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**Promoting Employment Through Foreign Direct
Investment- The Case of the Cotton Sector (Dunavant) in
Morrumbala District**

By

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A. Introduction

“Forging a development strategy based on industrial crops like cotton that displace labor from food production, damage the ecosystem, and satisfy foreign, rather than domestic demands, has long-term economic and social consequences. In the minds of most Mozambicans, cotton will always be the mother of poverty” (Isaacman, 1996:243)

The cotton sector is *“perhaps the most important vehicle for the mercantilisation and monetarisation of the rural economy”*. Cotton is still not synonymous with wealth, but it has long since ceased to be the ‘mother of poverty’” [Eng. Luis Pereira, General Director of Dunavant

This article discusses the role and impact of foreign direct investment on the quality and quantity of employment created in the cotton sector, using the multinational Dunavant operations in Morrumbala district, as a case study.

The cotton sector was selected because: 1) it has the potential in job creation: according to Osorio and Tschirley, 2003, the sector employs 300,000 to 350,000; 2) for several years it ranked second in merchandise exports (after shrimps); 3) it also has the potential to significantly increase smallholder per capita income¹.

This article begins with an historical overview of the sector, states the role of the sector in the Mozambican economy, and goes on to present and discuss the findings of the research. It ends with a section summarizing the main findings and offering policy recommendations.

The above two contrasting views reflect the ongoing debate on the role of cotton in the Mozambican economy. On the one hand, there are those who point to the benefits of the sector in terms of the economy and the employment generated, mainly looking at the quantitative side of the equation, whilst others, point to the exploitative nature of this low-skilled, physically demanding and labor-intensive activity, thus giving more prominence at the qualitative side of the equation. In sum, the issue at the centre of the debate is to know if indeed cotton can be a vehicle for wealth creation and/or poverty-reduction through employment creation or does it, by its very virtue and nature perpetuate and reinforce poverty? Further, what’s the role on FDI in those processes? Does it help in the process of wealth creation through employment or it reinforces the already imbalances in the labor market, household and society in general?

In raising those questions we try to understand the logic beyond each argument and carefully look at the literature dealing with the history of cotton in Mozambique from the colonial period to the present to find answers. Then with the insights and trends gathered from the literature on cotton, we developed a questionnaire which allowed us to test our hypotheses in the field. By doing so, we were able of not only identifying the main trends and bottlenecks the sector experienced over the years, but also to

¹ Empirical evidence shows that in some cotton growing areas sales ranges from 52 to 84% of the total value of household income (MAP, 1991). The same report argues that the use of fertilizer and herbicide led to increases in per capita income of more than 100% in Northern Mozambique.

come up with policy recommendations which in our view could not only alleviating poverty through jobs creation (quantity) but also help create better ones (quality).

A.1 Historical overview and the role of cotton in the Mozambican economy

Seed cotton has been cultivated in Mozambique for more than 80 years and, although small in terms of production and size of operators compared to other African countries, the cotton sector plays an important role in the Mozambican economy. Cotton exports constitutes over 40% of agricultural exports (GDS:2005:19) and injects over US\$21 million into the economy through the purchase of raw material from the farmers (Pereira, 2006). It also generates nearly \$US 40 million in agricultural exports per year (NCBA, 2007). Correspondingly, cotton constitutes an important source of export earnings for Mozambique. In the period 1993-6, cotton ranked second in terms of merchandise exports (after prawns) (Ofico and Tschirley, 2003:1)

Cotton also plays a big part in the rural economy and in the income of rural households. It has been estimated that the cotton sub-sector is the main income earner for some 350,000 rural households (GDS:2005, NCBA, 2007)², with total economic dependence based of 1.5 million people (10% of total population) make their livelihood through cotton farming. The average size of smallholder farms is generally between 0.25 and one hectare, while medium size farms, of which there are not many, can be as large as 10 hectares (GDS:2005:16).

Currently, according to the General Director of Dunavant, the cotton sector is “*perhaps the most important vehicle for the mercantilisation and monetarisation of the rural economy.*” Despite low yields, due to lack of research to help develop new varieties of seeds, absence of effective extension services, poor on-farm management practices, poor use of fertilizers and sprays, and very low prices in recent years, cotton remains the most reliable cash-generating activity in many rural areas (Pereira, 2006, 2007) . Studies have shown that cotton sales range from 52% to 84% of the total value of household cash income (Ofico, 2003:1). This is in the cotton belt of Nambula and Cabo Delgado (GDS:2005:17). The two provinces account for over 75% of all cotton production in Mozambique

² Other sources state that there are 300,000 households (NCBA, 2007)

Table 1: Mozambique's Cotton Sector Profile

1.0 Land under cotton production	
1.1 Growing area	150,000 – 200,000 ha (Nampula: 72%; Cabo Delgado: 17%)
2.0 Production level	
2.1 Peak production level (1973)	144,061 tons
2.2 2003	54,000 tons
2.3 2004	92,000 tons
2.5 2005	120,000 tons
2.6	
2.7	
3.0 Farmers in cotton production	350,000 smallholder households
4.0 Cotton variety	REMU 40; A637-24; CA 324; STAM 42
5.0 Farm size (average)	
5.1 Smallholder farm	0.25 – 1.0 ha
5.2 Small and medium farmers	2.0 – 10.0 ha
6.0 Yield rate (average)	
6.1 Seed cotton	415 – 600 kg/ha
6.2 Lint cotton	191 kg/ha
6.3 Seed-to-lint Conversion ratio	0.34 – 0.42:1
6.4 Yield potential	2,000 kg/ha
6.5 Realized yield	30% - 33%
7.0 # of smallholder farmers (families)	265 families 85 – 90% of total production)
8.0 Cotton export (value)	\$18.3 million (2.6% of total exports)
Source: Global Development Solutions, LLC (2005:16)	

Cotton production also generates industrial and commercial activities throughout the whole chain: import and distribution of inputs, extension services provided to farmers, seed-cotton ginning, oil and oilcakes production, transport of seed cotton to the ginning plant and transport of ginned cotton to ports for export, textile, garments and fashion. At industrial level the sector employs about 20,000 workers (Pereira, 2007). However, the full potential of backward and forward linkages and respective employment effects are yet to be exploited.

Over the years, cotton has also been an important source of employment, both downstream and upstream with various sectors involved in the production chain providing employment opportunities ranging from the farm to the textile industry, including export. De facto, the sector involves over 300,000 families and provides permanent employment to over 3,000 workers, as well as over 5,000 seasonal jobs. In the 2005-6 harvest, for example, 38 million tonnes of fibre were produced which, at an average of US\$1,000 per tonne, contributed a total of approximately US \$38,000 to the national economy (Correio do Algodao, 2006,14)

However, in spite of the above mentioned potential, the sector has gone through repeated crises since Mozambique became independent in 1975. The maximum

recorded production was 144 000 tonnes in 1974. After independence in 1975, the government nationalized most cotton processing enterprises, which led to a decline in production levels to 5,000 tonnes in 1984/85. (Ofico and Tschirley, 2003:3-4). By contrast, other countries, such as Burkina Faso, production increased between 1995-2005 from 155,000 to 700,000 tonnes. With the advent of peace and the introduction of a market economy system production levels in Mozambique bounced back and are now about 120,000 metric tonnes per year. However, in Nampula, the so-called 'cotton belt' of Mozambique, the sector has stagnated with output levels well below those achieved in the peak years of the late 1990s (Tschirley, 2005)³

While the ups and downs of the sector could be attributed in part to the effects of the 16-year civil war, commentators have also blamed the crisis on the government's lack of clarity and hesitation between maintaining the concessionary system or liberalization.

In addition, the troubled history of the sector, linked to the system of forced cultivation introduced by the Portuguese colonisers has left a lasting legacy on Mozambican cotton growers who, to this day, retain the negative associations of the past system in their attitudes to cotton production (Langa 2006, Pereira 2007).

As a backdrop to the current situation, the following sections provide a brief historic overview of the development of the cotton sector from colonial times to the present. The chronological periodisation of the history of cotton development from colonial times to the present times varies by author. The chronology adopted by this author has drawn on a number of these authors in an attempt to draw out elements thought to be most relevant to the focus of this thesis.

Following on from the chronological account, based on findings from the fieldwork, the current situation and key challenges facing cotton growers and investors in the sector are presented and discussed.

A.1.1 The Colonial Period

According to Isaacman (2003:19), portuguese cotton policies fall into three periods. The first, characterised by vague, ineffectual directives aimed at enhancing peasant production, ran from the end of the eighteenth century to the beginning of formal colonial rule in the early twentieth century. The second ran from the beginning of the period of formal colonial rule when Portugal decided to expand its metropolitan textile industry. And the third period, which began after the Salazar coup in 1926, was marked by the introduction of aggressive policies aimed at increasing cotton production that were rigorously imposed on the colony. It was in this third period, that forced cotton production and the concessionary system were introduced.

Wuyts talks of the three main phases of capital accumulation in colonial Mozambique: the first (1885-1926), characterised by the domination of non-Portuguese foreign capital; in this period, the economy was characterised by the plantation economy in the centre of the country and the labour reservoir in the South

³ For more details on the Nampula crises see Strasburg, P (1997) Small-holder cash cropping, food cropping and food security in Northern Mozambique, Michigan state University.

whereby Mozambican labour was sold to South Africa for the exploitation of the mines and to some extent of the sugar plantations in Natal, in return for deferred payment to Portugal in gold. The second, 1926-1960, saw the emergence of what is generally described as 'economic nationalism' in Portugal, which sought to use the colonies to solve the colonial power's economic problems in order to help Portugal integrate into the world system (Fortuna: 1993). This strategy required the intensification of Mozambique's integration into the capitalist systems of Southern Africa on the one hand, and, on the other hand, the development of a system of capital accumulation based on the rationalisation and institutionalisation of the system of forced production (Wuyts, 1980: 9-11). The third period (1961-1974) is referred to as 'crisis and restructuring of capital'. During this period, Portugal, for internal, as well as external reasons, was forced to abandon the system of forced labour. These include: the rise of the anti-colonial movement; the rise of national movements within the Portuguese colonies and the beginning of the armed struggle in Angola; and the ILO requirement for the abandonment of the forced labour system as a condition of Portugal's entry into the ILO (Wuyts, 1980: 20-22)

Most authors concur that the system of forced production and the concessionary system constitute the two most salient characteristics of the cotton production system in Mozambique during the colonial period and subsequently. As described below, the rural population did not succumb passively to this oppressive system imposed by the Portuguese. In order to address their economic needs at home the Portuguese colonial regime responded with differing degrees of harshness to peasant resistance in its attempts to extract maximum benefit from cotton producers.

Taking into account the above author's periodisation, we devised what we think to be a more realistic periodisation of the cotton industry in Mozambique for the purpose of this research work, with the first period starting in 1926 and ending in 1938 when the concessionary system was introduced for the first time. Then the second period would encompass the years between 1938-46 where the state intervention was intensified and labour conditions worsened, followed by the third period, 1946-1970, when faced with peasant's resistance and unfavourable external conditions the state relaxed its coercive regime. The fourth period of 1975-1989, entailed the abolition of large private companies and nationalization of the cotton industry, while in the fifth- mid-1980 to mid-1990's- there was privatisation and liberalisation through the creation of joint venture companies. The last and sixth period elapses from mid-1990 to present- a new strategy for cotton development was created trying to strengthen farmer's position by encouraging them to form associations to deal with companies.

A.1.2 First period:

1926-38 : the introduction of the concessionary system and forced production

First introduced in 1926 and substantially expanded in 1938, the cotton regime was introduced by Portugal as a way of reducing its balance of payments deficit and the national debt and expanding the textile industry. At the time, Portugal purchased 95% of ginned cotton on the international market and this contributed to its balance of payments deficit.

According to Wuyts, getting the colonies to produce raw materials to sell to the “motherland” constituted a key component of the ‘economic nationalism’ strategy developed by the dictatorial regime aimed at supporting its own industrialisation process through the concentration and centralisation of capital (Wuyts, 1980:14-15). The expansion, intensification and institutionalisation of the system of forced labour and forced cotton cultivation under the Salazar regime served to reinforce the power of the bourgeoisie, both at home and in the colonies and constituted the basis of the new relations between Portugal and its colonies (Wuyts, 1980:17). It was also instrumental in enabling the development of cotton ginning as the principle branch of Portugal’s industrial development in the 1950s (Wuyts, 1980: 18).

The forced production model used was based on the one developed and implemented in the Belgian Congo, the success of which was greatly admired by the Portuguese authorities (Isaacman, 2002:6). Under a decree established in 1926, cotton zones were established in which private concessionary companies would receive an exclusive right to purchase cotton at fixed state prices, well below the prevailing international rate. Peasants living within the zone were forced to grow the crop. Smallholder farmers worked under very tough conditions (Horus Enterprises, 2005:13): Companies were established to gin and prepare the crop for overseas sale. For instance, in 1927, a Portuguese merchant society – SAGAL- obtained a monopoly over cotton production in the district of Cabo Delgado (Isaacman, 2002:6-7).

But, from the beginning, there were problems. Most peasants refused to grow cotton at the prices on offer and chose instead to continue growing food crops or, in some cases, fled to neighbouring Tanganyika (Tanzania) where prices were better. There were not enough state officials in place to be able to coerce the peasants into cotton production. Similar problems with the Portuguese concessionary system imposed elsewhere in the country were also occurring, with the result that the Portuguese were unable to meet the requirements of their nascent textile industry. (Isaacman, 1982:7)

A.1.3 Second period:

1938 -46: the intensification of state intervention and worsening labour conditions for cotton growers

In an attempt to remedy the problems faced, the Portuguese adopted a state interventionist system, which sought to impose direct state supervision over all aspects of production and marketing. A Cotton Board with representatives of the Portuguese textile industry and the concessionary companies was established. In order to increase output, while maintaining production costs low, the Board imposed conditions on the peasants, such as fixed times for planting and harvesting and minimum acreage requirements, determined number of times crop had to be weeded, selected types of seeds to be distributed and fixed the price paid for various qualities of cotton. The police and other state and/or local officials were employed to impose these conditions and applied aggressively coercive means, including beatings and thrashings, to force peasants to comply (Isaacman, 1982: 7). Whilst some degree of compulsion was applied in other colonies, such as the Ivory Coast, Uganda and the Sudan, in no other colony was there such a high degree of state intervention at every stage in the production process as in the case of Mozambique (Isaacman, 1996:238)

In order to increase the level of production and profitability, a greater number of peasants were forced to grow cotton and the work day was expanded, while cotton prices paid to farmers were pushed downwards. For example, the number of concessionary zones in Cabo Delgado doubled from 5 to 10 and the size of each zone more than doubled from 50 to 120 kilometres, while the number of peasants forced to cultivate cotton in the district increased from approximately 20,000 in 1935 to 125,000 in 1943 (Isaacman, 1982: 7). A Government Circular of May 1947 obliged all natives to work six months a year for the Government, a company or an individual (E. Mondlane, 1969). Overall, more than 750,000 Mozambican peasants, along with their children and spouses were forced to plant cotton over the first two decades of the system. That is more than in any other colony, with the possible exception of the Belgian Congo (Isaacman, 1996:1, 238)

Even so, it was not always possible to recruit as many cultivators as required and the realities of cotton production were falsified and the benefits magnified in order to entice a higher proportion of the rural population to move into cotton cultivation. For example, chiefs would make promises of material rewards and, cotton cultivation was also promoted by Catholic and Protestant missionaries as a Christian way of life (Isaacman, 1996: 46)⁴

As a result of these measures, total peasant output increased sharply while capital expenditures declined, resulting in substantial returns for local investors throughout the 1940s. The benefits to the Portuguese textile industry were even greater as the cost of ginned cotton was around 40 – 60% of world market prices. The cotton was used to produce low quality cloth in Portugal that was sold to the Portuguese colonies at a huge profit.

However, while the Portuguese economy prospered, peasant livelihoods took a sharp downturn as a result of declining incomes and increasing food insecurity (Isaacman, 1982: 9). Peasants were forced to abandon food crop production in order to grow cotton for which they were paid but a pittance. In the words of Isaacman: *“thousands of cotton growers wore rags and had to market one hundred kilograms of cotton in order to be able to purchase a single ‘capulana’ (loin cloth) symbolised the degradation built into the system”* (Isaacman, 1996:239)

And, as Isaacman has also vividly documented, it was women who bore the main brunt of the suffering imposed by the cotton regime. It was women who did most of the backbreaking work of weeding and thinning the cotton on top of their already heavy domestic workloads and the work on the ‘machambas’. (Isaacman, 1996: 53) For economic reasons, the concessionary companies resisted introducing new technologies or any form of mechanisation which might have alleviated the work load, as well as increasing productivity. (op.cit, p.54)

Besides widening inequalities in the gender division of labour, gender income inequalities were also accentuated under the cotton regime because all the proceeds were paid to men and women could not earn any income from cotton in their own right.

⁴ For further discussion on the role of missionaries in cotton in the southern region of Mozambique see Manghezi, A (2003) Trabalho forçado e cultura obrigatória do algodão: o colonato do Limpopo e o reassentamento pos-independência c.1895-1981, Arquivo Histórico de Moçambique.

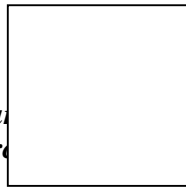
A.1.4 Third Period:

1946

to

1961

***: Peasant resistance and
relaxation of coercion***



response: refinement of the cotton regime and

As previously noted, many peasants tried to oppose this coercive regime: some tried to escape overseas, others to withhold their labour. Thousands migrated illegally to Tanganyika and most cotton producers cultivated less than the minimum requirement, mainly in order to allow more time for food and/or other cash crop production. Although such resistance did not prevent the Portuguese textile industry from prospering, it did succeed in lowering output and between 1946-56 production levels in the Makonde highlands in the northern Cabo Delgado region, fell steeply and the number of peasant growers declined by 40% resulting in net losses to Portugal (Isaacman:1982).

In response, the state adopted more selective policies: reducing levels of violence, allowing peasants to grow food, more careful selection of cotton seeds and setting up a cotton fund to improve the social conditions of the cotton growers (Isaacman, 1982: 10). More significantly, a new cotton law was introduced in 1955, which gave Mozambicans the right to organise 'autonomous' co-operatives.

At the same time as these developments were taking place, the co-operative movement in neighbouring Tanganyika was gathering strength. This movement, even more so than the legal provisions, inspired Mozambican producers to form their own grassroots organisation so as to combat the exploitative marketing practices of foreign middlemen and to protect small farmers from the labour abuses inherent in the system of forced cotton production (Isaacman, 1982:10).

The Mozambique African Voluntary Cotton Society was established in the Makonde highlands in the Northern province of Cabo Delgado in 1957. Its two fundamental aims were: a) to end the most abusive and degrading aspects of the cotton regime and b) to improve the relative economic conditions of the farmers. In its brief life-span, the Society managed to secure some benefits for its members. The main benefit was a 40% increase in the price of top quality cotton paid to farmers that was negotiated by the society. A further concession won was a reduction in the number of days that farmers were required to spend on cotton production, thereby enabling them to allocate more time to their own farms so they could better meet their basic food requirements.

Despite efforts by the state-appointed local chiefs, whose interests were threatened by the co-operatives, to dissuade people from joining, membership of the Association rose steadily reaching a high point in 1959 of between 1,500-3,000 members – representing of 30-60% of all cotton producers in the region (Isaacman, 1982:15). However, some members of the Society became involved in clandestine activities that eventually led to the formation of MANU (Mozambican African National Union)⁵. Once, this became known, the society was banned.

Though Isaacman (1981:10) is of the opinion that despite the subversive motivations of the Society, its existence did more to strengthen, rather than undermine the colonial-capital system by helping to organise labour in the cotton growing sector⁶, we are of the view that the cooperative movement served to raise the nationalistic conscience among the farmers, leading to the creation of MANU (Maconde, and later Mozambican African National Union) which played an important role in the liberation struggle.

A.1.5 Fourth Period:

1961 to 1975: from coercion to incentives and gradual ‘take-over’ of cotton sector by growing settler population

In 1961, the Portuguese administration was forced to legally abolish the system of forced labour in 1961, which, as previously mentioned, was a condition for Portugal’s entry to the ILO. According to Wuyts, this led to a crisis in production and seriously threatened the very foundations of its system of colonial exploitation, based on the ready availability of cheap labour and propelled a process of capital restructuring through mechanisation (mainly sugar) and diversification (eg Cahora Bassa) (Wuyts, 1980:21-22) But, on the other hand, Pitcher argues, that, while coercion was no longer legally admissible, a system of incentives was instead put in place to fill the ongoing needs of labour for cotton cultivation purposes (Pitcher, 1994)

⁵ In 1962, three nationalist movements, MANU, UNAMI and UDENAMO merged themselves to create the Front for the Liberation of Mozambique (FRELIMO), which conducted the armed struggle for independence against Portugal.

⁶ For example, between 1956 -1959, the number of cotton producers increased from 4,000 to 5,000 and output rose dramatically from 163 to 1,035 tons (Isaacman, A, 1982:20)

From the late 50s, in response to the rise of nationalism in the colonies and to the wave of growing international pressure to 'decolonise', the Portuguese also began implementing a policy of encouraging nationals, through the use of various incentives, such as support with transport costs, to emigrate to Mozambique to grow cotton. Besides helping to address the problem of over-population in Portugal, this policy helped to transform would-be 'revolutionaries' into a new petit-bourgeoisie (Wuyts, 1980:20). The Portuguese settlers were allocated some of the most fertile land, while many natives were thrown off and/or kept on the land as tenants or seasonal laborers (Isaacman, 1996 :242). Under the new settler scheme, state intervention continued, though it was mostly directed at the white settlers and by the early 70s, settler production had outstripped peasant production and by 1974, over two thirds of cotton production in Mozambique was grown by Europeans (Isaacman, 19976: 242).

A.1.6 Fifth Period

(First) Post-Independence Period: 1975-89

After Mozambique gained independence in 1975, despite its associations with colonial oppression, rather than abandon and allow the terminal decline of cotton production in the country, the Frelimo government chose instead to revitalise the sector (Isaacman, 1996:243). The government adopted a new agrarian strategy, which included: the abolition of large, private companies; the elimination of traditional authorities; a reduction in the role of the family sector; and the promotion of state owned farms. This change of approach was aimed at radically transforming the relations of production in line with Frelimo's socialist outlook. However, according to Pitcher, this change of strategy was more of a 'disruption' rather than 'transformation' of previous agrarian relations, at least in the cotton belt region of Nampula province. She cites the following main reasons for the failure of the strategy to achieve radical change: the pervasive impact of the colonial legacy that could not easily be shaken off; Frelimo's inefficiency in implementing the strategy; and the non-compliance of farmers themselves, spurred on by resentment that the prices offered by state companies under Frelimo were no higher than those paid to producers under the colonial monopoly system (Pitcher, 1998:124-5).

Under the socialist regime, farmers were required to work on the state farms to meet their labour requirements. As in the case of the system of forced cotton production, one consequence of this policy was to undermine food security as farmers, both men and women, were forcibly taken away from subsistence food crop production in the interests of export promotion. Discontent was also fuelled by the effects of high inflation, which eroded the value of the wages paid to labourers. In addition to these factors, the system was also badly managed by Frelimo with the result that cotton production went into major decline in this period (Pitcher, 1998:126).

In response, the government changed its policy and collective production schemes were introduced to replace the large state-owned farms. However, these were also unsuccessful and failed to reverse the declining production levels. For example, one farm that previously produced 1,200 kgs per hectare in 1972/3, only produced 184 kgs of cotton in 1978/9 under collective production (Pitcher, 1998: 127).

According to Pitcher, one of the chief flaws in Frelimo's strategy which played a major role in the eventual collapse of the state collectivisation regime was the attempt to replace *regulos*, the traditional chiefs, with state appointed officials. Frelimo justified this policy on the grounds that they had been corrupt. But, in reality, they had played an important part in the management of the farming system, performing crucial functions, such as encouraging farmers to increase the level of cotton production, organising road maintenance and clearance, distributing land and resolving conflicts. These functions were not adequately fulfilled by the state officials who were appointed to replace them after independence (Pitcher, 1998: 129).

Along with all these factors, the situation was also aggravated by the civil conflict and deliberate efforts by the opposition, Renamo, to sabotage Frelimo policies by destroying rural infrastructure and forcing many rural families to abandon agricultural production (Pitcher, 1998:130)

A.1.7 Sixth Period:

(Second) Post-Independence period: privatisation and liberalisation

The new model, launched in the late 1980s, was based on Joint Venture Companies (JVC) between government and private companies. The first JVC was established between the Mozambican government and the British multinational LONRHO International – known as LOMACO – with 49% state ownership and 51% private (Ofico and Tschirley, 2003:3)

Under the JVC system, the state grants private investors a 'concession area' in which they are ceded monopsony cotton buying rights, blocks of land for commercial cotton production and use of existing gins. In return, private investors agree to provide capital to rehabilitate the gins and supply required inputs and technical assistance to smallholders farmers on credit.

By 1995, there were 5 JVCs and 6 private companies with the former concentrated in the 'cotton belt' region of Nampula and southern Cabo Delgado provinces (Ofico and Tschirley, 2003:4)

In the initial period (1988-1999), there was rapid growth, but since then, persistently low world cotton prices have created instability and discontent in the cotton sector. While some companies, including Dunavant, respected the concessionary system, others destabilised the system, by providing few or no inputs to farmers and/or by attracting production out of concession areas by offering higher prices (Ofico and Tschirley:6)

The new government *Strategy for Cotton Development* (1998) tried to strengthen farmers' position by encouraging them to form associations to deal with the companies. Farmers were also supported by national and international NGOs who helped them to negotiate better deals with the companies (Ofico and Tschirley, 2003: 6)

However, the same problems persisted, so, in response, the government adopted a more liberal policy aimed at eventually removing the privileges of concession

companies and allowing more entrants in by allowing farmers to enter into contracts with new companies. According to Ofico and Tschirley, this change in policy accounts for the increase in cotton production around that time (Ofico and Tschirley, 2003: 7).

A.2 The current cotton regime: key characteristics and challenges

Characteristics

It is estimated that there are currently about 300,000 to 350,000 smallholder households involved in cotton production (Ofico and Tschirley, 2003:1, GDS:2005:16). Although cotton production is dominated by smallholders (98%), the sector is divided into three producer groups, namely small and medium farmers, smallholder farmers, and private producers. Most farmers are organised in farmer groups or associations. There are two types: those who plant along with other farmers in a contiguous block of land; and those who produce cotton on their own (Ofico and Tschirley, 2003:9). According to another classification, there are three types of producers⁷:

Classe 1: family sector (200 000 farmers producing around 80% of total cotton production)

Classe 2: non-autonomous farmers and farmers associations (Between 20 to 30%) and;

Classe 3: Autonomous growers (less than 1%).

The ginning sector is heterogenous, in that some ginners are local, while others have regional and international connections which support their activities such as Plexus International, Dagris, and Dunavant. Depending on their connections they use different strategies and thus present different dynamics and output. Some ginning plants are old, such as Sodan and Canam, which were originally installed in the 1950s and rehabilitated in the 1990s while others are more recent, such as Agrimo/Dunavant (1995, Sanam (2001), and CAN (2004). Some ginning plants are small, such as Sodan with 2 gins in Nampula, one with an 16, 000 Mton capacity (Namialo) and the other 8,000 Mton capacity (Namapa), or Canan with a 12, 000 Mton capacity ginning plant also in Nampula, while are largers, such as Plexus, with a 24, 000 Mton capacity and Agrimo/Dunavant and Sanam, each with a 60 000 Mton capacity. Some ginning units are close to ports, but far from production areas (CAN), but the majority are close to production areas, but far from export ports⁸.

Currently, the JVC system still holds. The main companies involved in cotton production are international companies, namely: Plexus, Nampula, CAN, Agrimo/Dunavant and Cottco.

Cotton distribution is still heavily concentrated in the North of the country with 82% in the Northern provinces of Nampula and Cabo Delgado and the remaining 17.4% in the Centre (4% in Zambezia, 11.3% in Sofala, 1.8% in Tete and 0.4% in Manica). (Regional Workshop, 2005)

⁷ See Ministerial Diploma no 91/94.

⁸ For example, Sodan (Namialo) and Sonam are 100 km from Nacala Port; Canam is 190 km from Nacala; Agrimo/Dunavant is 200 km from Quelimane port.; Sodan (Namapa) is 180 km from Pemba port and 260 km from Nacala Port.

A.2.1 Major challenges

The cotton sector, while it remains an important source of employment and export earnings for Mozambique, is beset with problems.

A.2.1.1 Low yields

Although current levels have stabilised and are higher than the period of the 90s, they are still below the levels attained during the colonial period⁹. That said, yields vary widely across different parts of the country, ranging from a high of close to 1,000 kg/ha in some districts of Manica and Sofala, to a low of 230 kg/ha in Nampula province (Ofico and Tschirley, 2003:3). CAN has the highest yields, followed by Agrimo/Dunavant, which managed to increase yields beyond those in Nampula in the space of 3 years (Regional workshop, 2005). None the less, overall productivity levels in Mozambique are substantially lower than those achieved in other African countries with average yields between 300-400kg/ha compared to 900 kg/ha among contract farming households in Zimbabwe and 600 kg/ha in Zambia (Ofico and Tschirley, 2005:22)

A.2.1.2 Low cotton prices

During the colonial period and the civil war, cotton prices were low, in part due to the high cost of maintaining private militias to protect the gins and maintaining the roads during the civil war. However, as world cotton prices increased around the mid-90s, the price paid to producers also rose from US\$0.85 per pound to US\$1.5/lb in 1995/6. However, since then, world prices have fallen dramatically and this has been reflected in the prices paid to farmers: in 2002, the price paid to farmers was just one third of the price they received in 1996 (Ofico and Tschirley, 2002: 2021). Currently, despite some variations in prices paid by different companies¹⁰, cotton prices paid to farmers are considerably lower in Mozambique compared with Zambia, Zimbabwe and Tanzania.

The Mozambican Cotton Institute (IAM), established in 1991, classifies the fibre, sets the price of seed-cotton according to its classification. Theoretical the minimum prices is agreed in consultation with the Cotton Ginners' Association¹¹ and farmers. However, the tendency has been the marginalisation of famers is price setting mechanism and also for the official minimum prices to become fixed prices. This is the case in Nampula, which consistently pays fixed minimum price resulting in heavy conflict between farmers and firms (Regional Workshop, 2005). There are major problems with both the Cotton Ginners' Association and the IAM. Moreover, owing to the lack of a horizontal organization within the sector, the concessionaries play a double role as buyers, processors, credit providers and extensionists, which increases uncertainties and production costs. Furthermore, the IAM is chronically under-financed, which undermines the sector's ability to undertake research, extension,

⁹ Annual cotton production in the colonial period averaged 114,560 hectares compared with 37,984 in the first post-independence period. Under the JVC system, levels rose to 116,600 in 1989/90, then fall and began to rise again from 2005 (Ofico and Tschirley, 2003: 3-4)

¹⁰ For example, Dunavant pays slightly higher prices than other companies

¹¹ This Association is dominated by established companies in Nampula

experimentation, input provision, road maintenance are further undermined by the hierarchical structure.

Besides the producers, companies are also adversely affected by low cotton prices. Many companies claim to be making financial losses due to the fall in cotton prices and have urged the government to help the sector, by subsidising the producer price, granting subsidies and exempting companies from export levies (Ofico and Tschirly, 2003: 18)

A.2.1.3 Price competition

Due to the price differences in the border zone, large quantities of cotton are illegally sold to Malawi, a situation that is creating problems for Dunavant. In the 2005/6 season, Dunavant lost around 700 tonnes to Malawi¹². The price difference is due to the fact that in Mozambique, as opposed to Malawi, Dunavant has to meet the costs of extension services, research and credit for the farmers.

A.2.1.4 Other problems

Ofico and Tschirley have also highlighted the following problems affecting the sector:

- ⇒ There are no middlemen: Despite very poor roads and infrastructure, companies have to deliver inputs to farmers and collect seed cotton themselves. A middlemen could play a pivotal role by taking out part of the costs concessionaries incur, but would also rip off a substantial part of the profit. Farmers would then be able of increasing their bargaining power vis a vis concessionaries.
- ⇒ Lack of training and support for producer associations: small farmer groups have recently emerged in northern Zambezia and Nampula. Such associations are often supported by international NGOs, but to be effective, these groups require more training and support from government and other actors.
- ⇒ Inadequate support for farmers from the companies: as part of their contract, JVCs are supposed to support cotton producers, but, in reality, support is very limited due to structural constraints and asymmetric access to information between stakeholders.
- ⇒ Lack of formal evaluation of concessionnaire performance: Though concessionaries sign a contract with government, most of the times they do not honor them. To remedy this, HORUS and the World Bank have proposed that monitoring and evaluation criteria should be developed and formalized and underperforming concessions should be broken into units, which could be awarded to another company (Regional Workshop, 2005). The Cotton institute should be strengthened in order to perform its tasks.
- ⇒ Lack of coordination and long-term vision – Due to institutional weakness of the Cotton Institute, there is a lack of coordination between stakeholders,

¹² Interview with Luis Pereira, 21/09/07

which creates problems between them. This is aggravated by the lack of competition. The key question to be answered is how can improved coordination and long term vision be fostered within the concession system?

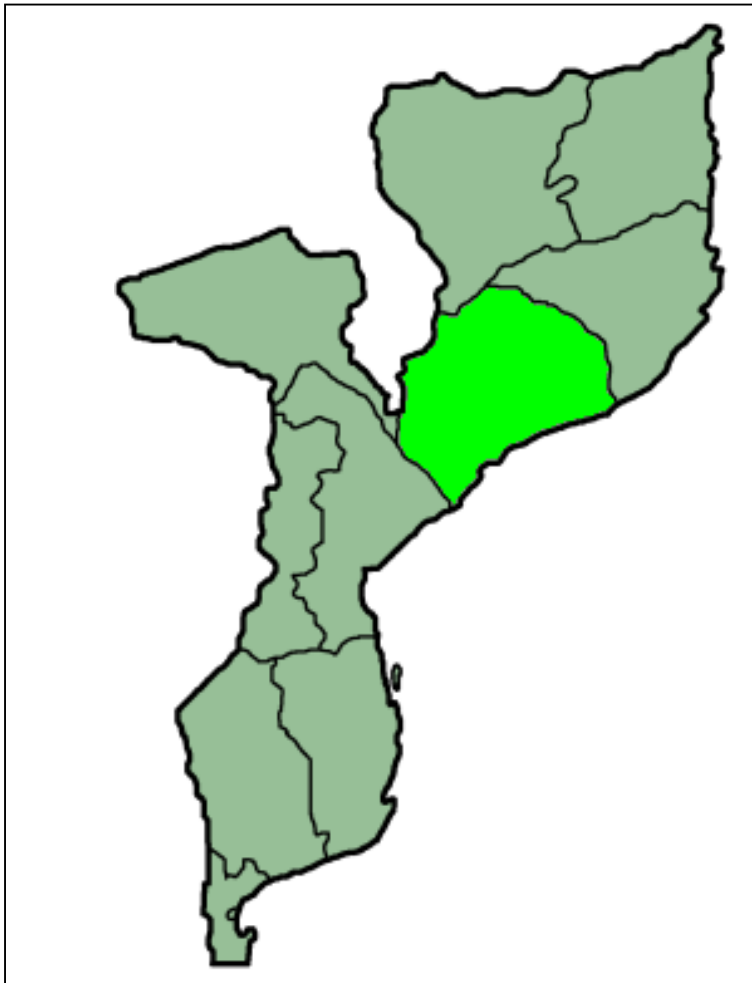
C. THE LOCATION – MORRUMBALA, ZAMBEZIA PROVINCE

1. Introduction to the section

This section deals with three issues: describes and contextualize the location where the research process took place, gives important information about the company being researched and details the research methodology used to gather the data being analysed.

2. The location

The field research on the cotton sector was primarily based in Morrumbala District, which is located in the Lower Zambeze region of the central province of Zambezia (see map).



Morrumbala district is 195 kms from Quelimane City, the capital of Zambezia province and the closest port. It covers 12.972 square kms and a population density of approximately 22 people per square km. Cotton production in Morrumbala dates back to colonial times and long before the forced cotton regime installed in 1938. According to Isaacman, Morrumbala has a number of distinct characteristics, which give it a comparative advantage in terms of cotton production.

“In most parts of central Mozambique, cotton brought impoverishment for most peasants. Only in rare cases were growers able to eke out a living or actually to prosper from cotton. The circumscription of Morrumbala was just such a case (Isaacman, 1996:90).

Thus if adequately exploited, the Morrumbala's cotton production could potentially contribute to the country's development through the generation of much needed foreign exchange, employment and income opportunities in both rural and urban areas.

Currently, the district remains well endowed with fertile land, good precipitation and a large pool of unskilled labour. It is situated close to two main ports, the port of Quelimane at a distance of approximately 195 kms and the port of Beira at a distance of 550 kms). However, cotton production in Morrumbala has not, by and large, lived up to Isaacman's expectations and, until recently, Morrumbala has occupied a comparatively minor place in terms of volume of cotton production in Mozambique (see Table below)

Table 1: Cotton Production by Province 2003

	AREA Ha	% of total	PRODUCTION Tons	% of total
Cabo Delgado	29,265	18.5%	13,376	24.7%
Nampula	89,601	56.6%	21,029	38.8%
Niassa	9,913	6.3%	1,8501	3.4%
Zambezia	6,111	3.9%	1,889	3.5%
Tete	10,233	6.5%	2,209	4.1%
Sofala	13,111	8.3%	11,061	20.4%
Manica	n/a	n/a	2,595	4.8%
Inhambane	n/a	n/a	101	0,2%
Gaza	n/a	n/a	34	0.1%
Maputo			-	0.0%
Total (average)	158,234	100.0%	54,1444	100.0%

Source: Institute of Cotton Mozambique (IAM) cited in GDS, 2005:17

However, in the last few years, Zambezia's position has been improving, both in terms of the overall volume of output and in terms of productivity levels relative to other cotton producing areas in the country.

Table 2: Cotton Yield Rates (kg/hectare) 1991 and 2003 – comparison by Province

	1991 – kg/ha	2003 kg/ha	Yield differential 1991 – 2003
Cabo Delgado	881	458	51.9%
Nampula	357	235	65,8%
Niassa	166	187	
Zambezia	224	309	138%
Tete	n/a	216	
Sofala	1,138	844	-74.2%
Manica	427	Na	
Inhambane	961	Na	
Gaza	1,838	Na	
Maputo	1,700	Na	
Total (average)	855	371	

Source: Institute of Cotton Mozambique (IAM) cited in GDS, 2005:17 and 18

Based on current trends in cotton production, is Morrumbala likely to live up to expectations and has its comparative advantage been fully exploited? What factors account for the comparative improvement in its position in recent years and what are the factors holding back progress?

One reason for choosing Morrumbala as the location for the field research was to provide some insight into these questions.

In this chapter, we provide some background information on Morrumbala town in order to provide the context against which to understand the field research findings to be presented in the following chapter. We begin with a brief historical overview followed by a profile of Morrumbala today, which includes key facts about the demographical, social and infrastructural characteristics of the town. The chapter also reviews the policy environment and its impact on the cotton sector and concludes with a summary of key challenges currently facing the cotton sector in Morrumbala.

3. Cotton in Morrumbala district: a brief historical overview

As recorded by Isaacman, many peasants from Morrumbala had acquired first-hand experience of cotton cultivation in Malawi (then Nyassaland) where they migrated as agricultural labourers on African-owned farms during the so-called 'golden age of peasant cotton' in the period 1920-1939 (Isaacman, 1996:90-1) After witnessing the commercial success of a lot of these African-owned farms, many Morrumbala peasants acquired cotton land or became tenant farmers on European estates in Malawi (Isaacman, 1996:90-1). However, cotton output declined sharply as a result of the permanent inundation of the flood plains in Malawi, thus, many of these farmers

decided to return home to Morrumbala, where the conditions were far more favourable and they stood to make good money from cotton:

“the red savanna soils common to most of Morrumbala were conducive to cotton cultivation. Climatic conditions were almost optimal. Throughout the rest of the decade peasant cotton incomes in Morrumbala were among the highest in the colony, without any sharp fluctuations in output that were typical elsewhere. Most elders from Morrumbala agreed that ‘a family with a hectare of cotton could earn good money” (Isaacman, 1996: 90-1)

Since 1950, Morrumbala has been the centre of cotton production in Zambezia, with the Cotton Society of Zambezia (SAZA) and three big companies from the colonial era: Textafrica, the Companhia da Zambezia and Lopes & Filhos (ORAM, 2005:19) Cotton production grew steadily in the period leading up to independence and by 1973 had reached a record level of 14.000 tons (ORAM, 2005:19)

In the period after independence, Morrumbala was one of the districts worst affected by the civil war that broke out between the ruling party and the rebel movement led by Renamo. Morrumbala was the first town in the province to be occupied by Renamo. According to some sources, Morrumbala was selected on account of the 4,000 foot high mountain, which provided suitable terrain from which to conduct their warfare (Finnegan 1992, 9-15). During the long-lasting conflict, Morrumbala suffered extensive damage in terms of its infrastructure, services and the economy at large (Fearon and Laitn, 2005) Many companies operating prior to the war, mostly in cotton and rice production, as well as a sisal company (the Company of Zambezia) ceased operating on account of the war (MAE, 2005:18)

The post-war period witnessed important developments aimed at reducing the impact of bottlenecks and threats to the district’s economy. The advent of peace allowed refugees and internally displaced people to get back to their land. Land and roads were cleared from landmines, roads were rehabilitated and shops and canteens were re-opened¹³. The rehabilitation of the rural road network helped the free movement of people and goods, including agricultural inputs and outputs. Another important development in the post-war period was the transition from a one party state system and a centralised Marxist-style economy to a multi-party democracy based on a mixed economy model and the extension of market friendly policies to rural areas. According to Hanlon (2007), in the aftermath of the war, everyone gained. But the gains have been unequally distributed, and now the poorest are losing ground.

The above mentioned measures created favorable conditions for the production, processing, and export of cash crops. Thus, the end of the war marked the revival of cotton production and commercialization in the district. The district now hosts a new cotton-ginning factory built in 1996 by AGRIMO, with an initial investment of \$11 million with a capacity of around 24,000 tons/year (ORAM,2005:19).

¹³ What Hanlon 2007:4, calls peace dividends.

4. Morrumbala today

As stated elsewhere, Morrumbala district has a land mass of 12.823 sq. km. Below, we draw on available statistics from official sources in order to provide a basic profile of the District.

Demographic profile

Based on the latest census¹⁴, the District population is estimated to be 304,073¹⁵. As shown in the table below, there is a slight majority of women in the population (51%) and 46% of the population are under 15 years old.

Table 3: Population by Age and Gender, 2005

	Total	0-4	5-14	15-44	45-64	65 +
Morrumbala District	304,073	64,513	75,527	130,125	26,793	7,114
Male	148,593	31,677	38,930	59,548	13,954	4,483
Female	155,480	32,836	36,597	70,577	12,839	2,631

Source: (MAE:2005:10); Metier calculations, based on INE 1997 population census

According to official statistics, 13% of all households are female headed.

¹⁴ Data on the latest population census of 2007 is not yet available.

¹⁵ The main spoken language is Sena¹⁵. 86% of the population over the age of 5 years do not speak Portuguese. Those who do are predominantly men (MAE, 2005:19) There are three main ethnic groups: Sena (the majority), Lolo and Lolue. The majority religion is Islam. Traditional leaders exist alongside the official leadership structures and they mainly handle conflicts, traditional ceremonies and rituals. Both were involved in dealing with recent land conflict issues.

Administrative structure

Morrumbala has four Administrative Posts: Morrumbala-Sede, Chire, Derre and Megaza.

Table 4: Administrative organization of the Morrumbala District

Morrumbala	
	Morrumbala – Sede
	Boroma
	Mepinha
	Muandiuua
	Sabe
Chire	
	Chire – Sede
	Chilomo
	Gorro
Derre	
	Derre-Sede
	Gueressa
	Machindo
Megaza	
	Megaza – Sede
	Pinda

Source: MAE:2005:15)

3.3 Economic Activity profile

Out of the estimated total 304 000 inhabitants¹⁶, 164 000 (48%) are of working age (15 to 64 years old). The vast majority (95%) of the population are engaged in agricultural activity. Unemployment is estimated at 22%. 98% of the working age population are either self-employed or working within the household. Only 2% of the working age population are salaried workers (mainly men). Women make up 9% of the salaried workforce.

¹⁶ This data is from the 1997 census. Updated data from the 2007 census will be provided when available.

Table 5: Working age population by activity, 2005

Activity	Total	Total (%)	Salaried State (%)	Workers Private sector (%)	Cooperative sector (%)	Self-employed (%)	Household worker (%)
Morrumbala district	128,599	1.7	0.5	1.2	0.1	76.4	21.7
Male	62,349	1.6	0.5	1.1	0.1	38.5	8.3
Female	66,251	0.2	0.1	0.1	0.0	37.9	13.4
Agriculture, fishery and forestry	122,519	0.5	0.1	0.4	0.1	73.7	21.0
Industry, energy and construction	2,469	0.6	0.0	0.6	0.0	1.1	0.2
Trade, transport and services	3,611	0.7	0.4	0.2	0.0	1.6	0.5

Source: MAE:2005:41; INE 1997 Census

Climate and agricultural production

The district of Morrumbala is Mozambique's richest district in terms of rainfall and soil Quality (ORAM, 2005:19). Average temperature is 23,4° with a minimum temperature of 17,1 °C and maximum of 29,8 °C. Average monthly precipitation is about 1017 mm. The rainy season is from November to March and the dry season is between April and October, with less than 20 mm of precipitation. The fertile soil, abundant rainfall and plentiful water sources provide favourable conditions for agricultural production. However, in recent years, a succession of floods and droughts have led to food insecurity in the region necessitating emergency measures, such as seed and livestock distribution to flood victims. The food insecurity situation is not critical.

The main economic activity is agriculture and the majority of the inhabitants are engaged in agricultural activities. Morrumbala district has 63 000 one hectare farms. 725 of the farms are less than one hectare, occupying 39% of the cultivated area.

Most of the farms are not legally registered. Over 80% of family smallholder farms are reported as belonging to the male head of the household, though women do most of the farming . Most of the farms, 83% are cultivated by 3 or more members of the household (MAE:2005:29) and 36% of the farmers are children below 10 years of age, from both male and female.

As shown in the table below, most land is devoted to food crops – corn and cassava and cotton seed ranks third from the bottom in terms of land area under cultivation. This data and anecdotal evidence shows that cotton is not the most important crop in Morrumbala.

Table 6: Agricultural production by main cultures: 1999-2005

Main cultures	Harvest 1999/2000	Harvest 2000/2001	Harvest 2001/2002	Harvest 2002/2003	Harvest 2003/2004	Harvest 2004/2005
Cashew nuts	5,837	6,236	10,500	9,000	8,192	18,776
Cotton	2,007	7,829	5,616	5,393	4,066	5,143
Copra	3,662	2,235	8,306	2,500	?	?
Tea	10,465	10,294	11,535	12,293	8,794	4,734
Tobacco	595	561	735	2,128	4,416	2,312
Sunflowerl	303	545	292	523	?	?

Source: Zambézia Provincial Government: Strategic Plan Evaluation Report 2001-2005

Most of the District's economy is based on internal marketing of agricultural produce (MAE, 2005: 14). Owing to the poor condition of the roads, as well as the higher prices offered to farmers there, many local farmers prefer to sell their produce in Malawi, rather than in the capital.

There is some limited livestock production (cattle, sheep, goats and pigs), but this is very limited due to lack of extension services and funding for this activity (MAE, 2005: 13). Pigs, ducks and goats are produced for domestic consumption.

Infrastructure and services

- As already noted, the district's road infrastructure was either damaged or destroyed during the 16-year civil war. Despite some improvements, the district has no tarmac roads. Much of the road infrastructure also suffered considerable damage in the devastating floods of 2000/1. Repair of the damage did not begin till after 2003. Most of the roads and bridges are in very poor condition and in desperate need of rehabilitation.
- Access to potable water is a serious problem with some people having to walk as far as 8 kms to the nearest water point and, in some cases, as many as 5-10,000 people sharing the same water point (MAE, 2005: 44). No running tap water exists in the district.
- There are only 6 secondary schools in the district.
- Health facilities are also extremely inadequate with one health unit for every 30,000 inhabitants and one qualified health professional for every 6,300 inhabitants (MAE, 2005:12)

- There is no formal banking system neither a formal institution providing credit¹⁷.
- In 2003 the district was linked to the national hydroelectric system from Cahora Bassa.

3.6 Education and Literacy levels

Illiteracy levels are very high - 89% overall, reaching 96% for women and 81% for men. At 15%, the rate of school attendance is very low. The highest rate of school attendance (16%) is among children from 10 to 14 years old, followed by those between 5 to 9 years old. Most of the children attending primary school are male. 94% of girls over 5 years have never attended school and only 1% completed primary school. The highest school attendance rate for girls (8%) is for girls between 10 to 14 years.

Table 7: Literacy levels-1997

	Attending	School		Attended	School		Never	Attended	School
	Total (%)	Male (%)	Female (%)	Total (%)	Male (%)	Female (%)	Total (%)	Male (%)	Female (%)
Morrumbala District	4.5	3.3	1.2	10.2	8.2	1.9	85.3	37.2	48.1
Morrumbala Sede	6.7	5.0	1.8	12.5	9.9	2.6	80.8	33.4	47.4
Chire	2.8	2.1	0.7	7.6	6.3	1.3	89.6	41.2	48.4
Derre	2.7	2.0	0.7	9.0	7.5	1.5	88.3	39.8	48.5
Megaza	4.7	3.4	1.2	11.3	9.2	2.1	84.0	35.1	48.0

Source: (MAE:2005:31); INE 1997.

5. Key Government Policies affecting Cotton Production in the District

As noted above, the end of the war marked a major shift in government policies and the introduction of measures favouring cash crop production, both for farmers, but primarily for the private sector. A package of measures was introduced under the so-called the Zambezi River Valley Special Fiscal and Customs Regime. The measures include: tax exemptions and fiscal incentives aimed at attracting both foreign and domestic investment, such as allowing entrepreneurs, including cotton processors, to retain fully their foreign exchange earnings and, if desired, to remit their entire profit abroad. Other fiscal incentives include: exemption from import duties, property transfer tax, consumption and circulation taxes, complementary tax, as well as exemption from and/or reduction of corporate profits tax.

¹⁷ It was recently reported by one of the main national newspapers (Noticia s, January 2008) that BCI (a Portuguese retail bank) is planning to open a branch in Morrumbala. Furthermore in 2007, GAPI, a credit institution for small businesses, also opened a branch in Morrumbala as part of a project run by CLUSA, Dunavant and GAPI, sponsored by the Bill and Melinda Gates Foundation.

These incentives enabled Dunavant to buy AGRIMO and bring in the much needed cash, managerial experience, extension services, research capacity (knowledge) and inputs into the revived cotton sector.

6. Expansion of smallholder cotton production

The other notable development in post-war Morrumbala is the significant upsurge of families in cotton contract farming from 17,000 in 2004 to 36,000 households in 2006 (Ivan 2007, Pereira, 2007). Private sector companies are also investing huge amounts in the sector. These trends can be accounted for by the fact that cotton is the only income generating activity with a developed network of inputs, marketing, extension services and a guaranteed market in Morrumbala and the adjacent regions. Furthermore, difficulties in food storage and marketing, the increased availability of consumer goods and the expansion of smallholder food crop production increase the willingness of farmers and rural families to engage in cotton production.

7. Current threats facing the cotton sector

Notwithstanding the above developments there are a number of serious threats facing the cotton sector:

- **Skills gap:** In many respects the district is in a much weaker position than during the colonial period owing to the departure of the settler population during the first years of independence created a shortage of entrepreneurship, expertise and skills.
- **Weak local private sector:** The local private sector is incipient and under-capitalized. And the state does not have sufficient resources and capacity to fulfil its cotton
- **Lack of state capacity:** The state is weak and unable to perform its core functions in relation to support for and promotion of the agricultural sector through the provision of extension services, credit or transport networks in rural areas.
- **Lack of infrastructure:** As previously noted, the 16-year war disrupted the entire rural economy and social infrastructure. Although there have been recognizable improvements, including the upgrading of the rural road network, transport bottlenecks in producing areas remain pervasive in most cotton areas
- **Increasing competition:** Dunavant is facing growing competition, not only from other producers in the North and Centre of the country, but also from other countries. Furthermore, Mozambique no longer enjoys preferential market from Portugal, the former European coloniser.
- **Unequal terms of trade between farmers and companies:** Recent improvements in the policy environment have not been necessarily translated into significant increases in smallholders' terms of trade. As a result, farmers' bargaining power with traders and processors has been weakened. '*...we have no bargaining power at all. Dunavant is both a player and a referee at the same time...*' (Farmer interview, October, 2007)
- **Poor market access:** Poor roads, long distances from farm-gate to factory-gate and markets, and small and dispersed farming household's surpluses due to

current production patterns lead to high transaction costs in rural marketing activities. This, in turn, results in scarce and expensive consumer goods and inputs in rural areas. Further agricultural marketing activities are limited, farm-gate prices are low, terms of trade are adverse thus constituting a major constraint to the development of smallholder cash production and marketing.

- ***Lack of state investment in cotton:*** The PROAGRI, the government's own multi-annual agricultural sector investment program, focuses mainly on food crops, forestry and livestock leaving cash crops to the private sector.
- ***Lack of state-funded research:*** All research related to cotton production in Morrumbala, such as experimentation of new seed varieties, is being undertaken by Dunavant. This research has helped Dunavant to increased productivity rates, even surpassing those in Nampula, which has traditionally benefited from the best yields in the country. As a result, the company has been able to improve its returns on investment, but the information is not shared with others.

B. C. Dunavant

B.1 Dunavant Enterprises, Inc

Dunavant Enterprises, Inc, founded in 1960, is a multi-national company which controls approximately 5 percent of global cotton production. According to the latest published figures, Dunavant currently handles in excess of 6 million bales of U.S and foreign cotton per year with revenues of \$1.4 billion in 2005. The company, whose headquarters are in Memphis, Tennessee, (USA) has offices in Brazil, Mexico, Guatemala, Hong-Kong, China, Argentina, Paraguay, Turkmenistan, Uzbekistan, Australia, Switzerland, Zambia, Uganda and Mozambique. Dunavant has over 4,500 employees in its offices and operations throughout the world.

In addition to cotton production, Dunavant Enterprises also owns and operates cotton gins in Australia, Zambia, Uganda and Mozambique (Morrumbala District).

B.2 Dunavant, Mozambique

In Mozambique, Dunavant is situated in the central provinces of Zambezia and Tete, having taken over from Agrimo¹⁸, a private, Portuguese-owned enterprise, which began investing in the cotton sector in this region in 1996. Dunavant also took over the ginnery established by Agrimo in Morrumbala district in 1999, which was a Greenfield investment and the first ginnery to be established in Mozambique in the post independence period.

In Zambezia, Dunavant's main headquarters are in Morrumbala district, approximately 195 kms from the provincial capital of Quelimane. And in Tete province, the headquarters are in Mutarara, approximately 200 kms from Tete's capital.

Dunavant buys the raw cotton, which is supplied by local farmers in Zambezia and nearby Tete province, at a fixed price above the minimum price set by the government and, in return, provides free technical inputs and improved seeds. In 2002/3, each farmer received an average \$65 for the cotton sold to Agrimo/Dunavant. Besides the guaranteed purchase of cotton, additional inputs received include: 30-30 kgs of seeds per hectare; pesticides on credit at 25% of the market price; and, for farmers who cultivate 2 or more hectares, access to credit for hiring additional labour (for the land clearing, weeding and harvesting) and/or for hiring a tractor. It also provides organisational training and other types of training for farmers. In the 2002/3 season, Dunavant provided services for over 8,000 small farmers and in the 2003/4 cropping season, their number doubled to over 16,000 smallholder farmers, covering 10-12,000 hectares with the potential to produce 6-8,000 metric tons of seed cotton. The total value of cotton sold in 2003 was \$1.8 million, but was expected to rise to between \$2.5-3million in 2004.

The Morrumbala ginning factory has the capacity to produce 25,000 tonnes of seed cotton, 10,000 tonnes of fibre and 45,000 sacks of cotton¹⁹

¹⁸ Agrimo was owned by a group of Portuguese companies headed by Mantero ACI of the Finagra-Portugal group

¹⁹ Interview with Amir, Commercial and Ginning Operations Manager

In Zambezia province, Dunavant operates in the districts of Morrumbala, Mopeia and Milange and in Tete province, it operates in the districts of Mutarara, Moatize, Chiuta, Macanga, Chifunda, Maravia and Zumbo. The cotton produced in Tete province is sold to Dunavant-Zambia²⁰.

Each District is divided into Action Regions (2 in Zambezia and 3 in Tete) based on agro-ecological and human variations in each region and in each of these 5 regions, there are Areas of operation. Each area of operation has it's own management team chaired by a supervisor and head of area.

Table 8: Dunavant's operating regions

Province	Action Region	Areas of Operation
Zambezia	B	Sabe, Borroma, Morrumbala-Sede, Chire and Muandiua
	C	Mepinha, Muerrungo, Derre and CE Lipembe
Tete	A	Doa, Sinjal and Inhangoma
	D	Chiuta, Cazula, Chifunde, Ntsadzo, Kambulatsissi
	E	Malowera, Kassuende, Muze, Chiputo and Zambu�

(Source: Dunavant 2007).

B.3 Dunavant's contribution to employment in Zambezia and Tete provinces

B.3.1 Direct employment

When Dunavant began its Mozambican operations in 2004, fewer than 17,000 farmers were growing cotton for the company. By the 2006/7 cropping season, the number of cotton growers had more than doubled to 35,000. This represents more than 20 percent of the rural smallholder operation (NCBA, 2007)

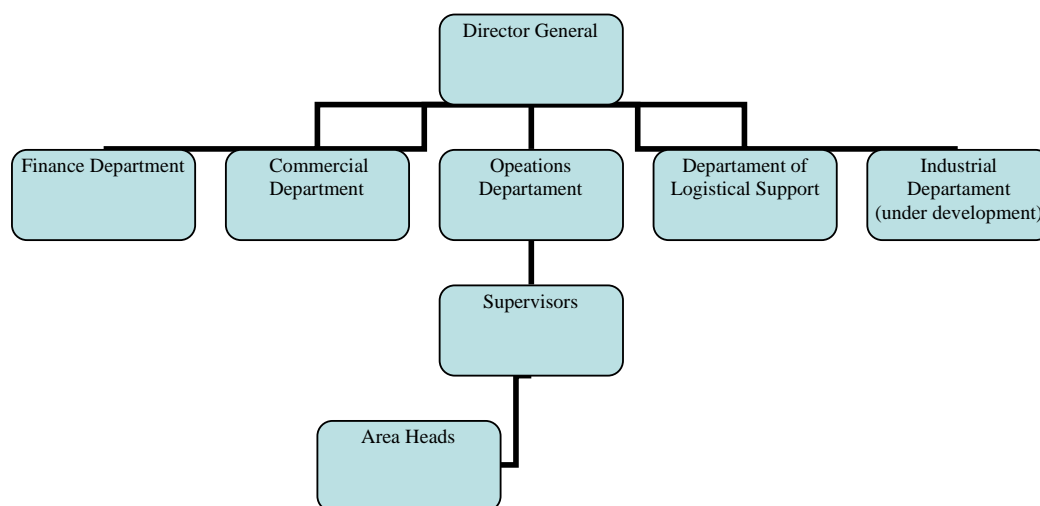
Currently, Dunavant employs 172 permanent workers (in central management, development, extensionists, transport, workshops, the factory) and a further 350-400 seasonal workers employed between May and December²¹.

The permanent workers are distributed among 5 Departments as shown in the organigramme below.

²⁰ Interview with Tete Supervisors, Pedro and Carneiro 22/09/07

²¹ Interview, Human Resources Manager

Fig. 1: Dunavant Organisational Structure, Mozambique



B.3.3.1.1 The operational management of the cotton production process

The Operations Department is responsible for the whole productive process. According to Dunavant representatives, in 2006/7, it worked with 47,576 farmers in an area covering 44,807 hectares with 78 facilitators and 900 farmer groups (GOC)²². An output of 16,000 mtons was forecast of seed cotton was forecast for the 2006/7 harvest.

Staff roles and responsibilities are divided up as follows²³:

a) Head of Operations: He is responsible for the management of farming operations, the planning of the agricultural harvest, personnel admissions in the sector, contracts, personnel training, inputs distribution, research and experimentation.

b) Supervisors: they carry out the same duties as the head of operations, but on a smaller and more specific scale. The supervisors are also responsible for paying the farmers when they sell their cotton

c) Area Heads: They are responsible for organising their area of influence, support for communities and selection of facilitators in each zone. They prepare the agricultural harvest through peasant mobilisations and provide technical support during the

²² Interview with Eng. Destino. Note that this figure is higher than that given by other sources, such as NCBA (2007), which claims that there are in the region of 35,000 cotton growers in the area.

²³ Interview with Eng. Destino

productive process. They manage the material used during the farming season, the work on the organisation of markets and selecting and monitoring the activities of buyers.

The Facilitators are influential individuals in the community who help the Area Heads in the areas of mobilisation, production and marketing. These individuals are nominated by the community. The Facilitators are in charge of the Group Leaders who are responsible for the same activities at the level of the groups.

The Facilitators and Group Leaders are paid a monthly salary and also have some benefits in some of the company activities, such as mechanised tilling in their areas of cultivation and access to credit. Facilitators act as buyers during the marketing period and they get a bicycle every other year, whilst the Group Leaders are able to buy bicycles in installments. Besides these benefits, the company provides monetary rewards at the end of the harvest based on the level of production and credit recovery from farmers.

B.3.2 Indirect employment

In addition to those directly employed by Dunavant and the smallholder households, Dunavant also helps to generate indirect employment and contributes to locally generated trade. Due to market failures, the full potential of indirect employment that would have been created is not yet explored, with the exception of two sub-sectors: transport, which hires local truck drivers to transport the cotton from the 'cotton concentration centres' to the ginnery and, subsequently, to transport the processed cotton from the ginnery to the ports – Beira, Durban and eventually Quelimane - for export overseas, as well as for domestic markets and the oil and soap industries.

B.3.4 Expansion Plans

Dunavant is planning to expand its operations, both in Zambezia and in Tete. In Zambezia, the expansion will consist in the acquisition of the concession previously granted to Mocotex in the districts of Mocuba and Alto-Molocue on account of the financial difficulties faced by this company²⁴. In Tete, Dunavant is planning to build another ginning factory. As a result, Dunavant Mozambique will no longer need to sell its cotton to its sister company Dunavant Zambia.

B.4 Impact of Dunavant on Morrumbala

Morrumbala town and the whole district have changed beyond recognition over the years since the end of the war. In the first years after the war, the district, as many other districts in the province, was isolated and literally abandoned. However, since Dunavant started its operations, the dynamic of the district has been steadily changing. For instance, Dunavant had to build not only the ginning factory, but also warehouses and offices, as well as building, purchasing, rehabilitating or renting houses for its workers. Also, Dunavant managed to by-pass the slow moving bureaucratic processes in order to get Morrumbala town connected to the Cahora Bassa energy line, thus offering a 24 hours uninterrupted energy service to the district.

²⁴ Interview with Luis Pereira 21/09/07

Without an investment of the size made by Dunavant, it would have taken another 10 years for the district to have a 24 hours energy service.

Furthermore, the fact that Dunavant puts into the district economy over 2 billion meticaïs per season (approximately \$800,000), making Dunavant and the cotton sector the biggest and the most important economy in the district. The monetarisation of the district's economy has had a snowball effect as it has raised the purchasing power of farmers, created demand not only for food crops but also for other goods and services. Dunavant's arrival has created demand for houses, shops, restaurants and even a nightclub²⁵.

B.5 Dunavant workplace Policies and Practices

Ethical business

In 2006, Dunavant was one of 94 international companies (including Cannon, the Gap, Nike, Google, etc) to be named among the most 'ethical' companies in the world. The ranking is carried out by Ethisphere, a US publication that focuses on the connection between 'ethics and profit'.

In the same year, Dunavant was one of 40 companies from 15 sectors to be awarded the 'best exporter' prize for its support for over 130,000 Ugandan farmers growing organic cotton for export, which has helped to improve the livelihoods of farming households, particularly in the war-torn north of the country.

HIV and AIDS

Dunavant has an integrated workplace HIV/AIDS programme in all its Africa operations (Mozambique, Zambia and Uganda). This has been prompted by concerns about the impact of HIV/AIDS on labour output among cotton farmers. For example, Dunavant commissioned a study to investigate the impacts of HIV/AIDS and other causes of adult mortality on cotton smallholder production in the Zambia where Dunavant owns 4 ginning operations and works with between 80,000 – 100,000 cotton farming households. The company was also concerned about the impact of HIV/AIDS on its 500 permanent employees who work at the gins and manage the outgrower systems. The study concluded that HIV/AIDS results in a loss of approximately 1% of total output, but considerably more in 'labour constrained' households with only a small number of adults, where death of an adult was estimated to reduce output by up to 16% ((Larson, CIHD, 2005:41-42) In Zambia, Dunavant's HIV/AIDS programme includes the promotion of Voluntary Counselling and Testing (VCT) and access to treatments. Beneficiaries include the farmers and members of the communities they belong to.

B.5 Plans to further expand the cotton sector: the Cotton Value Chain Improvement Project

²⁵ Dunavant workers enjoy a privileged status. They are the first to be attended to at public institutions and they do not pay entrance fees at local nightclub.

In October, 2007, the Gates Foundation awarded \$8million grant to support the *Cotton Value Chain Improvement Project* aimed at expanding cotton production in Mozambique and improving smallholder livelihoods. The Project will be co-managed by Dunavant Mozambique, the CLUSA International development programme of the National Cooperative Business Association (NCBA) and GAPI, Sarl, a Mozambican financial services company that promotes investment in small – and medium-sized businesses. The aims of the project include:

- expanding number of cotton farmers from current 35,000 to 60,000
- increasing average income by 35% through increasing crop yields and profits
- increasing women's participation
- introduce incentives to farmers to adopt more economically viable and sustainable farming practices
- to increase the overall farm production by 60%

When announcing the programme, NCBA's President, Paul Hazen, highlighted the main contribution of Dunavant being its *"progressive management approach, production expertise and long-term commitment to the African farmer"*

If the Project fulfils its goals, the number of people benefiting from Dunavant's Mozambique presence in the region will increase significantly over the coming years.

B.6 "Cotton made in Africa' Project

Through its Zambian branch, Dunavant is supporting a German-backed project called 'Cotton Made in Africa' that is aimed at helping African smallholder cotton farmers through enhancing the volume and sustainability of cotton production in selected countries in Western and Southern Africa. In Zambia, Dunavant is supplying farmers with inputs and seed, and also provides extension services aimed at helping farmers produce cotton of the standard required by the textile industry. For project purposes, 'sustainability indicators' were developed under three headings: people, planet and profit. In relation to 'people', key indicators applied include:

- ⇒ Safeguarding children's education (by not using child labour)
- ⇒ Upholding freedom of association and bargaining
- ⇒ Provision of written contracts
- ⇒ Provision of training to improve farmer's skills and capacities
- ⇒ AIDS prevention activities

Conversely, the project has identified 'exclusion' criteria denoting practices that would exclude a company or organisation from being supported under the project. In the case of 'people', these include:

- ⇒ Worst forms of child labour (according to ILO Standards) and trafficking of persons
- ⇒ Bonded or forced labour
- ⇒ Prohibiting membership or representation by a trade union/other organisation

At the end of 2006, Dunavant joined the Board of Trustees of the Project. In December 2006, Dunavant Zambia completed its own 'Self-Assessment' exercise to assess its performance in relation to the three key areas – people, planet and profit. Overall, the company was found to be performing adequately, but below the optimum

in relation to the specified indicators. For example, 50% of farmers received training, as opposed to the recommended 75%. And, although contracts are not provided, informal agreements are generally respected by the company.

The 'Cotton Made in Africa' will be expanding in 2008 to include more countries in Africa. It remains to be seen whether Mozambique will be one of them.

Despite of this developments in other countries where Dunavant operate, we found no evidence of any HIV AIDS policy or strategy at Dunavant Morrumbala.

C. THE RESEARCH PROCESS AND METHODOLOGY

In this section, we describe the different stages of the field work research, the location, the research sample, the interview process and the data-inputting and analysis process.

C.1 The Stages of the Research

The field research was carried out in three phases. Three field visits spread out over an 18-months period, were undertaken.

C.1.1 Phase One: Context Familiarisation and Relationship Building (April 2006):

This visit allowed us to identify the main actors involved in the process and to establish working relationships and build trust with several stakeholders and key informants. This is important because most private and public entities in Mozambique are very suspicious of Mozambican researchers in contrast to foreign researchers, who are perceived as having more power to change the status quo for better. No formal interviews were taken at this stage, but general data and perceptions were recorded. These observations proved useful in trying to adapt the questionnaire to the reality of the farmers and managers involved in the cotton production process.

C.1.2 Phase Two: Questionnaire Survey (July and August 2006):

A total of 31 respondents were interviewed using a semi-structured questionnaire. The majority of respondents (19) were farmers and the remainder (12) were people employed at the ginnery.

C.1.3 Phase Three: Farmers' Testimonies Collection and Interviews with Key Informants (September – October 2007)

A preliminary analysis of the questionnaire-based data revealed some gaps in the information required. That is because the questionnaire used was primarily tailored to address issues relating to the ILO Core Labour Standards. As will be discussed further on in this chapter, the process of attempting to analyse the field data within this framework highlighted the incompatibility and/or incompleteness of this framework when it is applied to the lives and conditions of rural workers. It thus became clear that, further more in-depth research would be needed to provide the kinds of insights needed in order to arrive at a better understanding of the realities of the lives of those working in this sector, in particular the producers themselves. Consequently, after obtaining authorization from Dunavant management, 20 open-ended interviews with Dunavant managers and 9 in-depth interviews were carried out with farmers and community representatives. For the purposes of oral testimony collection, a few open-ended questions were used to guide the discussion, but, by and large, the farmers were allowed to speak freely about their lives and views on various issues, such as their relationship with Dunavant, the advantages and disadvantages of cotton growing, their day-to-day activities, the division of labour at household level

by age and gender, gender relations, land use, cropping patterns, and use of wage labour.

The 20 interviews conducted with supervisors and management allowed us to collect additional information on the cotton production cycle and the ginning process. .

C.2 The location

As previously noted, the cotton belt of Mozambique is in the North in Cabo Delgado and Nampula provinces, while the centre provinces represent only a small proportion of the cotton grown in the country. Despite this, there are other factors that made Morrumbala an interesting location for the research. In particular:

- The fact that there are very few studies on the impact of FDI in this region.
- The dominance of Dunavant, a multi-national, in the area, fits in with a key objective of the research, whose primary focus is to examine the impact of FDI on employment in the country.
- Dunavant's ginning factory was the first green investment in the post independence period, thereby providing an opportunity to explore why a company would make such an investment.
- It has been claimed that soil conditions in the province are ideal for cotton growing and that, these along with other factors, give Morrumbala a unique comparative advantage over other areas, which during colonial times, was said to have resulted in higher incomes for farmers in Morrumbala compared to elsewhere (Isaacman, 1996). The research presented an opportunity to explore the extent to which this comparative advantage has impacted favourably on cotton production in the area.
- Lastly, Dunavant has operations not only in Mozambique but also in neighbouring Zambia, where the government has completely liberalized the cotton sector, thereby enabling insights and comparisons to be made between Dunavant's performance in these two contrasting policy environments.

C.3 The research sample and methodology

As noted above, field research interviews were conducted using different research instruments in two phases, involving a mix of quantitative and qualitative research methods. In the case of the former, a semi-structured questionnaire was used providing mostly quantitative, but also some qualitative data. In the case of the latter, the method used was based on a more-open ended oral testimony process. A profile of respondents in each sample, respectively, is provided below.

C.3.1 The Questionnaire-based Survey

As already mentioned, a total of 31 interviews were carried out. These were broken down as follows:

- 19 farmers
- 12 ginnery employees/management
- 2 women (out of the total 31 respondents)

In relation to the male bias, it should be noted that, women farmers were approached, but the majority refused to be interviewed saying that their husbands could speak for

them. Moreover, the majority of those employed in the ginnery are men. The two women who were interviewed were able to speak quite openly about the situation of women workers and discuss the issue of gender-based discrimination, thereby providing some valuable insights into this topic.

C.3.2 Oral Testimonies

In all, 9 people were interviewed:

Farmers (8):

Jose Alberto: father of 5, 5 hectares farm

Joao, 41-year-old male farmer, 3 kids

Mario, 49-year old farmer

Carlos, 45-year old farmer

Marta, woman farmer aged 32, widow, one hectare

Marina, woman farmer aged 29, Muslim in a polygamous marriage – 3 hectare farm

Pedro, male farmer – 4-hectare farm

Jose Pondaqueira, 53-years, Secretary of farmer mobilisation group

In most cases, the farmers had been growing cotton for around three years.

Local authority representative

Bernando Goveia, Chief Administrator of Morrumbala

C.3.3 Interviews with Key Informants (Dunavant)

The following key informants were interviewed:

Senior Management and Professional Staff:

Eng. Luis Pereira, General Director – Dunavant

Benjamin Nascimento, Director. CLUSA Mozambique

Eng. Destino, Director of Operations

Eng. Felicidade, Experimental Camp of Lipemba (Clusa-Dunavant)

Amir Ivan, Industrial and Commercial Director

Kembo Jose, Dunavant Morrumbala

Camane, Dunavant, Morrumbala

Checo, Dunavant, Morrumbala

Supervisor Joaquim, Milange

Supervisor Olimpio, Boroma

Supervisor Carneiro, Tete

Supervisor Pedro, Tete

Supervisor X

Supervisor Y

Supervisor Z

Manager A

Manager B

Manager C

Manager D

Technician A

C. 4 The Interview Process

In Phases One and Two, interviews with Dunavant Managers took place, both in Quelimane, the provincial capital where Dunavant has an office and in Morrumbala, the Dunavant headquarters. These interviews had been set up by phone and e-mail prior to arriving on site. Interviews with key informants within the company were set up by the General manager of the company.

In Phase Three, interviews with farmers were set up in stages. First, a visit was paid in Morrumbala before the interview so as to familiarize with the local leadership structures in the area. The objectives of the research were explained and the local leaders (Regulo) were asked to identify farmers who could be interviewed. The desire to interview an equal number of male and female farmers was stressed at this stage, but leaders show their reluctance in including women to be interviewed due to cultural reasons. After explaining why it was so important to have women in the sample they promised to do their best to include them. Second, 15 names of farmers were given by the local leaders of which 10 were contacted on their farms and an appointment was secured with each of them. As previously noted, many of the female farmers, refused to be interviewed. The actual interviews took place approximately one week later. They were held in the farmers' homes. A tape recorder was used. Some interviews were conducted in the local language for which an interpreter was hired. The interviews took place during the period of land preparation, so it was possible to observe some of the farming processes at this stage in the cropping cycle.

At the beginning interviews with Dunavant staff were mainly conducted in the offices at the headquarters. However, when interviewed within the premises, Dunavant workers were insecure and nervous. Thus we decided to conduct the remaining interviews outside Dunavant's premises. In most cases, when interviewed outside Dunavant premises, staff were able to speak openly and freely and the researcher did not feel that any important information was being withheld.

The duration of the interviews in the village was a week. During this time the researcher had the opportunity to mix informally with farmers and others and engage in informal discussion. Such discussions also provided additional insights into the way of life, the problems and general perspectives of people on life in the town and the way it has changed since Dunavant came in.

C.5 Data input and analysis

Data inputting and analysis occurred in several stages.

C.5.1 Statistical Analysis of the Survey Data:

The survey data was inputted using the SPSS software package. In order to facilitate data analysis, variables had to be grouped into smaller categories. In the case of open-ended questions, a two-stage method of data-inputting was adopted: first, the answers were recorded verbatim on each data set. Then, these were subdivided into a number of categories under the relevant variable. Then, all the questionnaires were entered into the database prior to undertaking statistical analysis

of the data. Firstly, frequency counts were taken for each variable and secondly cross tabulations were made.

C.5.2 Recording and analysis of the qualitative data:

First, the tapes were transcribed. Then, they were translated from the local languages into Portuguese and from Portuguese into English. The data was organised and analysed in relation to all the key variables. This was done manually and relevant findings were included in the report of the findings. By way of comment, it should be noted that the richest source of information came from this data set as this provided insights into the daily living conditions and reality of the hardships endured by the farmers in a way that could not easily be gleaned from the survey data.

D. FINDINGS

The findings are divided into 4 sub-sections:

(i) **Cotton Production, Marketing and Processing:** This sub-section provides a description of the different stages in the process of cotton production: the agricultural processes and the ginning processes. A description of these different stages is needed in order to better understand the work processes and the conditions under which both the production and ginning of the cotton develop.

(ii) **Farmers and Dunavant Ginnery Workers:** This sub-section presents the findings from the survey questionnaires and/or first hand interviews with farmers and factory workers. This constitutes the most important part of the overall research findings.

(iii) **The Business Perspective** This sub-section presents the ‘business perspective’ based on information collected through interviews with Dunavant managers and senior officers.

(iv) **Summary of Key Issues and Preliminary Conclusions:** The fourth and final sub-section provides a summary of key issues emerging from the field research findings and some preliminary conclusions leading to the recommendations in the next and final section of the Chapter.

D.1 Cotton Production, Marketing and Processing

In this section, we describe the ‘cotton journey’ and the main activities and processes involved from planting the seeds to harvesting the crop and processing it ready to be transported to the port from where the lint is shipped to other countries.

In more advanced countries cotton cultivation is mechanized. In Mozambique, most of the work is done manually. In this context, it is important to grasp what is entailed so as to have a better understanding of the physical, as well as material hardships endured by cotton farmers in Mozambique.

Most of the information in this section was provided by Dunavant employees and farmers during interviews conducted during the second stage of the fieldwork process. In addition, secondary sources of data, were consulted for the purposes of comparison with cotton producing technologies used in other countries.

D.1.1 The production process

D.1.1.2 Preparation of the agricultural season – From early September to October

At the end of each harvest begins the preparation of the next agricultural season.

a) Review of previous agricultural season:

In early September, a general meeting is called in which all the supervisors report to colleagues and managers on the achievements and problems incurred in the previous season, who respond with recommendations for improvement and suggestions for overcoming obstacles.

b) Mobilisation of farmers

The next step involves the mobilization of the population through the dissemination of information on the importance of cotton and its practical advantages. For this, meetings are held in different villages where different techniques are used to convince farmers to get involved in cotton production. In those meetings cases of successful farmers are presented and in most cases individual farmers are called upon to testify about improvements in their standards of living as a result of growing cotton²⁶. Traditional leaders, supervisors and heads of area play an important role in setting up the meetings. During the mobilization process, the registering of farmers who are going to grow cotton also takes place. The names of registered farmers are taken by the supervisors and processed at Dunavant's head office. Then, follow up meetings are called where the main techniques involved in cotton production are taught. This is followed by the distribution of inputs (seeds and pesticides) to registered farmers. Seeds are given to farmers free of charge, but pesticides are given in the form of credit, which has to be repaid when the cotton is sold. A basic manual with instructions on how to undertake each of the different stages required to have a good harvest is also distributed to farmers.

D.1.1.3 Land preparation – October/November

The land preparation (1st October – 15th November) is very crucial as it has a strong influence on the production process. A manual is distributed to the farmers explaining in simple language and with the help of illustrations how the land should be prepared. In Region B²⁷, there are two types of soil preparation: mechanized and manual. According to a Dunavant representative, farmers in Region B, who cultivate on two hectares or more may be able to benefit from tractors belonging to the company or rented. However, none of the farmers interviewed had access to a tractor. When extra help is needed, mainly for those who have more than two hectares, they have to hire farm labourers who are paid in kind (usually maize) or cash. Dunavant provides the cash as credit, to be paid back on harvest.

²⁶ According to Isaacman (1996), the use of such testimonies was also widespread in colonial times

²⁷ This includes the following Areas : Morrumbala, Chire, Muandua, Sabe and Borroma

D.1.1.3 Planting

The farmers produce cotton to be sold to Dunavant, who provide them with seeds and inputs. As stated elsewhere, the seeds are given for free, but the inputs have to be repaid. The planting season is between 15th November and 30th December and can be extended to the first two weeks of January depending on when the rains commence. If planting is done too early, it may clash with the rainy season, which can result in the rotting of the seed. On the other hand, planting too late, the seeds may be affected by the low temperatures and not sprout properly. Planting the seeds is done manually. More specifically, seeds have to be placed in hand dug holes three cms deep and 20 cms apart from each other. Because of the comparatively low germinating power of the seeds used, they have to put six to 8 seeds in each hole²⁸. The seeds have to be placed in straight rows about one metre apart from each other. A stick is used for measuring and a rope for making the lines straight. In most advanced countries, this labour-intensive work is done by mechanical planters that can cover as many as 12 rows at a time.

D.1.1.4 Land measurement

Measurement of the cultivated land area by Dunavant employees takes place after the seeds have germinated and forms the basis of yield estimates for the harvest.

D.1.1.5 Removal of excess plants

When too many seeds germinate and there is not enough space for each to grow, it is necessary to pull out the excess.

D.1.1.6 Weeding

This involves pulling out all undesirable plants that can interfere with the healthy growth of the cotton seed. The first round of weeding usually takes place when the plants are 10 cms high. The number of subsequent rounds varies depending on the level of infestation of each field²⁹.

D.1.1.7 Pest management

Dunavant provides farmers with pesticides, the cost of which is subsequently recouped from the farmers by deducting the amount from the money they are paid for the cotton they produce. There are three kinds of pesticide kits: one for half a hectare, costing approximately \$11; another for one hectare costing approximately \$18 and a third, 'the special kit' with more applications costing approximately \$25. Application of pesticides usually starts in the 8th week and subsequent applications should normally occur at intervals of 15 days. For optimum results, there should be five rounds of spraying, however, most farmers only apply two or three. This is chiefly on account of the high cost of the pesticide. Lack of adequate understanding of the importance and potential gains to themselves of applying greater amounts of pesticide may also be a factor.

²⁸ Eng.Destino, personal communications

²⁹ Kamane, personal communications

D.1.1.8 Rotation

Rotation is a cultural practice that is necessary in the cultivation of cotton because it helps to maintain soil's fertility and to reduce the effects of soil erosion. Rotation also helps to control pests and the incidences of insect plagues and infestations (Carvalho, 1996). In the study area, producers rotate maize, boer beans and nhemba beans every 3 years.

D.1.1.9 Harvest

Harvesting is the last stage of the cotton cultivation process and usually takes place 4 months after the germination of the seeds (Carvalho, 1996). It is of great importance as it determines the amount and quality of the seed cotton produced, as well as the quality of the fibre. If cotton is not harvested when it is ripe it may lose quality, and therefore farmers get less income. Harvest is one of the most unpleasant of the stages in the process as the plant is full of prickly thorns, which hurt when they are handled. In developed countries, this is avoided by using modern cotton harvesters, which in some instances can cover up to 6 to 8 rows at a time and can harvest up to 190,000 pounds of seed cotton a day. However, most of the farmers in Morrumbala and Mutarara district harvest the cotton manually (see illustration below). In the first collection, only first grade cotton is picked and in the second picking, the second grade cotton. The bigger producers hire manual labour, but, owing to financial constraints, most farmers are often unable to hire enough, which may result in delaying the harvest and reducing the quality of the fibre due to exposure to rain, wind and the sun's rays.

Fig.2 and 3: Cotton harvest in Morrumbala



Source: AJUS-Faculty of Agronomy, Universidade Eduardo Mondlane, 2007.

D.1.1.10 Burning

After the harvest, in preparation for the next planting season, all the wild plants must be pulled up and put in a pile and burnt. This work is normally done by men. It is very important as it helps to prevent pest infestations, both in the short and the long term. This is done by hand as seen in figure 2 and 3.

D.1.2 Marketing of the cotton

D.1.2.1 Buying from the farmers

According to Pereira, the General Manager, Dunavant is the only company in Mozambique that reaches an agreement with the farmers on the value of the seed cotton at the very beginning of the farming season³⁰. Other companies announce the price during harvest, when it is too late for the farmer to make decision about how much land to use for cotton. The purchase of the cotton from the farmers is preceded by the distribution of sacks in accordance with the land area under cultivation and this information is obtained at the time of land measurement.

During the marketing season, Dunavant sets up markets where the farmers take their cotton to sell. The markets are set up based on the number of producers in the area and the estimated amount of cotton produced. They are clearly signposted and usually located close to the house of a facilitator or a group leader. The purchasing is usually done by a team of Dunavant employees. The day is announced in coordination with the farmers, Facilitators, Group Leaders and the extensionist responsible for that area. However, farmers complained that quite often the buyers do not arrive on time, or on the agreed days, which increases the number of days they are away from their food farms or extra cotton activities.

The following are the steps involved in the sale of cotton:

- Organisation of the producers
- Classification of the cotton by the buyers in two categories: first and second grade. First grade cotton is white, fully matured, without stains or foreign bodies, whilst the second grade is dirty and stained due to insects, late harvesting and more trash (twigs, dust and so on).
- Provision of labels for the sacks
- Weighing (see figure 4 below) and registering of the number of sacks, which is recorded on the farmer's label
- Labelling of the sacks (each label has on it: farmer's name, the name of the association, the location of the farmer, the weight of the sack and the signature of the classifier – (see figure 5 below)
- Collection of the sacks

The farmers do not receive the full value of the cotton they sell until all this information has been recorded and the necessary forms have been completed. Once these procedures have been completed, the Group Leaders carry out the payment transactions in the market where the cotton was sold. Any credit that needs to be repaid are debited from the payments to the farmers. Dunavant pays incentives to

³⁰ Pereira, 2007, Personal communication

Group Leaders, ranging from bicycles to radios, if their group reaches or surpasses the targeted production level.

Fig. 4: Cotton weighing at a concentration centre; Fig 5: Label card



Source: AJUS-Faculty of Agronomy, UEM, 2007

D.1.3 Loading and Transport

After buying the cotton from the farmers, the cotton has to be loaded and transported to the ginning factory. In the process, concentration centres are set up for the draining and these receive cotton coming from the markets difficult to access in tractors and lorries either rented or belonging to the company. The sacks are registered according to the type and weight of each sack and the label number. These are transported to the factory in large lorries. When they reach the factory, the lorry is weighed to determine the gross weight and subsequently, the transported load is taken to the unloading point where each sack is checked individually. Once unloaded, the cotton is stored by area of influence and type of purchase and the lorry is weighed again and the net weight is calculated.

D.1.4 Re-classification of Seed Cotton

Once the cotton reaches the processing factory, it is re-classified by a company expert through comparisons with model samples. The cotton is sub-divided into the following categories: First Category: A –White. A-Cream and B; and Second Category: C, D and BSB.

D.1.5 The cotton ginning process

One of the important phases before the start of the cotton processing is the drying phase that consists of scattering the cotton whilst separating the two types. After the drying, the cotton is reclassified and organised into different types that will form the processing groups.

Subsequently, the cotton is taken to the gin where it is processed and the fibre is separated from the seed. 10 samples are taken from every type of cotton and sent to be classified by the Institute of Cotton (IAM) for the final classification (types 1,2,3,4,5, or 6) used for the marketing of the processed cotton.

Then the raw fibre or lint is passed through pipes where it is compressed into bales. Some of the seed is weighed and packaged and some is saved and used in the next farming season.

In the cotton ginning process, there are four groups of six seasonal workers and each has to gin 2,400 sacks per day. There are six seasonal workers who are responsible for vacuuming the cotton into tubes. Four seasonal workers and one permanent supervisor are in charge of the four gins. For the packaging process, there is one permanent machine operator and four seasonal workers who put the sacks into the packager. In the packaging department, there are another five workers (three seasonal and two permanent) involved with packaging the lint into bales and taking samples from each bale and loading the bales to be taken to the warehouse. After the cotton has been ginned, the seed is packed by two seasonal workers. Another 9 seasonal workers are employed for packaging the cotton seed.

The same seasonal workers are contracted during every cotton harvest on account of their experience and these same workers are involved in the cleaning and maintenance of the factory, which is usually done on a weekly basis.³¹

The ginning factory has the capacity to produce 150-160 bales in a normal 8-hour working day. This compares with a capacity of up to 480 bales in some places, such as Australia.³²

The processed cotton is transported to the port of Beira and in collaboration with Manica Freight Company, which deals with the packaging and preparations for shipment, The cotton is sold to Indonesia, South Africa, Swaziland, Lesotho, Mauritius or China.

D.1.7 Field-based Research on Seed Varieties: the Lipembe experimental field

The Lipembe experimental field is where trials of different seed varieties, such as local Boer Beans, are carried out and where seeds are multiplied. In the field, there are certain areas, called maintenance nuclei, which are isolated each year and are used to produce germoplasm from cotton seed varieties used by the company. In these nuclei, the seed varieties are planted in areas of one hectare and those varieties presenting different morphological characteristics are identified and eliminated. At the end of the harvest, four or five plants with more robust features are selected and in the next season, they are planted in rows and those with the greatest level of output are used as the line of descendancy of this variety and designated as the base seed. This seed is planted in one hectare and from this you get the C1 variety. C1 is then planted in one hectare and produces C2, which is cultivated in 15 hectares producing C3. C2 and C3 varieties are given to farmers and from these is produced C4.

Dunavant is among the very few companies who carry out seed research. On account of this, Dunavant has been able to increase its productivity levels over the years and these have now overtaken those of growers in the Nampula cotton belt.

³¹ Interview with Amir Ivan

³² See Cotton Australia website, www.cottonaustralia.com.au

D.2 Farmers and Dunavant Ginnery Employees

This section presents the findings of the fieldwork research focusing on the employment conditions of those involved in cotton production. As previously noted, the field research was carried out in three Phases. A total of 60 interviews were carried out in the second and third phases comprising:

- a) A questionnaire-based survey of farmers (19) and factory workers (12)
- b) 9 in-depth interviews with farmers (8) and a local authority representative
- c) In-depth open ended interviews with supervisors and managers of Dunavant (20)

Framework of Analysis

As with the other sectors, the framework applied for the purposes of analysis of the findings is the ILO's '**Tripartite Declaration of Principles Concerning Multinational Enterprises and Social Policy**', which deals with the respective roles and responsibilities of Governments and Multi-National s (MNE) and employers and workers' organisations, under the following four headings:

- **Employment:** employment promotion, equality of opportunity and treatment; security of **employment**
- **Conditions of Work and Life :** wages benefits and conditions of work; minimum age; health and safety
- **Training**
- **Industrial Relations :** freedom of association and the right to organize

In attempting to apply this Framework to the cotton growing sector, it soon became apparent that the Declaration was aimed at workers employed within the formal, primarily, industrial sector³³. The kinds of issues it deals with, such as equal opportunities procedures, contractual rights, rights of representation, collective bargaining and so on, can only directly be applied to workers in formal and/or conventional work settings, such as offices, factories, assembly plants and so on. By contrast, the relationship that exists between the MNE (in this case Dunavant) and the cotton farmers of Morrumbala, is not bound by a formal contract and is not, therefore, subject to the provisions of national employment legislation and/or the norms of international labour conventions in the same way as workers employed in other sectors, such as industry and services.

Faced with this dilemma, we asked ourselves whether we should abandon the use of this framework and look for an alternative. In considering this question, we noted that the underlying principles of the Declaration, namely the principle of non-discrimination, equality of opportunity, the right to security of employment, the right to training, the right to 'decent' living and working conditions, the right to health and safety and the right to representation – all these principles can and should be applied to all forms of employment and all categories of workers, be they builders, office workers or farmers. Thus, we concluded that the spirit of the Declaration is as relevant

³³ The issue of the ILO bias towards industrial countries has also been raised by others. See for example, Ghai, 2002:2)

to the cotton sector as it is to other sectors and we resolved to use this Framework and, where necessary, adapt the underlying principles contained within it to the realities of the lives of cotton farmers.

In places, we also refer to the ILO Decent Work framework, which was developed shortly after the Tripartite Declaration and has gained increasing international recognition in recent years. For example, the ILO has been pushing for “*the achievement of full and productive employment and decent work for all*” to be added to the Millennium Development Goals.

D.2.1 Employment

Under the Tripartite Declaration, employment is discussed by reference to three key issues: employment promotion; equality of opportunity and treatment; and security of employment. These are discussed below.

D.2.1.1 Employment promotion

The promotion of “*full, productive and freely chosen*” employment is the first issue tackled under the Declaration. Employment generated by MNEs may be either direct or indirect. Each of these is addressed in turn.

Direct employment

In so far as ‘employment’ can be thought of as the source of cash income, it can be said that Dunavant is the prime source of employment in Morrumbala District. As already noted previously (section B), there are somewhere between 35,000 and 46,000 farmers engaged in cotton production in the district³⁴. In addition, Dunavant employs 172 permanent workers and between 350—400 seasonal workers, including a total of 80 who work in the ginning factory (mostly permanent, but some seasonal). Unlike the ‘forced labour’ of the colonial times, it could be said that farmers freely enter into cotton production and into the informal contractual relationship with Dunavant whereby they produce the cotton and Dunavant buys it. Testimonies provided by farmers indicate that, in most cases, they themselves freely took the decision to enter cotton farming on the basis of the perceived benefits. Similarly, several of the farmers interviewed, claimed that they had increased the land devoted to cotton in order to be able to increase their revenues. This research finding is confirmed by the upward trends in the number of cotton farmers and land under cotton production over recent years³⁵.

Indirect employment

Beyond the direct employment generated, the Declaration also asserts the role of MNEs to promote indirect employment opportunities through forward and backward linkages:

³⁴ One source (NCBA, 20007) estimates the number of farmers to be around 35,000, but figures provided by Dunavant are over 46,000 for the 2007/8 season.

³⁵ Eng. Destino 2007, Personal communication

“To promote employment in developing countries, in the context of an expanding world economy, multinational enterprises, wherever practicable, should give consideration to the conclusion of contracts with national enterprises for the manufacture of parts and equipment, to the use of local raw materials and to the progressive promotion of the local processing of raw materials.” (para 20)

Here Dunavant’s record is less impressive. While it could be said that presence of Dunavant and increased circulation of cash in the local economy has, indirectly, provided jobs and incomes for local businesses through trading opportunities and/or sale of services, it is clear that the full potential of indirect employment generation has not been reached.

Interviews with Dunavant representatives, as well as direct observations on the part of the researchers, revealed that the reason for this is that the private sector is very weak and does not have the capacities and/or capital required to be involved in the provision of inputs, such as fertilisers, manufacture of personal protective equipment such as masks, huts, gloves, irrigation pipes and other accessories. The only sector benefiting so far is the one associated with transporting cotton from the concentration centres to the ginning factory and from there to the ports for exports. Currently there are only 13 trucks involved in this process, which results in delaying the transport to the ports and loss of cotton through exposure to rain, thereby also lowering the price received by farmers. If more people were able to buy and operate trucks for the transport of the cotton, this would not only benefit the transport operators directly, it would also indirectly benefit the farmers whose income would be increased

Besides the lack of forward and backward linkages within the current set-up, there is further potential for employment promotion that is not being exploited at present, through, for instance, the production of oil or soap from seed cotton and/or the use of the lint produced for garments and other textiles. Before the war, there were factories in the area producing oil from cotton seed, but these were shut down and/or destroyed during the war and have since ceased to operate. The lack of such value added operations in the cotton sector, renders it more vulnerable to the fluctuations of world cotton prices and also limits the additional potential revenue gains, thereby restricting the benefits in terms of the trade balance and the economy as a whole.

Overall assessment

In terms of the *quantity* of employment generated, it is clear that cotton is making an important contribution in terms of generating employment opportunities in Morrumbala District, the seat of Dunavant’s operations in Zambezia Province. As acknowledged by the farmers themselves, this has had a major impact:

“The greatest advantage of having a company like Dunavant in the district is that it brings jobs to the areas..” (Joao, 41-year old farmer)

“I think Dunavant has changed the face of this district. The company has a very big impact..because it buys our cotton and provides employment for young people in the factory, as well as the extension workers who provide us with agricultural inputs.” (Carlos, 45-year old farmer)

Moreover, as previously mentioned, Dunavant is planning to extend its operations and build a new ginnery, thereby generating additional employment. Furthermore, as also previously noted, under the *Cotton Value Chain Improvement in Central Mozambique Project*, a recent new initiative funded by the Bill and Melinda Gates Foundation, it is hoped that by the end of the project, the number of growers involved in cotton production will increase from the current level of 35,000 to 60,000³⁶. Thus, in the coming years, it is likely that cotton will increase in importance as a source of income and employment in the region. On the other hand, the full potential for employment generation is not being reaped, resulting in losses, both for the inhabitants of the district, and also for the Mozambican economy as a whole.

D.2.1.2 Equality of opportunity and treatment

According to the Declaration, it is the duty of governments to promote “*equality of opportunity and treatment in employment*” and to seek to eliminate any discrimination based on “*race, colour, sex, religion, political opinion, national extraction or social origin*”. In turn, MNEs should support such goals by adopting policies and practices that ensure fair treatment, such as basing recruitment decisions solely on qualifications, skills and experience.

We start by looking at the findings in relation to the workers employed in the ginnery and then attempt to see to what extent these basic principles can be applied to the very different employment situation of the farmers.

D.2.1.2.1 Ginnery Workers

Several of the questionnaire questions touched upon issues relating to equal opportunity procedures and practices. The three areas touched upon are; recruitment criteria, promotion criteria and pay criteria.

Recruitment procedures and criteria:

Two questions dealt with recruitment procedures and criteria. As shown in the table below, of the 11 respondents who answered the question, all of them replied that there is a formal recruitment procedures. One-to-one interviews with the workers also revealed that many hear of jobs through the local community radio and by word of mouth from company workers and/or from friends and neighbours.

Table 9 : Company’s main method of recruitment (ginnery)

	Frequency	Percent %
Formal	11	91.7
Informal	0	0
Corruption	0	0
N/a	1	8.3
Total	12	100

Source: fieldwork 2006

³⁶ http://www.ncba.coop/pdf/clusa/Mozambique%20GATES%20_8-07_%20FINAL.pdf

Moreover, as shown in the table 10 bellow, according to all respondents, the interview process constitutes the main basis for recruitment.

Table 10: Recruitment criteria

	Frequency	Percent %
Interview	8	66.6
Experience	3	25
N/a	1	8.7
Total	12	100

Source: fieldwork, 2007

Thus, on the basis of the answers to these two questions, it would seem that recruitment is based on sound equal opportunities principles.

Promotion criteria

The questionnaire also addressed the issue of promotion. As shown in the table below, with the exception of one respondent, interviews reported that promotions are always based on either competence or experience.

Table 11: Promotion criteria

	Frequency	Percent (%)
Competence	6	50
Experience	5	41.7
Management discretion	1	8.3
Toral	12	100

Source: fieldwork, 2007

Salary levels

However, in the case of salary levels, respondents unanimously expressed the view that 'nationality' (which, in this context, is a proxy for 'race') is the main determinant. This perception is based on the fact that most senior managers in the company are either white or 'mixed race' and earn considerably better salaries than their black Mozambican counterparts.

Table 12: Role of nationality in determining salary level

	Frequency	Percent (%)
Nationality	12	100

Total	12	100
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Source: fieldwork

Gender-based discrimination

In the eyes of most of the inhabitants of Morrumbala, the ginnery is a valuable source of employment, both for men and for women.

“... they (Dunavant) ... give work to our sons and daughters in the factory, where there is work for women too.” (Marta, female farmer)

However, in reality, employment opportunities for women in the ginnery are restricted, chiefly on account of their lesser qualifications, but also, in some cases on account of direct and/or indirect discrimination. Of the 80 people employed by the ginnery 71 are men and 9 are women. In the interviews with workers, they were asked to comment on the reasons for this gender imbalance. One of the respondents, a woman, said there are not enough women with the required qualifications to take up the jobs. For those women who come from outside the area, life is tough as illustrated by the case of one of the interviewees. In her interview, she mentioned the fact that in order to take up her position at the factory, she had to leave her twins and her husband in Maputo because there was no work for her husband and no family to help her look after the children in Morrumbala.

One-to-one interviews revealed the difficulties faced by women employees, providing evidence of indirect discrimination. One male interviewee in a senior management position complained of the difficulties caused by women citing the example of a case when two agronomists fell pregnant at the same time. This manager complained:

“They should have planned better. How am I expected to deal with two pregnant agronomists during the high season?”

On these grounds, he argued that he had no choice but to terminate the contracts of both women (both qualified agronomists)!

Thus, while on the face of it, it might appear that the company is taking the issue of Equal Opportunities seriously, the findings suggest that patterns of both race and gender-based discrimination are still evident and need to be addressed..

D.2.1.2.2 Farmers

In the case of farmers, the nature of their employment status does not lend itself easily to an analysis based on the Tripartite framework. None the less, we have attempted to explore, on the basis of the research findings, the extent to which the principles of the Declaration in relation to equality of opportunity and treatment have been applied. In addition to the equality of opportunity and treatment, we have also tried to assess the impact of cotton farming on household relations and, in particular, gender relations between men and women.

Equality of opportunity:

At present, there are no barriers to access for cotton growers. In fact, every effort is made to try to persuade as many farmers as possible to produce cotton and to increase the amount of land devoted to cotton, as opposed to other crops. The 'recruitment' of farmers takes place during an open community meeting where Area Heads, representing the company explain to local farmers the terms of the 'contract' arrangement. In this process, existing growers are usually called upon to stand up and tell others about the benefits they have received in terms of material wealth, and so on. Any one willing to enter into an agreement is able to do so. Thus, all farmers have an equal opportunity to enter into a contractual arrangement with the company.

Discrimination on the grounds of landownership?

However, with respect to certain benefits, such as additional credit, use of the company tractors and other mechanized technologies, access is granted in relation to the amount of land cultivated by the farmers with those cultivating 2 or more hectares being entitled to these additional inputs. While there is a sound rationale for this policy, given the limits on these resources (Dunavant only has a handful of tractors and credit is also in short supply), there is a danger that such a policy could lead in the long term to a two-tier system in which farmers with access to more land, also have access to more privileges, which, in turn, would widen the gap between themselves and the smaller farmers and could eventually result in the smallest farmers being squeezed out of the sector.

Impact on Household Division of Labour and Gender Relations

All household members – men, women and children – are involved in the cotton production process and there is a clear division of labour (see also D.2.2.1). However, besides their work on the cotton fields, women also do most of the work involved in producing food crops, as well as caring for the children, cooking and doing most of the domestic chores in the home. Despite this, it is usually the men who get paid when the cotton is sold. In addition, one female respondent said that women farmers do not have equal access to micro-credit. Dunavant representatives also noted that women do not tend to be involved in decision-making processes at the household level. From the company's perspective, this is seen as a problem because it means that women have less at stake and may, as a result, be less motivated. The new Cotton Value Chain Improvement project co-managed by CLUSA and Dunavant, seeks to remedy this by positively promoting women's role in farmers' associations and enhancing their decision-making powers.

While on the surface, it appears that cotton production both perpetuates and, even further reinforces existing gender inequalities, the research findings revealed more subtle power dynamics in force whereby women's status in the household has increased and they have been able to use their labour contribution as a bargaining chip in their relations with men. For example, one interviewee said that she is one of three wives, who work on the fields. She said that each wife has two fields – one for cotton and for food. The fields are registered in the husband's name and he gets all the agricultural inputs, as well as the proceeds. However, in her view:

“Dunavant has helped us women in the district a lot and now we have some money to buy clothes and other necessities. Although our husband keeps the money, when we ask him for something, he never says no because we are the ones who produce the cotton” Marina, aged 29

Another way in which women's status has been enhanced is that they are now also sometimes in a position to employ others, as mentioned by one of the women interviewed:

“Before, I used to do all the work myself, but now, I have people to help me and I pay them with maize.” (Marina, aged 29)

In the case of children, although they have to also get up before dawn and help their parents on the farm, they also benefit in that one of the main priorities consistently mentioned by farmers, both men and women, is their children's education and one of the major positive outcomes of the cotton activity is that it has enabled families to pay for families discriminate between the education of girls and boys, but no information on this was provided by the research findings.

D.2.2 Conditions of work and life

The Tripartite Declaration singles out conditions of work and life as one of the four key areas to be addressed. While the main focus is on wages and benefits, the underlying message is clear: that is that both governments and MNE's have a role to play in ensuring that workers and all people whose lives are affected by the presence of MNEs should see their living standards improve.

In the case of governments, the Declaration states that they should seek to ensure that ***“lower income groups and less developed areas benefit as much as possible from the activities of MNE's”*** (para 35)

In effect, the introduction of a special package of tax and other fiscal incentives for foreign companies who invest in the Zambezi Valley is in line with this principle and may have helped to encourage companies like Dunavant to invest in this region.

The Declaration deals with three broad areas:

- ⇒ Wages, benefits and conditions of work
- ⇒ Minimum age
- ⇒ Safety and health

These are discussed in turn below. However, instead of discussing wages, we focus on the question of cotton prices, which is the closest equivalent to wages as far as the farmers are concerned.

D.2.2.1 Working conditions

Farmers

Much has been written in the literature by Isaacman et al (1996, 1996, 1988, 1983) Pitcher (1994, 1993, 1991) and others about the gruelling life of cotton growers and, as revealed by the oral testimonies provided by farmers during the field work process, the life of cotton growers remains very tough. The work starts before dawn and goes on till after dusk in order to make use of the hours when the sun's heat is less intense. The work itself is also very arduous and a number of survey respondents lamented the lack of alternative methods of production such as animal traction or machinery (tractors and carts) to help alleviate the work. Women's day is even longer and more strenuous than men's as, in addition to their work on the cotton fields, they also have to tend their food gardens (the *machamba*), collect firewood and water and do most of the domestic chores.

"I wake up early in the morning to fetch water for my kids to wash before going to school. Then, I go to work in the fields where I work till it gets too hot at around 9 or 10.00am. Then, I go back home to prepare lunch for the children to eat when they get back from school. In the afternoon, when it is less hot, I go back to the field where I grow food, with my kids. It is hard work and, apart from my children, there is no one to help me in the fields." (Marta, aged 32)

A number of farmers do employ extra help during the most labour-intensive periods. For example, one farmer said he employs 8 labourers and he pays them partly with money and partly in kind (corn).

Ginnery Workers

The work in the ginnery is done in two 8-hour shifts. Though the process is mechanized, conditions in the factory are unpleasant. Workers remain standing for practically the whole shift. The machinery is very loud and there is no protection for the ears. Also particles of cotton lint fly everywhere and get into the throat and lungs causing discomfort and coughing. Masks should be worn to alleviate some of these symptoms, but, as discussed in the section that follows, these are rarely worn. Ginnery workers also have to transport all the sacks of cotton, which are heavy, from the factory to the warehouse. Working in a ginnery is very physically demanding.

D.2.2.2 Perspectives on price and pricing mechanisms

Given the importance of the price of cotton as a determinant of the income of cotton growers, additional questions were included in the survey questionnaire to gauge the views of farmers on the prices paid and the price-setting mechanisms applied.

D.2.2.2.1 Low price

The major complaint of the farmers was not the hard work entailed, but the low price they are paid for the cotton they produce. This issue was consistently raised by all the farmers spoken to, as well as the survey respondents.

Almost two thirds (64.5%) of respondents said that cotton is priced too low. However, as pointed out by many, they are not in a position to do much about it:

“We are not happy with the prices they pay us, which do not compensate for our hard labour. We will continue to produce because we have no other source of income.”
(Carlos, aged 45)

Several farmers commented that the price they get (5.5. mtcs in the last harvest – equivalent to about US\$0.22) is significantly lower than the price paid to farmers in neighbouring Malawi (7 mtcs or US\$0.28).

As things stand, due to the monopolistic nature of the concessionary system, farmers have no choice but to sell to Dunavant. Respondents were asked what they thought of this system. All 19 farmers expressed the view that they should be allowed to sell their cotton to whoever they choose.

D.2.2.2.2 Access to credit and extension services

As there is no bank in the area, the only source of credit is Dunavant. Some farmers commented that the cost of the credit eats up all their meager profits:

“Despite all our hard work, at the end we are left with nothing because all our money goes to Dunavant to repay the credit they give us.” (Joao, aged 41 yrs)

Although they were grateful for being able to have access credit, a number of farmers commented that they would rather be able to get credit from other creditors, instead of being tied to Dunavant. This lender-borrower relationship makes them feel trapped in the situation and unable to break away. A better solution, from the point of view of the farmers would be to be able to get credit from an independent bank.

A similar point was made by one farmer in relation to extension services, which are currently provided by Dunavant. He said:

“If these services were provided by the state rather than Dunavant, it might help to get a better price for the cotton.” (Pedro)

The rationale being that the state would have a better bargaining position if it were less dependent on Dunavant to provide this essential service for farmers.

D.2.2.2.3 Cost of inputs:

Respondents were asked how they purchase inputs for the cotton growing activity. Over half – 17 (54.8%) said they get credit from the company, while 12 (38.7%) said they get it locally.

One respondent said that what they earn is not enough to buy all the inputs and they sometimes have to use their own personal funds. According to some testimonies, this is partly due to the high cost of inputs:

“The price of cotton is low, while the price of the inputs we purchase from Dunavant is high.” (Joao, farmer, aged 41)

D.2.2.2.4 High Risk

Although the concessionary system has some benefits for the farmers in that they know they can always sell their cotton to Dunavant, the major disadvantage from the point of view of farmers is that they have to bear most of the risks. If prices on the world market fall, they lose out. And, secondly, if the harvest fails, either due to drought or to flooding, they also lose out because they still have to repay the credit in full, while they are left with nothing to sell. As noted by one farmer, even the minimal amounts gained by farmers are subject to uncertainty:

“And sometimes, after working so hard, it doesn’t rain or else it rains too much. In either case, all our hard work and money go for nothing and we are left with debts to repay” (Jose Alberto, cotton farmer and father of 5)

One farmer reported that, owing to the drought, his output of cotton was halved in 2007, down to 30 sacks as compared to 60 in the previous year.

Job vs Income security

While the Tripartite Declaration deals with the question of job security, the more pertinent question from the point of view of the farmers, relates to income security the importance of which has been recognized by ILO elsewhere:

“Everybody – regardless of where they live – needs a minimum level of social security **and income security** (ILO, 1999)

Ultimately, the question that needs to be asked is, whether it is fairer to expect farmers or MNEs to bear the risks of harvest failure and market price drops, and which of these, is truer to the spirit of the ILO and other international conventions? We will return to this point in the Conclusions and Recommendations.

D.2.2.2.3 The price setting mechanism

As previously discussed, a minimum price for the cotton (which usually ends up as the fixed price applied) is set by the National Cotton Institute (IAM) in consultation with the Ginners’ Association (AAM). The farmers are not represented in these negotiations. They firstly agree a tentative price, which is announced in November/December and the secondly, definitive price is announced during the harvesting season. There are two prices: one is for the highest grade cotton (grade 1) and the other for the lower grade cotton (grade 2). Dunavant announces its price in October to allow farmers to plan accordingly (Pereira, 2007). Sometimes IAM and the AAM fail to reach an agreement on the minimum price, which increases farmers’ uncertainties.

Farmers’ views on the price-setting mechanism were sought, both through the survey questionnaires and also on one-to-one in-depth interviews with farmers. The findings from both these sources were consistent with the literature and highlighted the

dissatisfaction of farmers, not only with the price set, but also with the way in which it is set.

As shown in the table below, over two thirds of the survey respondents felt that the pricing system is unfair:

Table 13: What do you think of the pricing system?

	Frequency	Percent
It is fair	1	3.2
It is not fair	21	67.7
It is quite fair	3	9.7

Source: fieldwork, 2006

As implied by the figures in Table 6 below, the main problem, according to farmers, is the non-involvement of farmers in setting the price. While a few respondents (under 10%) thought the price should be set by the government, close to two thirds thought it should be the local producers. Several respondents also expressed the view that the price should be established through joint negotiation between the company and community representatives.

Table 14: Who should set the price?

	Frequency	Percent
Local producers	20	64.5
The market	8	25.8
Government	3	9.7

Source: fieldwork 2006

Though the point of view of the farmers is understandable, one asks how could they be involved if they are not organized. Projects such as CLUSA are important in helping in the setting up of farmers grass-root organizations.

D.2.2.2.4 Cotton Grading System

Another issue raised by farmers in one-to-one interviews is the way in which the cotton is graded. The grading of the cotton is not an exact science and the farmers alledge that some intermediaries abuse their position and take advantage of the low literacy levels of farmers by downgrading it, resulting in farmers losing out and getting paid less than they should:

“At harvest time, there are disputes with Dunavant because the people who do the weighing and classification are not honest. Sometimes, they classify it as second grade when, in fact, it is first grade and we don’t trust the scales they bring. We think some of the scales have been tempered with, so they make the cotton weigh less than it really does.” (Carlos, farmer aged 45)

Lack of government support

Most of the farmers interviewed felt that the Government is not doing enough to support cotton farmers. They feel the Government should be listening to their concerns:

“I wish the government would listen to what we have to say about how to address the problems we are facing.”

One of the key roles farmers would like to see the government playing is to negotiate a better price for producers and to ensure they are not cheated:

“We think the government should help with getting us a better price for the cotton”
(Jose Alberto)

“The government should assume the role of judge to ensure that the cotton produced by the farmers is correctly weighed and that farmers are rewarded for their labour and sweat.” (Pedro)

D.2.2.2.5 Overall Impact on Living Conditions

Under the Tripartite declaration, it is implied that MNEs should have a net positive impact on the basic living standards of the local population (para 34).

Based on our direct observations and on the comments of people, both as part of formal interviews and during informal discourse, it is clear that, despite the low price of cotton, Dunavant has had a marked and chiefly positive impact on living standards and conditions in the District.

As shown in the table below, most respondents felt that their lives have improved because of their involvement with cotton production (either as farmers or in the gin), both in terms of job opportunities and improved living conditions.

Table 15: What has been the main impact of this job on your life?

	Frequency	Percent
Access to employment and wages and improved purchasing power	11	35.5%
Better living conditions	20	64.5%
Total	31	100%

Although farmers are aggrieved that the reward for their labour is so small, most of them recognize that, in the absence of Dunavant, things would be still worse:

“Without Dunavant, we would not even have the little money we have.” (Joao)

The kinds of improvements mentioned at the level of individual households include:

- Access to basic necessities (clothes, food)
- improved houses (made of brick with zinc roof)
- transport improvements, such as motor-bikes and bicycles
- a access to consumer durables, such as radios and TV
- a ability to pay school fees and other school expenses

Furthermore, in contrast to the colonial period when, in the opinion of Isaacman (1996) food security was threatened because farmers could no longer cultivate food on account of being forced to grow cotton, the research findings suggest that one of the impacts of the cotton regime in present times is a more balanced diet as a result of the provision of seed and some grains, such as corn and beans by Dunavant. As stated by Benfica (2005) there is a correlation between increase in cotton production and increase in food crops, as the latter is used to pay for labour in the former.

At the level of the district, it is widely believed that Dunavant has had a significant impact as clearly proven by the availability of amenities, such as small hotels, restaurants, a disco, secondary schools, electricity supply, mobile phone network, and so on, that do not exist in other neighbouring districts.

He further points out that *‘... the greatest advantage of having a company like Dunavant in the district is that it brings jobs to the areas, it sells us agricultural inputs and they make it possible for us to sell our produce in good time...’* Joao Golose

Mario Mepinha, a 49 years farmer sums up:

“... before Dunavant came, we had many problems. We had no money, there were few shops and the town had no electricity, nor any hostel or bars. Now, things have changed and I think that Dunavant has been the engine behind these changes. I doubt that we would have had electricity here in this district without Dunavant, nor would we have had roads as good as we have. Nowadays, our children have guaranteed employment and we have the assurance that Dunavant will buy all our cotton...”

Despite these undoubted improvements provided by Dunavant, some respondents complained about the lack of some basic facilities in the area, such as access to clean water, lack of enough schools, and better roads which should be noted is not the core part of Dunavant’s core mission.

D.2.2.3 Minimum age

The involvement of children in agricultural activities is very widespread in Mozambique as in most developing countries. According to the government’s own statistics 50% of children under the age of 13 years are involved in agricultural activities. Our research findings confirmed that children are heavily involved in the cotton production process. Testimonies provided by farmers revealed that in some cases, children as young as 9 years old have to help out on the fields:

“I have five kids and they all help on the field. They are 16, 14, 13, 9 and 5 years old. All, except the youngest, help in the field and with other household chores.” (Jose Alberto)

There are two main ILO Conventions that deal with the question of child labour. These are Convention no. 138 on the Minimum Age for Admission to Employment and Work and Convention no.182 on the Worst Forms of Child Labour, 1999. The first of these (no. 138) is aimed at *“the effective abolition of child labour”* (Article 1) and the second (no. 182) sets out a series of measures to be taken by member States in order to secure *“the prohibition and elimination of the worst forms of child labour as a matter of urgency.”* (Article 1). Both these Conventions are fundamental Conventions under the ILO Declaration, the principles of which must be respected by all member States, whether or not they have been ratified. Mozambique ratified both Conventions in 2003. Child labour is also prohibited under Mozambican Constitution (Article 121.4)³⁷.

The three main issues dealt with under these Conventions are: the age at which a child can start working; the kind of work that ‘children’ are allowed to do; and the need to ensure that children are not denied their right to schooling.

All three issues are relevant in the case of children’s involvement with cotton production in Mozambique.

a) Minimum age requirement

In developed countries, the minimum age stipulated is no less than 15 years. But, in countries whose *“economy and educational facilities are insufficiently developed”*, this may be reduced to 14 years. Further, under Article 7, this can be reduced to 13 years in the case of ‘light work’.

Mozambique would almost certainly be regarded as a country whose economy is insufficiently developed, thus, the employment of children from the age of 13 years would be regarded as permissible under the terms of the Convention (provided that the work they do is ‘light work’. However, in Morrumbala, as noted above, it is common for children considerably younger than 13 years of age to work on the fields. So, even if working on a cotton plantation could be considered ‘light work’ (which, by all accounts it is not!), it would still fall foul of the provisions of the Convention.

b) Type of employment and issue of school attendance

The Convention applies to any type of employment or work, which may *“jeopardise the health, safety or morals of young persons”* as defined by national laws or regulations (Article 3). While some exemptions are provided for under the Convention, specific examples of where no exception is provided are given. These include: *“work on plantations and other agricultural undertakings mainly producing for commercial purposes, but excluding family and small-scale holdings.”* (Article 5) In addition, under Article 7, it is stipulated that children aged 13-15 years, or 12 to 14 years in the case of underdeveloped economies, may be employed on ‘light work’

³⁷ E proibido o trabalho de crianças quer em idade de escolaridade obrigatória quer em qualquer outra.

provided that the work is “*not likely to be harmful to their health or development*” or “*prejudice their attendance at school*”.

In the case of cotton, it is clearly produced for commercial purposes, but some families are only cultivating one or two hectares, which may be regarded as a small scale holding. Thus, it is not entirely clear whether the employment of children on the cotton fields would be regarded as subject to exemption or not.

On the question of schooling, the interviews with farmers suggest that, in most cases, children are attending school. But, according to one senior officer employed at Dunavant headquarters who was interviewed, children are often kept out of school and this problem is compounding the skills shortage in the area experienced by Dunavant.

As regards the type of work carried out by the children and whether this includes potentially dangerous work, such as handling of chemical pesticides or not, this information was not collected. In either case, the hours of work on the field are quite long – from about 4-9.00am and then again from about 4-6.00pm, so even if children attend school in between, their involvement in the cotton production process is likely to adversely impact on their performance, even if not their attendance at school.

D.2.2.4 Health and Safety

Under para 38 of the Tripartite Declaration, “*MNEs should maintain the highest standards of safety and health.*”

Given that there are health risks involved, both in the cultivation process and the ginning process, the question of health and safety standards was addressed both in the survey questionnaires and in the interviews undertaken with key informants.

The cotton production process involves the use of chemical pesticides, which can be damaging to people’s health. To protect people against such hazards, masks and gloves should be provided to all workers. However, several respondents commented that masks were either not provided or they arrived late with the result that some farm workers have experienced health consequences, such as TB. One farmer said that even when they are given masks and gloves to wear, they often prefer not to wear them because they claim that they found them uncomfortable to work with.

In the ginnery, workers are also supposed to wear masks. However, during the field work, it was noted that workers frequently did not wear them, except when the managers unexpectedly came in then they would hurriedly put on a mask.

Dunavant does provide instructions, both to the farmers and the ginnery workers to use the masks. However, they appear not to fully appreciate the serious health consequences of failing to use them.

One of the areas where Dunavant appears to be quite active is in the area of HIV and AIDS awareness. This was mentioned by a number of employees. One respondent even complained that Dunavant focuses too much on HIV/AIDS education and awareness, as opposed to other kinds of training work that could be provided.

D.2.3 Training

Under Article 30 of the Tripartite Declaration, MNEs should ensure that “*relevant training is provided for all levels of employees*” and that such training should “*develop generally useful skills and promote career opportunities.*”

This issue was addressed by two questions in the survey questionnaire.

As seen I Table 8 below, almost all the respondents said that they receive some training.

Table 16 : Is training provided?

Yes	29	93.5%
No	2	6.5%
Total	31	100%

How useful was the training provided?

According to Dunavant managers, the training provided varies depending on who it is for, but includes a range of topics, such as management training, IT, transport and agricultural methods. All but one of the respondents said they felt that the training they have received will help them to get jobs in future. However, one worker noted that there is not enough support and/or follow-up training.

Training for all levels

While there is training for all levels of staff, there is a difference between the level of training provided for middle and senior management, which is often provided outside of Dunavant’s premises or even abroad, and training for lower level staff, which is usually provided on site by the more senior members of staff.

In the case of the farmers, they get training on the use of pesticides and on farming techniques. In their testimonies, several farmers said they were happy with the training they received. However, the number of Group Leaders and Facilitators is quite small which implies that not all farmers have direct access to their support and advice. Given that many farmers are still not adopting the best practices, for example, applying too little pesticide, it would suggest that the training and advice they receive could be strengthened.

D.2.4 Industrial Relations

D.2.4.1 Industrial Relations

In conformity with the ILO focus on industrial settings and on issues of workers’ bargaining rights, the Tripartite Declaration deals with the issue of industrial relations in considerable detail, discussing, for example, issues, such as collective bargaining, settlement of disputes and grievance procedures. Neither the farmers, nor the ginnery

workers have a trade union to represent them. Thus, at first sight, it would appear that these issues bear no relevance to the management of relations between Dunavant, the workers and the farmers. However, the fundamental principle that underlies the provisions and recommendations of the Declaration rests on the rights of all parties to be involved in decision-making processes, especially on issues of direct relevance to the lives and livelihoods of those involved. When viewed in this way, the relevance of these provisions of the Declaration to the cotton sector of Mozambique emerge more clearly.

The question of industrial relations is also present in the Decent Work Agenda as part of the fourth pillar of the agenda, which talks about ‘Governance and Social Dialogue’.

Ginnery workers

There is no trade union at the ginnery. This is mainly due to the fact that the management does not encourage trade union activity of any kind. One respondent noted, however, that sometimes there are conflicts over salary levels and work conditions.

The absence of a union was lamented by a number of respondents who commented that if there was a union, this might help the workers to get some of their complaints and problems addressed.

Farmers

The farmers have groups that are supposed to be able to represent them and negotiate on their behalf. However, these groups are very weak and fairly dysfunctional.

The survey questionnaire asked farmers their views on their relations with Dunavant. As the Table below shows, the majority of farmers are not happy with the relationship they have.

Table 17: How would you describe the relationship between producers and buyers?

	Frequency	Percent
Very good	0	0
Good	0	0
Fair	8	25.8
Bad	23	74.2
Very bad	0	0
Total	31	100%

A recurring theme to emerge from the survey of farmers is that they feel hard done by and powerless to change this situation. One commented:

“We have no decision-making power”

They feel aggrieved, both by Dunavant and also by the government who should be negotiating on their behalf:

One of the objectives of the CLUSA Project is to develop strong and articulate farmers' associations capable of representing farmers' interests, mainly in price negotiations. This objective is in line with the concept of Good Governance and Social Dialogue, the fourth pillar of the ILO's Decent Work Agenda. This highlights the importance of social dialogue between governments, employers and workers, which constitutes an integral part of any strategy aimed at promoting decent work.

D.3 The Business Perspective: key challenges faced by Dunavant

This section draws on the comments made by the General Director of Dunavant, Mozambique and other Dunavant representatives, some based in the Morrumbala office and some from other districts of Zambezia and/or Tete province were interviewed. This section presents a number of issues raised by them in relation to cotton production from a management and business perspective.

D.3.1 Poor roads and port infrastructure

The poor condition of the roads constitutes a major obstacle in the process of transporting the cotton seed from the concentration centres to the factory. Consequently, production costs have risen to the point that cotton ginning has become unsustainable. Furthermore, lack of warehouse capacity in the concentration centres result in stealing and loss of quality and quantity of cotton.

Dunavant's transport costs are also high because the nearest port, Quelimane, can not be used because it does not have the operational infrastructure required for handling 40-foot containers that are the most cost effective in the exportation of cotton. A 20-foot container can hold 54 sacks as against 130 sacks in the case of a 40-foot container. Furthermore, the costs of maritime freight are higher in Quelimane³⁸ than in Beira.

D.3.2 Location constraints

On account of Mozambique's position, it is difficult to exploit the European markets, which, according to Pereira (Director of Dunavant Mozambique) are expected to rise above the prices offered by the prices on offer in the Asian markets and elsewhere. Thus, although Dunavant has an advantage over other smaller operators in that it can more easily access timely information on world cotton prices and demand in the international market (Liverpool and New York), it is not always able to exploit this advantage.

D.3.3 Bureaucratic delays

³⁸ Costs in Quelimane are almost twice as those in Beira. Prices at Durban are one third of prices in Quelimane.

For example, there are delays in delivering maps, which are needed in order to locate farmers when payment is due. There are also delays in the delivery of safety gloves

D.3.4 Non-repayment of credit and dishonesty of farmers

If the harvest fails, then it is difficult for farmers to repay the credit. Furthermore, when farmers can not pay, they often change their names so they can't be found by the company. In addition, it was reported that farmers frequently try to trick the company by putting first grade cotton at the top and bottom and second grade in the middle, but telling the company that it is all first grade. Other tricks used include: putting stones in the sacks or wet cotton to increase the weight. While most farmers spoke of the dishonesty on the part of the buyers, some acknowledged that farmers are also guilty of such dishonesty:

“There are some buyers who use faulty scales in order to cheat the farmers. Not all the buyers use bad scales, but there are some rascals who do and they cheat the farmers and the company as well. But, there are also some farmers who rob the company. They put second grade cotton in the middle and first grade around the sides and they wet the cotton so that it weighs more. So, there are wrong-doers on both sides and it is the honest ones amongst us who have to pay the price” (Marina)

D.3.5 Loss of cotton due to price competition

Some farmers sell all or part of their cotton to Malawi where they can get a better price on account of the fact that in Malawi, the government provides inputs, packages and extension services, so they can afford to pay producers more. According to Pereira, in the 2005/6/ harvest, Dunavant lost 700 tons of cotton, which was illegally sold to Malawi.

D.3.6 Low productivity levels

Overall, average yield rates in Mozambique are among the lowest in the whole of the Southern Africa region and are lower than for most of Africa as a whole³⁹. According to Dunavant's General Manager, this is in part due to the force of tradition and resistance to change: farmers have a strong belief in their own ways of doing things, so they mistrust those who try to persuade them to change their ways.

D.3.7 High illiteracy levels

Children are taken to work on the fields, as a result, they may be kept out of school. According to Dunavant employees, this means that, over time, the skills and educational level of the local population has declined and there are not enough people with the skills and educational levels to be employed in the more skilled areas of employment.

D.3.8 Unequal access to resources by women

³⁹ <http://uk.f250.mail.yahoo.com/de/launch?rand=36e3abe1df6qn>

One interview respondent raised the issue that, because the cotton fields are registered in the name of the husband and in most cases, the proceeds from the sale of cotton go to the men, women are less motivated and do not play as much of a role in the cotton production process as they would if they had equal access to the benefits. It is possible that this, in turn, may have an adverse impact on productivity levels. However, it seems that the reality is somehow more complex than what is reported. From our testimonies it seems that women manage to negotiate a much higher stake, based on their participation on cotton production. Though husbands keep the money, they no longer have the sovereign power to decide what to do with the money.

Summary of Key Issues

My dream is to see all the farmers with brick houses and zinc rooves, so, when it rains in Borroma (20 kms away), the sound of the rain can be heard pounding on those rooves all the way here!!" [Eng. Destino, Head of Operations Department at Dunavant]

"Cotton is still not synonymous with wealth, but it has long since ceased to be the 'mother of poverty'"
[Eng. Luis Pereira, General Director of Dunavant]

The findings show that the most important contribution being made by Dunavant in the sphere of employment is that it is providing income-earning opportunities for a large number of farmers to produce and sell cotton, as well as providing a smaller number of jobs for factory workers and for some local firms. However, as regards the terms of the Tripartite Declaration, the findings suggest that, despite having just been nominated as one of the top 100 Ethical Firms in the World, Dunavant's performance is at the lower end of the spectrum and in some areas, could barely be deemed to be fulfilling the standards expected of MNEs.

While for some farmers, the presence of Dunavant may be helping them to survive in the context of chronic unemployment throughout the country, the standard of living provided is meagre at best. The price paid to farmers for their cotton is barely adequate to meet their basic needs and the majority feel disgruntled and exploited. In particular, the lack of decision-making power of the farmers who are forced to accept the terms offered them while they have no say in the matter, is a source of anger and resentment.

The lack of trade union representation at the ginnery is also a matter of concern and should be acted upon by the Government as a signatory of the Declaration and other ILO Conventions promoting the rights of workers to organize in defense of their rights and interests. Gender inequalities also need to be addressed and efforts made to promote increased employment opportunities for women and to ensure equal access to opportunities and benefits, such as access to micro-credit and training. There is also a need for further research to look into the treatment and conditions of women within the smallholder groups and the impact of the contractual agreements in terms of gender power relations at the family level.

In sum, while the overtly coercive methods for getting farmers to produce cotton applied in the colonial era have disappeared, the reality for farmers today has not changed dramatically. The life of cotton growers remains pretty grim and the rewards very meager with incomes well below internationally recognized poverty levels. Yet, the thousands of poor farmers who choose this way of life do so because the alternatives are even grimmer. For most, it is a case of sink or swim:

"There are no other jobs here so, in reality, we have no other choice. ...cotton is our only source of income". (Jose, father of 5)

So, has the system of forced production really ended or has it simply been replaced by a more 'palatable' 21st century version based on monopoly control?

D.4 Summary of Key Findings and Preliminary Conclusions

In this section, we provide a summary of some of the key issues and conclusions to emerge from the findings. These are organized under the main headings of the Tripartite Declaration.

Employment

Employment promotion: Creation of job and other income generating opportunities is widely perceived as one of the major benefits brought by Dunavant. However, the full potential in terms of employment promotion possibilities through trading with and purchasing of services from local business has not been reached. This is primarily due to lack of skills and access to start-up capital, but also poor infrastructure (roads, bridges) resulting in market failures and blockages. Consequently, although the situation has improved since the end of the war, the potential of the cotton sector to advance beyond merely producing and selling raw cotton to include value added activities, such as extraction of oil and soap and the development of a garment industry, is still very limited. This lost opportunity is detrimental, not only to the district population, but the economy of the country as a whole.

Equal Opportunities

At present, access to enter into a contract with Dunavant is open to all farmers in the district without distinction. However, those who are able to cultivate more hectares (2 or more) have access to more inputs, such as tractors and credit. There is a danger that, in future, this could lead to a more polarized situation creating a new form of discrimination based on land ownership.

In terms of women, although they are contributing through their labour and in other ways to the cotton production process, they do not enjoy equal access to the benefits in so far as the land tends to be registered in the name of their husbands and it is the men who receive payment for the cotton when it is sold. Despite this, women's involvement in cotton production has raised their bargaining powers in the household and they are able to access some of the material benefits.

As regards the ginnery, although formal equal opportunities procedures are generally applied in relation to recruitment and promotion, there is some evidence of both direct and indirect discrimination on grounds of race, as well as gender. For instance, all senior positions are occupied by white or light-skinned people and we came across a clear case of gender discrimination against women on the grounds of pregnancy.

Conditions of work and life

The work of farmers is very arduous and the hours are very long. Most of the work is done manually with only a few of the larger farmers having access to tractors. Fertilisers are not widely used and insecticides are also not used as they should be. These two factors contribute to the comparatively low yields of cotton farms in

Mozambique. The main complaint of farmers is the low price of cotton from which the cost of inputs (pesticides) is deducted, leaving them with very little at the end of the day. On top of that, their output (and hence, income) is heavily dependent on the vagaries of the weather and in drought years, may be halved. As such, the lives of most cotton farmers is characterized by income insecurity. They feel let down by all sides, particularly by the Government who should be defending their interests in their dealings with Dunavant, but, in fact tend to side with business interests instead. While the Tripartite Declaration focuses on the rights of workers to job security, elsewhere the need for income security is also recognized by the ILO and, as such, the need for measures to better protect farmers against risk could be justified within the ILO framework.

Minimum age

Children under the age of 13 are routinely expected to help on the family farm. The heavy labour requirements of the cultivation of cotton, which is done manually, combined with the limited means of farmers to pay for additional labour means that families are forced to rely on their children to help with the work on the farm. Children thus have to get up very early and help out before going to school, which must surely impair their school performance. In this sense, both the government and Dunavant are in breach of their obligations under ILO conventions which require both companies and governments to ensure that children under a given age attend school. While ILO Conventions make allowances for less economically developed countries in terms of the minimum age requirement, it is incumbent both upon governments and the companies involved to create the conditions to make this possible. This implies, ensuring that farmers have enough income to pay for additional labour during harvest and other labour-intensive periods and to provide access to credit and labour-saving technologies.

Health and Safety

Farmers are regularly exposed to health risks when spraying insecticides on the cotton plants. Although they are provided with gloves and masks, these sometimes arrive late and are frequently not used by the farmers. This suggests that there is insufficient awareness among farmers of the importance of protecting themselves and/or the use of this safety equipment is not being enforced with the required rigour. Ginners workers are also exposed to health risks from flying particles of cotton lint and they too, are not using their safety equipment as they should, suggesting that lack of awareness and rigorous monitoring is also a factor in this case.

Training

Ginners workers are all trained, but mostly at a very basic level. Only managers get the opportunity to attend training courses off the premises, usually overseas. As regards farmers, their training consists in being provided with an illustrated Manual and additional guidance and support from the Area Facilitators and Group Leaders. The research did not explore in depth the extent to which this is sufficient to enable farmers to get the most from the land and maximize their income and the benefits to the sector as a whole.

Industrial relations

There is no trade union at the ginnery. Although they would be entitled to set one up if they wanted, we were told by those we spoke to that this would not go down well with the management. The absence of a trade union capable of representing the interests of workers is in breach of the fundamental principles of ILO conventions and should be addressed.

In the case of the farmers, the closest equivalent to a trade union are the farmers' associations. These are, however, very weak and practically dysfunctional. Without organized and effective associations, farmers can not take part in the price-setting discussions with the company and the government at the beginning of each year and farmers feel powerless to have a say or exert any influence over these discussions. In a nutshell, farmers currently have no say in decision-making processes that affect their livelihoods and feel very disempowered.

Dunavant's perspective:

From the company's perspective, one of the major problems is the low productivity. The company is doing research to develop new and more productive seed varieties suitable for the soil and conditions in the region. However, there are a number of problems in the environment that contribute to undermining profitability for the company and, as a result, depressing the price they are willing to pay farmers. These include:

- The bad state of the roads that slows down and increases the cost of transport
- The lack of adequate port facilities in Quelimane Port, forcing the company to use the facility of the more distant port (Beira)
- Lack of contract enforcement mechanisms: it is difficult to stop farmers selling to neighbouring Malawi, where they can get a better price and this results in some losses
- Low productivity levels, in part attributed to farmer resistance to new farming methods, but also due to the lack of research carried out at Government level to discover new and higher yielding seed varieties.

Some general conclusions

POSITIVE ASPECTS

- On balance, overall impact on rural livelihoods has been positive:
- Incomes for most have increased (though not substantially)
- Farmers have more choice in terms of balance between cash crop and food production and the division of labour within the household
- Food crops still grown, so no threat to health and food security (in fact, according to BENFICA – cotton farmers grow more maize because maize is used in lieu of wages for extra labour hired ***)
- More jobs
- More access to goods and facilities (electricity, schools, water, and so on)

- in terms of increased incomes and living standards; comparatively increased freedom of choice for farmers (as compared with forced production in colonial period)

NEGATIVE ASPECTS

- a) Working conditions are very tough and rewards very meagre
- b) Current system is based on very asymmetrical relations with the company having the power to set prices and generally set the rules. In that sense, could be seen as not very different to situation under forced production system
- c) As an employer, Dunavant could do better: more in terms of promoting health and safety and discouraging child labour; promotion of equal opportunities, especially for women; and in the area of industrial relations and worker rights of association.
- d) Farmers bear high proportion of the risks
- e) Company production costs are very high due to market failures and poor infrastructure facilities
- f) Poor educational levels means that there is insufficient qualified manpower
- g) Research on improved seed varieties that could improve productivity is owned by Dunavant and not shared with others

FUTURE PROSPECTS

- what does the future hold?
- Risk that, gradually, only the most 'efficient and productive' farmers will remain within the contract system as a result of the drive towards maximization of profits – this would leave the smaller and less efficient farmers out in the cold (quote BENFICA)
- Is there an alternative?

RECOMMENDATIONS

EMPLOYMENT

1. Direct Employment

Key issues:

1. Despite the relatively high number of people employed in the sector, the full employment potential has still not been realized. For example, there is over-capacity in the ginning sector as 50% of the installed capacity is not in use (GDS, 2005: 40).
2. The potential to provide employment through more value added activities, such as producing cloth is not being used. Formerly operational textile mills are currently lying idle and there is also a wide range of operable and repairable equipment sitting idle in the country (GDS, 2005:10)
3. Bearing in mind the highly competitive price of lint in Mozambique and the potential for textile mills to produce competitively priced cotton yarn, it would be feasible for Mozambique's spinning and weaving operations to be revitalized and an integrated textile and garment industry to be developed (GDS, 2005:10)

4. There is also potential to provide additional employment through the textile or garment industry taking advantage of AGOA provisions, as has happened in Lesotho. Besides selling to the US market, Mozambique could also sell yarn produced to other African countries, which are currently taking advantage of AGOA.
5. There is also further potential to provide additional employment by reviving and/or developing Mozambique's capacity to extract oil from cotton seed for cooking or other purposes.

Recommendation:

The IAM should follow up on the issues and recommendations raised by the Value Chain Analysis undertaken in 2005 by Global Development Solutions, in particular, with a view to identifying what would be required for the revitalization of the spinning and weaving operations and the development of an integrated textile and garment industry. Oil extraction possibilities should also be examined. The study should include clear, actionable recommendations pertaining to each of the relevant sectors.

2. Indirect Employment

Key issues

1. The poor road conditions, cost of truck purchase, running costs (diesel) and maintenance, make it less attractive to the private sector to operate a transport service because the costs and risks involved are greater than the potential gains. Consequently, the existing transport services are limited causing delays and additional costs to companies. For example, cotton may be destroyed whilst waiting to be transported from the concentration centres to the ginnery.

Recommendations

1. Infrastructure: More resources should be invested in improving the road infrastructure in rural areas.
2. Support for private sector transport services
 - a) Multi-nationals: Dunavant and the other multi-nationals operating in the cotton sector should develop a programme for supporting local small and medium enterprises to enhance their capacity to provide services linked to upstream and downstream cotton production and marketing processes. This could be modeled on the Mozlink Programme. In particular the programme should aim to develop a network of transport providers with the capacity to reduce the costs of transport, as well providing income and employment. Dunvant could provide collateral guarantees for businesses wanting purchase lorries for transporting cotton.
 - b) *The Government* :The Government should also support such a programme by, for example, providing tax exemptions on imported vehicles and subsidies on diesel for cotton-related transport.

3. Equality of Treatment and Opportunities

Issues

1. There is some evidence of race discrimination in relation to access to top level management positions in Dunavant.
2. Evidence of gender-based discrimination was found in relation to female staff, including discrimination on the grounds of pregnancy.
3. In farming households, although women are involved in contributing their labour, it is usually the men who are paid for the cotton produced. None the less, their bargaining powers within the household have been enhanced by virtue of their involvement in cotton production.
4. Women's lack of decision-making powers have been identified as a problem and the new CLUSA project aims to address this issue

Recommendations

1. Race and gender awareness training: should be provided at all levels (including senior staff) to increase understanding of race and gender issues.
2. Development, implementation and monitoring of equal opportunities policies: Dunavant should develop and implement such policies, as appropriate and these should be monitored, both by Dunavant and the government.
3. Monitoring of impact of CLUSA on women's participation in decision-making processes: the results of monitoring should be widely shared and discussed.

CONDITIONS OF WORK AND LIFE

Working conditions

1. The work involved at the different stages of cotton cultivation (from planting to harvesting) is very arduous and requires many hours from dawn to dusk. Apart from farmers cultivating 2 or more hectares, some of whom have access to company and/or rented tractors, all the work is done manually. Besides the physical strains on the farmers themselves, this also limits the amount of land that can be cultivated, resulting in lower yields and productivity levels.
2. Noise levels in the ginnery are excessively high.

Low income

3. Workers feel the price they get does not compensate them for their hard work. On average, they make around \$US90 per year, as compared with an average of over \$US700 made by tobacco growers (Benfica, 2005:84)
4. Low productivity: average yields are very low in comparison to other countries. This is in part due to improper use of pesticides and low grade seeds, as well as lack of fertilizers and access to tractors, animal traction, mechanical planters or other technologies.

5. Prices paid by Dunavant are below those paid to cotton growers in Malawi (5.5 mtcs per kg as against 6 or 7 mtcs in Malawi).
6. Workers do not trust the scales used by the company or the classification of the cotton (Grade 1 or 2) and feel they are being cheated by the company.
7. Costs of inputs are high despite the fact that Dunavant provides a 25% discount on the cost of pesticides compared to the market price.
8. Market failures: poor road infrastructure, high cost of imported agrochemicals, lack of access to high quality cotton seed, asymmetric access to information, amongst others.

Health and safety:

9. The pesticides used for spraying the crop are very toxic. Yet, farmers often fail to use the masks and gloves they are provided to protect themselves.
10. Cotton farmer incomes are lower than those in the tobacco sector
11. Ginnery workers are also required to wear masks to prevent lint particles and dust getting into their lungs, but they frequently fail to wear them.

Child Labour

13. Many children under the age of 11 are working on the farms and may, as a result, be missing out on school. It appears that even children as young as 9 years old have to help out on the fields:

Recommendations

Alleviation of labour

1. The government should apply import tax exemptions and subsidies on tractors so as to increase the supply available for use by farmers. In addition, the introduction of other labour-saving technologies, such as mechanical planters, ox-driven ploughs to alleviate the work entailed and to increase the land area under cultivation should be explored.

Increasing yields

Provide better information and training for farmers to ensure they are applying the insecticides effectively (5 sprays) and using the correct farming methods and increase number and qualifications of extensionists as necessary.

Use on fertilizers and herbicides could dramatically enhance yields and increase productivity.

Measures should be taken to increase the use of high quality seed with the potential of more than doubling current yields. In Morrumbala, Dunavant is involved in research on cotton seeds, which allowed the company to improve its returns to investment. For instance Dunavant's yield production surpassed that from the Nampula cotton belt (the par excellence cotton area in Mozambique) But if productivity and

competitiveness of smallholder agriculture is to be enhanced, the state will have to chip in.

Measures to be considered include, amongst others:

Centralise Research:

The state should play a more significant role in funding, coordinating, directing and managing research into cotton varieties and more effective agricultural methods for the cotton sector. Currently, most research is undertaken by the private sector and the results of such research are not shared between companies, thereby adding to the overall costs. As the key state-run institution responsible for the cotton sector, IAM should be doing such research. This should be funded by contributions from ginnery associations and government. Currently, concessionaires contribute 2.5% of FOB of each ton of cotton exported to IAM and these funds are used to cover their administrative costs. This percentage should be increased to cover the costs of research while the government should pay IAM's administrative costs.

A further step might be to consider setting up a SADC-wide centre of Cotton Research, which would further reduce the costs for each of the countries in the region.

Reducing costs of production

Set up a national pool for purchase and distribution of agro-chemicals able to benefit from economies of scale and access cheaper supplies from Saudi Arabia, rather than South Africa.

Improve roads and repair bridges

Improve port facilities, especially at the port of Quelimane

Increase number of lorries available for transport of cotton through favourable tax regimes, subsidized fuel and so on.

Grading and weighing of cotton

There is a need for greater transparency and external inspection of this process to reduce the risk of farmers being cheated by unscrupulous workers and vice versa.

Health and safety

The health risks of not using masks and gloves should be clearly explained to farmers and ginnery workers.

There should be regular, unannounced health inspections, both by the company and by IAM to check on the use of masks by ginnery workers. Where workers are found not wearing masks, both the company and the individual worker should be fined.

Child Labour

A joint effort should be made by the government, companies, the ILO and NGO's to address the issue raised by the use of children in farm activities. A special attention should be in raising the profile of the issue through the design, implementation and periodic evaluation of awareness campaigns involving NGO's dealing with child issues, the companies and the state. Projects such as the one run by CLUSA should include child labour issues.

Companies should set up measures that would not encourage the use of children in cotton activities by threatening not to buy cotton produced by children.

There should be regular, unannounced inspections, both by the company, NGO's and by IAM to check on the use of child labour in cotton farming. Where children are found being used in cotton farming, the issue should be discussed to assess the reason behind the use and a realistic solution should be found.

Recommendation of association/trade unions: improving smallholder capacity to represent their interests vis-à-vis private sector firms in the cotton subsector can be an important mechanism to improve the effect of cash-cropping on smallholder welfare. In a zone similar to Mozambique's cotton belt in Mali, farmer associations have represented an important way for farmers to achieve greater power and gain access to fertilizers and other key inputs.

The use of organic cotton could be promoted/implemented for those companies who would like to take advantage of consumers that are pro fair trade products and the environmental impacts that can harm the farmers and the land.

In the presence of rural credit and input market failure and weak contract enforcement, liberalization appears to be most effective when the ginning sector is relatively concentrated. Yet this concentration can have negative implications for rural poverty reduction if it depresses prices to farmers (Tschirley, Boughton and Tefft, 2002, Badiane et al., 2002). This suggests that governments have an important role to play in monitoring sector performance.

Governments and donors should exploit the capacity of private sector companies to deliver public services without expecting them to do so free of charge or diverting them from commercial principles. In Mozambique, the Cotton Institute in collaboration with the European Union, launched a competitive grant program to enable cotton companies to facilitate facilitation of smallholder crop production and marketing (MADER 2001). The program is motivated by the fact that the extension and input distribution networks of the companies provide a delivery channel for non-cotton crop production technologies at lower cost than establishing new channels. The companies are encouraged to partner with NGOs and other organizations with capacity in farmer association development and marketing, and crop production technology development and transfer.

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