



***Gender, agriculture, and the “efficient producer” discourse:
a case study from Mozambique, and lessons from South Africa***

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Abstract

The paper studies 2 irrigation schemes (Mozambique and South Africa), where local governments are endorsing the development of commercial agriculture through partnerships with international cooperation agencies or joint-ventures with private investors. These initiatives are backed by a strong “efficiency” discourse that opposes the use of irrigated land for subsistence agriculture, a major livelihood strategy in both areas. While these business models can sometimes lead to positive outcomes in terms of poverty alleviation, it is important to recognize that in the context of financial and political crises, adequate resources to manage irrigation systems efficiently are often lacking. Failure to take prevailing gender inequalities and discrimination into consideration when designing these schemes has reinforced the risk that these types of business models will accelerate processes of social and economic marginalization, including landlessness, of poor rural women who mainly use irrigated land for subsistence production.

1. Introduction

The relationship between land reform, agricultural development, poverty alleviation and gender equality in Southern Africa is long debated in academic and practitioners' literature. Within this debate, the role of agricultural activities in irrigation schemes is particularly interesting if one considers that, in a drought-prone area, having access to water means increased possibilities of improving food and livelihood security, and income levels. However, several studies on gender and irrigation in Africa have shown that women have been either marginalized in the allocation of irrigated plots (Dey, 1980; Jones, 1983; Carney, 1998) or were obliged to abandon their plot because they were not able to sustain the intensification of agricultural production or increasing water fees (Carney and Watts, 1991; Vijfhuizen, 2001). These case studies have often been used to support political measures such as giving women individual rights to land in order to increase gender equity and poverty reduction in rural areas.

According to O'Laughlin (2007), one of the limits of this claim for an individual title for women is that it downplays the "specific historical context of capitalist development in colonial and post-colonial Africa" (*ivi*: 22), needed to understand the causes of poverty and inequality. On the contrary, O'Laughlin maintains, it is crucial "to see how relations of gender inequality are intertwined with global relations between capital and labour" (*ivi*: 26) and with long-term patterns of poverty and inequality rooted in colonial history.

The aim of this paper is analysing the gendered impacts of current changes occurring in the irrigation scheme of Chókwè in southern Mozambique and in that of Makuleke in northern South Africa in terms of poverty alleviation and women's empowerment. Following O'Laughlin's suggestion, I first consider the historical contexts that are essential to the understanding of current dynamics of change which are then discussed taking into consideration the broader framework within which these changes are taking place: the neoliberal model of decentralisation of power and resource control and market liberalisation.

In both case studies local government institutions are endorsing the development of commercial agriculture through initiatives such as partnerships with international cooperation agencies or joint-ventures with private investors. These initiatives are backed by a strong "efficiency" discourse that strongly opposes the use of irrigated land for subsistence agriculture, a major livelihood strategy in both areas. While these business models can sometimes lead to positive outcomes in terms of poverty alleviation (see Lahiff 2007 for a discussion on business models in land reform), it is important to recognize that decentralization reforms occur in the context of financial and political crisis of the State that lacks the resources to efficiently manage infrastructures such as irrigation systems (Harris, forthcoming). The fact that local actors are given more responsibilities without being given enough resources to put them in practice means that "increased community and local-scale governance does not necessarily lead to improved management or to improved social equity" (Harris, 2007: 3). Indeed, this kind of institutional and economic reform "risk accelerating processes of social and economic marginalisation" (Pallotti, 2008: 19), in particular for poor rural women, as the case study of Chókwè will show.

2. Study area and methodology

Study area: reasons for comparison

The two irrigation schemes differ in many aspects, namely the size of the schemes (roughly 22,000 hectares in Chókwè, 232 in Makuleke), the number of water users (more than 11,000 and 41), the type of infrastructure and irrigation techniques and the historical dynamics that brought to the construction, then disruption and eventually rehabilitation of the two schemes.

Nonetheless, there are also several factors that make a comparison between the two interesting within the current debate on agricultural development and poverty reduction. Both located within the Limpopo River Basin in drought-prone areas, they are experiencing increasing levels of salinization of the soils, that can lead to poor agricultural performances and require a massive use of chemical fertilizers. Particularly in Makuleke - where houses are located close to the irrigation scheme - this also raises a concern on public health issues.

Secondly, recent projects of rehabilitation of both schemes are going hand in hand with an implicit focus on agriculture commercialization to the detriment of subsistence agriculture.

Thirdly, due to similar patterns of migration, women are the majority of the population and so are women-headed households. Quite interestingly, in both cases women's access to land is not the main issue: they have the same right that men have to be allocated an irrigated plot, and they can inherit it from the husband or from a relative. The problem, though, is the use that they make of land, their reduced access to inputs and resources, and permanent dynamics of patriarchal discrimination. While decentralisation is considered “a means to give ‘voice’ to local communities” (Zamponi 2008: 4) and to increase women’s participation in resource governance, it should not be assumed that the local level is a more “democratic” space than the national level in terms of increased gender equity. On the contrary, due to persistent patriarchal structures and the role of traditional leadership, it is often at the local level that women have reduced access to decision-making.

Lastly, the “efficiency” discourse supported by local government institutions is becoming more and more powerful in the two context and is likely to have critical consequences on local livelihoods: creating a process of social differentiation where the few who benefit will be adult men close to the traditional leadership in Makuleke (a process already under way), and putting at risk of expropriation those small-farmers (mainly women) who are not “efficient producers”.

Data collection

For what concerns research methods, the study combines an analysis of the historical and geographical context with the study of the literature and original fieldwork. Fieldwork was undertaken as part of my doctoral programme at the University of Bologna, and conducted between February and June 2007 (where I mainly collected secondary data, maps and statistics and conducted preliminary visit to Chókwè and Makuleke) and from October 2007 to March 2008. Fieldwork methodology was qualitative and used semi-structured interviews with central and local Government officials, technical experts of the two irrigation schemes, civil society organisations, international NGOs, rural extensionists, and water users from the two irrigation schemes. In Chókwè, thanks to the collaboration with the Union of Farmers’ Associations of Chókwè, I was able to participate to training activities addressed to women farmers members of the Union and aimed at

improving their production capacity.

In this paper, Chókwè is presented as the main case study, while evidence from Makuleke is used to compare and discuss possibilities and constraints of business-oriented activities in terms of poverty alleviation and gender equity outcomes.

3. Regadio de Chókwè: a history of expropriation

The colonial period

A project elaborated in the 1920s, the irrigation scheme fed into the necessity, for Portuguese colonialism, to control its possessions through occupation and to stimulate crops plantations such as sugar and cotton. However it was only at the beginning of the 1950s that the construction of the canals and infrastructures for the scheme started and four years later the first settlers arrived from Portugal to begin irrigated agricultural production in the so-called Colonato do Limpopo (Hermele, 1988: 37).

The Mozambican peasantry that used to occupy the area at the time of the installation of irrigation infrastructure had their land allocated according to customary rules. Migrant wages, mostly from South African mines, constituted a very important part of the economy of the area, with specific consequences from a social and gendered perspective. In fact, migrant wages provided the better-off with capital to invest in agricultural production and the poorest peasants with a very important part of their livelihood, in part fuelling an already existing social stratification. At the same time, the migration of young men, besides being an important rite of passage to adulthood, created a deep gendered division of work, with women in charge of household agriculture, that is to say of the productive and reproductive work (Valá, 2003: 60).

Conflicts between the managers of the Colonato and the local peasantry sharpened in this period because of the forced recruitment of Mozambican workers for the construction of the infrastructures for irrigation and because of the process of expropriation of land that affected 2 000 families. Only a small number of Mozambican families, linked to customary structures, received two hectares of land back, on probation, when irrigated plots were distributed in 1954, while the others had to move to dryland areas.

While the colonialist ideology stressed the success of the irrigation scheme as a model both for pacific coexistence between black and white colons¹ and for the development of agriculture, already at the end of the 1950s economic, social - in particular conflicts between the *colonos* and those expropriated that were occupying the rain-fed lands - and management problems - such as, for example, the scarcity of inputs and water - started to undermine the productivity of the scheme and over one-third of the *colonos* left the scheme before 1975, when Mozambique became independent (Hermele, 1988: 43).

The socialization of the countryside

As soon as Portuguese settlers left Mozambique, local farmers – including many of those who had been expropriated in the 1950s - occupied irrigated lands: Frelimo (the Liberation Front of Mozambique) had yet to decide how to manage the vast irrigation scheme of Chókwè. In 1977, the Third Frelimo Congress set the guidelines for the agricultural development of the country, that had

to be realized through the mobilization of people in state farms and cooperatives and the creation of communal villages. The Limpopo Valley, with its major irrigation scheme, was designated as the “breadbasket of the nation”². The Congress coincided with a major flood in the region, an event of which FRELIMO took advantage expropriating the smallholders that were resettled into communal villages and consolidating the nationalisation of the scheme, that was put under the control of a state farm, the Limpopo Agro-Industrial Complex (CAIL).

In Chókwè, the state farm’s and cooperatives’ experiment was a complete failure, because of the scarcity of the state investment in the cooperative sector (Bowen, 1989: 357), poor maintenance of infrastructures, lack of inputs and technical expertise, the disinterest of the peasants for collective forms of production (Valá, 2002: 16), increasing conflicts over land (West and Myers, 1996), and the escalation of the war between FRELIMO and RENAMO.³ In 1984, FRELIMO moved from large-scale and capital-intensive agricultural development towards a “reorganization” of the state sector that brought to a redistribution of state farm’s land to smallholders of the so called “family sector” and to private companies. This led to the complete restructuring of the CAIL, that was divided into ten state farms of roughly 2 000 ha each, while part of the remaining irrigated land was distributed between smallholders and private producers. A new directorate was established in Chókwè for the coordination of the four agricultural sectors: state farms, cooperatives, private and familiar sector. Parcels in the familiar sector were around 0.5 ha, while private farmers, mainly former peasants on probation or colons in the Colonato, as well as Portuguese farmers that stayed in Mozambique after independence, were allocated an average of 8 ha. The criterion that was used for the distribution of land between the family and the private sector was the “capacity to be productive farmers”, which related more with wealth, status, local connections and kinship relations than with equipment or specific expertise (West and Myers, 1996: 43). Other beneficiaries of the redistribution were large private commercial investors and two joint-ventures between private companies and the government. By 1987 private companies, the new category of “private farmers” and the joint-ventures had received 36% of the best irrigated land (Pitcher, 2002: 110).⁴

In 1992, a team of experts under the State Secretariat of Agricultural Hydraulics identified a series of main problems, such as the poor conditions of the hydraulic structures and the drainage system and the consequent abandonment of a large part of irrigated land; market constraints; health hazards for the local populations and for the cattle; water consumption problems and the steady progression of the salinization of the soils whose costs of reclamation were considered to be very high. The 1992 document also considers problems arising “from the macro-economic and social changes, institutional reforms, the changeover from an authoritarian economy to a market dominant one, restructuring of the production system” (GoM, 1992). Even though, in theory, operational and maintenance operations should be covered by users of irrigated lands by means of a water tax, “of course these people refuse or fail to pay the tax as long as the water distribution and drainage system isn’t working properly. Lacking credit and outside aid, the institution has more or less suspended its activities” (*ibidem*).

New actors, new interests: the irrigation scheme after 1997

The year 1997 seemed to be a landmark for the development of an irrigation scheme that, for its size and for the availability of water, had the potential to be the “breadbasket of the country” but that was never so. A decree established the creation of a new management body, the Hidráulica de Chókwè - Empresa Pública (HICEP) and of Water Users Associations (WUA), a project of rehabilitation of the main canals of the scheme was implemented with the support of the French Cooperation; at the same another relevant process was on the way, with the big commercial

enterprises starting to divest from the irrigation scheme and returning the land that they occupied to the state. It is interesting to note that while part of this land was at the time redistributed between farmers of the private sector (those with more than 4 ha of land), the best irrigated land is still registered in the name of the state in the cadastre held by the HICEP: in 2007 part of that land has been allocated to a South African-Zimbabwean company that is cultivating rice and maize and is planning to cultivate sugar cane, allegedly for bio-fuel production. As happened after the divestiture of the state farms and the simultaneous liberalisation of the economy, the recent divestiture of the big private sector contributed to the emergence of new actors with specific interests in investing over a valuable resource such as irrigated land.

The following chapter will analyze role, claims and interests of the main actors currently playing a role within the irrigation scheme, and will discuss constraints and possibilities for women smallfarmers in a context of increased pressure over land.

“If you want to live in a luxury house, you have to deserve it” HICEP and the myth of the efficient producer)

HICEP, the state-owned enterprise responsible for the management of the irrigation scheme, was established in 1997. However, its statute was formally approved by the Ministry of Agriculture and Rural Development only in May 2002, while rehabilitation works to recover the scheme from the damages caused by the 2000 floods were still underway.

The Statute aims at “adopting regulations to guarantee a rational use of [Chókwè Irrigation Scheme]” given the “need to better exploit [its] potential” (Boletim da República, I Série, n. 18, 1 de Maio de 2002). It first defines rights and duties of the parties concerned, namely water users, Water Users Associations (WUAs) and HICEP, then it regulates water utilization and management, land use, equipment use and infrastructure management, and eventually it provides the norms for the payment of the water fee defining violations, compensations and fines.

Water users (WUs) are entitled to receive water, whose quantity is proportional to the size of their plot, and to be represented by his or her respective WUA. The right to water for irrigation can be suspended if the WU does not comply with the payment of the water fee. WUAs regulate, manage and keep the accounts of water distribution within the area assigned to them,⁵ make sure that infrastructure (secondary canals and ditches) and equipment are properly maintained, represents its member and take part in the administration of the irrigation system. HICEP, on its side, administers the irrigation scheme, regulates, manages and keep the accounts of the whole amount of water entering the scheme, is responsible for the maintenance of main canals and for technical support to WUA (Capítulo I, art. 1,2,3).

With respect to land rights, art. 12 establishes that the irrigation scheme follows the norms contained in the 1997 Land Law. Two types of land rights apply to WUs of Chókwè Irrigation Scheme: those entering the scheme for the first time are issued a state-granted land title (Título de Uso e Aproveitamento da Terra) upon sound approval of their WUA. Non Mozambican citizens and corporate bodies (art.12, 1997 Land Law) are only allowed this type of land title, and their application must include a development plan that has to be implemented within two years. On the other side, those Mozambicans men and women that have occupied irrigated land in good faith for at least ten years are awarded an inheritable land title. Within the scheme administration, both titles can be revoked for an abuse of right or for not paying taxes. In Chókwè irrigation scheme is the WUA that can ask for the revocation of the land right of an insolvent WU (art. 14). The statute

further clarifies that land rights within the irrigation scheme respond to the aim of intensifying land use, therefore WUs, provided that water is available, are required to cultivate their plot. Moreover, land rights are inseparable from rights and duties related to the use of water. In case of a request for revocation, the WUA has to propose to HICEP a list of 5 potential candidates to the vacant plot. The new land right-holder is required to pay off the debts of the former.

In terms of violations and respective sanctions, the statute establishes that those WUs that do not pay the water fee can be subject, following a decision of his or her WUA, to coercive payment, suspension from the right to receive water or revocation of the land title.

I suggest here that there is a critical contradiction in the Statute with respect to HICEP's responsibilities and the administration of smallfarmers land rights. While article 2.2 establishes that HICEP "regulates, manages and keep the accounts of the whole amount of water entering the scheme", "makes sure that the infrastructure and the equipment are properly maintained" and "administers the irrigation system (...) supporting WUAs", articles 12 to 14 *de facto* give WUAs and HICEP the right to decide over plots' expropriation for those who do not comply with the payment of the water fee. However, the 1997 Land Law establishes that no payments or fees are required for the use and exploitation of land by State institutions, public benefit associations recognized by Mozambican Government, smallfarmers of the familiar sector, rural communities, and by cooperatives and small agropastoral associations (1997 Land Law, art. 29). According to art. 18 of the Law, land titles can be cancelled when the development plan agreed between the Government and foreign private investors is not being implemented, for public interest reasons after just compensation, at the end of the 50 year period established by the law, or for renunciation of the title-holder.

Currently, the main concerns of HICEP managers are the completion of the infrastructural rehabilitation and the economic sustainability of the irrigation scheme, with the latter envisaged as a direct consequence of the former. According to Mr. R.L.,⁶ manager responsible of the coordination of WUAs, HICEP has been strained by the perpetual lack of autonomous funds and has always had to rely on external donors' interventions. He maintained that, in order to cover all the management expenses and maintenance costs and to balance the accounts, the year's water fee - that currently amounts to 850 Meticaís (Mt)⁷ per hectare - should be increased to approximately 3,500 Mt, corresponding to a 300% rise. However, he added, HICEP can impose this increase only when the rehabilitation process has been concluded. When confronted with the fact that such an increase would be unsustainable for the majority of the farmers of the familiar sector, he claimed that indeed this was the biggest problem of the irrigation scheme: the fact that there are many smallfarmers that waste water cultivating their irrigated plots for familiar consumption, rather than for commercialization. According to him, irrigated plots should be allocated to those who have the capacity to work it efficiently and to produce for the market: "if you live in a luxury house - he said - you have to deserve it and to take good care of it", whereas many smallfarmers do not have production skills and are just wasting water. In his opinion, the agricultural model to be developed in the irrigation scheme relies on rice and maize production, respectively in the warm and cold season. Instead, he claimed, "smallfarmers mainly cultivate vegetables, that go further than rice", and this is the reason why "here in the market you find rice from Pakistan".

With respect to limited access to production inputs and marketing possibilities, he stressed that smallfarmers should not expect to receive support or subsidies from the state "because this can not happen". As for marketing possibilities, the main problem is that smallfarmers "prefer to sell it to the processing factory in Manhiça rather than do contract farming for MIA⁸", whereas in his

opinion a perfectly viable option is for smallfarmers to find, with the support of the WUAs, a strategic partner that could provide them with inputs and means of production through the creation of a joint-venture. Indeed, a pilot project to improve smallfarmers' rice cultivation techniques, with the Japanese International Cooperation Agency acting as a potential 'strategic partner' was being implemented when I visited Chókwè. And another cooperation project, funded by the Andalusian NGO CIC-Batá and aimed at strengthening the productive capacity of the smallfarmers members of Farmers Associations, had begun in March 2006.

A third and final question relates to how HICEP's view about the "efficient producer" relates to the Mozambican government agricultural development strategy. S. V., a researcher at the National Directorate of Rural Development, legitimated HICEP's vision, claiming that "it does not make sense that in an irrigation scheme plot-holders farm as they do in drylands: an optimal solution would be having a programme of support to smallfarmers, but the State has no capacity to implement it. Therefore it is necessary that only those who have production capacity have access to the irrigation scheme".⁹ According to him, the Mozambican agricultural model should be rethought in order to create preconditions for efficiency improvement. In particular, he suggests, it is important to look at credit opportunities, to increase research, to ameliorate rural extension services, to provide inputs and marketing possibilities. However, "the Ministry of Agriculture lacks the adequate structure to reach such a goal".

Table 1: Water users - gender disaggregated data

	M	F	Total	% F
Irrigation scheme "Eduardo Mondlane"	9,993	4,861	14,973	32
Familiar sector	5,577	2,626	8,203 (8,274)	32
Private sector	616	36	652 (659)	5.25
Chókwè* - total	429	338	767 (778)	44
Chókwè - familiar sector	398	318	716 (725)	44.4
Lionde - total	549	226	775 (776)	29
Lionde - familiar sector	506	196	702 (702)	27.9

Source: Cadastre of water users - HICEP (situation at December 2007)

* Here I consider the number of WU of two areas of the irrigation scheme. Chókwè is where farmers' associations involved in the Spanish cooperation project are located, while Lionde is where JICA has established its pilot project (see following chapter)

Table 2: water users and plots' size per sector - 2007

	Water Users		Irrigable Land (ha)	Average Plot (ha)	
Familiar Sector					
0.25 ha	238	2%	59.5	0%	0.25
0.5 - 0.9 ha	5,332	47%	2680.5	12%	0.50
1 ha	3,055	27%	3055	14%	1.00
1.1 - 3.9 ha	1,924	17%	3943	18%	2.05
<i>Subtotal</i>	10,549	92%	9,738	44%	0.92
Private Sector					
4 - 9.9 ha	749	7%	3,873	18%	5.17
10 - 39.9 ha	135	1%	2,071	9%	15.34
40 - 500 ha	14	0%	1,129.5	5%	80.68
<i>Subtotal</i>	898	8%	7,073.5	32%	7.88
Commercial Enterprises					
> 500 ha	5	0%	5,304.5	24%	1060.90
Total	11,452	100%	22,116	100%	1.93

Source: Cadastre of water users, HICEP (2007)

Reviving the breadbasket of the country: current cooperation projects in Chókwe irrigation scheme

“Contribute to the strengthening of the peasant movement of Chókwe irrigation scheme through its agricultural and organizational development” is the title of the project implemented by a Spanish NGO, CIC-Batá, whose main beneficiaries are the member of six farmers’ associations belonging to the União de Cooperativas Agrárias do Chókwe (UCAC). The project has been designed in cooperation with the União Nacional de Camponeses (UNAC) that, in 2003, carried out a participatory research in the area in order to assess the problems that UNAC farmers were confronting following two years of drought, to discuss possible solutions and to establish priority interventions.

UCAC, created in 1983 as an association of farmers, and one of the founding members of the UNAC, was legally recognized in 1997. UCAC has today approximately 2,600 members grouped in 33 associations created between 1977 and 2001; of these, 19 are based within the irrigation scheme and many of their members had received an individual plot in 1983 when, in the wake of the Fourth Frelimo Congress, a part of the cooperatives’ land was redistributed among members that were allowed to use communal inputs and means of production. The project is designed to directly involve 6 farmers associations cultivating land within the irrigation scheme. Table 3 presents data on the total area of the associations, average plot size and the total number of members disaggregated by gender.

Table 3: Farmers’ associations members: gender disaggregated data

Association	Ha	Members	Ha/Member	M	F	% F
21 de Maio (1983)	80	78	1,02	1	77	99%
IV Congresso (1983)	24	24	1	5	19	79%
Josina Machel (1977)	89	117	0,76	17	100	85%
Casa Agraria (1999)	45	76	0,59	10	66	87%
Zonas Verdes (2001)	19	22	0,86	10	12	55%
Agropem (1986)	50	51	0,98	16	35	69%
Total	307	368	0,83	59	309	84%

Source: *Fieldwork*

According to CIC Batá and UNAC participatory research, several are the problems that the farmers of the UCAC, and in general farmers of the familiar sector, are facing: first is the fact that the project of rehabilitation of the irrigation scheme concerns only the main canals, and leaves the maintenance and clearance of the secondary and tertiary canals with the water users, as established by the HICEP statute. Because of the fact that a minority of farmers comply their duties with respect to canals cleaning, secondary and tertiary canals are often in a state of deterioration or blocked by aquatic plants, limiting the irrigation capacity and increasing the possibility of flooding of entire plots. Related to this is the issue of the water fee: water users are requested to pay for the amount of water utilized, once water is available in the main canal. Given the bad conditions of the secondary and tertiary canals, they often need more water to be distributed to adequately irrigate their field.

Secondly, these farmers lack of inputs and resources to increase their production and improve their productivity, and most of the farming activities are realized with rudimentary tools. They do not have access to credit, nor to training, information or adequate extension services.

Third, farmers do not have the organizational capacity to influence local policies, a factor that increases their vulnerability with respect to land and water rights. In particular, the project maintains that commercial enterprises are exercising mounting pressure over HICEP to be allocated land in the irrigation scheme, to the detriment of smallfarmers, that are either required to utilize their plots efficiently or to leave them to those who have better production capacity.

Fourth, the absence of storehouses or cold stores results in the rapid deterioration of the vegetable production that has not been sold to local traders. At the same time, crops' transport through wheelbarrows or small carts is often impossible because of the bad conditions of the paths and bridges linking the farther plots to the main road, obliging farmers to carry what they have harvested on their backs. This factors further limit already scarce marketing possibilities.

Therefore, CIC-Batá project aims at integrating the official rehabilitation project carried out by HICEP with infrastructural works in the secondary and tertiary canals and improvement of the drainage system in order to avoid waste of water and to prevent leaking that might result in the impossibility to farm.

A second field of intervention is related to the improvement of production and productivity through providing farmers with seeds, fertilizers, pesticides and other means of production such as hoes and wheelbarrows. An extended training programme is also planned, combining the creation of a demonstration field with training courses on agricultural production techniques, use of animal traction, financial management, and the creation of a "seeds bank" and seeds exchange initiatives with other Unions associated to UNAC throughout the country.

All these activities, the project claims (2005: 11), will be realized with the direct involvement of the 6 farmers associations in order to promote and improve the self organization of farmers, ensuring project' sustainability.

It is interesting to note that the project is presented as a coherent integration to the Mozambican Government's intervention in Chókwè, emphasizing the shared objective to "increase farmers' production and productivity in order to guarantee food security" (CIC-Batá 2005: 16) of the local population and stressing the fact that, during colonial times, the irrigation scheme "used to be called the 'breadbasket of the country' for its great capacity of producing seeds" (sic).¹⁰ However, in another section of the project, the ONG claims that Government's investments for infrastructural rehabilitation are not only aimed at guaranteeing food security, but also at decreasing the import of rice and at optimising the use of land. With respect to land optimization, the project maintains that the Government requires land holders to exploit land's full potential or to leave irrigated plots to those who have better capacity to work it. This discourse, the project continues, is being "influenced by a powerful lobby of private enterprises (mainly South African) (...) that are putting pressure on local authorities and the national Government to expropriate smallfarmers and to be allocated land" and is justified with the scarce production capacity of smallfarmers, that in this process are at risk of "loosing their only livelihood strategy" (CIC-Batá 2005: 19).

This conflicting vision is reinforced in the analysis made by the local coordinator of the Spanish NGO: he initially claimed¹¹ that the two rehabilitation initiatives - the one promoted by the Mozambican Government and HICEP, and the one being realized by CIC-Batá - were

complementary and that in this way they wanted to show to HICEP that also smallfarmers, when adequately supported, can be “efficient” and produce surplus to be sold to the local market. But when discussing more exhaustively the current dynamics in the irrigation scheme, he pointed at factors that severely limit smallfarmers’ production capacity and marketing possibilities, painting a rather pessimistic scenario.

According to him, the Government’s, HICEP’s and private investors vision with respect to agricultural models conflicts deeply with the one of UNAC, CIC-Batá and the smallfarmers of Chókwè, in particular for what concerns the kind of seeds to be used, marketing and processing possibilities. In 2006, smallfarmers’ tomatoes production had been ruined by a disease that affected the plants, grown from genetically modified seeds, of the commercial producers and that was transmitted to other tomatoes plants. The use of transgenic seeds in the irrigations scheme poses several risks for smallfarmers, whose crops are exposed to new diseases that they are not prepared to fight.

In terms of marketing possibilities, a huge impediment for smallfarmers is the fact that they cannot process the rice they are starting to produce as an outcome of CIC-Batá project: thus, they are obliged to sell their production to processing factories who have a wider profit margin. Typically, smallfarmers of UCAC sell their rice to Orízicola Inácio de Sousa, a rice-processing factory located in Palmeira, in the district of Manhiça, Maputo province, and gain from 4.1 to 4.5 Meticais (mt) per kg of rough rice, to which they have to deduct approximately 1mt per kg to cover transport costs. This has to be added to the fact that local rice is far more expensive than rice imported from Asia: for this reason, as I will clarify later relying on the interviews that I made to women smallfarmers, some rice producers prefer to keep it for familiar consumption.

He also argued that there are other factors hindering the development of smallfarming activities, not necessarily related to the difference in the agricultural model envisaged by the two sides of this latent conflict. One of these is commercial producers’ attempt at drawing individual smallfarmers and farmers associations into contract farming (in particular of sugar cane), an option that – S:M: said - they are going to resist due to the small profit offered. A third and crucial factor is the fact that HICEP and the local government do not regard UCAC as a legitimate and relevant interlocutor, whereas it seems that big commercial producers are strategically linked to local government institutions. An example of this was an overt conflict between UCAC and HICEP sparked off by the official establishment of WUAs. HICEP asked UCAC and farmers’ associations to wound up so that their members could join the respective WUA as individuals. UCAC strongly disagreed and, with the support of the Spanish NGO is now engaged in a process of claiming juridical personality for the farmers associations, that in this way aim at joining the WUAs as association rather than as individual water users.

One year after the beginning of the Spanish cooperation project, a new actor belonging to the international cooperation system arrived in Chókwè, in order to implement a project that had been agreed with local institutional partners. In March 2007, Japan International Cooperation Agency (JICA) had begun the implementation of a Technical Cooperation Project aimed at “*Integral Development of Small-scale Farmers in Chókwè Irrigation Scheme*” in partnership with HICEP and the District Directorate for Agriculture and Rural Development. The project, “result-oriented” and incorporating “participatory methods that involve residents of [the] project’s target area for planning, administration, and evaluation of the project”¹² aims at increasing incomes deriving from farming activities and improving food self-sufficiency of local farmers. Planned activities encompass a support to the infrastructural rehabilitation project to provide farmers with

year-round access to irrigation, training on suitable agricultural techniques and on management of irrigation facilities, and the strengthening of farming support system.

With respect to the latter envisaged activity, JICA experts are directly responding to HICEP request to increase rice production within the irrigation scheme through the establishment of a pilot project of rice cultivation in a 30 hectares area in Lionde, where the canal rehabilitation had been completed. The pilot project, involving 37 plot-holders of the familiar sector (but not members of farmers' associations), aims at introducing Japanese rice cultivation techniques among Chókwè farmers, provided that "Japanese are good at rice growing"¹³. When I was brought to visit the project field, in early December 2007, the 30 hectares area, easily visible from the main road, was almost a uniform patch of green, and a few farmers were busy completing the planting of rice seedlings. However, the impressions that the JICA expert shared with me were not so encouraging: according to him, there were several problems that could hinder smallfarmers' rice production capacity, namely the fact that "Mozambicans do not like to work and all young people go to South Africa", the bad conditions of the whole irrigation scheme¹⁴, and the plots' size, that was "too big for these farmers". He was indeed very surprised to see that polygamy was not anymore widely practiced in Mozambique, because "if a man has more wives, they will all work in the husband's plot". Another issue that he considered critical was related to the governance capacity of the Mozambican government: "even though there are no street children or slums as in Kenya here, the Government is not working...".

His scepticism about the likelihood of positive outcomes grew when we visited a shed where a small mechanized mill had been installed to explore the possibilities of local processing of rice. The several attempts resulted in broken kernels - a problem due to inadequate setting of the mill, but also to the poor quality of the local rice - that induced the irrigation engineer to declare that he "would never eat rice from Chókwè". However, when confronted with the several constraints that Chókwè rice would have to face within the local and international market, he said that he was "confident that production will improve. We'll think about the market at a later time".

What do women farm?

The table below shows main data, related to plot size, agricultural production, commercialization strategies and access to other forms of income, collected during the interviews that I conducted with smallfarmers, women and men, members of the farmers associations involved in the CIC-Batá cooperation project. Several trends emerge from the interviews.

Of the 20 farmers interviewed, 17 are women. While the 3 men are all married (and one has two wives), among the women 6 are married (one is the first wife of a polygamous man), 8 are widow, and 3 are single mothers. Their age range from 32 (a single mother) to 63 (a widow),¹⁵ while the 3 men are respectively 49, 54 and 60 years old. The first trend that emerges, and was confirmed by all the farmers in their interviews, is that younger people, and particularly men, are not interested in farming and either have other forms of employment or, more often, have migrated to South Africa. The lack of young people to count on for agricultural work is a main concern for all the farmers, and particularly for the oldest ones.

With respect to land holding, 5 out of 20 are farming a plot that is not registered in their name. Of these, one woman is working, since 2005, the plot of a woman who died the year before. She used to have a plot within the same association, but in 1991 she had been obliged to abandon it because of "difficulties". In 2005 she went back to the association asking for available land, and she

is now waiting for the plot to be registered in her name first within the association and then in the HICEP cadastre. Her production has been exclusively subsistence-related, and rather scarce with respect to other farmers. The reason for this was that her plot was not receiving water due to soil irregularity that has later been levelled. She has just started to properly irrigate and she does not know how much is the water fee, since she has never been asked to pay it. Among the other four, one is farming a plot registered in her sister's name; another has been assured by her uncle that he is not interested in the land she's working; the third is farming her husband's plot while the fourth, a man, is farming a plot registered in his first wife's name when he was working as a miner in South Africa. The plot is half hectare but he claimed that he has the capacity to work 2 hectares, since both his wives and his sons are ready to help. However, there are no vacant plots in the association he belongs too. Two years ago he had rented from another farmer 1 hectare of land where he planted rice; when he was ready to harvest, the title-holder, "seeing that his land was producing well", asked to be returned the plot, claiming that it was his right to harvest the rice. The association, responsible for resolving conflicts among members, decided that the rice belonged to the tenant since he had done all the work, but after the harvest he had to return the plot.

Plot size varies from a quarter of hectare to 2 hectares, the average being 0.9. Is interesting to note that the three farmers who have a 2 hectares plot (2 women and 1 man) are Presidents of a farmer association that had been assigned their individual plot between 1983 and 1987.

With respect to crops production, 14 of them are cultivating rice (the 3 men, and eleven women). Of the 6 women who are not, 4 are widows and 2 are single mothers. They mainly produce maize, beans and sweet potatoes for subsistence, and only one sells part of the maize production from home. Except one, the others have other sources of income, coming mainly from casual labour in other plots (usually paid between 30 and 50mt per day), but also from charcoal selling, bricks production and clothes-washing.

Among the rice producers, the situation is very varied. One man has been able to harvest, in the last season, 6 tons of rice in 1.5 hectares of land (1 hectare is registered in his name, the other half is his wife's), but most farmers grow rice in half hectare of land - even when they have a bigger plot -and average production ranges approximately from 1.5 to 3.5 tons of rice. For what concerns rice commercialization, the majority of farmers sell their rice to Orízicola Inácio de Sousa, a rice processing factory located in Palmeira, in the district of Manhica, Maputo province. They usually gain 4.1 to 4.5 mt per kg of rice, from which transport costs, calculated as 1 mt per kg, have to be deducted. Only three women do not sell their rice to the factory: one claims that the amount of money received is not worth all the work she does in her field, therefore she considers more profitable to clean the rice herself and sell it from home, gaining up to 15 mt per kg. Another woman sells rough rice from home, gaining approximately 100 mt per 15 kg. The third used to sell rice to the factory, but now that her production has decreased due to poor conditions of her plot, she prefers to keep it for familiar consumption: "I am not going to spend all my money for a 25kg bag of rice in the shop!", she claimed.

All the farmers grow maize and beans, and many grow vegetables too. Some successful rice producers (4 women and 1 man) have decided to limit their crops to rice in the warm season and maize and beans in the cold one. Two of them, however, have access to another plot in the dryland where they grow vegetables that are either sold at the local market or used for familiar consumption., while the other rely on what they gain from rice selling.

It emerges that one key factor enhancing production capacity is the role that the farmers play within the farmers' associations: the Presidents, men or women, farm bigger plots and have good connections with local traders. They are more oriented towards commercialization of the production than the other members and they are very optimistic over the possibility to increase rice cultivation; however, they are concerned about limited marketing possibilities.

It also interesting to note that those who do not cultivate rice are all widows or single mothers, that often do casual work for other farmers or have more established employment such as bricks' production: for them, the farming activity is not the main source of income, and the irrigated plot is mainly used for familiar consumption. These women joined the farmers' association much later than other widows who are, on the contrary, cultivating rice.

	Association	Role	Plot size	Rice production	Other production	Commercialization	Other forms of income
Celeste Ubisse 63, widow	21 de Maio	President	2 ha (1983) ²	75 bags x 50kg	maize, tomatoes, onions, beans	Rice sold to Orfízicola Inácio de Sousa (OIdS), ³ the rest to local traders	No
Palmira Maposse 55, married	21 de Maio	Vice-president	1 ha (1983)	50bags x 50 kg (0.5 ha)	maize, beans	From home: 15 mt/kg of cleaned rice	No
Regina Siteo 53, married (poligamy)	21 de Maio	Member	1.5 ha (1983)	80 bags x 50kg	maize, sweet potatoes, lettuce, onions, peppers, beans	Rice sold to OIdS, the rest to local traders or from home	Her husband's salary
Saulina Simango (?) ¹ widow	21 de Maio	Member	1 ha (1983)	19 basg x 50kg (0.25 ha)	maize, sweet potatoes, beans	No	Casual labour in other plots
Rosalia Cossa (?) married	21 de Maio	Member	0.5 ha (1983)	30 bags x 50kg (0.25 ha)	maize, beans	From home: 100 mt/can of rice ⁴	No
Ester Mate 58, married	IV Congresso	President	2 ha (1983)	35 bags x 50kg (0.5 ha)	maize, tomatoes, sweet potatoes, lettuce, onions, peppers, beans, cucumber, cabbage	Rice sold to OIdS, the rest to local traders	Her husband's salary; cattle-breeding
Atalia Chauque (?) widow	IV Congresso	Member	0.5 ha (2005)	-	maize, sweet potatoes, lettuce, onions, beans	No	No
Isabel Chauque (?) widow	IV Congresso	Member	0.5 ha (1996)	-	maize, sweet potatoes, beans	No	Casual labour in other plots
Amelia Chauque (?) single mother	IV Congresso	Member	0.25 ha (2007)	-	maize, beans	A part of the production is sold from home	Casual labour in other plots; clothes-washing
Clara Mabunda 32, single mother	IV Congresso	Member	0.5 (2003)	-	maize, beans	No	Bricks' production (600mt / month)
Francisco Chauque 54, married	Casa Agraria	President	1 ha (1983)	120 bags x 80 kg	maize, tomatoes, sweet potatoes, lettuce, onions, peppers, beans, cucumber, cabbage	Rice sold to OIdS, the rest to local traders or from home	No
Lidia Nuvunga 45, single mother	Casa Agraria	Vice-president	0.5 ha (1998)	60 bags x 50kg	maize, lettuce, beans, cabbage	Rice sold to OIdS, the rest to local traders	No
Laurinda Cuamba 43, married	Casa Agraria	Member	0.5 ha (2001) *	50 bags x 50kg	maize, beans	No	Her husband's salary
Rosalina Balate	Casa Agraria	Member	1 ha (1983)	100 bags x 50kg	maize, beans	Rice sold to OIdS;	No

45, widow						maize from home	
Albino Mabunda 60, married (polygamy)	Casa Agraria	Member	0.5 ha (1989) *	75 bags x 50kg	maize, beans	Rice sold to OIdS	Both his wives sew for local people
Antonio Gimo 49, married	Josina Machel	President	2 ha (1987)	60 bags x 50kg (0.5 ha)	maize, tomatoes, sweet potatoes, lettuce, onions, peppers, beans, pumpkin, cucumber	Beans sold to a trader from Maputo; the rest sold to local traders	Cattle-breeding
Percina Moiane 54, widow	Josina Machel	Member	0.25 ha (1994)	-	maize, lettuce, beans, sweet potatoes, onion, peppers, cassava	No	Casual labour in other plots
Guida Cossa 38, widow	Josina Machel	Member	1 ha (1998) *	-	maize, sweet potatoes, lettuce, beans	No	Charcoal selling
Melita Ubisse 47, married	Zonas Verdes	Member	0.5 ha (1984)	30 bags x 50 kg	maize, lettuce, beans	Maize, lettuce and beans sold to local traders	Her husband's salary
Safuina Cuamba 39, widow	Zonas Verdes	Member	0.5 (1990) *	50 bags x 50 kg	maize, sweet potatoes, lettuce, onions, pumpkin	Beans sold to a trader from Maputo; maize sold locally	Her children sell fritters locally

* These farmers work a plot that is not registered in their name in the HICEP cadastre

¹ These women were not able to tell their age.

² Year in which the plot has been allocated.

³ Orzícola Inácio de Sousa is a rice-processing factory located in Palmeira, in the district of Manhiça, Maputo province. Farmers gain from 4.1 to 4.5 mt per kg of rough rice (transport costs are usually calculated as 1mt per kg).

⁴ Rice is locally sold in cans. A can keeps approximately 16kg of rice (farmers calculate 3 cans for each 50 kg bag) and is sold for 100 mt.

Of water, land and rice: final reflections over gendered dynamics in Chókwè irrigation scheme

A crucial question, I suggest, is why such an emphasis has been placed on rice production in Chókwè irrigation scheme and what are the expected outcomes. Recently published reports (Agrifood 2005, IIAM 2006, Arlindo 2007) analysing the international rice markets and prospects for the development of rice production in Mozambique reach rather different conclusions. According to Agrifood Report (2005: 118), while “the prospects for the rice industry in Mozambique are generally good”, there are critical factors that have to be considered: first, they have to be considered in the light of the trade policy of South East Asian countries; secondly, it has to be considered that not everyone will benefit from an increase in rice production for the internal market and in price stabilization; third, such a development depends from an increased productivity of existing rice production areas and increased access to inputs and marketing possibilities; fourth, the possibility for Mozambican rice to be exported remains extremely unlikely due to its poor quality (*ibidem*). A report of Institute of Agricultural Research of Mozambique (IIAM 2006), relying on 2002 data, maintains that “cheap rice imported from the Indian and Pakistani Punjab makes intensive irrigated rice production an unlikely economic proposition” (*ivi*: 46). Production fluctuation caused both by drought and floods makes even investment in research over rice cultivation unprofitable; in this respect the report actually argues that, though the research infrastructure in the South is wider than in the North of the country, the former ranks low in economic importance and scope for poverty alleviation: Chókwè agroecology, for example, ranks ninth among Mozambique ten’s agroecologies (*ivi*: 60). The *Mozambique Competitiveness Report* (2007), prepared for the World Bank, suggest that, even though the Gaza Province has contributed with very limited amounts to the national rice production,^{xvi} and notwithstanding the reports published previously, the Mozambican government still considers Chókwè irrigation scheme a crucial zone to reach its goal of increased national rice production.

A second question concerns the use that smallfarmers make of land, which is critical to understand why they are considered inefficient and which are the reason for doing so. Women’s farming activities are particularly important here, for two main reasons: the first is that women account for more than 30% of total registered farmers (see table 4). Though I have not been able to estimate how many more women are, *de facto*, farming an irrigated plot that has been registered in the name of a family member or a relative, it can certainly be assumed - on the basis of local patterns of agricultural production and of historical dynamics of male migration - that they are at least twice as much those registered in the cadastre. For example, women members of the 6 farmers associations involved in the Spanish cooperation project account for 84% of the total members. The second reason, related to this, is that Chókwè proves to be a very complex and peculiar case study in terms of women’s access to land: in fact, women have had and still have the same right as men to obtain a land title - particularly so within the familiar sector - provided that there is a vacant plot in the irrigation scheme. However, is the use that they make of land that becomes crucial in order not to loose the plot.

In other African case studies (Vijfhuizen 1998; Zwarteveen 1997) it has been showed that it was very difficult for women to be given an individual parcel of land in an irrigation scheme while, given its political and socio-economic dynamics Chókwè can be considered a peculiar case – not unique in Mozambique, though. In Vijfhuizen (2001: 89-121) analysis of Massaca irrigation scheme – located in the Maputo province – it is shown how women, that were the 70% of the members of a 144 ha scheme built by a development project of the Italian Cooperation, were loosing control over their irrigated lands to the advantage of men, both from the local community and from outside. In a

context of growing commercial value for irrigated land, the fact that women were not able to access to, or control, other forms of income and had therefore scarce access to farming inputs and resources, made very difficult for them to raise enough money to pay the water fee – meaning that many of them (especially widows, divorced women and single mothers) were forced to rent or sell the irrigated parcel and return to rain-fed agriculture. Stressing the importance of access to irrigated land for women’s livelihoods and for households’ food security in rural areas, Vijfhuizen (2001: 114) considers that – notwithstanding land’s potential for commercial agriculture – the management of the irrigation scheme, in the re-organization of the scheme - has to consider the social value of that land too: «there is more to irrigated land than mere soil» .

Researches carried out since the 1980s analyzing the gender dynamics in African irrigation schemes, such as that of Dey (1981) and Carney (1988) on Gambia, Carney and Watts (1991) on Senegambia and Zwarteveen (1997) show the marginalization of women and call for individual or property rights in order to increase productivity and to the household benefit.

In Chókwè it seems that the problem for women is not accessing land, but the use that is made of it and the factors that influence this use: lack of time and financial capacity to acquire new skills in farming, to differentiate crops, to commercialize them; the amount of productive and reproductive work that has to be carried out by women; the high rates of HIV-AIDS infection in the area that reduce women’s livelihoods possibilities (O’Laughlin 2006). Women of Chókwè hold a title for their plot, but this is not sufficient against the risk of landlessness: land tenure security in Chókwè depend on the individual (and group) capacity to meet the criteria of productivity of the irrigation scheme management, but no conditions have been created for women small-farmers to improve the use that they make of land.

The focus on the creation of commercial partnerships as a means for increasing farmers’ productivity is one of the envisaged solutions, and WUAs and smallfarmers are encouraged to find private investors willing to provide them with inputs and means for commercial production: current developments in the Limpopo Province, South Africa, provide some space for further reflection.

4. Smallholder irrigation schemes in Limpopo, South Africa

Smallholder irrigation schemes in South Africa: a brief account

The South African State under the apartheid regime promoted projects aimed at the development of agriculture in the native reserves, characterized by extreme poverty and inequality. Until the first half of the 1950s, state policies were concerned with “betterment” planning and focused mainly on the conservation of soils and grazing and land use planning (Lahiff 2000: 20). From 1955, with the Tomlinson Commission Report on “Soci-economic Development of the Bantu Area within the Union of South Africa”, projects such as smallholders irrigation schemes (SIS) and sisal plantations were implemented through the South African Native Trust, agricultural (*ivi*, 87), in an attempt to create a small élite of black commercial farmers. During the independent homeland era, the establishment of SIS was further intensified and their management was centralised in the hand of homelands’ parastatal corporations, with a consequent withdrawal of central government. Financial, technical and social management of the schemes proved to be very complex, and by the beginning of the 1990s most of the irrigation schemes were in a state of abandon or severe deterioration. In the wake of the democratisation process, parastatal agencies were dismantled and the levels of agricultural production considerably fell. However, the new ANC government tried to pursue a

strategy aimed at the improvement of the quality of life of poor rural people within the framework of the Reconstruction and Development Programme, that favoured the establishment of new irrigation schemes and the rehabilitation of those already established to increase food security in rural areas (Van Averbek, Mohamed, undated). This community-based policy was abandoned in favour of projects that linked economic growth to private sector development when the Growth, Employment and Redistribution Strategy was adopted in 1996. SIS were considered a key resource in terms of economic development, and the revitalisation of irrigation schemes was planned according to Irrigation Management Transfer (IMT) strategies, that entail a full transfer of management responsibilities to farmers (*ivi*).

While several projects have been planned and implemented within this framework in the country, the initiatives carried out by the Limpopo Province are very relevant to the scope of this study.

Irrigation schemes in Limpopo

Situated in the Northeastern part of South Africa, bordering Mozambique, Zimbabwe and Botswana, Limpopo is one of the poorest provinces of the country. A predominantly rural province (89.3% of its population lived in non-urban areas according to 2001 national census), Limpopo was home to three former Bantustan during the apartheid era, Venda, Gazankulu and Lebowa. Almost half of the SIS built during apartheid were located here, reflecting current situation: currently in Limpopo there are 183 irrigation schemes that cover almost 30 000 ha (the total area under irrigation schemes in South Africa is 49 504 ha), with an average plot size, for roughly 18 000 farmers involved, of 2.2 ha (Denison and Manona 2007: 11).

The strategy of revitalisation of SIS in Limpopo has gone through different phases. In 1998 the Water Care project was launched: the primary aim of infrastructure rehabilitation in 34 selected SIS was linked to a broader strategy that focused on community participation, improvement of organisational capacity, decision-making and technical empowerment, agricultural training (*ivi*: 14) in order to enable rural communities to take full responsibility of the scheme. The focus on “revitalisation”, that linked economic to social development within the IMT framework, rather than just on technical rehabilitation, was the main focus of the second phase of projects implemented by the Limpopo Province in order to improve small-farmers capacity to cultivate irrigated land. The Limpopo Revitalisation of Small Irrigation Schemes (RESIS) programme, initiated in 2002, broadened its scope both in terms of SIS targeted (124) and in terms of development activities aimed at poverty alleviation in the communities involved. Ambitiously, the RESIS programme engaged with local economic development initiatives in order to establish agri-business and marketing activities at community level. However, in a thorough analysis, Denison and Manona (2007: 17) argue that several factors limited the success of the programme, namely the lack of trained personnel within the local Department of Agriculture, the lengthy engineering interventions, the non-consideration of land tenure related issues, the diverse characteristics of the schemes involved vis-à-vis a “one size fits all” strategy based, mainly, on maize and cotton growing.

In 2005 the Limpopo Department of Agriculture cut down on the “revitalisation”-related aspects of the RESIS programme and shifted towards a rehabilitation approach, named RESIS-Recharge, whose main focus is infrastructure restructuring and improvement for commercial partnerships. These initiatives, at the core of the Black Economic Empowerment Framework for Agriculture, have been identified as crucial for enhancing the capacity of small-farmers having access to irrigated land to access markets and improve both incomes and food security.

It is therefore within this framework that the history and current development of Makuleke irrigation scheme have to be analysed.

5. Lessons from Makuleke

Makuleke irrigation scheme: two experiences of commercial partnerships

Makuleke irrigation scheme, situated in the north-eastern corner of the Limpopo Province, was built during the first half of 1980s. While irrigated plots on the scheme were allocated by the chief and farmers were organized in a cooperative, the management of the scheme remained under the control of the Agricultural Development Corporation until 1994 (Tapela 2008; Denison and Manona 2007). Because of debts, unsustainable inputs cost for the small-farmers and poor management, by that time the scheme was in a state of severe deterioration, and conflicts were emerging about land allocation issues.

Between 1999 and 2001, within the WaterCare framework, the Department of Agriculture assisted by German cooperation facilitated the election of an interim committee that evaluated and selected applications for land units within the irrigation scheme according to equity and “farming capacity” criteria. As a consequence of this process, the scheme was divided into two sections, a “commercial” one, with 46 farmers (40 men and 6 women) with plots of roughly 5 ha each, and a “subsistence” one, with approximately 270 plots (140 allocated to men, 130 to women) of 0.1 ha. A second phase, implemented in 2002, brought to the establishment of a Water Users Association in Makuleke (Denison, Manona 2007: Appendix G).

At the same time, technical rehabilitation of the scheme started; institutional training and capacity building courses addressed at the management committee of the scheme, agricultural and infrastructure maintenance training for farmers were initiated too, while less attention was devoted to financial management and marketing. A third area of intervention of the programme, beside infrastructural operations and training activities, was related to the facilitation of the establishment of a joint venture partnership with Noordelike Sentrale Katoen (NSK), a cotton processing company. In October 2002 a Joint Venture agreement was established between NSK and the Makuleke commercial farmers to produce cotton according to a share-cropping arrangement. While NSK highly valued the production potential of the scheme and the institutional support they had from the Department of Agriculture, some farmers were concerned that cotton production would have hardly increased their incomes and, moreover, it would have jeopardized their food security. On the other side, the fact that NSK was ready to provide them with irrigation equipment that could be repaid in five years at low interest rates, together with the perceived opportunity that the partnership would have improved their farming experience, played a crucial part in the final decision to sign a five years partnership (*ivi*: G-12) with a 50/50 profit share arrangement.

At the end of the first year, the results, in terms of production and profit were discouraging and only a few farmers were able to gain a small profit. According to Tapela (2008), factors to be considered in the account of this failure are the fact that cotton is a capital intensive crop and the risk attached to the decision of producing such crops in a volatile global market. In fact, for Makuleke commercial farmers, production costs have often exceeded profits and, even though NSK wrote-off farmers debts, the fact that global market prices of cotton declined steadily^{xvii} made cultivation too risky. This also had a negative impact on the potential for jobs creation in the community: hand-picking of cotton was chosen for this reason, and also because it provides a

higher quality product. However, because of the low or even not-existent gains, commercial farmers were reluctant to employ persons, in this way reducing the picking rate and the quality of the cotton itself (Denison, Manona 2007: G-22).

“Entrepreneurial spirit” and patriarchal norms

The unsuccessful experience of the joint venture erupted into a conflict among farmers, and a final decision was made, in 2005, to stop the partnership (*ivi*: 194). However, the “entrepreneurial spirit” (Robins and van der Waal 2008: 68)^{xviii} of the Makuleke, and the lobbying capacity of men commercial farmers belonging to the “mainstream political life of the community” (Tapela 2008: 194), led the community to sign a second joint venture contract with a potatoes and maize private producer. The agreement is for a three-years partnership and provides for a 40% profit share for the Makuleke during the first year that will increase to 50% and eventually to 60% at the end of the second and third year. The contract also states that the strategic partner would provide commercial farmers with all the inputs needed for production: seeds, fertilizers, pesticides, tractors, sprinklers for irrigation.

During the first season, the main crop produced under the joint venture partnership were potatoes, and the harvest proved to be excellent for all the commercial farmers, that were able to obtain a net profit of 5 000 Rand per hectare.^{xix} This has boosted the enthusiasm of commercial farmers and key actors among them plan to start fundraising in order to be able to buy tractors, potatoes harvester, sprinklers and a truck so that, once the joint venture comes to an end, they will be able to farm independently.

Two factors, though, have to be taken into consideration in the analysis of the current partnership: the first relates to land exploitation and likely consequences, the second to the social dynamics that this initiative has created in the community. The kind of farming required for potatoes and maize, and the quality levels expected by the strategic partner, imply a heavy use of chemical fertilizers and pesticides. This, together with the intensive use of land in the scheme, raises a concern on stress and impoverishment of the soil and the necessity of crop rotation. Water is a main concern too, considering that the area is drought-prone and that water for the schemes comes from a rainfed dam.

From a social point of view, it appears how agriculture commercialisation has reinforced various forms of marginalisation in Makuleke and how it is creating a process of social differentiation among farmers. People from the community are, in part, benefiting from the current joint venture in being employed, on a daily basis, for potatoes harvesting. However, commercial farmers preferences are towards harvesting mechanization, that will eventually reduce the need for labour force. Women commercial farmers are marginalised from the decision-making and were not involved in the negotiations with the strategic partner: this can be considered a reflection of the patriarchal norms that characterize the Makuleke Tribal Authority, that has no women neither elected nor nominated in the Traditional Authority Council established by the Traditional Leadership and Framework Act (Pellizzoli 2008). The key actors of the community and those that have been able to lobby in order to attract funds and support for the community are all men, that are considered as being very powerful within the community. Shangaan culture and identity are used as explanation for the poor involvement of women in the decision-making circles of the community, and European culture is blamed for bringing in issues such as “divorce” or “equity”.

6. Conclusions

The two case studies raise complex issues within the broader debate on the role of commercial agriculture for poverty reduction. In Chókwè, a conflict between the management of the irrigation scheme, who is pushing for the establishment of commercial joint ventures between private investors and Water Users Association, and small-farmers belonging to Farmers Associations that mainly use irrigated land for subsistence production, is under way. A planned increase in the water fee will have particularly dire for women small-farmers who are already experiencing difficulties in paying the amount due. Consequence of this is an increased risk of land expropriation, as established by the Statute of HICEP.

In South Africa, the Makuleke community has been able, given its lobbying capacity, to negotiate upon two strategic partnership. While the first has been highly unsuccessful, the second seems to have more potential for generating incomes and creating jobs. However, women are a minority between commercial farmers and, because of the patriarchal tradition of the community, they have been excluded by decision-making and negotiations with the strategic partner.

In both places, small-farmers have other options for cultivation - the dryland in Chókwè, foodplots in the irrigation scheme and dryland in Makuleke. However, women small-farmers of Chókwè have long relied on their irrigated land for a diversified food production, and, in both places, the availability of water is a great concern, being the two areas drought-prone. In Makuleke, this is one of the factor that is creating pressure to enter irrigated land.

Among those interested in accessing the irrigation scheme are private commercial producers that have recently been allocated thousands of hectares of land within the irrigation scheme. Their “development projects” involve the production of rice and sugar cane for biofuel. However, the high level of mechanization of this crops will not guarantee that possibilities for rural employment are created.

Lastly, these projects based on the myth of the “efficient producer” do not take into consideration the characteristics of inequality and gender discrimination of the neo-liberal market. Expecting small-farmers, and in particular women, to be able to compete in the globalized agricultural market seems unrealistic, and can perpetuate unequal gendered access to resources such as land and water.

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Notes

¹ Since 1959, in fact, Mozambicans were assigned land as *colonos*, with equal rights and duties. The probation system, though, remained in function (Hermele, 1988; Valá, 2003)

² “It has been established by Frelimo and the Government of the Popular Republic of Mozambique that the Limpopo Valley has to turn into the breadbasket of the country” (República de Moçambique, n.d).

³ State farms, often located in areas of strategic importance and producing export crops that were crucial to the national economy, were a specific target for RENAMO’s strategy of destruction (West and Myers, 1996: 34-35).

⁴ These changes in the agricultural policy had to be read in the framework of the Structural Adjustment Programme (SAP) that the Mozambican Government agreed with the World Bank and the International Monetary Fund in 1986, and the consequent Programme of Economic Rehabilitation that called for measures such as the removal of price controls in the food market and the privatisation of state enterprises.

⁵ For administrative reasons, the irrigation scheme is divided in three sectors (North, South and River), themselves divided into areas delimited by canals of distribution. A WUA has been established in each one of these areas, though some of the smallest areas have been united in a single WUA (see map below).

⁶ R.L., interview, 27 November 2007.

⁷ 1US\$ corresponds to 27 Mozambican Meticaís.

⁸ Moçfer Industrias Alimentares (MIA) is British-owned company that has recently acquired a former rice husking company located in Lionde and is farming on approximately 1,300 hectares of land in Matuba. According to an HICEP source, the land that MIA is working used to be allocated to a Zimbabwean company, XANA, that has abandoned the scheme. Indeed, in the HICEP cadastre there are 1,300 ha of land registered XANA's name. MIA is planning to develop an extensive production of over 14,000 tons of high quality rice per year; it also aims at producing improved quality seeds and supporting local farmers in rice production. (Source: Notícias, 18 de Maio 2007).

⁹ Interview, 11 November 2007

¹⁰ On the contrary, the expression “breadbasket of the country” was introduced in 1977 during the Third Frelimo Congress.

¹¹ S. M., coordinator of CIC-Batá projects in Mozambique: interview, 14 November 2007.

¹² Information drawn from JICA website: <http://www.jica.go.jp/english/operations/schemes/tech/projects/>

¹³ Mr. T., irrigation engineer, JICA: interview, 5 December 2007.

It had been very difficult to organize an interview with JICA's experts in Chókwè: in fact, they did not speak any Portuguese, and were barely able to speak English. At the same time, they said they could not provide me with the project outline, therefore the general information reported here are collected from JICA website and analysed in the light of my personal observation of the ongoing project.

¹⁴ For which he did not have an explanation: when I tried to discuss quickly the devastating effects of the 2000 flood, and previous infrastructural constraints he congratulated me on my knowledge of history.

¹⁵ The average age for the 12 women that could tell when they were born is 47.

^{xvi} The North produces 30.8% of the total rice, the central provinces (and particularly Zambezia) 62.2%, the South only 7% (Arlindo 2007: 60)

^{xvii} The expected price for the first season (2003) was 4 Rand/kg but the real price lowered to 3.50 Rand/kg. In the third season the cotton price was 2.20 Rand/kg.

^{xviii} According to the authors, the Makuleke community has gained an “iconic status” within the debate on land restitution, natural resources conservation and community development. In 1998, in fact, the community won a restitution case and signed a partnership with the South African National Parks for the lease of Makuleke land within the Kruger National Park and with two private investors for the construction of game lodges in the Park. Over the years, powerful actors of the community have engaged with several actors, such as NGOs, donors, and South African institutions and state agencies and they have been able to attract funds and support (see also Lahiff 2007).

^{xix} Personal interview with a commercial farmer, 14 February 2008.