"AGRIBUSINESS INVESTMENT: SMALL FARMERS' STRATEGIES AND WOMEN'S ROLE TO COPE WITH CHANGES"

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Abstract

What strategies households adopt to cope in an environment transformed by the development of a large-scale plantation or a contract farming scheme? and, especially, what role do women play to cope with the changes? This communication explores households' strategies facing the development of these two business models, for a same crop, by a single enterprise in two distinct areas. In the large-scale plantation area, results show that households who lose land prefer opting for diversification rather than seizing the opportunities offered by the company. In this respect, women actively contribute to the households' diversification strategy by running the livestock farming, doing handcraft, keeping the house and, punctually, selling their workforce in the neighborhood. On the opposite, the households who suffer no land loss mostly take the jobs offered by the company - especially the women who can associate these daily jobs with their on farm and household activities. In the contract farming area, large farmers as well as small farmers get involved in the contractual scheme to diminish the production risks by diversifying their crops, to optimize their means of production or to overcome financial constraint. In this respect, women are often the ones who trigger the introduction of the contract in the household economy and, in one third of the cases; they are the ones signing the contract. The study, still in its qualitative stage (about 80 interviews, one month of intensive fields work in teamwork), identifies the key questions that will be explored and evaluated in the forthcoming quantitative study.

Keywords: agriculture, business models, diversification, households, land, labor, women

1 Introduction

Despite the failure of Daewoo's land lease contract and the 2009 *coup* in Madagascar, large-scale land appropriations continue (Andrianirina-Ratsialonana et *al.*, 2011; Burnod et *al.*, 2013) and the promotion of agricultural investments is still on the political agenda. The new 2014 - 2025 agricultural policy¹ foresees the allocation of 2 million hectares for export-oriented private investments and medium and large-scale plantations. Hence, debates on more inclusive business models remain scarce despite several experiences of contract farming developed for over 10 years in Madagascar (Minten et *al.*, 2009). Impacts and lessons learnt from these two business models, large-scale plantation and contract farming, need to be analyzed and compared to deepen the policy dialogue and policy design process (Andrianirina-Ratsialonana and Teyssier, 2010; Burnod et *al.*, 2011).

To feed the policy dialogue, the respective impacts of large-scale farms and contract farming schemes need to be identified and evaluated on case studies basis. However the relevance of the impacts measures will be enhanced by a thorough understanding of the reaction and adaptation mechanisms of rural households in a socio economic environment transformed by an agri-business. The communication explores then two main issues: i) what strategies households do adopt in a socio-economic context transformed by the company and ii) what roles women do play in these strategies and adaptations.

This paper investigates the households and women strategies in two contrasted business models involving a same enterprise and a same crop². Both agricultural investments are located in similar agro-ecological areas in the Malagasy highlands with similar roads and markets accesses.

The communication is based on results from the first phase of a study, funded by Union European³ and jointly conducted by the Malagasy Land Observatory, the French research institute on International Cooperation for Agronomy for Development (Cirad) and the Food and Agriculture Organization of the United Nation (FAO). This first phase uses a qualitative approach to analyze and impacts of the two business models on strategies and management of land, labor and capital at the household level⁴ (cf. Bres et al., forthcoming). Data have been generated through a field work of 30 days (August 2013) by a team of 7 persons (junior and senior experts and researcher) which were able to complete 80 interviews. Building on the results and being fully correlated to this first part, a second phase is planned for the end of 2014 with a quantitative approach.

From a brief overview of the company, this paper outlines successively the findings for the large-scale plantation area and the contract farming area. For each, it presents the changes triggered by the agribusiness at local level and the households' strategies to overcome the new constraints or seize the new opportunities. Then, it focuses on the role of women in the establishment of the household coping strategies. At last, the conclusion draws on the ways within each business model to lessen the negative impact and enhance the positive ones, especially for women.

² The authors have decided not to disclose the name of the enterprise and the type of crop. In the rest of the document, to ease the reading, the enterprise will be called "Madculture" and the crop "crop A".

¹ More exactly, the Agriculture, Livestock and Fisheries Sector Policy (PSAEP)

³ Under the programme *Improved Global Governance for Hunger Reduction Programme* implemented by FAO.

⁴ The effects of the business models on the territories (water access and governance, local development, etc.) are not included in this paper.

2 The company

Madculture is a company with foreign capital, created in 2005 in Madagascar. In parallel of starting (and failing to implement) a first plantation, the company launches in 2006 a contract farming scheme with the "crop A". In 2009, the company has already contracted with 2,000 farmers for a total area of 700 ha. Then, continuing its geographical expansion in several regions of the country, in 2013, the company signed contract with 7,000 farmers for an area over 1,400 ha. It employs 90 staff for managing and monitoring the contract farming scheme and the 7000 farmers under contract represent an equivalent of 1,712 permanent employees. Thus, in a schematic way and to give a general idea, MadCulture generates an equivalent of 1.3 full time jobs per hectare. It has yearly grown by 875 farmers and by 175 ha of crop A. Nevertheless, it has nearly invested USD 5,000⁵ per hectare to develop the contract farming scheme, including agronomic research, support to the production and the contract monitoring tools.

In parallel, in 2010, the company decided to develop its own plantation and rented, from a private company Colim⁶, 650 ha of which only 500 hectares are cultivable. The company objectives were i) to rapidly increase the crop "A" production to fulfill buyers' orders, ii) to ensure to its own process factory the supply of crop "A" and iii) to conduct agronomic trials to improve yield and quality. Madculture has cultivated 100 ha in 2011 and about 200 hectares in 2013. It cannot proceed to any further crop extensions due to competing claims with the local communities on an area of 240 hectares. The company employs the equivalent of 202 permanent employees (cf. infra). Thus, to give once again a general idea, the company has developed 70 hectares per year and has created the equivalent of 1 permanent employment per hectare. However, recovering an agricultural estate badly maintained, the company has to invest USD 8,000 per hectare (USD 20,000 per cultivated hectare).

3 The large-scale farming model

3.1 Changes in local land access and governance

Development of mega farms usually leads to legal changes in land management and above all, in land access. The targeted lands, legally recognized or not as a customary property, become state-owned land (Alden-Wily, 2011), in some cases with local authorities' approval (German et al., 2013). The lands are then allocated to investors. In Madagascar, since the 2005 reform, new land laws recognize local land rights and enable the decentralization of land management at the Commune level. They protect the appropriated and occupied lands under new the legal status of 'untitled private property' (*Propriétés Privées Non Titrées*⁷ - PPNT). Consequently, these laws require the State and its services to only lease or sell to investors land that is actually unoccupied or registered in the name of the state.

However, these laws are ignored – sometimes deliberately – by the administration and/or local decision-makers⁸. Hence appropriated lands (PPNT) are still at risk of being seized by the State and allocated to investors (Andrianirina-Ratsialonana et al., 2011; Burnod et *al.*, 2013).

⁵ Data from Madculture.

⁶ Name has also been transformed.

⁷ In French.

⁸ They want to see the project develop, to get some rents for their territory (communes, Regions, etc.) and, sometimes, to extract some unofficial rents

The situation is different in the present case-study. The agricultural estate was titled several decades ago. Successively it has been the property of French colonists, Malagasy State and, for the past three decades, of the private company Colim. Then, its legal status has not changed with MadCulture as this latter is only the legal tenant. This legal situation should then confer to the company land tenure security.

If there is no legal change, there are, on the other hand, strong changes in the land access and governance. In the studied case, the lands have never been fully cultivated neither by the successive owners of the estate (colonists, State and Colim) nor by its successive tenants – as the latter used mainly the buildings for livestock production (chicken)⁹. Therefore, the lands have been progressively exploited by farmers from surrounding villages. Moreover, access to these lands has been under the informal control of some villagers, the former foremen of the colonial estate and their descendants, all coming from the village called Volana¹⁰. MadCulture's setting up has completely overwhelmed this situation: the farmers - considered as squatters by the law, can no more access to land and the few families that control land access see its power dwindles.

The inventory of the number of farmers and cultivated areas before MadCulture's setting up is highly controversial. On the basis of a census conducted by local people, a civil society organization announced that 400 families over an area of 200 ha in 5 villages were affected¹¹. On the basis of a census driven by experts paid by the company – which is supposed to be validated by local authorities, the company acknowledged 270 individuals as affected over an area of 240 ha in 7 main villages. According to this latter census, an half of affected farmers (about 150) and two thirds of the affected area (about 150 ha) are located in a unique village, Volana.

MadCulture manages to cultivate 200 ha but is faced with conflicts over the 240 ha of former occupied lands. The company has tried several times to engage negotiations. In particular, it offered the farmers the opportunity to formalize their rights on the occupied plot or to enjoy use rights on new plots through annual land leases. But the villagers from Volona, strongly involved against Colim and Madculture, opposed this proposal. In addition, they have organized several protests, supported by the civil society organizations and politicians seeking for a high media profile. One of these protests has even led to temporary detentions. Farmers are actually still fighting both on the field, by occupying the land, and on the legal side, by requesting to the court to recognize their land occupation anteriority and to question the ownership of Colim¹². At last, MadCulture attracts media spotlights and finds itself in a counterproductive position. It risks being point out by media if it cultivates farmer's occupied lands and loosing profits if it does not cultivate them. In addition, the legal owner delays reacting to the situation and some farmers refuse to return to the bargaining table.

As a result, the large-scale farming model, developed to boost the production of crop A, does not reach its goals. It even proves to be slower than the contract farming model, the annual increase in crop A area being 70 ha for the former, 175 ha for the latter. Large-scale land access – in a situation that one can have considered as secured thanks to its legal validation – remains complicated and source of conflicts. When land access land is legally granted but not

⁹ A single few hectares length area of the concession contains houses for workers and managers, storage buildings, poultries, greenhouses...

This name has also been transformed

11 Another collective civil society organization announced in a hurry in the media that 6,000 families are affected over 200 ha. At first sight, this data seems to be too important regarding average surface area of small-scale farms and the number of inhabitants in the area.

¹² The way Colim became landowner is opaque and can be contested according to the farmers.

recognized as legitimate at local level, there is a high risk of conflicts (Lavigne Delville et al., 1998).

3.2 Changes in the local labor markets

Some rural policies promote the development of large-scale farming to develop the rural labor market (cf. Deininger et al., 2011). New employees may be those who have lost their lands; the appropriation of large areas - such as all enclosure (Polanyi, 1975; Alden-Wily, 2012) obliging them to sell their workforce in the dynamics of «proletarianization» (Li 2011; Kenney-Lazar 2012). This new employees often belong to the poorest households (including migrants) who own few land and are thus little affected by the land appropriation (Maertens and Swinnen, 2009; in Madagascar, Minten et al., 2009; Medernach and Burnod, 2013).

In the studied zone, the successive companies have generated local employment although the total number of employees has been sharply varying depending on their activities (agriculture and/or livestock) and size. According to some interviewees¹³, Madculture would be the higher job provider but the one who supplies the lesser attractive working conditions. The company employs 40 permanent staffs and between 80 and 500 seasonal workers per day depending on seasons, which represents the equivalent of 162 full time staff¹⁴. It mainly recruits in the 7 surroundings villages (in 2013, 70% of daily workers registered came from these villages). This new labor demand has not been an appeal for immigration; employees from the most remote villages commute with a maximum of 2 hours walk.

The company's labor needs are maximal in July and August (500 seasonal jobs per day) but they are easily satisfied, as neighboring farmers have little agricultural works during the dry season. Labor needs are limited from November to January (80 to 100 seasonal jobs per day) but the company struggles to recruit. At his time of the year, the households have a labor peak. They prefer working on their plots (soil preparation and rice transplanting) to ensure their food consumption or on their neighbors' plots to maintain solidarity networks (or to get better working conditions) than being employed by the company. For three years, the company tries to spread in time the planting of A in order to level its labor needs throughout the year.

The daily pay is 3,000 MGA¹⁵ (7 hours) or 4,000 MGA per task (one task can be normally handled in 4 to 6 hours). The rates are similar to the ones of the local labor market but the company does not provide meals and pays only once a week.

The losers and the winners

Local communities are far from being homogeneous. They react differently (for or against the investments) depending on whether they benefit from or suffer from the company's establishment (Borras and Franco, 2012).

Depending on the villages and the households, changes in land access are contrasted. Volana village (about 150 individuals) has clearly lost more lands (150 ha) than other villages (between 11 and 28 ha for 4 villages and less than 5 ha for the last 2 villages). At household's level, these losses may vary from zero to 2 hectares (between 0.5 ha and 0.9 ha on average 16). In addition, they are more or less heavy depending on the part of farm area included in

¹³ The statement has not been cross-checked.

¹⁴ Based on annual labor cost declared by the company.

 $^{^{15}}$ USD 1 = about 2,300 MGA.

¹⁶ On the basis of respective data declared by civil society and the company

Colim's estate¹⁷ and on the quality of the plots (rice fields or hill lands). Thus, some household has endured no change while others have no more land to cultivate. Due to the high land pressure in the studied zone, no family farm has been able to buy, lease or borrow new plots. At last, these losses are not all effective. Some farmers have their plots included in Colim's estate but these latter have not been yet claimed or used by MadCulture. Thus, they continue cultivating on them but feel insecure. Other farmers have recovered their plots to militantly cultivate them and to prevent the company using them.

Again, depending on villages and households, changes in labor market access are contrasted. In the 7 surrounding villages, 902 individuals are registered as daily workers in the company's record (as there are about 1 100 households in total in these villages, on average, 8 households out of 10 have a member of their families interested in selling their labor force) and 85% of them come from the 3 nearest villages. However, villagers from Volana are badly represented in the company's record (only 25% of the registered day laborers) due to their reluctance to work for the company. At household's level, seeking employment with the company depends on their strategies and positioning with Madculture.

a. Strategy 1: Agriculture and employment with MadCulture

The households, who take the company's jobs, are not the ones who lost land, but on the contrary, the ones who suffer no land losses. They voluntarily look for job and they are not forced to it due to a lesser access to land.

The small farmers (running a farm of less than 10 Ares) get the salaried work as they used to by past with the former companies. They can recover their previous standards of living although MadCulture – according to some - does not offer neither better working conditions nor wages.

Unlike other foreign or Malagasy situations (Maertens and Swinnen, 2009; Medernach and Burnod, 2013), the most precarious households are not the only one to benefit from the new labor offer. Medium and large farmers (cultivating respectively between 10 and 80 Ares and more than 80 Ares) apply for job on a daily basis. They strengthen the diversification of their activities (agriculture, masonry, and handcraft) without challenging nor the priority given to agricultural works neither the intra-familial labor organization. One or more household members (one spouse, and/or youth) can work alternately for the company.

b. Strategy 2: Agriculture and employment strategy out of MadCulture

Small and medium farmers, that have lost 40 to 100% of their lands, reacted to the shock not by developing a new activity but by increasing pre-existing non-farm activities (masonry, off farm job). The sale of labor force is an option but not the only one. Besides, even if sometimes wages are more profitable than agricultural productions, agricultural production still has priority. Moreover, for reasons of pride and opposition to the company, household members would work with other employers rather than with MadCulture – even if they occasionally work for the company. Land losses cause then the reinforcement of household diversification but not only a simple proletarization.

c. Strategy 3: Agriculture and livestock farming strategy

Medium and large family farmers, who have lost between 65 to 100% of their lands, have also chosen to reinforce their diversification. They rely on salaried work and livestock farming. They do not develop new breeding activities but reinforce existing ones depending

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¹⁷ Losses range from 0 to 100% of households' lands

on their level of capitalization with, in ascending order, pig fattening, reproduction and pig fattening, cattle fattening, cow's milk production and chicken or egg-producing intensive farming. These types of livestock have the advantage of requiring few land areas. Cattle breeders have to change their practices due to the lesser access to pasture areas and rice straw production, and the bigger working time for grass collecting 18. Some (cattle or pigs) breeders are sometimes in a process of decapitalization. They have reported weight losses and animals' losses. Unable or unlucky to find jobs, they cannot afford buying rice, they used to produce before, and livestock feed. Finally, some breeders left some cows to relatives living outside the studied zone.

d. No strategy: A waiting position

These farmers are not, for the time being, committed to any strategy to overcome land losses. They are in a progressive process of livestock decapitalization. Some of them are old farmers that do not have enough means or energy to develop new activities; their hope is that, as the precedent tenants did, Madculture will stop and leave the zone and that they can recover their lands.

e. Diversification as a key strategy

The households who endured not land losses benefit the most from MadCulture's jobs. They are in a « winning » situation: they can reinforce their diversification without reduction the importance of agriculture.

The households who have lost lands also opt to reinforce diversification – without being trapped in a process of forced proletarianization (eg Li, 2011; Kenney Lazar, 2012). It is even easier as the study zone is close to an urban center and well connected with markets. It is also easier and more profitable for the richest and most experienced farmers.

Effects on income and food security will be systematically assessed during the quantitative study. All households, that produce less rice, are constrained to buy rice over a longer period. They consider that their situation has deteriorated even if some farmers, thanks to off-farm jobs, can earn slightly more than before.

Households in conflict with MadCulture are those who do not benefit from any advantage offered by company. They have lost their access to lands, they do not take the company's jobs and some of them have also lost control on land access. Fighting against the company is a way to recover their means of production and to keep their identity.

Women's role in these changes

Women play a key role in these strategies and changes. Diversification strategies result from household members' joint actions: the husband or the sons manage agriculture works or seek for jobs outside the village¹⁹ while the wife does the household tasks, practices handcraft, reinforces livestock breeding activities and, with her children, contributes to agricultural activities. Women should cope with activities allowing them to stay close to home and adaptable in terms of organization. They can also sell their labor force - mainly as daily workers – with neighboring farmers or the company.

¹⁸ Before the company's setting up, a breeder estimates that he could cut alone about ten bags of grass per day, now he declares to collect the same quantity over the same time with his 4 children's help.

¹⁹ In some cases, the husband is constrained to leave the village almost the entire year to look for jobs (mainly in construction industry), the wife manages the household as well as income from these off-farm activities.

Besides, women are the one who seized most the opportunities offered by the company. If they represent 52% of the daily workers in the company's register in 2013, they are more frequently recruited than men because they are preferentially selected for specific agricultural tasks such as planting, weeding, watering.

Contract farming

Contractual terms

The contract stipulates that the company supplies inputs (seeds and chemicals), provides technical support (thanks to a "bridging farmer" ²⁰) and buys the production at a price fixed before planting time and completed by a quality premium. The company pays the farmers only after the collect of the production and the control of the quality. The contract mentions on the other hand that the farmer has to cultivate 1 are at the very least²¹, follow the technical requirement, water the crop²² and to supply and use organic manure when seedling.

4.2 **Motives to contract**

a. Crop diversification and reduction of pests and disease control

Shared by all households, diversification is the first motive to cultivate the crop A. Farmers do not intent specialization while adopting crop A. Crop A does not compete with the food crops (on this issue, see Glover, 1984; Baumann, 2000; Singh, 2002). Farmers perceive the crop A as complementary and not as a priority and cultivate it only if they have extra family labor and available appropriate land (irrigated or close to a water font). As they cultivate it during the dry season, the lower demanding agricultural labor period, they rely only on family workforce in the majority of cases. They have to recruit laborers only if the harvest comes late and overlaps with the rice transplanting.

A second motive to cultivate the crop A, once again shared by all household, is linked to pest and disease control. Crop A is very resistant to attacks in comparison with the other dry season crops. In the studied area, farmers, which have been cultivating the same crop for years, face decreasing yields due to the increase pest and diseases. They seize the opportunity offered by the crop A to avoid the growing economical adversity. From beans production in the 90's decade, low yields made them shift to cabbage production. After another decade of decreasing yields, crop A has been welcomed. As a consequence of the introduction of the crop A in the rotation, the pest and disease pressure also diminish for the other crops (cabbage and beans).

The other motives to contract with the company to cultivate A are then varying for each household.

b. Optimization of means of production

Large and medium farmers (with, respectively, rice plots between 30 and 100 Ares, and higher than 1 ha) cultivate the crop A to optimize their means of production. As they have few agricultural tasks during the dry season, they can better use their land and family labor by cultivating A. Thus, in the studied case and unlike other contexts (e.g. Little, 1994; Glover

²¹ A farmer, living in the neighborhood and already experienced, visit and advice the other producers once a month.

²¹ But this rule is not strictly enforced.

²² Like other crop cultivated during the dry season, the crop A needs water every two or three days.

and Kusterer, 1990; Reardon et *al.*, 2009), contract farming does not increase the demand on the local labor market but generates a better valorization of family labor.

Nevertheless, other large and medium farmers who want to optimize their means of production can choose more profitable crops: rice or another crop under contract (crop B) promoted by another company. Their choice is possible only if they have a good water access; rice and crop B requiring more water than crop A.

Some smallholders (farming rice on less than 30 Ares) want also to optimize their mean of productions but they can achieve it only if they have access to an extra plot closed to a water point²³. Lots of them obtain this access thanks to land lend for free allowed for a 5 months period (the dry season) ²⁴. Unlike others contexts (Colin and Ayouz, 2006; Burnod and Colin, 2012; Ruf, 2013), the expansion of the crop, stimulated by the contractual scheme, does not contribute to the emergence or to the dynamics of land markets (sales and lease markets). On the contrary, the expansion of the crop relies on transactions realized outside the markets and rooted in solidarity and proximity networks.

c. Overcoming capital constraint and cash problem

Smallholders and medium farmers contract with the company for two major reasons: the funding of the inputs by the company and the payment of the production in one single time.

Some poorer farmers can indeed cultivate during the dry season thanks to this contract that supplies the plant and this crop that does not need lots of chemicals – unlike beans or cabbage. However they have to size the area cultivated to the manure they have. Other smallholders do not contract with the company because they cannot wait for the payment, done more than 7 months after the planting. As they are facing lower cash availability, they prefer cultivating small areas with crops that can be harvested and sold more quickly and regularly than the crop A (such as local vegetable with leaf like spinach).

Some smallholders also really enjoy the payment in once. Thanks to this amount of money, more or less limited according to the area cultivated, they can invest it in livestock (poultry, pigs or cows). Then they sell them according to their needs in order to cover school fees, the labor for the rice transplanting, land certificate or bigger investment (house building). Besides, some of the poorest households state that they ask less frequently for credit to local land borrower since they cultivate the crop A.

4.1 Women participation in the contractual scheme

A recurrent question in respect to contractual farming relate to its effects in terms of exclusion or inclusion of the smaller family farms (Key and Runsten, 1999; Baumann, 2000; Dolan and Humphrey, 2000; Singh, 2002; Simmons, 2002). In the studied area, the bigger farms²⁵ were the first to contract with the company and adopt the crop. These farms, with lesser financial constraints than the others, were able to overtake innovation risk and were generally used to seize the opportunities offered by companies or development project. But the medium and the small got also progressively involved. In the studied area, the crop area under contract has increased until 2012 and reached 50 hectares and 346 farmers. Farmers who contract with the

²³ The distance between the water point and the plot has a strong impact on the labor investment. When the water point is close, the watering of 10 Ares require 35 working days in average during 4 months. When the water point is distant, the watering of the same area can require twice or three times this amount of labor.

²⁴ Some smallholders temporarily stop cultivating A for lack of access to land in time.

²⁵ Large farms' land area: > 1 ha; medium farms' land area: between 30 Ares and 1 ha; small farms' land area: < 30 Ares.

firms have very different profile: they are from 18 to 60 years old and cultivate the crop A on areas comprised between 2.5 to 55 Ares. This underlines that the contractual scheme is relatively inclusive.

More specifically, women are well represented among the one who contract with the company. In 2012, they signed about one third of the all contract (company's data). Moreover, they often are the cause of the contracts signed by men. And, whatever the identity of the contracting, they are strongly involved in the contracts implementation.

In other contexts (Guyer and Peters, 1987; Watts, 1994), the fact that only one member of the household signs the contract – generally the men due to his statute of household head – can be a source of conflict. The work overload induced by the crop under contract can be contested by the household members, these latter seeing their duties increase without enjoying additional rights or advantages. Also, the development of the crop under contract can weaken land access for the household members. The household chief can impose the crop on land cultivated and managed by his wife (wives) and children (op. cit.; Eaton and Shepherd, 2001). In the studied case, men do not impose the crop A on women. On the contrary, women are often the ones who take the initiative in establishing the contractual relation even if they let their husband sign the contract.

Women generally want to cultivate the crop to get a payment in once to invest this money for specific expenditure such as buying livestock or covering school fees. Actively involved in the daily exchange in solidarity and proximity networks, they often ask neighbors for a land lend for free. Then they do most of the agricultural tasks to cultivate crop A, except the plowing, generally done by men. They do, often with the youngest children during holidays break, the weeding and above all, the daily watering. They also realize most of the post-harvest tasks (drying).

As a matter of fact their implication in the production (from investing labor force to asking for a lending) and in the management of the household budget strongly contribute to trigger the contractual relation.

Farmers' organizations can reduce the transaction costs of dealing with a large number of farmers and, more generally, the cost of implementing the contractual scheme. Above all, farmers' organizations can present a cohesive position, address asymmetries in bargaining power with investors and government and then, design more collaborative and equitable schemes (Little and Watts, 1994). They can also encounter collective action problems, lead to the exclusion of some smallholders or be opportunistically used by elite members (Baumann, 2000; Burnod and Colin, 2012). In the studied area, no farmers' organization deals with crop A company or contractual issues. Madculture refuse to deal with organizations in order to avoid their internal dissensions and maybe, their cohesive position and better bargaining power. It also refuses to deal with organization to implement better individual traceability system. Nevertheless some women association developed the crop A. Some women of the area have used this contract farming opportunity to gather in an association that uses the profit of the harvest to create a rice bank and sell it at low prices all year round for members.

Conclusion

MadCulture is involved in two business models: contractual farming and large-scale plantation. The contractual scheme has two major advantages: the production costs are lower

than the large plantation's ones (according to MadCulture managers) and, above all, it triggers no land conflict. The large plantation model has indeed a major drawback: the difficulty to get a secure land access and, as MadCulture emphasized it, even in a situation where land access is entirely legal. Consequently, the expansion of the cultivated areas in crop A under the contractual scheme, was faster (175 ha per year versus 70 ha per year in average) and cheaper (5000 USD per ha versus 8000 USD per year) than the one of the large plantation.

Local changes are more important under the large plantation model and result, unlike the contractual farming, in the creation of inequalities and "loser" groups. The local households have suffered different level of land loses up to a complete loss of access for some of them. Even so, these affected households do not mechanically become the company's laborers. While they do not have enough means to develop new activities, they choose to strengthen the existing productions: breeding, hand crafting and off farm jobs. All household members contribute to this diversification but women particularly invest in the activities in-house or at village level: agriculture, chicken or pig breeding, hand craft and jobs in the neighborhood. Then agribusiness companies that develop large-scale plantations should have a detailed assessment of the local activity systems (including on and off farms). If these companies chose not to avoid expropriation they could support the affected households – within or outside a public-private partnership, via direct intervention or a financial contribution – in their diverse activities (agriculture, breeding) or by up and downstream interventions (supplying inputs, promoting market access, etc). These supports, by focusing on local activities and not especially on women, could de facto have a positive impact on women.

Besides, households' strategies to sell their labor force are not a reaction imposed by the land loss. The household who mostly seek company's labor are the ones who did not suffer any land loss whether they are small or big farmers. Then, as often underlined in the literature, agribusiness should create well-paid jobs (at the legal rate or even more), finance health insurance and retirement contributions and supply training courses — to help local people to apply to different kind of jobs inside the company and not only the basic ones. It is also often recommended that agribusiness should create permanent jobs. However, the MadCulture's case underlines that daily jobs are more accessible to women than permanent ones. Men prefer looking for permanent jobs while women prefer selling their labor force on a daily basis to manage their off and on farm activities. Promoting women access to permanent jobs would imply a more systemic approach and changes in the management of domestic tasks and structures to look after the children (from school to kinder garden?..).

There are then two contrasted groups: the losers and the winners. The local tensions oppose the company to the 'loser' groups but they also oppose these 'losers' to the 'winners'. Then agribusiness companies that develop large-scale plantations should have a detailed assessment of the land uses and rights and above all, should respect these rights. If they could not avoid any encroachment on appropriated land or on titled land, they should recognize those occupations through lending land for free or leasing it with low rents. In the studied case, women are not involved in the negotiation process or in the team leading the conflict as they are not involved in local politics in general. The agribusiness should try to include more the women in the negotiation process (by organizing if necessary common and separate consultations) to identify new options to solve the conflict.

On the other hand, The MadCulture's contractual scheme does not result in drastic changes in land access. Moreover, the business model is inclusive. A large panel of farmers, from the small to the big ones, develops this new crop. Women are particularly pro-active: they take the initiative in establishing the contractual relation or they sign the contract. Thanks to this

contract, they can develop a cash crop without financing the inputs. They can also perceive payment in cash and in once and reinvest it in breeding activities or school fees. In the studied zone, the success of this contractual scheme – involving numerous farmers including the smallest –relies on the large practice of land lend for free and the local solidarity that supports it.

Several lessons can be learnt from the Madculture's case. Agribusinesses can promote sustainable and inclusive contract schemes through:

- recognizing and respecting local land rights (regardless of the formalisation of rights) and controlling, before signing the contract, that the land use change is not done to the detriment of women;
- supporting smallholders, within or outside a public-private partnership, in relation to access to inputs (from seeds to credit) and, particularly, access to expertise and training so that a wide range of smallholders can conform to new standards of production, increase the yields and ameliorate the quality quality and yield being profitable both to the company and to the farmers:
- implementing transparent management and effective communication on terms and conditions determining the purchase prices and the costs charged to the producers. In certain cases (cf Burnod and Colin, 2012), the quality of the relationship between agribusiness and smallholders proves to be more important than the method of formalising the relationship (i.e. type of written contract). Nevertheless, it is important to promote the fact that women can sign and manage the contract;

The agricultural sector in Southern countries requires investments to provide diversified crop productions, create employment and ensure sustainable natural resources management. In Madagascar, neither agricultural policy nor land policies address frontally which types of business models have to be promoted (large-scale plantation, contract farming, joint venture, other). The default position is then to develop the coexistence of different forms of agricultural investments without articulating their complementary and, above all, limiting their competing dimensions. This research aims to generate and feed the debate on the rural policies and business models to promote and, consequently, on the incentives to implement (tax system, land access, etc) (Andriamanalina and Burnod, forthcoming).

Donor agencies and/or foundations are keen to support financially the implementation of contract schemes. Without these incentives, agribusiness companies would often remain reluctant to launch schemes with numerous smallholders due to the high transaction costs. A challenge is therefore to provide appropriate 'keys' and ways for private entrepreneurs to grasp the advantages of contract farming (profitability of contract farming against large-scale farming being poorly documented) and to provide them with technical and institutional support.

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