka society and functioned as small armies in the nineteenth century to protect the village against invaders (Jonckers 1994).

farmer, his relationship with a host (*jaatigui*), i.e. his anchor in the village, is thus vital to accessing land. The host-stranger relationship remains important and needs to be confirmed regularly. 'We greet, talk and bless' was how a Minyanka migrant described his relationship with his host in Mperesso. And they also participate in each other's ceremonies, such as name-giving parties for newborns, weddings and funerals.

This way of organizing local power and access to land is in essence similar to other patrilineal farming societies in West Africa, such as Dogon society in Central Mali. A difference with the situation encountered in Central Mali is, however, that first-settlement (autochthony) is less ambiguous and local power positions are clearer within a given territory. As autochthony is better defined in South Mali, the distinction between autochthons and migrants is sharper (Geschiere & Jackson 2006), which has consequences for the political status of farmers who become mobile. Anyone who crosses a village territory boundary in South Mali to settle in a hamlet is automatically considered a migrant in the host village (unless the newcomer is closely related to the village through maternal lines), which positions him at the bottom of the local hierarchy. Geographical boundaries in South Mali between villages are therefore also political boundaries.

Socio-ethnic group and access to land

The various socio-ethnic groups in the research area in South Mali have had different opportunities to access good farming land over time, something that is not only related to increased land scarcity but also to their local power status. In the early 1960s, just before agricultural colonization started, Mperesso was a small village with around 160 inhabitants, according to a group of lineage chiefs, and land was still abundant. Minyanka in Mperesso claimed that the lineages had already divided all the good farming land in the village territory (i.e. 'black' soils with a clay content)[3] among themselves. 'When a family needed a bush field, it just chose a good piece [of land] in its subsection of the village territory and expanded in accordance with its needs.'

The first farmers in the hamlets were Minyanka pioneers who, once settled, did very well economically. Being the first to own an ox plough and by investing their earnings from cotton in more agricultural equipment and cattle, they were able to open up large tracts of land and secure their claim to them. Labour availability is a limiting factor when expanding the cultivated area, particularly for small families (Toulmin 1992, Mortimore & Adams 1999). These already wealthy pioneer farmers were able to mobilize local labour groups (*ton*), usually in

[3] The Minyanka people in Koutiala area distinguish three soil types: black (clay), yellow (sand) and red (gravel). Gravel soils contain iron and are not suitable for agriculture (Jonckers 1987: 15, Kanté & Defoer 1994: 7).

return for a copious meal including meat (Jonckers 1987: 149, Bassett 2001: 131). The occupation of large tracts of land in the initial stages of agricultural expansion is illustrated by the case of Karim Coulibably from Mperesso, who figured as an example of a pioneer farmer in the previous chapter.

> Karim Coulibaly explained that, in addition to cattle keeping, territorial motives also played a role in his father's decision to set up a hamlet in their sub-territory. His father foresaw future land shortages and a subsequent rush for land. For this reason, he wanted 'to be in the bush before the others arrived'. Karim still owns a large area of land today, too much in fact to cultivate with the amount of family labour available. Of his 30 ha, about 8 ha is unproductive, including 4 ha that has never been cultivated before (virgin bush). This virgin bush and any fallow land can serve as farming land for the growing family in the future.

In contrast to a small group of pioneers, the majority of the Minyanka autochthons have just moved over into the hamlets and expanded the whole agricultural area since the late 1970s, driven by the rush to grow cotton as a cash crop. This also meant an expansion of the area under cereals to secure the families' food security. They were to a lesser extent able to expand onto good farming land as the village territory was quickly colonized. Farming land also became increasingly fragmented and divided into parts with different soil qualities, which led to the splitting-up of many autochthonous families. The process of individualization was accelerated by the commercialization of agriculture (cotton) and the influence of Islam on land inheritance (see Chapter 7). With family segmentation, land is divided along lines of seniority. Someone who breaks with the family has no longer any rights to village fields (infields) that belong to the lineage and is only allowed to open up land in the bush (Jonckers 1987: 30) where he can set himself up in a hamlet independent of the family in the village. With the division of bush fields (outfields), the eldest brother has the first choice, while any younger brother(s) who break with the family have to be satisfied with the remaining, often marginal (fallow) land that is less suitable for agriculture. If there is insufficient land, the youngest brother(s) may have to leave and move to the territory of another village where they automatically receive the status of migrant (unless their mother was from that village originally).

With recent agricultural expansion, virtually all (arable) virgin land has been occupied and migrants are thus usually allocated fallow land through their host. Fallow land has become important as the focal point around which host-stranger relationships are constructed. Families usually consider fallow land as reserve land in anticipation of future family growth but, as a rule, a farmer in need of land cannot be turned down even if he is a stranger, although a landowner usually keeps the good pieces for himself and allows others to use only the marginal areas (see Laurent *et al.* 1994).

The first migrants to arrive in Mperesso were initially allocated land with fairly good soil properties due to villagers' lack of appreciation of places where spir-

its and wild animals were thought to be present (see Chapter 7). Migrants who arrived later have been allocated less favourable plots of land, for example fallow land that has not yet recovered or fields located on rocky soils or clayey lowlands that are prone to flooding. In contrast to what one might expect, earlier migrants are not usually at an advantage today as a result of the quality of the land they were allocated compared to those who arrived later since migrants are often requested by the landowner to look for another field after cultivating for a number of years. An argument frequently used is that their cattle cause damage to the migrant's crops. However, the real reason is probably the landowner's fear that the migrant will refuse to leave the land after a long period of occupancy. Although migrants cannot vest permanent rights in the land, their use rights become stronger over time if cultivation is continuous.

In comparison to Minyanka migrants, the Dogon and Fulani generally seem to occupy land that is less favourable agriculturally. This is particularly the case in Finkoloni where the non-Minyanka are concentrated on one part of the village territory (see Maps 7.3 and 7.4). The first Dogon farmer who arrived here in the early 1970s was shown a delimited sub-territory of rather poor sandy soils. All Dogon who arrived later were allowed to settle in this area only, which explains the clustering of Dogon hamlets and the outflow of Dogon in the late 1990s. Fulani and Bamana migrants can also be found in this part of Finkoloni territory, while Minyanka migrants are dispersed over a wider area. Minyanka migrants occupy a special position in-between the autochthons and other migrants as they are still Minyanka who are considered as first-comers.

The allocation of less favourable land to strangers is not unusual. In a study conducted in four villages in South Mali, including Mperesso, it was noted that migrants here too receive land higher up the slopes that are prone to erosion due to runoff (Moseley 2005: 51). In the same vein, another study in southwest Burkina Faso showed that Mossi migrant farmers were also allocated land of low quality and this motivated them to move on later (Gray & Kevane 2001, Gray 2008: 78).

Shifting local authority

Not only has the landscape changed as a result of these waves of agricultural colonization but so too have the use and status of the land. For example, tracts of virgin bush have turned into agricultural fields, which means a shift in local authority as several types of chiefs assign various types of land that are under their control. A village chief controls the virgin bush that belongs to the village; lineage chiefs have control over the infields and outfields (including fallow land) that belong to the lineage and distribute them among lineage members; and the heads of nuclear families have individual control over their fields. Control over land

means control over people. As most (arable) virgin bush has been opened up, the power of the village chief to allocate land to newcomers has been reduced. Migrants are increasingly allocated a fallow land that is controlled by the chief of the (autochthonous) family that first cleared the parcel. Lineage chiefs have also lost power over land and people, as many autochthonous families have split up and farming land has become fragmented with the breakaway unit settling in a hamlet on a former outfield. This has meant a reduction in the lineage chiefs' control over lineage-level labour as well (Bassett 2001: 144, see Berry 1993). The agricultural expansion over the last few decades has thus contributed to a decentralization of local power from the level of the village and lineage chiefs to the lower level of heads of families.

In response, village and lineage chiefs have developed strategies to compensate for their reduced power. The establishment of host-stranger relationships can be seen in this context. For the Fulani and Dogon migrants in the research area, a prominent villager, i.e. the village chief or a lineage chief, will therefore act as a host, while a less prominent autochthon seems to play this role for Minyanka migrants. Establishing host-stranger relationships is an important strategy for the host as it automatically improves his local position. Such social mobility is called 'mobility by levitation' (Kopytoff 1987) and fallow land plays an important role in such strategies. As migrants are in need of former fallow land to build a livelihood, hosts with plenty of fallow land can clearly advance their own positions this way.

It can be concluded that arable land has been apportioned along the lines of seniority in the process of agricultural colonization. Whereas the higher-ranked farmers have kept the land that is best suited to farming, farmers who are ranked lower (migrants and young autochthons who broke away from the family) have been increasingly allocated marginal land. The use and status of land changes due to processes of agricultural colonization in village territories and this has contributed to a decentralization of local power regarding control over land and people (i.e. labour) to the level of heads of families. This has, in turn, produced territorial strategies among lineage chiefs in which host-stranger relationships and fallow land play a central role.

Conditions for agricultural expansion and/or intensification

Agricultural growth in South Mali has occurred as a result of a combination of agricultural expansion and intensification. The expansion of the cultivated area has been enormous in the past decades all over southern Mali but particularly in the Koutiala region, which is Mali's cotton belt. Studies show that the cultivated area doubled in southern Mali between 1988 and 2002 (Bodnár 2005: 49), while the cotton area tripled in size and the area under millet and sorghum quadrupled

in the Koutiala area between 1980 and 1987 (Benjaminsen 2001a: 286).[4] The average cultivated area per capita also increased, rising from 0.44 ha to 0.61 ha in southern Mali between 1988 and 2002 and in the Koutiala area from 0.61 ha to 0.72 ha (Bodnár 2005: 49-51). As the average area cultivated per capita declined in the Koutiala area in the same period from 1.15 ha to 0.87 ha due to population growth (*Ibid.*), it can be assumed that agricultural expansion in the research area had nearly approached its physical limits at the time when this fieldwork was being conducted (2001-2002). It has probably reached its maximum by now (2013) as the rural population has grown rapidly over the past few years, with local growth recorded at more than 8% annually between 1998 and 2009 (see Chapter 3).

The intensification of agricultural production can be seen from the increased crop yields in southern Mali since the 1960s (although these have levelled off since the 1990s),[5] an increased share of cash crops and the doubling of the amount of chemical inputs and compost used (Bodnár 2005: 58). The latter was based on higher numbers of cattle and improved crop-livestock interaction (Ramisch 2001, Oksen 2001, Sanogo *et al.* 2010).[6] Agricultural expansion and intensification have been through different stages and have also occurred simultaneously at times, which confirms, in contrast to what some believe, that expansion is not just a forerunner of intensification (Oksen 2001, Benjaminsen 2001b, Reenberg *et al.* 2003; cf. Lele & Stone 1989). A Minyanka farmer in Mperesso remembers the different stages of cotton growing as follows: ’First, we distributed the seeds and insecticides by hand, then equipment came to improve these processes and after the creation of the village association, the cotton area was much enlarged.‘

Where combined agricultural expansion and intensification spurred agricultural growth in southern Mali, expansion was more important (Bodnár 2005). This corresponds with other studies that estimate that 80% of all agricultural growth in Africa can be attributed to an increase in the area under cultivation (Reenberg *et*

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[4] The area under cotton increased to around 90,000 ha, under millet and sorghum to around 120,000 ha, and under maize to around 25,000 ha (Benjaminsen 2001a: 286, Figure 2). The CMDT has encouraged farmers to grow maize as an alternative cash crop since the late 1970s but farmers did not sacrifice the area under food crops (Jonckers 1987: 28, 191).

[5] In southern Mali, cotton yields increased from 250 kg/ha in 1960 to more than 1300 kg/ha in the 1980s, although they declined to around 1000 kg/ha in the early 2000s, while average millet and sorghum yields (700-800 kg/ha) remained more stable between 1988 and 2002 (Bodnár 2005: 57-61). Millet and sorghum yields seem higher in the Koutiala area with fluctuations between 900 and 1200 kg/ha between 1983 and 1997 (Benjaminsen 2001a: 287), which may be attributed to higher numbers of cattle (purchased with earnings from cotton) and increased crop-livestock integration.

[6] In various places in Sub-Saharan Africa, livestock density strongly correlates with land-use intensity and population density, which supports the assumption that livestock are significant for agricultural intensification (Ramisch 2001: 1-2, Oksen 2001: 303). A study in Mperesso showed that, in the mid-1990s, a high proportion of cotton fertilizers (about 50%) were indeed of organic origin (Kanté *et al.* 2007, Benjaminsen 2001b).

al. 2003: 58, citing Kates *et al.* 1993).[7] This is in contrast with the CMDT (previously CFDT) policy that has always been aimed at intensification by focusing on the group of relatively wealthy farmers, i.e. farmers with ox traction and cattle (who are known as the A and B category farmers in CMDT jargon).[8]

The emphasis among farmers on expansion rather than on intensification raises questions about the conditions under which farmers expand or intensify their cultivated area. Quite a number of studies were undertaken to investigate this issue, particularly in the Koutiala region in the 1980s and 1990s and the focus in many of them was on external economic conditions. A major incentive pinpointed was the net profit margin for a farmer, which is the relative difference between the cotton price (which the farmer receives) and the costs of agrochemical inputs (which the farmer has to pay) (Benjaminsen 2001a). Cotton prices and subsidies on inputs are set by the Malian state together with the parastatal CMDT and are influenced by global developments (see Chapter 3). Cotton is demanding regarding agrochemical inputs (chemical fertilizers, pesticides), which are expensive and can take up to 45% of a farmer's gross earnings (Jonckers 1994: 126, Bassett 2008: 47) or even more than 70% in individual cases, as the present study shows (see Table 8.6). Farmers who own cattle are in an advantageous position as manure reduces the need for chemical fertilizers to some extent. High input costs largely reduce farmers' net margins.

A review of some relevant studies, however, does not offer a uniform picture of farmers' behaviour in response to higher or lower net profits. Some studies suggest farmers will intensify their activities if net profits increase (because of higher cotton prices and/or lower input prices) and expand or extensify if their net profits decrease (because of lower cotton prices and/or higher prices for inputs). For example, farmers adopted a number of practices to ensure intensification before the 1980s, such as greater use of chemical fertilizers and growing fodder crops, since chemical fertilizers were cheap due to the subsidies available (Berckmoes *et al.* 1990). These became more expensive when the subsidies were reduced in the early 1980s (although they were partly reinstated from the mid-

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[7] A similar trend of expansion exceeding intensification was observed in northern Ivory Coast where cotton production developed earlier than in Mali. In all, 85% of the growth in production in Ivory Coast between 1965 and 1984 can be attributed to the rapid expansion of the cultivated area due to the introduction of the ox plough. Between 1970 and 1984, cotton production increased seventeen-fold! However, this was followed in 1985 by a period of expansion and extensification (Bassett 2001: 9).

[8] Farming units are classified in four wealth categories (A to D). Category A farming units have at least two pairs of oxen, a plough, a donkey cart, a seeder and ten head of cattle or more. Category B farmers have at least one pair of oxen, a plough and fewer than ten head of cattle. Farming units in Category C have insufficient equipment for animal traction and own either oxen or a plough. Farming units belonging to Category D use hand hoes (*daba*) and do not have their own animal traction. The A and B categories constituted 71% of all farming units in the Koutiala area in 1996, while the C (22%) and D (7%) categories were much smaller (Benjaminsen 2001b: 264). This classification based on wealth has been adjusted more recently by taking more variables into account (Sanogo *et al.* 2010).

1980s onwards) due to the privatization process in which the CMDT was involved as part of the structural adjustment programmes that Mali signed with the IMF and the World Bank (Benjaminsen 2001a: 286-287).[9] Farmers responded to the increased prices of inputs by spreading them more thinly (extensification) and expanded the areas they cultivated. Droughts stimulated expansion too as harvest failures and low revenues forced some farmers to reduce their costs the following year (Berckmoes *et al.* 1990).

Farmers sometimes expand *and* intensify the area they cultivate in reaction to higher net profits, which was the effect of the 100% devaluation of the FCFA in 1994. Cotton prices rose more than the price of imported fertilizers, as a result of which both fertilizer use and the expansion of fields received a boost and total cotton and cereal production increased accordingly (Benjaminsen 2001a: 287). When the economic conditions for growing cotton deteriorated again in the late 1990s and world market prices for cotton dropped by about 50% and Malian farmers increasingly needed to buy inputs at free-market prices, farmers reacted by increasing their cotton production. This naturally also affected cereal production as cotton and cereals are grown in two- or three-year rotation, with cereals benefitting from the residues from the fertilizer used for cotton.[10]

The diverse responses of farmers to external conditions illustrate how these may influence farmers' decisions concerning expansion and/or intensification but they are often not of overriding importance in individual situations (van der Ploeg 1985). In a study on dairy farming in northern Italy, individual farmers within the same category of farms and operating in similar circumstances were found to organize labour input in different ways, each according to their own logic and based on the means available, which led to contrasting strategies regarding expansion or intensification (*Ibid.*).

Other factors than external economic factors, such as profit margins, apparently also play a role in farmers' decisions. It is important to realize that Malian farmers have generally had two aims when expanding their agricultural areas since the late 1970s. They not only want to earn a cash income from growing cotton but also to secure their food security through cereal production. Malian farmers are above all subsistence farmers for whom food security is the main priority. They were even keener to increase cereal production after 1977-1981 when

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[9] Poor farmers received chemical fertilizers in kind between 1988 and 1993 thanks to Dutch donor support (Benjaminsen 2001a: 287).

[10] The decrease in global cotton prices was mainly due to substantial US subsidies for their own cotton farmers (Moseley & Gray 2008: 22) (see Chapter 3). Farmers in Mali are disadvantaged as they receive a price set by the CMDT that is far below the global cotton price, in contrast to farmers in western countries who receive a price that is higher than the global cotton price (*Ibid.*). As the FCFA is related to the Euro, the Euro/Dollar exchange rate influences the local cotton price that Malian farmers receive. If the Euro is relatively strong compared to the Dollar, the value of Malian cotton exports is lower (Bassett 2008).

they were obliged to sell their cereal surpluses to OPAM to feed the country's urban population and people in regions where there were cereal shortages (see Chapter 3). Many farmers in South Mali had suffered from food shortages themselves as a result of these forced sales, in particular in the period every year just before the harvest begins (*soudure*). A major bottleneck that has prevented farmers from opening up new land and increasing cereal production until then had always been labour availability (see Berry 1993). This was largely overcome as the CMDT provided credits through the village associations and the agricultural bank that allowed them to purchase ox ploughs and other agricultural equipment that could be repaid with their earnings from cotton.[11]

The widespread introduction of the ox plough should be considered key in the rapid, large-scale expansion of the cultivated area, in particular that under cereals. Farmers particularly welcomed the plough as it reduced their workload by at least 50% (compared to hand hoes), although substantial manual labour is still needed for weeding and harvesting (Ramisch 2001: 18, Bassett 2001: 113).[12] Farmers with a plough and two oxen can cultivate 2.1 ha per active person in June-July, which is the busiest period, and only 0.8 ha without (Bodnár 2005: 64). The plough was therefore quickly adopted. According to CMDT estimates, about 70% of the farmers in southern Mali already owned a plough by 1981, while the real number of ploughs was probably higher as many farmers bought simpler ones at lower prices from local blacksmiths (Jonckers 1987: 25-26) or borrowed them (Ramisch 2001: 20). By 2002, about 80% of farmers owned an ox plough and 65% had a donkey cart, the latter being important for transporting compost to distant fields (Bodnár 2005: 51).[13]

Ecological factors also play a role in farmers' decisions. In neo-Malthusian thinking, the expansion of cultivated areas and declining crop yields are commonly attributed to soil depletion due to population growth (Bodnár 2005: 52). This is a widely held belief although scientific evidence regarding large-scale land degradation in southern Mali and the West African region in general is lacking (Fairhead & Leach 1996, Leach & Mearns 1996, Scoones *et al.* 1996, Mazzucato & Niemeijer 2000, Bassett & Zuéli 2003). This discourse on land degradation prompted the CMDT to initiate (with Dutch donor support) a large soil conservation project (*Projet Lutte Anti-Erosive*) that ran between 1986 and 2002

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[11] Although the plough was introduced into the area by the French in 1926, its use remained limited for a long time. To stimulate agricultural production, and cotton production in particular, the CFDT was formally charged with diffusing the ox plough in a 1964 decree (Jonckers 1987: 25-26).

[12] Although labour is a major bottleneck for agricultural production, the use of herbicides has remained remarkably low in Mali. For example, only 6% to 9% of the cotton and maize fields in Koutiala District received herbicides in 1996 (Benjaminsen 2001a), which is in contrast to the situation in northern Ivory Coast (Bassett 2001: 117).

[13] Bodnár (2005: 51) also found that the availability of donkey carts and ox ploughs increased at a family and an individual level and also per ha cultivated in southern Mali between 1991 and 2002.

and covered half of all the villages in southern Mali (Bodnár 2005, Hijkoop *et al.* 1991: 15, Guindo & van Campen 1994: 47, Defoer *et al.* 1996).[14] As the project was based on limited evidence of land degradation, although this was its initial *raison d'être*, it is not clear whether land degradation was particularly serious in southern Mali at the start of the project (Bodnár 2005: 35).[15] Yet Bodnár (*Ibid.*: 185) concluded in his evaluation that, although impressive numbers of farmers adopted erosion control measures (even after the project had stopped), 'the impact on erosion and crop yield has been insufficient to reverse overall land degradation and declining yields'. This suggests that land degradation was present in any case.[16]

It should additionally be noted that, in contrast to what is often assumed, (declining) crop yields are not directly related to (declining) soil fertility, not even when one considers that soil fertility is difficult to measure as nutrient stocks may vary greatly between and even within fields and over time (Bodnár 2005: 44, Mazzucato & Niemeijer 2000). As was shown in northern Cameroon, crop yields are extremely variable, fluctuating up to 60% from one year to the next, and are also influenced by other factors than soil fertility alone, such as labour inputs and field management (de Steenhuijsen Piters 2005, Dembélé *et al.* 2001). Farmers take different kinds of measures to improve soil fertility for specific fields and crops as well (Hilhorst *et al.* 2000).[17] Infields (Toulmin 1992) and cotton receive most of the chemical fertilizers and compost,[18] which results in higher yields of cotton and, through the rotation system, of cereals too.[19] In farmers'

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[14] The project aimed to reduce land degradation, intensify agriculture and increase agricultural production. Two types of measures were promoted: (i) those to improve soil fertility, such as increasing compost use, and (ii) erosion-control measures, such as the planting of vegetation (living fences, grass strips and trees) and the construction of stone bunds horizontally on the slopes. Within the context of the project, various complementary activities were undertaken, including awareness raising among farmers, the distribution of wood-efficient stoves and, in a limited number of villages, the development of local regulations (*conventions locales*) to protect pasture and wood resources (Hilhorst & Coulibaly 1999, Nijenhuis 1999, 2001, Djiré & Dicko 2007).

[15] Comparison of aerial photographs from 1952 and 1987 of three villages in South Mali shows a large increase in the amount of degraded village land (Hijkoop *et al.* 1991: 27 citing Jansen & Diarra 1990). These findings were extrapolated for the entire region.

[16] As baseline and monitoring data were largely missing, Bodnár (2005) reconstructed a baseline and virtual time series to evaluate the impact of the project.

[17] Measures to improve soil fertility include the addition of nutrients; fallowing; the use of chemical fertilizers and manure; cereal cultivation in combination with nutrient-fixing crops, in particular beans; minimizing nutrient losses (measures to control soil erosion, run-off and leaching) and increasing the efficiency of nutrient intake by the selective application of fertilizers to specific crops and fields (Hilhorst *et al.* 2000).

[18] About 96% of all chemical fertilizers are used for cotton and maize. These cash crops also receive most of the compost (82% in 1988 and 84% in 2002), which is a mixture of animal manure, crop residues and household waste (Bodnár 2005: 55).

[19] Studies show, paradoxically, that nutrient balances in the Koutiala area are less negative for cotton than for cereals, which can be explained by the fact that cotton receives most of the fertilizer (FAO 2004: 49-53, Bodnár 2005: 55). As cotton is grown in a two- or three-year rotation cycle with cereals,

decisions to select fields for fertility improvement measures, it is not only soil fertility that plays a role but also other characteristics such as the organic content of the soil and its capacity to hold humidity and/or the absence of weeds. This is illustrated by a study in South Mali that shows that farmers prefer the less fertile loamy sand soils (*guechien* in Minyanka language) that receive most of the chemical and organic fertilizers and therefore provide the highest yields of cotton, maize and sorghum. The reason for their popularity is that such soils can be worked soon after the first rainfall and they preserve moisture quite well. This is very relevant today as rainfall has dropped in the past few decades, while the more fertile clayey soils can become water-logged when rainfall is abundant (Kanté & Defoer 1994: 9).

In summary, agricultural expansion has far outweighed the effects of intensification in the process of agricultural growth in South Mali over the past few decades. Farmers are influenced by various economic, ecological and political factors in their decisions to either expand the area they cultivate or to intensify land use, which may lead to very diverse responses from individual farmers. Factors include price incentives for cotton growing; securing food security; the availability of labour, cattle and agricultural equipment; field management; soil fertility and other characteristics; and drought. In contrast to the CMDT's goal of intensification, agricultural expansion for cotton cash growing and cereal subsistence farming has been facilitated by its policy to promote animal traction.

Land-use practices according to socio-ethnic group

An interesting question is who exactly expands or intensifies land use. In some studies on soil fertility decline in South Mali, which were conducted against the backdrop of the Malthus-Boserup debate, distinctions were made between rich and poor farmers but these were drawn up using different criteria (Sissoko 1998, Nikièma 1999, Kanté 2001, Moseley 2005). In neo-Malthusian thinking, it is the poor farmers who are the wrongdoers. They are assumed to expand the areas under agriculture and overexploit the soil as they are thought to have a short time horizon that is needed for day-to-day survival and they do not have the resources to invest in sustainable soil management practices (Defoer *et al.* 1996: 3, cf. Schwartz 1996 for Burkina Faso). In this line of reasoning, poverty and soil depletion are considered a vicious circle.

By contrast, Boserup-oriented scholars tend to blame wealthy cotton farmers for soil degradation as their soil-management practices, such as the use of chemical inputs and animal traction, are more detrimental than those of the poor who grow less or even no cotton (Moseley 2005, van der Geest 2011 for a Ghanaian

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the balance in a specific field or plot becomes negative in the years when cereals are grown (Scoones & Toulmin 1999: 52-53).

case). However, this vision is not convincing as no significant differences between the poor and the wealthy with respect to soil nutrients were found.[20] Some believe that wealthy households may still have higher yields but a decline in soil fertility will ultimately affect their prosperity (Ramisch 2001: 19). It is difficult to assess who is right or wrong – the neo-Malthusians or the Boserupians. Possibly the distinction between wealthy and poor families is not the most pertinent and other additional factors are more important.

The focus in this chapter is on the influence of farmers' local power positions and access to land on land-use strategies regarding agricultural expansion and/or intensification. Quantitative data on the various socio-ethnic groups concerning land size and cotton production are therefore considered. Land size refers to the total area of cultivated and fallow land and gives an indication of agricultural expansion, while cotton production (understood from yields and the share of the cultivated area under cotton) can be considered an indicator of agricultural intensification. Unfortunately, data gathered on other relevant indicators for intensification, such as cattle ownership and the availability of agricultural equipment, were incomplete and too unreliable to be of any use.[21]

Agricultural expansion: Land size

A statistical analysis was done at the family level (n=114)[22] and the individual level to compare differences in land size between the socio-ethnic groups in the hamlets. A simple statistical Student's t-test was first used to determine whether the variable socio-ethnic group influences land size. Next, a linear regression analysis was done to measure the specific influence of other variables such as family size, village and year of settlement. The p-values presented provide information on the reliability of the result. In general, a p-value smaller than 0.05 means that the variable has a significant effect on land size, while a p-value higher than 0.05 indicates that the effect was estimated less precisely.

Farming families in hamlets in Mperesso and Finkoloni have on average about 14 ha, i.e. 11 ha of cultivated land and 3 ha of fallow land. In other studies in the area, similar data were found even though it was not always clear whether they

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[20] Moseley (2005) conducted his study in eight villages, including Mperesso and three neighbouring villages. He classified people in three wealth groups (rich, intermediate and poor) based on local perceptions of wealth such as the number of cattle owned, housing materials (e.g. a tin roof) and other types of productive and non-productive physical assets (e.g. ploughs, motorbikes, bikes).

[21] In another study in Mperesso, it was found that farming units (n=19) have on average 12.2 head of cattle and 12.0 sheep and goats (Dembélé *et al*. 2001: 90). But no differentiation was made between farmers.

[22] Bamana migrants are excluded from the statistical analysis as the number of hamlets is low (one family in Mperesso and two in Finkoloni) while the average family size is high, particularly in Finkoloni (32 persons), which would distort the results.

referred to the cultivated area only or to the total area available.[23] The present study shows that there are large differences in total land size, ranging from 2 ha to 48 ha, including fallow ranging from zero to 30 ha (see Table 8.1). Interviews also revealed that, despite rising pressure on land, some autochthonous families have land that has been fallow for more than 20 years.

When making a breakdown according to socio-ethnic group, it appears that autochthonous Minyanka families have on average 16.5 ha in Finkoloni and 17.6 ha in Mperesso, which is more than Dogon migrants (7.5 ha, p=0.00). This is also more than Fulani migrants in Mperesso (8.7 ha, p=0.01) (see Table 8.1). As the p-values are lower than 0.05, these differences are statistically significant. They are also significant for the separate data on cultivated areas (see Table 8.2) and fallow areas (see Table 8.3). In Moseley's (2005: 44) abovementioned study, a comparable difference was found between wealthy families (18.9 ha) and poor families (7.2 ha).

Table 8.1 Mean cultivated and fallow areas (ha) in Finkoloni and Mperesso hamlets (South Mali), according to socio-ethnic group (n=114) (2001)

	Finkoloni				Mperesso			
	n	mean size (ha)	range (ha)	SD (ha)	n	mean size (ha)	range (ha)	SD (ha)
Minyanka autochthons	56	16.5	2.0-40.0	9.3	16	17.6	5.8-48.0	10.2
Minyanka migrants	11	10.5 (p = 0.09)	3.0-32.0	8.8	8	13 (p = 0.36)	3.0-33.5	11.0
Dogon migrants	9	7.9 (p = 0.00)	5.0-14.5	2.9	4	6.9 (p = 0.00)	3.0-11.0	3.1
Fulani migrants	5	8.5 (p = 0.13)	4.0-20.0	7.7	5	8.9 (p = 0.01)	4.3-14.5	4.4
Total	81	14.0	2.0-40.0	9.0	33	13.4	3.0-48.0	9.4

Source: Fieldwork data (2001)

When considering land size per capita, the differences between Minyanka autochthons and Dogon and Fulani migrants are less pronounced, which can be attributed to the simple fact that migrant families are, on average, smaller than autochthonous families (see Tables 7.1 and 7.2). Differences were statistically significant between autochthons (1.4 ha) and Dogon migrants and Fulani migrants (both 0.7 ha, p=0.01) in Mperesso only (see Table 8.4). In summary, land

[23] According to the FAO (2004: 13), an average family in southern Mali uses 11 ha of land for cotton, cereals and livestock, and Moseley (2005: 40) found in his study in Mperesso and the three other villages an average of 11.7 ha of cultivated area (n=68) between 1997 and 1999. By contrast, an average of 18 ha was found in another study (n=19) in Mperesso (Dembélé *et al.* 2001: 90).

Table 8.2 Mean cultivated area (ha) in Finkoloni and Mperesso hamlets (South Mali), according to socio-ethnic group (n=114) (2001)

	Finkoloni				Mperesso			
	n	mean size (ha)	range (ha)	SD (ha)	n	mean size (ha)	range (ha)	SD (ha)
Minyanka autochthons	56	12.5	2.0-35.0	7.6	16	12.7	4.0-21.5	15.3
Minyanka migrants	11	9.3 (p = 0.31)	3.0-30.0	8.4	8	11.7 (p = 0.77)	3.0-33.5	10.8
Dogon migrants	9	7.2 (p = 0.00)	5.0-10.0	1.7	4	6.6 (p = 0.00)	2.5-11.0	3.2
Fulani migrants	5	7.8 (p = 0.29)	4.0-17.0	6.2	5	7.4 (p = 0.04)	3.5-12.5	4.5
Total	81	11.0	2.0-35.0	7.3	33	10.8	2.5-33.5	6.5

Source: Fieldwork data (2001)

Table 8.3 Mean fallow area (ha) in Finkoloni and Mperesso hamlets (South Mali), according to socio-ethnic group (n=114) (2001)

	Finkoloni				Mperesso			
	n	mean size (ha)	range (ha)	SD (ha)	n	mean size (ha)	range (ha)	SD (ha)
Minyanka autochthons	56	3.9	0-20.0	5.0	16	6.3	1.5-30.0	7.5
Minyanka migrants	11	1.2 (p = 0.00)	0-2.0	0.9	8	1.8 (p = 0.11)	0-5.0	2.5
Dogon migrants	9	0.8 (p = 0.00)	0-6.5	2.0	4	0.3 (p = 0.01)	0-1.0	0.5
Fulani migrants	5	0.8 (p = 0.01)	0-3.0	1.5	5	1.5 (p = 0.04)	0-3.0	1.2
Total	81	3.0	0-20.0	4.5	33	3.2	0-30.0	5.5

Source: Fieldwork data (2001)

Table 8.4 Mean cultivated and fallow areas per capita (ha/person) in Finkoloni and Mperesso hamlets (South Mali), according to socio-ethnic group (n=114) (2001)

	Finkoloni				Mperesso			
	n	mean size (ha)	range (ha)	SD (ha)	n	mean size (ha)	range (ha)	SD (ha)
Minyanka autochthons	56	1.0	0.3-3.1	0.5	16	1.4	0.4-4.0	1.0
Minyanka migrants	11	0.9 (p = 0.53)	0.4-1.7	0.3	8	0.8 (p = 0.08)	0.3-1.5	0.4
Dogon migrants	9	0.9 (p = 0.64)	0.5-2.1	0.5	4	0.7 (p = 0.01)	0.4-1.2	0.3
Fulani migrants	5	0.7 (p = 0.37)	0.5-2.1	0.4	5	0.7 (p = 0.01)	0.5-1.1	0.2
Total	81	0.9	0.3-3.1	0.5	33	1.1	0.3-4.0	0.8

Source: Fieldwork data (2001)

size is more or less in line with family size and not particularly related to socio-ethnic group at the individual level.

A linear regression analysis was also done to determine the specific influence of a number of variables on the variations in family land size, looking at differences in the year of settlement (whether people who settled earlier in hamlets had more land on average than latecomers), family size (whether larger families had more land on average than smaller families), village (whether farmers in Mperesso had more land on average than those in Finkoloni) and socio-ethnic group (whether autochthonous Minyanka had more land on average than Fulani, Dogon and Minyanka migrants).[24] Table 8.5 shows the results of the regression analysis. The figures in the second column are the coefficients obtained for the independent variable in this analysis, which indicate the influence of a change in this variable if all the other variables remain the same.

Table 8.5 Linear regression analysis on land size (ha) in Mperesso and Finkoloni hamlets (n=114), South Mali (2001)

Variable	Coefficient	p-value
Family size	0.41	0.00
Year of settlement	- 0.10	0.13
Minyanka migrants	- 3.73	0.06
Fulani migrants	- 6.03	0.02
Dogon migrants	- 6.88	0.00
Finkoloni village	1.38	0.31

Source: Fieldwork data (2001)

The results of the linear regression analysis confirm earlier findings. Land size is primarily determined by family size: each additional person in a family means an additional 0.41 ha of land (p=0.00). The analysis also confirms that socio-ethnic group matters at the family level: in comparison to Minyanka autochthons, Fulani families have on average 6.03 ha less land (p=0.02) and Dogon families 6.88 ha less land (p=0.00). A smaller and less statistically significant difference was found with Minyanka migrant families who have 3.73 ha less land on average (p=0.06). In addition, there are no statistically significant differences between the two villages in mean family land size (the p-value of the coefficient is 0.31, which is not significant). And in contrast to what one might expect, the same goes for the specific year of settlement: farming families who moved into

[24] For village and socio-ethnic groups, dummy variables were included that equal one when a family resides in a particular village or is a member of a particular socio-ethnic group, or zero otherwise. Since four socio-ethnic groups have been distinguished and two villages, it is sufficient to include three dummies on ethnicity and one for the village. The influence of the dummies is then measured relative to the omitted dummy, in this case the autochthonous Minyanka and Mperesso Village.

hamlets at an early stage do not necessarily have more land than those who settled later.

Agricultural intensification: Cotton production

Whether socio-groups differ regarding cotton production, which is considered an indicator for agricultural intensification, was also examined. Cotton data were obtained for Mperesso only.

The books of the two village associations in Mperesso for the 2001/2002 season show that cotton farmers (n=64)[25] grew on average 3.9 ha of cotton, with average yields of 1,019 kg per ha. On average, 32% of farmers' gross incomes were spent on inputs, resulting in a net revenue of EUR 782 (see Table 8.6).

Table 8.6 Cotton data for Mperesso, South Mali (n=64) (2001/2002 season)

Cotton farming units	Average	Range	SD
Area under cotton (ha)	3.9 ha	1.0 – 14.0 ha	2.7 ha
Total cotton production (kg)	3604 kg	254 – 13,196 kg	2844 kg
Cotton yields (kg/ha)	1019 kg/ha	281 – 1895 kg/ha	359 kg/ha
Cotton revenues (in EUR)	EUR 782	EUR 62 – 2917	EUR 664
Expenditures on inputs, credit (EUR)	EUR 304	EUR 14 – 1035	EUR 197
Net cotton revenues per ha (EUR/ha)	EUR 210 per ha	EUR 23 – 450 per ha	EUR 94 per ha
% of gross revenue spent on inputs	32%	8% - 72%	13%

Source: Village association books, Mperesso (2001/2002 season)

The village books do not indicate the area cultivated with cereals (only that maize is a cash crop) and other crops, but from another study in Mperesso it is known that about half of the cultivated area is devoted to cereals (sorghum, maize and millet), a third to cotton and the remainder is used for minor crops such as groundnuts (Dembélé *et al.* 2001: 88). The area used for cereals thus exceeds the area under cotton. This also corresponds with our own data obtained in the hamlets in Mperesso village territory that show that farmers grow on average 3.3 ha cotton (31% of the cultivated area) and 6.2 ha of cereals (57%), while another 1.8 ha (12%) is devoted to minor crops (groundnuts, beans) (see Table 8.8). These findings are in line with the 2002 CMDT data for the entire southern area in Mali, which indicates that 29% of the cultivated area is under cotton, 53% under cereals and 18% is used for crops such as rice and beans (Bodnár 2005: 34-35).

Cotton yields of approximately 1000 kg/ha were also found in other studies in the same period.[26] Yet the variations in cotton area and production among farm-

[25] 72 farming units were registered in the village books but data were incomplete for 8 of them.

[26] For example, Ton (2004: 97) found 1000 kg/ha for West Africa in 2001. Similarly Bodnár (2005: 52) found, on the basis of CMDT data, about 1000 kg/ha for southern Mali in 2002.

ers in Mperesso was large. When making a differentiation according to ethnic group,[27] Minyanka farming units have larger areas under cotton, which is possibly related to family size. In contrast to what one might expect, however, Minyanka cotton yields are on average lower than Dogon cotton yields, although the differences are probably not significant and yields vary significantly within all the ethnic groups (see Table 8.7). It should be noted that not all farmers grow cotton, in Mperesso. An estimated 10% do not and they are therefore not recorded in the village association books.

Table 8.7 Cotton production in Mperesso (South Mali), according to ethnic group (n=64) (2001/2002 season)

	n	Area (ha)	Yield (kg/ha)	Range in yield (kg/ha)	SD (kg/ha)
Minyanka	54	4.2	998	281-1895	468
Fulani	5	2.0	982	302-1308	712
Dogon	5	2.6	1063	435-1686	419
Total	64	3.9	1019	281-1895	359

Source: Village association books, Mperesso (2001/2002 season)

When breaking the figures down into socio-ethnic group, autochthonous Minyanka families turn out to have larger areas under cotton (4.7 ha) and cereals (7.1 ha) in comparison with migrants. The difference with Dogon migrants is significant for cotton (1 ha, p=0.00) and cereals (4.3 ha, p=0.01). Compared to the Fulani, the difference is only significant for cotton (1.4 ha, p=0.00).[28] As mentioned earlier, this difference in land holding might be related to family size. But Minyanka autochthonous families also have a larger proportion of the area they cultivate under cotton (37%) compared with Dogon and Fulani migrants who have (15%) and (19%) respectively (see Table 8.8). In Moseley's 2005 study, it was noted that farming units grow on average 3.7 ha of cotton (29% of their cultivated area), with a larger variation between poor families (2.0 ha under cotton, which is 24% of their cultivated area) and rich families (6.2 ha under cotton or 32%).

Although Minyanka autochthonous families have on average bigger fields in which a larger share is under cotton in comparison with Fulani and Dogon mi-

[27] Data obtained from the village association books did not allow us to establish a difference between Minyanka autochthons and Minyanka migrants.

[28] The average area under cotton among Dogon farmers is lower than the village association data indicate because not all Dogon in the hamlets grow cotton. The discrepancy in the two data sets with regard to the average area under cotton for the Fulani cannot be explained.

Table 8.8 Mean field size (in ha) and share (in %) in cotton and cereals in farming hamlets hamlets in Mperesso (South Mali), according to socio-ethnic group (n=38) (2001)

	Cotton				Cereals				
	Field (ha)	Range (ha)	SD (ha)	Share (%)	Field (ha)	Range (ha)	SD (ha)	Share (%)	Total* (ha)
Minyanka autochthons (n=16)	4.7	1.0-10.5	2.7	37	7.1	2.5-11.0	2.5	56	12.7
Minyanka migrants (n=8)	3.7 (p=0.58)	0-12.0	4.3	32	7.3 (p=0.93)	3.0-19.0	5.5	62	11.7 (p=0.77)
Dogon migrants (n=9)	1 (p=0.00)	0-4.0	1.4	15	4.3 (p=0.01)	2.0-6.5	1.8	65	6.6 (p=0.00)
Fulani migrants (n=5)	1.4 (p=0.00)	0.5-3.0	1.1	19	4.8 (p=0.25)	3.0-9.5	3.1	65	7.4 (p=0.04)
Total	3.3	0-12.0	3.1	31	6.2	2.0-19.0	3.4	57	10.8

Source: Fieldwork data (2001)
* total includes minor crops

grants, the differences in yields (with the Dogon showing the highest yields) are probably not significant.

To summarize, the statistical analyses show that the variable socio-ethnic group has not influenced the extent of agricultural expansion as differences in land size per capita are not statistically significant. In addition, although the Minyanka autochthons devote a larger share of their cultivated area to cotton in comparison with Fulani and Dogon migrants, they do not produce more cotton per ha, which means the relationship between socio-ethnic group and agricultural intensification is ambiguous.

Divergent trends in land-use practices and mobility

Both autochthons and migrants are intensifying their use of land but in different ways. As the Minyanka are more involved in cotton growing and have more cattle, it is likely that they are intensifying along capital-led lines by using chemical fertilizers and pesticides in combination with crop-livestock integration. Fulani cattle owners are also likely to intensify by applying manure, while the Dogon (who are renowned for their hard work) are assumed to intensify mainly through higher labour inputs in the absence of agrochemical inputs and cattle. One might wonder why the Dogon seem to be less involved in cotton growing compared with the Minyanka. More generally, Dogon farmers in South Mali seem to be poorer and more vulnerable than other farmers in the area who also have less aricultural equipment and livestock. Some Dogon farmers reported that they sometimes do not even produce enough cereals for themselves for a whole year, which is quite exceptional in southern Mali.

Having left the Sahel in the 1970s and 1980s because of prolonged droughts, Dogon farmers began their lives again in the south but were very poor and had few agricultural assets. The most convenient way of escaping such a situation is to grow cotton to generate a cash income but this requires capital to invest in basic agricultural equipment. To avoid this initial trap, farmers can request credit from the CMDT cotton company to invest in agriculture but many are reluctant to apply for this because if they cannot repay their loan, they will be forced to sell their agricultural equipment at unfavourable prices. For this reason, it may take many years before a Dogon migrant starts to cultivate cotton. One claimed that it was only after his sons had become old enough to earn money as herders that he was able to invest in a plough and thus make the transition from the hoe to the plough. Some never start growing cotton. In Mperesso, for example, four out of nine Dogon farmers do not do so and, if they do, their cotton fields are generally small. It is important to emphasize here that the CMDT has not helped poor (Dogon) farmers to overcome the poverty gap either as its policy was always aimed at developing a class of wealthy (Minyanka) farmers who would be able to intensify their activities by growing cotton. The CMDT has, probably unintentionally, discriminated against (Dogon) migrant farmers in their economic development.

But there is more to the story. The way the various groups intensify land use is also related to the quality of the land they occupy. And this is related to someone's local power position and access to land, as described above. Being considered latecomers in an area *vis-à-vis* the Minyanka, Dogon and Fulani migrants may be expelled from the land they cultivate by the Minyanka landowner from time to time. But the new land they are allocated is increasingly characterized by unfavourable soil properties for farming, while poor Dogon in particular are unable to mitigate the decline in soil fertility. The fields are too small to let any part lie fallow, they do not have cattle to provide manure and they are short of the necessary means to buy chemical fertilizers. Dogon migrants thus seem to be trapped in a vicious circle due to the double handicap they face, namely a lack of capital to invest in cotton growing and the fact that the way (good) farming land is allocated along the lines of seniority works to their disadvantage.

Given the precarious local political and economic position of Dogon migrants within a context of explosive population growth in South Mali (see Chapter 3), it is expected that, although crop yields were probably not (yet) low when this fieldwork finished in 2002, the Dogon will have had no other option left in the past years than to exhaust their soils. This may have forced some or maybe even many of them to move on. The initial outflow of Dogon in Finkoloni in the late 1990s should be seen in this light. A mobile farmer's situation becomes even worse if he has to move to the territory of another village as this automatically

positions him (as a stranger) at the bottom of the village hierarchy where he has to start again from scratch.

As land becomes more scarce and good farming land is allocated according to seniority and while the socio-ethnic groups have different opportunities to intensify land use, two divergent trends of land use in a village territory seem to be taking place. These correspond to the processes Homer-Dixon (1999) predicted for the 'powerful' and 'less powerful' in reaction to 'environmental scarcity', which includes land scarcity (see Chapter 1). The first trend refers to the powerful (i.e. autochthons) who are expected to apply territorial strategies to maintain and improve their economic situation. This is what Homer-Dixon calls 'resource capture'. Territorial strategies in the South Malian context include occupying large tracts of fertile agricultural land by using ox ploughs (expansion), setting up satellite hamlets on land as signposts, permanent cultivation through the intensification of land use, and allocating only marginal land to people of an inferior status, such as migrants and youngsters. In addition to Homer-Dixon's theory, by allocating reserve fallow land to strangers and thus constructing host-stranger relationships as a territorial strategy, autochthons aim to improve their local political position *vis-à-vis* other autochthons.

The second trends concerns less powerful migrants (and autochthonous youngsters) who find themselves trapped in a vicious circle of poverty, depleted soils and an inferior local power position that prevents them from gaining access to better farming land. This process is similar to what Homer-Dixon calls 'ecological marginalization'. As the lower-ranked are increasingly pushed onto marginal lands due to their inferior political and economic status and within a situation of increased land pressure in South Mali, they will be increasingly forced to move on and search for land elsewhere. Intensification is not a feasible option for them. Being the last to settle and therefore constituting the bottom layer in the social hierarchy of the new village, they expect to be further marginalized.

Conclusions

The agricultural colonization process that has taken place in South Mali since the 1960s has significantly changed the landscape: the area under cultivation has expanded, farming land has become fragmented and numerous farming hamlets have been established. Arable land has been allocated along the lines of seniority, with those ranked lower increasingly being settled on marginal land. Alongside these processes, the local political landscape has also shifted as the power to allocate land to newcomers has been decentralized to a lower level. This has provoked territorial strategies by first-comers. Host-stranger relationships are being constructed around fallow land and are playing a central role in processes of 'mobility by levitation' (Kopytoff 1987).

Agricultural growth in South Mali has mainly proceeded along the lines of agricultural expansion in spite of CMDT aims at intensification. In farmers' decisions to expand or intensify, various factors play a role and individual responses to external conditions are therefore diverse. While all farmers in the region are subsistence farmers whose primary goal is food security, the Minyanka are also more focused on cash cropping than Dogon and Fulani migrants.

The influence of local power positions on agricultural colonization is ambiguous. Socio-ethnic groups do not differ significantly in the amount of land they have per capita and farmers from all socio-ethnic groups expand the area they cultivate as their families grow in size. However, while Minyanka autochthons devote a larger share of their cultivated area to cotton, they do not seem to produce higher yields than migrants. Farmers from different socio-ethnic backgrounds were found to have different pathways of intensification, with Minyanka autochthons and Dogon migrant farmers being at opposite ends of the spectrum. While the Minyanka mainly intensify along capital-led lines as a result of cotton growing and cattle keeping, the Dogon mostly intensify by using higher labour inputs. The Dogon are trapped in a vicious circle: they are too poor to be involved in cotton growing but this might in fact help them to escape from poverty. In this respect, the CMDT must bear some of the responsibility as it has always focused on wealthy farmers only, which meant in practice discriminating against migrant farmers and increasing the economic differences between autochthons and migrants.

Farmers have divergent local political positions and these influence their access to suitable farming land and, through differences in cotton production, also affects their pathways of intensification. Within the current context of explosive population growth and rising land pressure, it is expected that the two divergent processes are taking place correspond with the two processes that Homer-Dixon (1999) labelled 'resource capture' (by the powerful) and 'ecological marginalization' (by the powerless). Dogon migrants in particular will increasingly have no option left than to deplete their land while autochthons will be better able to preserve their soil's fertility. This has consequences for farmers' mobility: while migrants (but also other lower-ranked people in the village hierarchy such as young autochthons) will have to become repetitively mobile, the higher-ranked autochthons will aim to immobilize as geographical mobility by crossing village territory boundaries importantly involves political and economic downward mobility. If this scenario of dichotomization happens, a migratory drift of marginalizing farmers ('rural proletariat') is to be expected.

In the next chapter, the role of conflict will be added to the dynamics of mobility of farmers, access to land and land use. A case study about a conflict over land and power in Mperesso Village in South Mali is presented that has intensi-

fied within the context of administrative decentralization. Although there are many differences with the conflict in Central Mali, a number of remarkable similarities will be shown to exist too.

Photo 8 A Minyanka family busy harvesting sorghum, a major cereal crop in South Mali

Photo 9 A Dogon migrant farmer in his (1 ha) cotton field in Mperesso village territory in South Mali, although the Dogon are generally less involved in cotton growing than the Minyanka

Photo 10 A relatively wealthy Fulani family group in the hamlet they moved to, probably after losing their cattle and or/or as a result of increasing land pressure (South Mali)

Photo 11 Integrating crops and cattle, often purchased with the profits from cotton sales, that eat the millet stalks after harvesting and provide manure to help fertilize the fields (South Mali)

Photo 12 The cotton harvest, which has been collected and weighed, waiting to be transported by truck to the CMDT cotton factory in Koutiala Town (South Mali)

Photo 13 An influential autochthonous Minyanka village elder with one of his grandchildren in his village in South Mali; in comparison to Central Mali, local power positions are better defined

Photo 14 Dogon women and children in their hamlet in South Mali

9

Conflict over land and power against the backdrop of administrative decentralization (South Mali)

Introduction

There was a serious conflict simmering in Mperesso Village in 2001 and 2002 following a decision by the village elders to take back a piece of land from a villager to allow for the building of a school.[1] Or at least, that was what the conflict seemed to be about at first sight. Below the surface, and similar to the conflict over land encountered in Coofi in Central Mali (see Chapter 6), the issue proved essentially to be about local power positions and was an on-going struggle in which many others were directly or indirectly involved. In fact, the conflict had even divided the village into two camps: one that supported the elders and the other that had closed ranks around the villager.

This particular conflict in South Mali had a special dimension to it as it was taking place against the backdrop of administrative decentralization reforms in Mali. Administrative decentralization swept over many countries in West Africa like a tidal wave in the 1990s but was still new in Mali when the land dispute in Mperesso erupted since local councils had only been elected for the first time in 1999 (see Chapter 2). However, the local context in which the administrative decentralization reform was introduced was not a power vacuum. Administrative decentralization in essence constitutes a new source (or layer) of power (see Marchal 1983, Izard 1985, Fay 1995) that is added to the socio-political arena in which certain powers are already being exercised (Blundo 1996, 1998, Bier-

[1] This chapter is based on K. Nijenhuis (2003), Does decentralization serve everyone? The struggle for power in a Malian village, *The European Journal of Development Research* 15(2): 67-92.

schenk & Olivier de Sardan 1997, 1998). And when new institutions are introduced, the old ones do not automatically disappear (Kaag 2001). In the conflict in Mperesso, two quite different bodies of local power met: power based on the outcome of democratic municipal elections (as administrative decentralization reform stipulated) and traditional power that was based on seniority.

The case study of the conflict presented in this chapter shows how administrative decentralization works out the power configuration in a specific localized context (see Béridogo 1997). Several questions are raised. How does the conflict evolve as a process and what is the role of administrative decentralization in the strategies that actors develop to maintain or regain their power positions? Who are the winners and the losers in the arena? And more specifically, how has administrative decentralization affected migrant farmers? For example, one of the formal aims of the process was to encourage participation in local government and thus reduce the exclusion of marginal groups (Kassibo 2001). Do migrants, who have settled later and thus hold an inferior position locally, have the same right to be a municipal councillor? We also want to know what the implications of power conflicts fuelled by the administrative decentralization reform are for migrant farmers' access to land that is mediated by their relationship with their host. As described in the previous chapter, migrant farmers (and the Dogon in particular) tend to become more mobile within a context of increasing land pressure, and conflict might be an additional factor that forces them to move away from an area.

Local level authority in Mperesso

Mperesso considers itself a 'founding' village, i.e. the oldest village for miles around and the one to which all the land traditionally belongs. New villages always had to ask permission from Mperesso's village chief before settling on its territory. Various versions of its settlement history can be traced back to the second half of the nineteenth century. The original founding lineage is unclear but oral history recalls that its members were chased away during the Sénoufou War of Kénédougou in 1898 (ESPGRN n.d.). The two lineages that settled first after this are nowadays considered the founding lineages and all families that wished to settle later had to ask permission from the oldest man in these two lineages, who is traditionally the animist earth priest. However with widespread conversion to Islam over the last few decades, this position has become vacant in Mperesso. Three other lineages originally joined the two founding lineages and, together, these five lineages live in the first ward and are considered autochthonous (first-comers).

The next phase in the village's settlement history was the start of a second ward some 100m west of the ward where the first six lineages had already set-

tled. Three came from the first ward, of which one is from the caste of bards (*griots*). Two other lineages settled in the village's second ward after their neighbourhood, some five km away, was destroyed in the aforementioned Sénoufo War at the end of the nineteenth century. These five lineages in the second ward are also considered autochthonous. In contrast, the members of the sixth family, which belongs to a different clan called Dembélé, are considered 'strangers' (latecomers). It is easy to distinguish autochthons from strangers in Mperesso Village as only the autochthonous families are called Coulibaly. All the other families, such as the Dembélé, are obviously from elsewhere and are therefore considered strangers.

Since the late 1960s, considerable numbers of Fulani, Dogon, Bamana and Minyanka have immigrated (see Chapter 7) and live in hamlets spread across the village territory. All these migrants are considered strangers by the Minyanka population living in the village, unless their mother is from the village originally. Among the migrants themselves, however, there is a noticeable distinction based on order of settlement. This sliding scale in 'strangerhood' is present in daily life, yet it is visible only in certain situations. During my fieldwork, for example, there were discussions about the development of a new cotton area near the village. The most appropriate place was close to a Dogon farming hamlet because the site was near a dirt road and CMDT trucks would have easy access when collecting the cotton. However, neighbouring Minyanka and Fulani farmers did not agree with the chosen site because the Dogon farmer had settled there after they had.

Only autochthons have authority in the village. The village council consists of the elderly administrative village chief called Lamine, who is about 95 years old, and his four councillors, who are considered as the representative body of the village.

Conflict over land

The building of a school

In Mperesso, there was a dispute going on over land in 2001 (when I was conducting fieldwork) between the village elders and a farmer called Drissa Coulibaly. He is a descendant of one of the first families that settled in Mperesso and the elders and Drissa live in the village's first ward. A year earlier, the village elders had demanded the return of one of Drissa's fields in order to build the village's first primary school there. Within the context of the administrative decentralization reform, many new schools were being built in Mali at that time and the field concerned was centrally located adjacent to the village's main ward. It is surprising, however, that a fertile and profitable two-hectare field where cotton was being cultivated in rotation with sorghum was chosen as the site of the new

school. Drissa, supported by his eldest (half-)brother Yacouba, did not agree with the choice of field and when he heard that his field would be used, he suggested a nearby fallow field instead that belongs to his lineage. But the elders refused. This strengthened Drissa's impression that he was being victimized by the village.

Who has control over the field?

The oldest person in Drissa and Yacouba Coulibaly's lineage is the 82-year-old Zoumana Coulibaly and he played a crucial role in reclaiming the field for the village. He is an influential village elder and used to be the former village chief's right-hand man. In fact, Zoumana 'gave the field to the village', it is said, without consulting the two brothers.

Drissa and Yacouba were contesting whether Zoumana had the right to transfer the field to the village. According to them, this particular field was not an ordinary infield that automatically fell under the control of the lineage chief. They claim that it had never been under the control of the lineage chief but that of the family head. They argue that the extended family had spit up into smaller families a long time ago, 'even before Mali's independence (in 1960)'. Their father, the former village chief and a soldier in the French army (*ancien combattant*), had started cultivating this plot of land after the split. Their father had even planted baobab trees and *roniers* (a species of palm), which indicates that he had control of the land. These now-huge trees mark the field's boundaries.

In addition, Drissa and Yacouba argue that the location of the field to the north of the village's first ward indicates that it is not an infield. As a result of expansion to the north in the direction of the field, the open space between the village and the field has completely disappeared. 'All infields have been built on,' says Yacouba. The old Zoumana also confirms that all construction between the village shelter and the northern part of the village is 'new', meaning it has been built since the 1970s. The difference between the old and the new parts are also visible; the compounds and routes in the northern part of the first ward look more spacious than those on the southern flank.

Zoumana has, naturally, a different view of the whole situation. According to him, it was a lineage field under his control. He argues that Drissa and Yacouba's father, the former village chief, was their stepfather and had married their mother but died without having any children of their own. After his death, the field therefore returned to the lineage and was not inherited by Drissa and Yacouba. Drissa had indeed occupied the field and nobody had prevented him from doing so because it was a lineage field. Obviously, Drissa was entitled to cultivate the field for the time being.

The conflict as an impasse and the way out

After the village had reclaimed the field, construction work was able to start in 2000 but it was interrupted halfway through. To claim a part of the field, Yacouba had thrown mud bricks on it but the villagers had retaliated by destroying them. Yacouba took the conflict to the district chief, who is the administrative chief at district level (*commandant du cercle*), who advised him to find a solution at village level. They proposed dividing the field in two equal parts, one for the school and one for Drissa or giving 30 metres extra to the school, but all these initiatives failed to find a compromise. The village elders rejected these proposals since they believed 'the school needs an entrance facing the village'. It was clear they did not want Drissa and Yacouba to occupy the parcel of land between the school and the village. They had reached an impasse. The next step in conflict conciliation was a formal legal process at the District Court but no court ruling had been given when I left Mperesso at the end of March 2001, and wild sorghum stems were towering above the skeleton of the half-constructed school.

When I returned in 2002 however, it proved that a way out of the impasse had been offered by the sub-district authorities. In their view, the two hectares of Drissa's field were not sufficient for school grounds and at least four hectares were needed. To enlarge the site, two adjacent plots had been confiscated, one from each of two other families. Drissa was relieved about this intervention since it was not just his family that had to suffer in the construction process. He no longer feels victimized and is resigned to the construction of the school, although the school is still too close to the village in his view. 'A distance of a few km between the village and the school would have been normal,' he said sulkily.

It should be noted that Drissa's family had already taken countermeasures to compensate for the loss of their land. A fertile one-hectare plot of land lent to a villager from the opposing village association had been reclaimed.

The underlying conflict over power

At first sight, the above-mentioned conflict seems an isolated incident concerning the repossession of a parcel of land. It does not seem extraordinary and similar conflicts are to be found all over West Africa. On closer inspection, however, the land conflict turns out to be only one stage in a bigger, political conflict in the village that began in the 1970s and resurfaced in 1997. The land conflict in fact just hides the political conflict. This is in line with Benjaminsen & Lund's (2001b: 11) observation that 'seen from below, natural resources management is always the object of power struggles and politicization'. The present political conflict has strong connections with local power relations, the administrative decentralization reforms and the results of municipal elections (Shipton & Goheen 1992, Juul 2001, Lund 2002, Hammar 2002).

Several actors are playing a role in the conflict. Firstly, it is between the village elders and Drissa Coulibaly. The village elders includes the village chief and all the other lineage chiefs who play the role of the traditional authorities with power and status based on seniority. By contrast, Drissa Coulibaly can be considered a representative of the new, younger political elite in Mali. He has gained power thanks to the decentralization process. His political influence first started to become manifest in the village association, followed by success in the municipal elections. However, in the same way that the land conflict hides a political conflict, here too appearances are deceptive. The contradiction between the village elders and Drissa is not a simple dichotomy between tradition and modernity. Both the village elders and Drissa are using modernity as an instrument to reinvent tradition, i.e. they are using decentralization to strengthen or bring back inherited local power.

Drissa took revenge for the village chieftaincy being taken from his family several decades before by becoming a municipal councillor in 1999. He thus bypassed the local authorities in a modern way. The village elders are, in turn, doing everything they can to minimize Drissa's influence and power: they are adopting several strategies – traditional and modern – to reduce his powers. The strategies form the subsequent stages in the conflict, of which the withdrawal of land is just one step. First, they replaced Drissa as the secretary of the village association and then they took back his field before demanding a change of municipality.

The village elders and Drissa are not the only actors involved in the political conflict. Others include the village associations; the CMDT cotton company; the ADEMA (*Alliance pour la Démocratie au Mali*) and UDD (*Union pour Démocratie et Développement*) political parties; two municipalities; the intra-local Siwaa Committee on the management of natural resources; the sub-district chief; all the family chiefs in Mperesso; and the migrants dispersed over the village territory. The evolution of this political conflict follows below in chronological order after a discussion of the chieftaincy in Mperesso and the up-and-coming Drissa and the subsequent strategies undertaken by the village elders to reduce his influence.

Chieftancy in Mperesso

From colonial times until the 1970s, the village chief of Mperesso was always a customary village chief, namely the animist earth priest (*ningefolo*) and the administrative village chief (*kulèfolo*). The two functions were combined and were carried out by the oldest man in the two first-settled lineages in Mperesso. However, with the emergence of Islam in Mperesso in the 1950s, it has been increasingly difficult to designate a new village chief who is the oldest and also animist.

Nowadays, the majority of the population has converted to Islam and only a handful of the villagers are still animist.

The last village chief to hold the joint function was Drissa's stepfather but his descendants were too young to become chief when he died in the 1970s. Among them was Yacouba, Drissa's eldest (half-)brother but the elders and the administration did not allow Yacouba to become the new village chief. Instead, the elders soon appointed the current village chief, Lamine, who had been a village councillor. When the former village chief became too old to travel, Lamine and the slightly younger Zoumana represented the village. Lamine was considered a competent, autochthonous elder, even though he did not belong to one of the two founding lineages. As one of the first Muslims in the village, he refused to be the earth priest, wanting merely to be the administrative chief. The chieftaincy was therefore divided up and he gave the role of earth priest to his animist brother but he died within two years. The next two animists who the role was assigned to also passed away shortly one after another. With the sudden death of three consecutive earth priests, the villagers became fearful and blamed the deaths on the fact that the oldest person had not become earth priest. The post of earth priest has been vacant ever since. The administrative village chief is charged with allocating virgin land to newcomers and he settles conflicts over land, but without making sacrifices to the earth.[2] After all these years, Drissa and his brothers still see their family's loss of the chieftaincy as an injustice and are keen to see it returned one day.

Drissa's rise in the village association

Drissa Coulibaly is a 45-year-old farmer and was illiterate until he was taught to read by the CMDT cotton company, which set up a large literacy project in South Mali in order to create an executive framework for their commercial activities at a local level. Drissa is one of the few literate people in Mperesso and has, for this reason, simultaneously occupied many 'modern' functions, i.e. positions outside the traditional village organizational structures. His functions are all in some way or another related to the CMDT. For example, he was the secretary of the village association from 1982 (when he was only 25) until 1997, a function he took up just a few years after its creation. He has also been the secretary of the ZAER (*Zone d'Animation et d'Expansion Rurale)* inter-village cotton association, the local secretary of the SYCOV (*Syndicat des Producteurs de Coton et Vivriers*) union for cotton and food-crop farmers,[3] and the secretary of the independent PGR (*Projet de Gestion des Ressources)*, which gives financial advice to village

[2] Villagers, Muslims included, regret that because no sacrifices to the earth are being made anymore, conflicts over land are not being resolved and continue even after a court has announced its ruling.

[3] See Bingen (1998) for a study of the emergence of SYCOV as a political actor in the 1990s within the process of democratization and development.

associations. He is a man of influence. At the local level, his function as secretary of the village association is of particular importance.

A village association is the local link between cotton-growing farmers on the one hand and the CMDT and the associated agricultural credit bank BNDA (*Banque Nationale de Développement Agricole*) on the other (see Chapters 3 and 7). The board of the village association consists of a president, a secretary and a treasurer. The village associations are powerful at a local level, and board members such as Drissa Coulibaly play a key role in their activities. Members are the heads of, what is labelled in CMDT jargon, *exploitations* (cotton-farming units). The tasks of the village association are diverse: it distributes individually fixed quantities of seeds, chemical fertilizers and other inputs on credit to farmers; weighs the farmers' cotton and transports it by truck to the factory in Koutiala; and pays the farmers after the harvest. Cotton farmers can obtain agricultural tools and motor bikes on credit, and can access loans via the secretary of the village association.

The credit system is highly sensitive to corruption since the board of the village association has the power to facilitate the granting of loans in liquid assets as well as in kind (for example, agricultural tools, motor bikes, construction work). Underhand agreements are made between members of the village association's board, credit employees of the BNDA and merchants. Farmers often demand, and are offered, more credit than they can reasonably repay (Tefft 2000: 227). Moreover, the credit conditions offered may be very unfavourable, such as a three-year repayment period at an interest rate of 20% (ESPGRN n.d.). Farmers always come off worst and risk impoverishment. The corrupt practices generate bad blood in the villages and it is common for board members of village associations in South Mali to be accused of corruption.

Due to problems with the financial management of many village association boards and the bankruptcy of many village associations, the CMDT has been involved in a transition process that involves remodelling village associations into *Coopératives des Producteurs de Coton* (CPC) with stricter regulations and more autonomy in the selection of its members (Lacy 2008: 212).

The elders' first strategy and Drissa strikes back

One day in 1997 when Drissa was not around, some of the village elders (the village chief, the village chief's principal councillor Ali, his lineage chief Zoumana and two others) replaced him as secretary of the village association. The reasons given were that 'he had been secretary too long' and 'financial mismanagement', which may have been true. They also tried to remove him from the other posts he occupied, such as secretary of the cotton farmers' union SYCOV, but these attempts failed.

Drissa's power was not diminished. In 1999, he ran as a candidate for the ADEMA political party, together with the former president of the village association, in the first municipal elections to be held in Mali. The first councillor to the village chief, Ali Coulibaly, was running for the opposition party, the UDD. The lineage chiefs tried to convince everybody in the village to vote UDD, for 'the party of the chief', and even arranged cars from Koutiala to pick up supporters from outlying hamlets to take them to vote. In the past, all family chiefs had unanimously supported the UDD but this changed a couple of years ago when some moved over to the ADEMA. 'They don't like the village chief,' whispered the chief's principal councillor. He also blamed the large-scale break-up of families, claiming that: 'There is no consensus anymore'.

The village elders considered voting for the opposition, i.e. for the ADEMA, to challenge village hegemony. According to them, the village was too small to have several political parties: 'We are one force'. They also see dissident voting within one nuclear family as negative. However, their efforts to defeat the ADEMA were in vain. Although the vast majority in Mperesso voted UDD, Drissa became a councillor at the municipal as well as at a district level because the ADEMA won both elections. To the elders' frustration, the ADEMA won 10 of the 17 municipal council seats, whereas the UDD got only four. It was rumoured in the village that Drissa had become a councillor because of his personal links with the mayor, whose wife is Drissa's sister. Drissa describes these rumours as nonsense because 'it was the party that nominated me, not the mayor'.

The village association and the village split

The outcome of the municipal elections in Mperesso had considerable impact. A year after Drissa's replacement, the village association split in two along party lines, and the village became polarized. The six farmers supporting the ADEMA, including the former president of the village association and three migrants (one Bamana and two Fulani), decided to set up their own village association. They accused the newly appointed secretary of the village association of financial mismanagement as he was said to have distributed the cotton revenues unfairly, with some farmers getting more and others less than they were entitled to, while others received nothing at all. ADEMA supporters in Mperesso had initially wanted to create a new village but the elders refused. In the newly formed village association, Drissa was willing to resume the function of secretary since he was the only suitable (and literate) candidate. The CMDT played no role in the break-up of the village association.

Subsequently, all the farmers in Mperesso who were members of the village association had to choose between the two associations and representatives of both tried to persuade people to join them. Many chose the old association on the

grounds of personal loyalties because – as in the case of voting UDD – the elders from the old village association argued that 'choosing the new village association was choosing against the chief'. At that time (2001), the majority of the heads of cotton-farming units were members of the old village association. However, support for the new association increased to more than a quarter of the cotton-farming units.

As a result of the village association's split, the village has also been divided in two and social relations between Drissa and the village elders have soured. Drissa's lineage chief Zoumana no longer even greets him if they meet. In addition, members of the new village association do not visit the elderly village chief anymore, although recently Drissa started to do so again. They even stopped paying taxes via the village chief, instead paying them directly to the mayor of the municipality, which is something the elders consider a refutation of the village chief's authority. Members of the new village association are not invited to internal village meetings anymore but one of them indicated that his social relations are still intact and he is always informed about name-giving ceremonies and funerals.

Whatever the case may be, the conflict does not seem to be affecting the young people in the village. This is apparent from the recent construction of Drissa's new house: not only did young men from the new village association assist him but some from the old association also joined in. Drissa confirmed this: 'The village association problem is a problem at the level of the elders, not between the young people'. It was also remarkable that the village chief's son first introduced me to the secretary of the new village association and only later to the secretary of the old village association.

Surprisingly, news of the division of the village association has not yet spread everywhere. An example is EDP (*Environnement et Développement Paysan*), a Swiss-funded non-governmental development organization (NGO) in Koutiala that wanted to construct a dam in the village with part of the financing coming from the village association. They mistakenly saw the village authorities as a representative body (Ribot 1999), not knowing that information would not be passed on to part of the village, i.e. to the members of the new village association. As a result, only a few older people (who belong to the old village association) attended the meeting.

The position of migrants in the conflict

The consequences of the split appear to be most far-reaching for migrants living in hamlets outside the village. Their tenure is insecure because they have borrowed land from villagers and this can be withdrawn at any time if they do not behave 'correctly', for instance if they choose the 'wrong' village association.

Mohammed Beri, a migrant Dogon farmer, is convinced that the landowner Karim Coulibaly took his field back two years ago because he had supported the opposite village association, the old village association.[4] Mohammed did not follow Karim but his host Zoumana Coulibaly, the influential lineage eldest who is the host of all the Dogon in Mperesso. A host is an important person for a migrant as he forms an essential link with the village. For Mohammed, his host was apparently more important than the field's owner. Mohammed had been cultivating that piece of land continuously for more than 16 years. It was a good field and easy to cultivate thanks to good soil properties – a mix of sand and clay – in contrast to his current field on the stony plateau. Landowner Karim Coulibaly feels, however, that Mohammed's point of view was mistaken. 'The withdrawal of the field had nothing to do with the village association problems. Mohammed has not understood correctly.' He explained that he had given the parcel of land for one year only, something he had announced in public during a name-giving ceremony and in anticipation of land attribution by the village chief. When Mohammed indicated he wanted to stay on the field later, Karim refused and asked him to leave.

The withdrawal of migrants' land by autochthons is not uncommon. The first clerk of the District Court in Koutiala affirmed that it is a widespread problem in many villages in South Mali and is primarily caused by divisions in village associations. In some villages, there may be up to four village associations and, as a result, village populations have become polarized. 'In combination with land shortages, people are withdrawing land from their opponents if they are a member of an opposing village association, instead of seeking reconciliation, something people previously tried to do when they had a quarrel,' he stated. Problems related to divisions in village associations are not new but have been accentuated by the administrative decentralization reforms because village associations have become politicized (Juul 2001).

In view of the fact that choices are made on the basis of personal loyalties, it is not surprising that the majority of the migrants in Mperesso opted for the old village association. Among the Dogon, for example, only the oldest, Issa Tesougé, chose the new association. He explained his dissident behaviour as follows: 'For a village association you need to cultivate; to cultivate you need land; land belongs to Karim; so I followed Karim'. Zoumana is his host but Karim has done a great deal for him: he lent him his draught ox and assigned him land. He could not abandon Karim.

[4] Mohammed Beri was given as an example of a Dogon migrant farmer in Chapter 7, while Karim Coulibaly was presented as a pioneer Minyanka farmer in Chapters 7 and 8.

The elders' new strategies

After Drissa's replacement as secretary of the village association, the elders' second move in the conflict with Drissa was to take back his field. They claimed they would threaten his brother Yacouba if he did not choose their side, but Yacouba refused. As noted above, this land problem had gone beyond the village level and was taken to court. However, the conflict has since been resolved by the administration agreeing to incorporate two adjacent plots to enlarge the school's grounds.

The village elders have developed a third and innovative strategy that was implemented while I was doing fieldwork. In December 2000, they requested permission to leave the current Municipality of Kolonigue and join the nearby Municipality of Sinsina. They submitted a formal request, written in elegant French by the newly appointed schoolteacher and signed by the village chief and his four village councillors, to the mayor of their municipality and to the National Assembly in Bamako. A list of names was added with the fingerprints of all the family heads, except of course for those who are members of the new village association. However, on closer inspection, it turned out that some people did not know they figured on the list and their fingerprints may have been forged. Obviously Drissa, the municipal councillor, had not been informed about the request. As the village chief's councillor explained: 'He is from another clan. Moreover, he is from the opposing political party.'

The official reason for the move of municipality is that joining the new municipality would unite Mperesso with six other villages (called 'Siwaa' together) that formed the Siwaa Local Convention, a local natural-resource management agreement that was signed in 1997. A local convention is a written agreement between communities and the administration regarding the community-based use of natural resources (woodlands, pastures, etc.) and enforcement of any related regulations. The Siwaa Local Convention was developed in anticipation of the administrative decentralization reforms and the related legal reforms to the Forest Law and the Land Law. Mperesso is one of the participating villages but it was the only one that opted to join a different municipality because 'we had well-established relationships and solidarity with that group of villages,' the first councillor to the village chief said. 'We would have been strangers in the Sinsina Municipality.' According to the Mperesso elders, administrative decentralization has not yet been implemented. 'Now it is a good moment to switch. Having all the villages together in one municipality will facilitate the implementation of the local convention,' they state.

This argument seems rather far-fetched. First, Mperesso refused to join the other municipality in the past because Mperesso was the only Siwaa village with wood surpluses and they did not want to share their natural resources with other

Siwaa villages. This complicated the development process of the local convention (Joldersma *et al.* 1996). Second, the local Siwaa representative in Mperesso was not informed about the switch and its underlying reason, which is odd. Third, the implementation and enforcement of the local convention does not seem to be an important village issue that needs to be solved, least of all by changing municipality. As the elderly village chief once put it: 'The local convention is not important to me. I am the oldest person for miles around so I decide. Mperesso owns Siwaa: the whole territory belongs to Mperesso. I am not interested in written documents.' Moreover, the village chief's first councillor, who appears to be the evil genius who is setting the village chief against Drissa, openly admitted that 'the reason for the switch was political because of the controversy in the village, but of course we could not mention this in the request.'

The consequences of changing municipality for Drissa Coulibaly would involve him losing his position as a municipal and district councillor. Everything seems to indicate that this is the aim of Mperesso's lineage elders who are attempting to maintain their authority and village hegemony but in a newly decentralized context. However, it is uncertain whether their efforts will succeed in view of the fact that municipalities are determined by law.[5] If a village wishes to change municipality, the executive act of the aforementioned law has to be amended, which can be an extended procedure. Without knowing the exact reason for it, Mperesso has never joined Kolonigue Municipality.

Analysis and conclusions

This conflict is complex and touches on many issues related to local power positions, the mobility of farmers and access to land. These include administrative decentralization reform and the outcome of democratic elections; local power based on seniority and the competition for chieftaincy; Islamization; competing land rights; the position of migrant farmers versus autochthonous people; family segmentation and individualization; the division and politicization of village associations; and the co-management of natural resources through local conventions.

The conflict shows some remarkable similarities with the extended conflict encountered in Central Mali (see Chapter 6). It is multifaceted and highlights how the repossession of land (in more than one case) is part of a larger and continuing local struggle for power that is changing, with many local actors becoming involved over time. And here too, the power conflict is essentially being played out among autochthons but migrant farmers in the end are worse off if

[5] Par. 2 Loi No. 93-008 déterminant les conditions de la libre administration des Collectivités Territoriales.

they do not show loyalty to the landowner (who is involved in the power conflict), after which they find themselves chased off their land.

The specific context of administrative decentralization of this conflict in South Mali also demonstrates its possible results at a local level. Since the village is not a homogeneous entity, administrative decentralization affects social groups in different ways. The local level is a political arena with many actors playing a role (Blundo 1996, 1998, Bierschenk & Olivier de Sardan 1997, 1998) and a new structure is added through which a multiple-layered power situation arises (Marchal 1983, Izard 1985, Fay 1995). As this case study shows, a new layer such as this is a way for several local actors, both 'modern' as well as 'traditional' authorities, to strengthen or re-establish their local position of power. Administrative decentralization does not create a distinct layer of power as such, but is assimilated within the prevailing local power positions (van Vliet 2012). In this conflict, Drissa attempted to take revenge for his family's loss of the chieftaincy about thirty years ago by becoming an elected municipal councillor. In return, the village elders, whose power has been formally diminished as a result of administrative decentralization, did not accept the challenges to their power that is based on seniority. To ensure their goals, they not only applied conventional methods such as withdrawing land but also used strategies relating to the administrative decentralization reform process. They made an official appeal to switch municipality, using the Siwaa Local Convention that was developed in anticipation of decentralization as an argument.

Whereas administrative decentralization reform provides autochthons with extra room to manoeuvre in their strategies to (re-)claim power, migrants appear to be worse off. Not only has the administrative decentralization reform fuelled conflicts over power in which migrants risk being evicted from their land, but migrants, who are already excluded from traditional local power based on seniority, are also excluded from modern power. In contrast to one of the formal aims of the administrative decentralization that is to promote participation in local government (Kassibo 2001), migrants are now being restricted in the use of their active and passive voting rights. They are, of course, entitled to vote for whoever they want in democratic elections, yet they are, in practice, bound by certain loyalties. Moreover, they are not eligible to stand for election for these seats that are, in practice, reserved for autochthons.

Some final remarks can be made about the (still indirect) role that the CMDT has played in the administrative decentralization process and that also explains the prominent role the reforms have had in this conflict in contrast to that encountered in Central Mali. Many of the first mayors and municipal councillors in South Mali (in 2002) were former board members of village associations and other CMDT structures and were trained by the CMDT. For example, the basis of

Drissa’s power had already been vested within the CMDT structures before he became a municipal councillor. It is the CMDT that set the scene for the rise of a neo-literate elite who were able to occupy new and important functions at a local level within the context of administrative decentralization. The local CMDT structures can thus be regarded as the unofficial forerunners of later municipal management structures. Compared to autochthons, migrants have been historically disadvantaged as the village authorities did not allow them to occupy these CMDT-related positions. It may therefore take a significant period of time before migrants can take their seats in municipal structures.

10

Comparative regional analysis and conclusions

Farmers on the move in two contrasting regions

The previous chapters have shown that subsistence farmers in Central and South Mali are, in contrast to their sedentary image, surprisingly mobile. 'Farmers' mobility' refers to farming families' (re)distribution of labour, livestock and other agricultural assets over several locations. These resources are divided between different places in an attempt to produce sufficient food (cereals) for their families and to generate additional cash income. The mobility of farmers is a widespread phenomenon, with farmers settling in farming hamlets where they expand the area under agriculture. This is facilitated by a flexible organization within the family, which means it either splits into independent parts or remains as one but becomes multi-local (or some form in-between). Fieldwork data suggest that the majority of the rural population in the research areas currently practise agriculture in farming hamlets, with each hamlet inhabited by one (in South Mali) or one to dozens of families (in Central Mali).

This study has also demonstrated that the mobility of farmers is closely linked to two sets of factors. Farmers' mobility is a response to farming conditions, which differ according to the regional context and constantly change, but it is also related to local political processes, including conflict, that mediate access to land. The dynamics of farmers' mobility in the different regional contexts of Central and South Mali are compared in this chapter by analyzing the various elements involved. These include (i) the ways in which farming conditions shape the temporal and spatial dimensions of farmers' mobility; (ii) how the temporal and spatial dimensions of farmers' mobility influence farmers' strategies to nego-

tiate access to land; (iii) how easily these territorial strategies result in conflict; and (iv) how changing farming conditions produce recurrent mobility among farmers.

Farming conditions and mobility patterns in time and space

Although a bird's-eye view might suggest that farmers' mobility is quite similar in the two regions, with numerous farming hamlets being set up in large fields, this is not in fact the case. Farmers in Central and South Mali are mobile for very different reasons and those in Central Mali have a larger 'action space' (Painter *et al.* 1994) than farmers in South Mali. This means they move in a much larger area and more frequently within and between years to access basic livelihood resources such as land. Farming in hamlets also started much earlier in Central Mali (in the early twentieth century) than in South Mali where it only began in the 1960s.

Differences in farming conditions in the two regions have shaped the different temporal and spatial dimensions of farmers' mobility. Conditions are generally more adverse in Central Mali than in South Mali. The most important factor is rainfall (that is lower and more unpredictable in Central Mali), to which many other farming conditions can be related such as land quality and drinking water availability, cash income opportunities, access to agricultural technology and labour, and possibilities to restore soil fertility. Many of these conditions are influenced by the state. The presence of the administration and its interest in regional development differ in the two regions. Cotton has been promoted by the parastatal CMDT cotton company in Koutiala District, Mali's main cotton-growing area, since the 1950s, with production starting to take off around 1980 when village associations (local CMDT cooperatives) were set up. Growing cotton as a cash crop provides farmers in South Mali with their main source of income and gives them access to inputs on credit (e.g. cotton seeds, fertilizer, pesticides) and to credit for agricultural technology (e.g. ox ploughs, donkey carts). By contrast, the colonial and post-colonial authorities have never been particularly interested in developing the dry northern part of Mali where the Central Mali research area is located.

Dogon farmers in Central Mali have developed varied mobility patterns over time and space in reaction to the harsh natural environment that often prevents them from producing sufficient cereals. They relocate and expand the area under agriculture and, to avoid having to travel long distances between their villages and their fields, have established farming hamlets. They necessarily return to their villages after every rainy season due to the scarcity of drinking water and have also undertaken long-distance labour migration since colonial times to earn supplementary cash in the dry season (or for longer periods) as income-gene-

rating opportunities in the region are limited. They have largely expanded cultivation since the 1980s by adopting the plough, which has enabled the opening up of vast tracts of light sandy soils. And using donkey carts to transport water has allowed settlement further away from sources of drinking water.

In contrast, more favourable farming conditions in South Mali allow farmers to produce sufficient food (cereals) and earn a cash income (by growing cotton) in the same place and at the same time, which makes them much less mobile by comparison. Farmers have nevertheless moved into hamlets, which are inhabited all year round, but their motives vary according to the different socio-ethnic group. The main driver for Minyanka autochthons was wealth accumulation through a combination of cotton growing, livestock keeping and related conflict within families concerning the management of cotton revenues. By contrast, migrants of various ethnic origins were driven by other motives, such as conflict or land shortage in their own village (Minyanka), increasing land pressure in southern Mali that discouraged continuous travelling with cattle (Fulani) and protracted droughts in the Sahel in the 1970s and 1980s (Dogon).

In both regions, the widespread adoption of new technology in the form of the plough and the donkey cart has enabled farmers to expand their area under agriculture, in particular cereals, since the 1980s. This technology has contributed directly or indirectly to increased settlement in hamlets, but while this process was CMDT-induced in South Mali, it was launched in Central Mali by returned labour migrants and in reaction to climate change, i.e. increased rainfall variability that required farmers to cultivate fields with different soil properties.

Mobility and negotiating access to land

Mobile farmers need flexible access to land. Mobility is not just a way for farmers to deal with all kinds of farming conditions but is also closely linked to the local political processes that mediate access to land. Such access in patrilineal farming societies in West Africa is achieved within local hierarchies that are based on double (male) seniority, i.e. first-comers in an area (autochthons) are ranked higher than latecomers (migrants), and older members are ranked higher than the younger generation within families. The higher-ranked have authority over the lower-ranked through the allocation of land. To access land, people therefore need to continuously invest in and negotiate their social and political relationships, including host-stranger relationships. Farmers' mobility shapes local power positions but, as first-settlement is ambiguous due to high mobility in the past and in the absence of written sources, it also makes local hierarchies dynamic.

Farmers in Central and South Mali have developed different strategies to assert their power positions and gain access to land in accordance with the varying

temporal and spatial dimensions of their mobility, although mechanisms to access land and the necessity of developing strategies to maintain power positions are in essence similar in both regions. In designing these strategies, farmers are similarly pragmatic in using sources of power with different legitimacy, both traditional (based on seniority) and modern (as provided by administrative decentralization reform).

The continued mobility of Dogon farmers in Central Mali (except for in the nineteenth century when they were pushed back towards the Bandiagara Escarpment) has resulted in ambiguous local power positions, disputed village territories and a frequently contested distinction between first-comers (autochthons) and latecomers (migrants). It is in such a context that farmers have developed two main strategies to negotiate access to land. Either they mobilize support for their claim that the land belongs to their village by using oral first-settlement histories or other arguments (e.g. administrative recognition or jurisprudence) that justify their individual claims, or they accept that the territory belongs to another village and establish a host-stranger relationship with the landowner. As the agricultural colonization areas are former pastures, this relationship is often between a Fulani agropastoralist (host) and a Dogon farmer (stranger). In reaction to massive Dogon agricultural colonization, the Fulani have developed territorial strategies too, including the claim to first-occupancy. The territorial strategies developed in the area are always *ad hoc* as local power positions are unclear and village boundaries tend to be fuzzy. These strategies may well expand administrative (and ethnic) boundaries, with land and power being claimed over shorter and larger distances.

In contrast, local power positions in South Mali are better defined, the distinction between autochthons and migrants is sharper and village territories are less contested. The various socio-ethnic groups therefore have different ways to access land. While the Minyanka autochthons settle in hamlets on their family land, migrants (Dogon and Fulani in particular) only gain access to land (often unproductive fallow fields) through their relationship with a host and in return for respect and loyalty. With the influx of strangers, host-stranger relationships have gained more relevance in the territorial strategies of autochthons as the hosting of strangers elevates one's position *vis-à-vis* another autochthon, a process that Kopytoff (1987) calls 'mobility by levitation'. It also compensates the lineage elders for their reduced authority to distribute land and labour within their own lineage due to processes of individualization in the form of family segmentation and land fragmentation.

Access to land and related conflict over land and power

Since local power positions are continuously contested, socio-political relationships that mediate local access to land need to be frequently (re)negotiated, for example if the host feels a stranger does not show sufficient loyalty. And if a compromise is not reached, the stranger ultimately risks eviction from his field. Conflict is thus inherently part of local political processes that mediate access to land. A farmer's mobility influences his potential involvement in conflict. Farmers in Central Mali, who are more often mobile and over a wider area than farmers in South Mali, logically need to (re)negotiate access to land more frequently and in more places, while the underlying local power positions that mediate access to land are more fluid and contested.

The two case studies on conflict reveal that disputes over land, which are common in Mali and elsewhere in Africa, are often complex and multi-faceted. Seemingly isolated host-stranger disputes are in fact part of larger and on-going local power struggles. But while such power conflicts in South Mali are mainly fought out on village territories, conflicts in Central Mali over land and power, like mobility itself, occur over a wider area and frequently extend beyond administrative boundaries.

The case studies also shed light on the role of formal dispute-resolution mechanisms in the settlement of local conflicts over land and power. Already plagued by low legitimacy and public acceptance due to rumours of corruption, courts dealing with incidental land cases are often not able to provide an acceptable solution to the parties involved that enables them to resume their troubled relationship. Instead, the outcome of the court case provides input for a new stage in the ongoing and underlying power conflict, at which point it continues along different lines with additional actors involved.

Changing farming conditions, recurrent mobility

Farming conditions have changed over time and have made the mobility of farmers a recurrent process in both regions, but along different lines. Farmers in Central Mali respond more directly and 'anarchically' to a change in farming conditions by just adapting their mobility pattern (opening up fields and setting up hamlets in new places), which is in a way facilitated by undetermined local power positions. This became clear, for example, when a new area for agricultural expansion was quickly opened up in the 1980s because of increasing drought conditions. The reverse side of fluid power positions is, however, that these are constantly contested, which forms a permanent risk of tenure insecurity and new mobility for farmers who are already very mobile. However, farmers with access to other places also have more room (literally) to manoeuvre, which reduces their vulnerability when they have to move on. Within the volatile Central Malian en-

vironment that produces fluid and contested socio-political relations, mobility is thus a continuous process for all farmers and it has only limited effect on someone's political position.

By contrast, recurrent mobility mainly affects farmers who are ranked lower (i.e. migrants and breakaway units of autochthonous families) in the South Malian context of well-defined power positions and increasing scarcity of farming land. Although not significantly different in area per capita, the quality of the land at stake is very different. Autochthons usually keep the best tracts for themselves while migrants (Dogon and Fulani in particular) are increasingly allocated the remaining marginal areas (often the unproductive fallow fields). Dogon migrants are doubly disadvantaged as they are less able to intensify land use by applying fertilizer and manure due to their low involvement in cotton growing, which might otherwise help them to escape from poverty. The lower-ranked farmers are expected to exhaust the land in a 'Malthusian way', which will ultimately force them to abandon their fields and move on. Their economic marginalization comes with further political marginalization if they have to move to another village territory where they automatically occupy the lowest ranks in the new hierarchy. They can therefore find themselves trapped in a vicious circle of political and economic marginalization and recurrent mobility. The outmigration of Dogon migrants to other villages in the late 1990s may be seen as a first step in this process.

The divergent processes of marginalization of lower-ranked farmers who become increasingly mobile on the one hand and higher-ranked farmers securing their access to land on the other correspond with processes that Homer-Dixon (1999) labels 'ecological marginalization' and 'resource capture' in reaction to 'environmental scarcity'. In this respect, the CMDT must bear some of the responsibility as it has always only focused on wealthy farmers, which has, in practice, meant discriminating against migrant farmers and increasing the economic differences between autochthons and migrants.

Farmers' mobility: The missing link

In this study, the mobility of farmers in Central and South Mali was used as a starting point to understand how local political processes work in relation to accessing land in specific regional contexts with contrasting farming conditions. These political processes are shaped within local hierarchies that are constructed on the principle of double seniority. But as the research progressed, it emerged that farmers' mobility does not just serve as a lens through which to study these processes but that it forms a vital link: farmers are mobile in response to farming conditions that are constantly changing and shaping the mobility patterns of farmers in time and space, but their mobility is also closely connected to local

socio-political relations that are crucial for them when it comes to accessing land in new places. As farming conditions vary in specific regional settings and shape the mobility patterns of farmers, farmers have developed different political strategies to negotiate access to land that easily turn into conflict in both regions.

When one realizes how far local political processes concerning access to land and farmers' mobility are intertwined, it is amazing that farmers' mobility and the underlying changing farming conditions have not played a more central role in analyses of access to land (and conflict) (cf. Breusers 1999). However, explanations are not difficult to find. An important reason is, first of all, that farmers have a very strong sedentary image and since they are not constantly on the move, their mobility has rarely been identified and analyzed in rural studies. This present study has also been quite unique in its comparative regional approach that revealed the influence of contextual factors on political processes related to access to land. By highlighting the crucial role of changing farming conditions and farmers' mobility in local political processes (including conflict) that mediate access to land, it adds a fresh geographical (or temporal and spatial) dimension to thinking about access to land.

The current study has considered the three-cornered relationship between (changing) farming conditions, farmers' mobility and access to land (including conflict). Many other scholars have studied one element only (mainly access to land or conflict) or partial relationships between two elements (access to land and mobility; farming conditions and mobility) but not all of them together. These studies have been useful though to design a theoretical framework that links the three elements. For example, Berry's (1988, 1989a, 1989b, 1993) understanding of access to land as a negotiating process over socio-political relations between members of a social group has served as a main theoretical point of departure for this study. And the work of Kopytoff (1987) and Breusers (1999) can be considered a valuable supplement to her ideas as they link the organization of local hierarchies, in which access to land is organized, to farmers' mobility. Breusers (*Ibid.*) pinpoints how status based on seniority influences a farmer's access to land and his mobility, while Kopytoff (*Ibid.*) explains the development of farmers' territorial strategies within the context of first-settlement's ambiguity, which essentially goes through the narration of first-settlement histories that refer to ancient mobility (*Ibid.*, Lentz 2000, 2005), where persuasion plays an important role (*Ibid.*, Rose 1994). However, both authors regard farmers' mobility as a political process only and do not explicitly link it to ecological factors. In Kopytoff's view, farmers are mobile because they have been expelled from their own society, which is the reason why they set up a hamlet in a different place that may evolve into a new society, while in Breusers's view, mobility is not a matter of push but pull factors: only higher-ranked farmers move as they have access to

several ‘pools of territory’. By contrast, Gallais (1975) understood the mobility of farmers in Central Mali as a response to ecological factors but did not link his observations to political processes. As a consequence, none of the aforementioned authors were able to explain why local hierarchies are so dynamic, why socio-politial relationships within local hierarchies need so much renegotiation and, since they do not apply a regional comparative perspective, why territorial strategies to access land and assert power positions vary in contrasting regional contexts. The present study fills this gap.

By focusing on the mobility of farmers and linking political processes regarding access to land and conflict (politics) to changing farming conditions (ecology), this study provides access to land a more prominent place within political ecology. Access to land was introduced as a topic in political ecology by the geographers Blaikie and Brookfield in the late 1980s (Blaikie & Brookfield 1987). They understood how land-use practices by farmers that lead to soil degradation largely depend on having access to land and do not vary with population pressure, as is assumed in the classical Malthus-Boserup debate. Even though they did not go into details of land access, this issue was soon picked up by others (although they do not always consider themselves political ecologists), such as the above-mentioned Sara Berry (1988, 1989a, 1989b, 1993) and others in her wake (Goheen 1992, Shipton 1994, Kaag 2001, Benjaminsen & Lund 2001a, Juul & Lund 2002a, Kuba & Lentz 2006, Toulmin 2007, Ubink 2008, Sikor & Lund 2009). Pinpointing the mobility of farmers as a vital element in political-ecological processes, the present study takes a step forward in this school of thought.

And by highlighting the impact of farming conditions through farmers’ mobility and their access to land, the present study responds to studies on changing land use that were conducted against the backdrop of the Malthus-Boserup debate and assumed a more direct relationship between growing population densities and the behaviour of farmers (e.g. Tiffen *et al.* 1994). The common view on farmers’ poverty as the underlying cause and consequence of land degradation also assumes a similar direct link (see Moseley 2005 and van der Geest 2011 who conversely blame wealthy farmers). By contrast, the present study looks at the intermediary role of institutions in farmers’ responses to changing circumstances. In other studies that also applied an institutional focus, the emphasis was on farmers’ capabilities to adapt local institutions for resource management in a sustainable way (Howorth & O’Keefe 1999, Mazzucato & Niemeijer 2000) and on farmers’ tenure security (or control over access to land) as a precondition for farmers’ investments in land-use intensification (Toulmin 1992, Scoones *et al.* 1996, Hilhorst & Coulibaly 1999) or the other way round, with a focus on land-use intensification as a strategy for securing land rights (Gray & Kevane 2001).

The present study highlights the influence of local power positions on the differentiation of land use by groups of farmers. It is expected that, within a context of sharply defined power positions in local hierarchies (as in South Mali), higher-ranked and lower-ranked farmers will respond differently to rising population pressure among other changing farming conditions, which has to do with differences in access to good-quality land and involvement in cash cropping, which enables them to invest in preserving soil fertility.

In addition, this study sheds new light on conflict. Socio-political relations that underlie a person's access to land are dynamic under the influence of changing farming conditions that produce mobility, such as increasing rainfall variability in Central Mali and rapid population growth in South Mali, and easily turn into conflict. This explains why conflicts over land are so common and why it is usually not (only) the land itself that is at stake in such conflicts but also political aspects (Lund 2002). The withdrawal of access to the land indicates that the socio-political relationship between the tenant farmer and the host has been upset and needs to be renegotiated. By showing that seemingly isolated host-stranger disputes over land are in fact part of larger local power struggles, this study offers a different focus on local natural-resource management. The underlying conflicts over power have to be understood as on-going processes in which local power positions are continuously being contested and negotiated. This also helps to understand why the courts are limited when looking for permanent solutions to land conflicts.

And finally, highlighting the mobility of farmers underlines the sedentary logic of the state. The assumption that local groups are fixed in a bounded territory does not match the reality on the ground in Mali as farmers are mobile and have vested claims in land and power in several places and sometimes over long distances, irrespective of administrative boundaries. The state is not able to deal with the issue of ambiguity of land claims as a result of people's continued mobility. The situation will remain calm as long as the various and intrinsically conflicting claims to power and land are 'sleeping' (Fay 1995), but open conflict could easily arise and become violent if the various claims are mobilized, for example if the construction of a new water supply increases the value of the land for farmers and herders or if new elements of power are added to the power play, as happened with the administrative decentralization reform in the late 1990s. In fact, administrative decentralization reform strengthened the positions of autochthons holding local power on the basis of seniority. In contrast to one of the reform's formal aims, namely to encourage people's participation in local government (Kassibo 2001), the lower-ranked in rural societies, such as migrant farmers and youngsters, are excluded. At least this was the situation when fieldwork was concluded in 2002 when the reforms were still new. It may take several

decades before the 'juniors' in a seniority-based society are allowed to occupy elected seats in local government, as was the case in Senegal where administrative decentralization reform was implemented in the 1970s (Kaag 2001). The everyday reality of farmers' mobility also shows how legalizing customary land rights, which is often meant to improve the tenure security of vulnerable farmers (Cotula *et al.* 2004, 2006, Ubink 2009, Otto & Hoekema 2011), is not a panacea for all as fixing rights in space would literally restrict farmers' room for manoeuvre.

The findings of this research project do not only have theoretical implications but are also relevant for development practicioners who should be aware of farmers' mobility and acknowledge the importance of political positions at the local level. How these are shaped, contested and influence farmers' access to land and their possibilities for adopting interventions and innovations has to be taken into consideration. It is also vital to realize that any measures aimed at improving farming conditions (including land-tenure reform and administrative decentralization reform) might affect local power positions and relations, which could in practice be detrimental to local people who are already politically and economically marginalized.

Ten years later

More than ten years have passed since the last fieldwork period (in late 2002) and the finalization of this thesis (in early 2013). Some major developments have considerably changed farming conditions in Mali and, by doing so, may have influenced farmers' mobility and socio-political relationships that mediate access to farming land and related conflicts. These developments have occurred at various levels of scale both inside and beyond Malian territory. To mention just a few: (i) Mali has faced continued explosive population growth; (ii) the cotton sector in South Mali has collapsed after being the major source of income generation for many farmers; (iii) the crisis in neighbouring Ivory Coast, which is the main destination for Sahelian labour migrants from Central Mali, has not been resolved and even led to civil war; and (iv) there has been political turmoil in Mali itself with a *coup d'état* in 2012. And during the subsequent power vacuum, the Azawad state was temporarily established by the Tuaregs and radical Islamists in the northern half of Mali (where the research area in Central Mali is located), which was followed by an internationally supported military intervention to expel the rebels.

The collapse of the cotton sector has resulted in many farmers in South Mali switching back to growing cereals to secure their food production, as Bamana farmers in the Ségou Region did in the 1970s and 1980s when commercial groundnut harvests failed due to a decline in rainfall (Toulmin 1992). The op-

portunities for generating an alternative cash income in South Mali through seasonal or more permanent wage labour migration have significantly decreased following the Ivorian crisis but it is not clear how South Malian farmers have responded to this situation. They may have moved to other urban centres or rural areas to find alternative income-generating activities or have adopted different strategies altogether.

The same goes for farmers in Central Mali who were already dependent on labour migration to Ivory Coast to supplement their subsistence farming with an off-farm income. What made the situation even more critical here was the imposition of a new 'layer of power' (Fay 1995) by the Tuareg during the Azawad period (March 2012-January 2013), which added to existing 'layers of power' vested by Fulani and Dogon over time. It could be expected that the Tuareg rule would have fuelled and sharpened existing ethnic rivalries between the Fulani and Dogon who are both pastoralists and feel marginalized by the Malian state and the former colonial authorities (de Bruijn pers. comm.). The administration has never helped the Fulani to prevent Dogon agricultural encroachment on their pastures. Feeling supported by the Tuareg now, the Fulani might have decided to chase Dogon farmers out of the agricultural colonization area. But it may also have worked the other way. The Malian state, however weak it may be in this area, always had a monopoly on the legitimate use of force. But in the (brief) absence of state enforcement, Dogon farmers took the opportunity to attack Fulani camps in the border area with Burkina Faso in May 2012, which resulted in more than 25 people being killed and 1000 people fleeing the area.[1] The media said the Dogon were angry at the Fulani for damaging their crops, which is the usual explanation in farmer-herder conflicts, but there was probably much more at stake. This example also shows how a hitherto seemingly peaceful situation, but one that may be brewing under the surface, can easily turn into violence.

What currently seems to be the most structural driver for transformation in rural societies is explosive population growth. It was 'only' an estimated 3% annually in Central Mali between 1998 and 2009, which would mean a doubling of the population in twenty years, but there was a 3.6% annual growth rate in South Mali in the same period and in the research area locally it is more than 8%, which would mean a doubling of the population in just ten years. This will have a tremendous effect in both regions on land pressure as the potential for agricultural expansion has reached its limits, in particular in South Mali, while agricultural intensification (already negligible in Central Mali and probably coming to a halt in South Mali due to the decline in cotton production) is likely to be largely

[1] See http://www.aljazeera.com/news/africa/2012 and http://pulitzercenter.org, accessed May 2013.

insufficient to counterbalance the population growth. Although agricultural yields did not show a decline at the time of this study, the enormous population growth may ultimately affect the food security of both the rural and urban population.

Population growth will also change social and political relations related to access to land. With increasing pressure on land, family segmentation and land fragmentation are likely to accelerate further and lead to greater individualization. An autonomous trend towards private property rights and increased market integration, however, as the evolutionary theory of land rights would predict, seems unlikely (Platteau 1996, 2000). Not only do most farmers lack the financial means to make the necessary innovations in agricultural intensification to preserve soil fertility but the privatization of land rights assumes the sedentarity of farmers, which is not the case here. When soils are depleted and resources for investments fall short, the only option left for farmers is simply to move on.

It is also interesting to imagine what could happen to local power positions and conflict if all the fallow land disappeared. Fallow land, the initial focus of this study (see Chapter 1), may seem insignificant at first glance but in fact forms a critical political asset in the construction of host-stranger relations. Would local hierarchies become more rigid? Or would land rights become more individual? Would negotiating structures for the use of resources be adapted as happened in parts of Burkina Faso where migrants became the majority (Howorth & O'Keefe 1999)? Or would conflicts over land and power become more frequent and intensify? Or, in the most extreme case, would the seniority mechanism that traditionally distributes local power eventually collapse? The latter is not very likely, not only because fallow land will probably never entirely cease to exist in Malian farming systems but also because the seniority principle has proven to be very flexible and resilient. It is more likely that alternative sources of power will increase in relevance, for example economic wealth, the outcome of democratic elections or violence, and that these will interact with local power based on seniority. Then 'seniors' will adjust their territorial strategies and adapt and integrate various sources of power to maintain their positions, as this research has already demonstrated.

This study raises the urgent issue of increasing pressure on land that will widen the gap in local societies between the higher-ranked and the lower-ranked, and marginalize people economically and politically. It is questionable, however, how long the 'juniors' will continue to tolerate the present seniority system that largely disadvantages them. The rejuvenation of the Malian population (with nearly half of the population currently under 15) and the growing group of migrant farmers form a political time bomb. The civil war in Sierra Leone (1991-2002) had, for example, its roots in the generation gap between youngsters and

the elders in rural areas as youngsters, who were providing labour but had no voice, revolted against their own local leaders (their elders) in an attempt to change the social system (Chauveau & Richards 2008). In the light of greater political and ethnic tensions, the expected wave of marginalized migrant farmers is considered a major threat to stability in rural areas in West Africa. This needs much more attention from scholars and policymakers.

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