When the granary runs out: soil degradation, gender roles, and food security in Mossi households, Burkina Faso

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Abstract

In some communities in central-east Burkina Faso, soil degradation has influenced local views concerning the allocations, use practices and possible classifications of fields. As a result, redefinitions of farming systems prioritizing fields for collective use over those intended for individual exploitation have led to a strengthening of the roles of both women and men within the household. While women continue to be seen as producers of cash crops for their own personal benefit (Thorsen and Reenberg 2000), cases reported from my field-site of Taamse show how household shortages of staple crops may rather create breaches within these farming systems and lead to a reassessment of women's contributions to household food provisioning. The article engages with these competing moral and material aspects of farming by drawing on dissertation research with Mossi households in Kouritenga province carried out in 2016 and 2017.

Keywords: Soil degradation; Land allocation; Gender roles; Household consumption; Burkina Faso

Approaching soil degradation and gender issues

At the time of my arrival at my field-site of Taamse in June 2017, people had already taken advantage of the first rains to start ploughing and sowing on family fields. About one month later, the village and the areas nearby experienced a fifteen-day long dry spell in the middle of sowing time. The fields in which sorghum had already germinated slowly became dry, and farmers started worrying about both what had already been planted and what still remained to be sown. At the same time, the workload in the fields was reduced because of the near impossibility of working the soil's hard crust, which was also damaging for the plants. There was another major

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concern, this time regarding women's plots. Because of this prolonged lack of precipitation, most women had not yet cleared their own personal fields and they were now worried that there would be insufficient time for crops to grow before the end of the farming season. This is because family fields were given the priority in periods of both planting and farming. On July 21st my host and other men from the village sacrificed four chickens to the ancestors invoking their intercession to solve the problem. The morning after, dark clouds announced the arrival of rains. The storm last about six hours, and in the meantime the women of my host family started preparing crops to be sown in their own fields. Once the rain had finished, we all walked to the fields of two of the women, located about a kilometer from our compound. Along the way we could not avoid seeing most of the fields occupied by women, who were finally starting to prepare their plots for ploughing, mainly by removing shrubs. Seeing so many women's fields being farmed at once was quite unusual, even in the following months. However, this long delay had a number of consequences. Indeed, most of the women were now obliged to change their former choice of crops and select something better suited to the remaining time available. This led some of them to change from groundnuts or sesame farming to cowpeas, a crop known for being highly resistant to degraded soils and requiring less weeding, as well as having a shorter growing cycle than other crops.

Important variations in annual rainfall have been a major concern since the late 1960s in the Sahel-Sudan region. Development agencies and governments targeted this area following two main periods of drought in 1968-1974 and in 1983-1985, the effects of which led to a reduction in vegetation cover and increased exposure of the soil to the effects of water and wind, depleting existing groundwater regimes and leading to soil degradation (Reij and Waters-Bayer 2001, Van den Bergh 2016). In the long term, however, the effects of these environmental conditions led the local population to adapt through the creation of resilient "social-ecological systems" able to cope with both climatic and socio-economic shocks (West 2015, p. 53), especially through the implementation of soil and water conservation techniques (SWC). The positive effects of these interventions were widely reported in the literature and led scholars to argue that this "greening" of the area was slowly allowing its recovery (Dietz et al. 2004; Olsson et al. 2005; Reij et al. 2005.).

Despite the success of local responses to enduring variation in rainfall levels, the problem of soil degradation is still a major issue with which people continuously have to cope. In the field site, narratives of soil degradation and reducing yields generally in the last few decades were of major concern to the local population, especially because of its negative impact on the household's annual food supply. This was leading the local population to assess soil fertility as more important than field size, which for some of

them seemed almost irrelevant. As Turner has recently pointed out (2016), oil characteristics are a better indicator of a household's wealth, especially when coupled with the application of manure to the fields as a complementary agricultural method of making soils less degraded. However, for the purposes of this article, it is important to underline how local perspectives on soil degradation and annual rainfall regimes are mirrored in the practical allocation and use of land. Within this framework, an article by West et al. (2008) discusses how crucial local perceptions of environmental change can be in understanding the process of adapting farming practices to possible climate failures. By insisting on how perceptions of soil degradation have led farmers to strengthen the ways in which land is allocated to household members, the present article provides support to both the contributions just mentioned.

Mossi farming systems were already causing great concern between the 1960s and 1980s and were widely discussed in the works of French sociologists and geographers (Kohler 1971; Lahuec 1980; Marchal 1983, 1987; Imbs 1987) working in different areas settled by this ethnic group. Their studies presented very detailed overviews of subsistence systems in communities from different parts of the region, combining a focus on local agrarian systems, population dynamics and household transformation. Anthropological studies by Hammond (1966), Lallemand (1977) and Fiske (1991) contributed to this body of work by discussing social relationships and systems of household production and consumption, adding ethnographic evidence to the already existing literature.

Starting from this body of work, this article suggests a new research framework integrating issues of gender and the role played by social norms and responsibilities in farm production. In this respect, the works of Kevane and Gray (1999) and Thorsen and Reenberg (2000) are of major interest, as they offer the first in-depth insights into Mossi women's access to and use of land by focusing particularly on the complex set of rights and duties informing negotiation over land issues both within and outside the marital household (Kevane and Gray 1999) and the multiple usages of farming outcomes (Thorsen and Reenberg 2000).

More recent contributions have fostered a similar theoretical approach and attempted to take the analysis beyond the familiar focus on negotiation. What is needed instead is to look (back) at interpretations of social norms in examining practices of the allocation of land to men and women (Rao 2006; Carr 2008; Wahhaj and Kanzianga 2010; Lambrecht 2016). The present article shows that local actors may enact concrete and discursive practices aimed at protecting acknowledged roles within the household in order to keep the marital relationship "safe" and avoid openly challenging established hierarchies (Somé 2013), as well as safeguarding their own dignity in the face of the community.

After this brief look at some of the most relevant references dealing with both regional and non-regional environmental and gender-related issues, the following section will provide an overview of the methods used in conducting research on this topic. I will then introduce the ethnographic section of the article, which is divided into two parts. The first and more descriptive part illustrates the two main agricultural models in use in Mossi communities. It shows how classifications of fields and land allocation practices have changed due to the grain shortages that have occurred frequently within households in recent years, mainly as a consequence of the increasing impoverishment of the soil. The second part will provide cases from fieldwork illustrating how women have challenged this categorization of fields and thus exposed some flaws in it. These cases show an undermining of the role of the household food security provider, which is conventionally attributed to men. The article concludes that current field classifications mirror gender roles as they are supposed to be played out within the household. On the one hand, women are able to compensate for the lack of food supply at the household level and to pursue more flexible strategies in the management of their own crops. On the other hand, household members, particularly husbands, do not acknowledge that these changes are happening.

Methods

The data presented in this contribution form part of extended dissertation research consisting of two periods of four and five months of fieldwork spent in the village of Taamse between 2016 and 2017[1]. Taamse is located in the central-east province of Kouritenga approximately 15 km north-east of Pouytenga and 25 km north of the provincial capital, Koupéla. Like most of the north and center of the country, the province has been subject to irregular rainfall coupled with an increase in population density in recent years, making Kouritenga one of the provinces with the highest level of population pressure[2]. These conditions have considerable repercussions on soil fertility and in reducing the amount of farmland available to each family, affecting practices of both land allocation and food provisioning. Nevertheless, most of the families living in the village meet their subsistence needs from both farm and off-farm income-generating activities.

The first phase of fieldwork took place during the dry season, from January to May 2016. During this time of the year people concentrate on off-farm

1 The names of both the village and my informants that appear in this article are pseudonyms.

2 National statistics 2006 give a figure of approximately 125 inhabitants/km² in Kouritenga province (INSD 2006).

activities and, to a lesser extent, off-season agriculture. The second phase was carried out during the wet season, from June to October 2017, during which the household's everyday activities revolve mainly around farming. Becoming a guest and honorary member of one of the local families gave me an opportunity to become gradually acquainted with people while sharing their everyday lives, and to observe how relationships are constantly being transformed according to the particular situations and specific assets involved. Research was later extended to other village families.

Fieldwork consisted of in-depth research with ten Mossi women from the village of different ages, religions (Catholic and Muslim) and socioeconomic statuses to reflect the demographic composition of the local population. Since the household represents the first crucial environment in which the allocation of land and its negotiation take place (Agarwal 1997; Kevane and Gray 1999), the women's households were also sampled in the research, as they had different socioeconomic characteristics in terms of their members' activities and social positioning within the village community, as well as the household size and its internal organization. Moreover, in order to obtain the perspective of the person who usually occupies the role of the "land giver", all the heads of the women's households were interviewed, together with other village authorities.

Field methods involved the collection of both qualitative and quantitative data. Participant observation was the preferred method while following women in their daily activities and observing the internal dynamics of their households. This method was always supported by the informal conversations and semi-structured interviews I carried out with both women and other household members. Interviews were mostly carried out in Moore, the language of the Mossi, and translated into French by a research assistant. Quantitative data were collected using two specific survey questionnaires. One was designed to record the socio-economic positioning of household members, the assets at their disposal and the tools they used in farming, and finally their choices in field use and crop management in relation to the household's diet. The second survey aimed to record quantitative information concerning women's management of their own fields and other off-farm income-generating activities led by women during the rest of the year.

For the present article, I have used some of the data collected during both phases of fieldwork dealing mainly with household consumption systems and the crop choices made by the women and their respective household heads. In order to present both views, this contribution will offer an analysis of both agreed and contrasting perceptions of women's involvement in their own farming activities.

Field allocation in rural Mossi areas

In rural areas inhabited by the Mossi, land can be allocated for personal or collective use according to both local tenurial practices and the various roles and statuses of every household member at specific life stages. The aim of this section is briefly to introduce farming systems of land allocation and use as they are known in the existing literature and experienced in Taamse. A further section will provide a description of the most common choices in the use of crops for both consumption and sale as documented during fieldwork.

Family fields and individual fields

According to Fiske, in Mossi areas land is interpreted as a "communal sharing common" from which the whole household can benefit (1991, p. 275).

Everyone can take advantage of even a small plot, since no land can be held definitively by a single person (Şaul 1988, p. 264). As the chief of Taamse once said to me, "If someone doesn't have enough land and comes to you and asks for a field to farm, you can't refuse"[3].

Land is inherited by male household heads through the patrilineal descent from the ancestor who first cleared the land where the family lives and farms. While ancestors are considered the only uncontested owners of the land, current male members of the household are responsible for its effective exploitation for the family's sake and for any decision concerning the allocation and use of land. They are also involved in negotiating the allocation of land to anyone who is interested in farming or is expected to farm individual fields. This request may come from any household member, as well as from people who do not belong to the same line of descent as the household head and are thus socially considered "foreigners". This applies to women, migrants and herdsmen, people considered newcomers to the village. When a plot is allocated to an individual for farming, the latter receives use rights over it. In these cases, the allocation of land lasts for an unspecified period that may vary from a few years to an entire lifetime (Ouedraogo et al. 1996).

Every plot is allocated and farmed according to the two most common agricultural patterns: *pʋgkêenga* fields (*pʋgkêense*, pl.) and *beolga* fields (*beolse*, pl.). *Pʋgkêenga* fields consist of farmland that members of the extended household farm together (West 2006; 2010). Farm labour is generally organized and supervised by the household head, and the crops harvested from these fields are used for household consumption, with some possibly being sold to support other household expenditure. Even within independ-

3 Conversation with the chief of Taamse, April 8th, 2016.

ent nuclear households, the family fields are farmed by the entire household and the crops are stored within a common granary and only used for the collective benefit[4].

Individual earnings for both women and men are derived mainly from off-farm income-generating activities and only secondarily from the agricultural pattern that exploits *beolse*, that is, plots allocated to individuals for their personal purposes. Unlike family fields, the person who receives a *beolga* has sole responsibility for the field, although he or she may benefit from the aid of other household or community members. Choices regarding what to grow are made individually by the plot's user, as are decisions concerning the use of the harvest for consumption or sale, taking into account the soil characteristics and the purposes assigned to the field.

However, the classification of these fields as a form of individual provision attributes a lower priority to them than family fields, since the latter are intended to provide food for the entire household. The tendency to prioritize family fields over *beolse* automatically reflects the organization of farm labour and impacts on the practice of allocating land to single persons.

> It is the millet field that has the priority over the others, as we farm in order to harvest enough millet for eating. The seeds we are used to selling are not as important as those we eat…and if you don't have anything to eat, you leave (Interview with Salfo, March 7, 2016).

The many choices revolving around the quantity of crops to be sown and their uses were crucial to how fields were classified and to decisions about the organization of farm work among local farmers. To approach the material issues behind this classification of fields, the following section will describe the most widespread choices in the use of crops cultivated by households and individuals respectively in the sample area.

Crop varieties and their uses

White and red sorghum were the two main crop varieties that were consumed at the household level. Sorghum flour was used to make the local porridge (*sagbo*) and was always accompanied by a sauce (*zeedo*) usually consisting of wild leaves of different kinds and quality, flavoured with salt,

4 In the most common form used in Taamse, people from both nuclear and extended households habitually gave fields the names of their locations, such as *daag-sore,* "(the plot near to the) road to the market", some distinctive landscape elements describing the field's position, like *karsɛga* ("near to the sacred forest"), or the name of the person to whom the field was allocated followed by the word *pʋʋgo*, (*pʋto*, pl.), meaning "field", for instance, *a Zalis-pʋʋgo*, "Zalisa's field".

dried fish (*zim-koɛɛnga*), fermented locust bean (*kõlgo*) and occasionally Maggi cubes. Many families prefer white sorghum (*baninga*, locally known as *belko*), while views about using red sorghum (*kazɛga*) for household consumption tended to vary, mainly revolving around issues of taste. While white sorghum flour is supposed to have a better flavour, farming households that grew mainly red sorghum defended its taste and other properties. One red sorghum producer explained to me that this cereal was the most resilient to soil degradation and the most suitable variety to adopt for extended families who need higher yields than smaller households. He also claimed that most farming families in Taamse preferred white sorghum, despite its lower productivity. However, many of them mixed red and white sorghum together in preparing porridge, although with more of the latter.

Despite household choices in sorghum use, women and men tend to agree in expressing a distinct preference for pearl millet (*kazuya*), whose flour can be used to prepare not only porridge, but also other local foods and drinks[5]. The advantages of planting this crop include its capacity to resist poor quality soils and its shorter growing cycle of 90 days compared to the 120-day cycle of both white and red sorghum. However, these benefits were contrasted with major threats posed by the arrival of head miners[6], locally known as *nouroundou* or *alphonse*, a parasite that damages pearl millet grains. In recent decades, the massive presence of these parasites has led farmers to reduce the production of pearl millet considerably, though traditionally it was the first to be produced and consumed[7]. Instead, farmers are investing in the production of other sorghum and millet varieties, causing a significant change in the household's daily diet.

In recent years, local farmers have also adopted new millet varieties that are considered much more resilient to local environmental conditions such as irregular precipitation and the risk of delaying the sowing of millet too long. One of the most frequently adopted is that known as *ka-saãnga*, literally "new millet". This variety, which farmers usually compare with white sorghum in terms of its flavour and uses, appears to be much more resilient to climate constraints due to its rapid growing time (60 days) and its smaller

5 Other local dishes include couscous (*wesla*) mixed with wild *sigda* leaves and *fura*, balls made with pearl millet flour dissolved in milk and drunk, usually sold by girls and women in the local market. *Zoom-koom* was another very common drink that was prepared for visitors or consumed during festivals and consisting of filtered water mixed with pearl millet flour, sugar and usually chilli. Pearl millet flour is also commonly consumed during sacrifices and specific ceremonies and rituals.

6 *Heliocheilus albipunctella De Joannis*.

7 This information was reported by some farmers during conversations and is corroborated by Lahuec's data from early 1970s farming systems in Zaongho and nearby villages situated between Pouytenga and Koupela (1980, p. 43), where pearl millet farmlands covered around 41% of the total cultivated area.

dimensions, compensated for by a larger stalk.

Maize (*kamaana*) is usually farmed on family fields in much smaller quantities compared to millet varieties. Its consumption usually depends on the household's preference, although it seldom exceeds the consumption of white sorghum. Its short growing cycle (70 days) makes it suitable for consumption at the end of the farming season (as cited in West et al. 2008), when sorghum supplies are coming to an end.

The crop varieties mentioned above were said to be farmed primarily on family fields and consumed as staples, since their role in household consumption significantly exceeds their market value.

Beside these varieties, cash crops like groundnuts, cowpeas and sesame are farmed on both family fields and individual fields. Cowpeas (*bɛnga*) are more integrated into the family's daily diet, followed by groundnuts (*nangouri* or *sumkaam*) and sesame (*siili*), which can be used in preparing sauces or eaten without any such preparation. However, their higher market value makes them suitable for sale and thus for meeting financial needs, like paying school fees, clothes and medicines and, in the case of women, buying condiments for household consumption. Cash crops grown in the family fields are mostly sold to compensate for the lack of sorghum, a situation that might arise repeatedly throughout the year. Moreover, as they require a lower farm workload compared to growing millet and maize varieties, these cash crops are more suitable for growing on *beolse*. Their growing time varies from 70 to 80 days, thus requiring only a single weeding, and making them compatible with the reduced time that people are usually able to spend on their individual plots[8].

Creating field categories through crop use: "fields for food" and "fields for sale"

The ways in which fields are classified plays a crucial role in the understanding of farming practices in Taamse. It is therefore important not to view them solely as superimposed categories, but rather as meaningful tools enabling privileged access to local agricultural knowledge and the social norms associated with it (Hahn 1997). Although the semantics of these terms can be useful when trying to grasp their practical meanings (1997, p. 112), this needs to be complemented with an in-depth look at the further implications of their adoption, as well as their critical inner flaws, which this article aims to provide next.

In Taamse, differences in crop use led to fields being described as either "fields for food" (*riib-pʋto*) or "fields for sale" (*kosg-pʋto*), reflecting the main

8 Usually two to three hours in the early morning and/or in the evening.

function of the crops grown in them. Although actual forms of land use appear to be more nuanced, the two terms were easily used during interviews to designate family fields (used "for food") and personal plots (individually used "for sale"). As Salfo pointed out in the previous quote from the interview, during allocation processes larger and more fertile surfaces are used for household consumption, and the remaining available fields are allocated for individual use. This choice does not provoke any disagreement among family members farming *beolse*, as it meets their own need for staple crops. As Asseta, one of the women involved in the research, clearly explained during an interview:

> Imagine if fertilizer is first given to women [to use on their *beolse*] and this won't suffice for the family fields. What will we do if family fields don't produce enough millet for us? I think it is better to save the fertilizer and use it for the family fields. In the end, we will harvest enough millet to feed the family (Interview with Asseta, March 1, 2016).

The same pattern of priorities was indeed followed in the cyclical shifting of work from one field to another during the agricultural season and in the use of farming tools and supplies as well, like the plough or fertilizer[9]. In this sense, *beolse* were usually left at the end of the work, as described in the account at the beginning of the article. A further reason for this choice was the crop growing cycle and the labour force required for it, giving the millet and sorghum varieties priority over any other crop. Nevertheless, fieldwork in 2017 revealed some possible rifts in this apparently stable system, involving particularly the choices women made about using their *beolse* crops.

Moral issues: Beolse*, gender responsibilities and household consumption*

Just one day after the big rain that encouraged most women to sow on their *beolse*, I had a conversation with the third wife of my host, Asseta, as we were walking to one of her cowives' *beolse*[10]. From the very beginning of fieldwork I knew that she had abandoned a plot she had farmed in 2016, which she had negotiated through her brother from her family of birth. The reason for this was the small yield she obtained from the field. Having

9 The dry season is usually spent collecting organic waste products, such as ox and goat dung, groundnut shells and millet bundles, which are then left to rot and later used to this end. Producing it and distributing it on all the fields poses problems in terms of quantity. Here too, if the amount of available fertilizer does not suffice to cover all the surfaces, "fields for food" are given the priority over "fields for sale".

10 The conversations with Asseta reported in this paragraph took place on July 22nd and 23rd and October 13th 2017.

remarked that Asseta did not rush to her field the day before like most of the other women, the current situation with her *beolga* was still a bit of a mystery to me: had she negotiated a new field or not? Maybe I was finally having the chance to talk with a woman who was deliberately refraining from *beolga* farming? Unfortunately this was not the case, although these initial thoughts were not far from reality. While walking I asked her whether our family would help her with farming in the next few days, since we had almost finished working on both her co-wives' fields. Despite the very critical situation people were currently facing with agriculture, she answered "As for my field, it's not that pressing". I tried to take the conversation further in order to discover more about what had happened. She explained that in the current year her husband had given her a new field not far from the compound, but that at present she was not tempted to work on it since she already knew that it was a *zi-kugdga* (dry, gravelly soil), again not being a good proposition for producing abundant yields. However, she was also aware that she could not refuse anything her husband had given her. "Here we do it like this. Even if you don't ask for a field [and you don't have any], you receive a new one", she added during an interview[11]. According to Asseta, the problem did not really concern farming as such, but rather resignation in the face of the widespread soil degradation affecting the area, which in her opinion required too much effort to improve the soil. However, it was not possible for a woman to refuse a field given to her by her own husband without being referred to by others as *kuiima* (lazy), unless she were particularly successful with other income-generating activities.

Asseta's account highlights the importance of women's moral commitment to *beolga* despite a lack of motivation and disappointment with low returns from farming due to poor soil conditions. It also says something about the symbolic value of land allocation, in which both the husband and the wife are directly involved. The term *beolga* connotes a tool to provide some material and/or financial support enabling its user to foresee and manage future problems. This practice is conceived particularly as a means to support women in dealing with their own expenses, although *beolse* can be also allocated to both single and married men to a lesser extent (Şaul 1988; Kevane and Gray 1999; Thorsen and Reenberg 2000)

Except for young single men who might use *beolse* just for their own purposes, in Taamse it was less common, though still possible, to find husbands managing plots that in fact formed part of the family fields, but which they also call *beolse* (West 2006, p. 38). Sometimes these fields were left to the sole management of the household head and were mainly used for cash crops, namely groundnuts, sesame and cowpeas. In these cases, the husband's *beolga* was expected to satisfy the family's needs and therefore

11 Interview with Asseta, October 13th, 2017.

could not properly be used for individual gain, though there were a few exceptions.

In the case of women's *beolse*, the woman is not expected to share the crops from her field with other household members, except for her own children and ultimately those of whom she has charge. No man has control over his woman's crops, leaving her free to decide how to use them[12] in accordance with her own and her children's needs, and thus making women "more like sharecroppers with rights to cultivate than landless laborers" (Kevane and Gray 1999, p. 4). Compared to men's expenditure, mainly in support of the household's need for grains for consumption, women are used to selling their crops to purchase clothes for themselves and their children and are responsible for buying some of the condiments used in food preparation. Moreover, money resulting from the sale of *beolga* crops is frequently used by the woman to meet "large" expenses in her own family of birth, like those associated with funerals, marriages or baptisms and any other problem demanding a conspicuous expenditure of money. Many women who were not able to increase their incomes otherwise during the rainy season placed great importance on the early sale of *beolga* crops right after harvesting. This was the only form of income they could count on to purchase the materials required to start a different income-generating activity during the dry season.

What raised some disagreement instead between women and men was, on the one hand, the practice of women using most of their *beolga* crops for household consumption and, on the other hand, cases in which some of their *beolga* harvest was sold to pay for millet ground for the entire family's consumption. These situations, which mostly arose out of necessity, showed how an individual field could turn into a means to support the entire family (i.e. a field for food). Most of the men with whom I discussed this topic were reluctant to admit that these situations had derived from necessity. Women had entirely the opposite view, highlighting their efforts to balance between personal choices and the collective needs that had to be met.

Zalisa, whose *beolga* crops were used entirely for family consumption, defined her *beolga* harvests as a "completion" of her husband's crops and/or expenses[13]. She and her co-wife Awa were both faced with the need to share their *beolga* crops with their husband and children for purposes of consumption. This resulted from a significant shortage in farming outputs at the level of the extended family, leading to a consequent reorganization of the daily household diet. Porridge was made and consumed in the morning within the extended family. The young women (among them Zalisa and Awa)

12 "The husband cannot enter his mouth in his wife's *beolga*", said one of the husbands involved during an interview, meaning that nobody can say anything ('enter his mouth') about what a woman should do with her field.

13 Interview with Zalisa, July 29th, 2017.

rotated the task among themselves during the week. The porridge made in the morning used sorghum from the main household granary, while in the evening every nuclear family had to provide food from its own financial and farming resources, since the yields from the extended household were not sufficient to provide two meals a day. In the evening, Zalisa and Awa, together with their husband, who also held three small *beolse* for him, used most of their farming revenues for their nuclear family's consumption. However, Zalisa did not feel disappointed faced with the need to share crops with her nuclear family, since providing food for their evening meal was considered a "problem to be managed" through *beolse* yields as well.

A much more usual situation concerned the expense of having millet ground for household consumption, which both women and men considered to be mainly a "male responsibility", although women ended up paying in place of their husbands most of the time (almost twice a month). For their part, men did not agree that it was "necessary" to share *beolga* crops as Zalisa and other women had suggested. In an interview with her household head, when I asked about women using crops for consumption in his household, he responded that a woman with a husband did not need to provide anything from her field. The same applied to the money needed to grind millet, which, according to him, all the men in his extended family collected periodically in order to grind household sorghum: "men are responsible for cereals and women for condiments", he once said to me[14]. In this view, therefore, any use a woman makes of her own harvest is completely her choice, even if oriented to the common good. Other male informants gave very similar interpretations of how *beolga* crops are used. One of these, Zalisa's husband[15], who was aware of the situation that he and his women were experiencing, still found it difficult to admit that when women provided their own crops for consumption, they were responding to a shortage in household production. He suggested rather that, in doing this, women were making a deliberate choice.

Within this framework, the reluctance observed among men to accept evidence of the need behind issues regarding consumption appeared to me to be an attempt to hide a "defect" in the household head's capacities, particularly his not being able to provide the family with sufficient food from the main granary, which was both a material and a moral burden that a man had to bear (Carr 2008).

In this sense, Zalisa's claim that women's crops were used to fill the "gaps" in provisioning left by their husbands reveals men's reluctance. Since women are not officially responsible for providing their children with anything other than care and education, to admit that the respective responsibilities

14 Interview with Samande (Zalisa's father in-law), August 6th, 2017.

15 Interview with Yacouba, October 23rd, 2017.

of the spouses are being reversed can be a cause of shame for the husband, since he is the person in charge of collective well-being. This also explains why the use of women's *beolse* ends up being framed within acknowledged gender responsibilities and thus interpreted as tools for personal support, even though everyday practices may provide different evidence for that.

Within this framework, only some crop-use patterns were acknowledged by both women and men, while some others, especially those intended for household consumption, were not unanimously recognized as necessary, but rather as consequent on the woman's own decision. In my opinion, such cases present the third breach in the fields for food/fields for sale framework: here too, moral attitudes relating to gender roles and the material uses of *beolse* seem to cause major frictions in how this framework is put into practice.

Conclusion

This article has described the fields for food/fields for sale framework as primarily stemming from the need of farmers to cope with enduring soil degradation, making subsistence agriculture a very difficult issue. This analysis was made possible by using an in-depth methodology to explore women's life worlds and also take their respective household members into account as active agents in the redefinition of social norms, categories of work and decision-making processes.

In terms of the different categories of fields and their operationalization, the fields for food/fields for sale framework results in an "optimized" farming system oriented to the achievement of higher yields through intensification of the farming activity on fields intended for collective use. However, cases reported from the field have shown that the same model may also clash with everyday subsistence practices, thus raising certain material and moral issues that challenge existing farming categories in practice.

On the one hand, despite women's *beolse* being devalued as plots formally intended for individual use and more particularly "for sale", if the household is experiencing crop shortages, women may also enact flexible strategies in the management of their crops, giving up their harvests for collective consumption. On the other hand, men insist in defining women's crops as mainly intended for their own personal benefit, emphasising that their use always depends on the woman's personal choice.

Despite the possible "flaws" in this operational framework, the fields for food/fields for sale classification is relevant at many different levels, including categories of different sorts of field, the different meanings of land, field allocations and the organization of farm labour. As has been discussed, moral issues appear in the sense that they pose a greater challenge to this model compared to material issues, which are quite readily acknowledged by those

involved.

The fields for food/fields for sale framework echoes the respective gender roles and responsibilities of women and their husbands within the household in a straightforward manner. In these terms, it further strengthens the household head's position as the main provider of staple crops, since a priority is given to the fields under his control (i.e. "for food"). However, as the case of Zalisa shows, everyday practices may also reveal failures in the husband's role as the person ultimately responsible for household consumption. As for women's roles and their challenges to the fields for food/fields for sale model, exceptional circumstances do not seem to provoke any change in its organization, since women are allowed to divert their gender role into sharing their own crops for household consumption, despite their not being recognized as active providers of staple crops, nor their *beolse* being re-categorized as "fields for food". Husband's fields are still thought of as fundamental to consumption, while the ability to redefine women's fields as potentially being used "for food", and everything this may imply, is currently far from being acknowledged.

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