“Is smoking and clothing doing any good in Mozambique?”

- a study of cashcrops and its effects in northern Mozambique.

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Spring 2007
Abstract

The question of the cultivation of cash crops in Africa south of Sahara has long been debated. We have examined the situation of cash crop cultivation for the peasant of northern Mozambique. What factors are needed for a peasant to be able to choose to cultivate cash crops and what are the effects on the peasant’s situation when cultivating cash crops? With help from James C. Scott’s theories about food security and the safety first principle see how the possibilities are for the peasant to grow cash crops.

By using the Lewis two-sector model we have examined the possibilities for a peasant of northern Mozambique abilities to make the transition from the agricultural sector to the industrial sector. We found this model insufficient to explain the transition of labour in the Mozambican society. The model needs two additional sectors to fully explain the transition in Mozambique. These sectors, cash crop and semi-industrial, are needed because the transition is too far in terms of productivity and technology. An extensive cash crop production is therefore important for the economic development. We have also found that food security is important for the peasants in order to start growing cash crops.

Keywords

Tobacco, Cotton, Cash Crop, Mozambique, Agriculture, Lewis two-sector model, Food Security
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1. Introduction
The question of the cultivation of cash crops in Africa south of Sahara has long been debated. We have defined cash crops as:

- They are high-value commodities
- They are handled through reasonably concentrated marketing systems
- Production, even by smallholders, relies on the use of some purchased inputs (improved seeds, inorganic fertiliser, crop production chemicals)
- They are internationally tradable, such that their domestic price is closely linked to a world market price (mediated through the domestic exchange rate)\(^1\)

The cash crops of southern Africa are mostly a heritage from the colonial period, when many European states used their African colonies for production of unprocessed goods such as raw cotton and sugar cane. In the case of Mozambique Portugal built much of its textile industry during the 50s and 60s on cheap cotton so that they could buy from Mozambique at 30% lower prices than world market prices. So in Mozambique there is knowledge about growing cotton since at least the 1940s. The cotton is also a symbol for the Portuguese colonial period in Mozambique’s history and all the bad things that stands for.

For many peasants, cash crop is their main and sometimes only means of monetary income and therefore we chose to try and find out which factors effect the choices peasants have when it comes to cultivating cash crops and what impact the money paid for cash crops have on the peasants situation and society in general.\(^2,3\)

There is also a dilemma for the peasant of Mozambique when it comes to the choice between food and cash crops. Crops cultivated for use as food for the peasant and his family is called food crops. Because of the situation in Mozambique where every peasant grows the food he/she and the family of the peasant feeds from the possibility of many peasants to grow cash crops can be somewhat limited. The need for food security is the first priority for the peasant and because the families don’t have an unlimited work force the amount of crops a single family can cultivate is limited. A peasant family needs to be able to feed itself and still have a surplus of labour to be able to cultivate cash crop.\(^4,5\)

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1 Colin Poulton, Andrew Dorward, Jonathan Kydd, Nigel Poole and Laurence Smith, *Smallholder Cash Crop Production under Market Liberalisation*, 1998, p 7
2 Interview with director of MLT (Mozambique Leaf Tobacco), Cuamba 19/4 -07
3 Interview with former Minister of Agriculture, 3/5 -07
4 Interview with director of MLT (Mozambique Leaf Tobacco), Cuamba 19/4 -07
Especially tobacco is a crop highly debated because of the obvious health risks of tobacco smoking. There are also ongoing debates about the importance of food and cash crops. The *food security* issue that Scott (1976) writes about in his book “The moral economy of the peasant” is debated a lot, and many development actors would argue that food is the most important issue for poor developing countries, like Mozambique. The peasant should, according to many NGOs and authors, focus their effort on producing food crops to ensure that food shortages are avoided. The question of cash crops is often overlooked, and the debate about economic development in cases like Mozambique instead focuses on industrialisation. Using Lewis two-sector model we have tried to find out what the possibilities are for the peasants to be part of this industrialisation and the impact cash crops perhaps can have on this transition.

The transition from agriculture to industrialisation is something that Lewis two-sector model deals with. Because the discussion about economic development evolves much around industrialisation, this model is important to take into consideration. The transition from agriculture to industry, according to Lewis two sector model, is dependant on a number of things which are presented in chapter 3.

### 1.1 Agriculture in Mozambique

Agriculture is often believed to be the stepping stone towards an improved economic development in many parts of Africa. Agriculture is what many countries are based upon in Africa south of Sahara and therefore it is very important for these countries. The importance is not perhaps always in the economic sense. An example of this is that between 80 % of the population of Mozambique are full- or part-time peasants but agriculture is responsible for only 21 % of GDP. Instead the importance lie within what Scott (1976) calls *food security*, the peasant’s ability to grow enough food to feed their families. When, and if, the peasant has the ability to grow enough food he or she might also have the ability to grow other crops like tobacco and cotton that can bring some monetary income to the family. Herein lays the possible economic development today for many African countries.

The crops that peasants cultivate in order to sell directly to companies and/or buyers in exchange for money are called *cash crops*.

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5 Interviews with tobacco growers 20/4 -07  
6 Interview with former Minister of Agriculture, 3/5- 07  
7 Interview with former Minister of Agriculture, 3/5- 07  
8 Interview with former Minister of Agriculture, 3/5- 07
1.1.1 Food crops

Food crops are mainly used to feed the family, although in some cases it could also be sold, in case of a surplus in yield. The main food-crop in Mozambique is maize but also rice, beans, mapira and madioca are cultivated for food. These crops are the main source for subsistence for the ordinary citizen of Mozambique.

Some of the food crops cultivated in Mozambique can also be seen a source of cash because of the selling of a possible surplus. These crops usually do not have the high price of for example tobacco but it’s still an important source of income for the ordinary peasant in Mozambique. Another difference is that food crops are often not as labor intensive as tobacco or cotton.\(^9\)

1.1.2 Cash crops

The main cash crops cultivated in Mozambique are sugar, tobacco and cotton. Out of these cash crops tobacco and cotton are the main source of cash income for many peasants in northern Mozambique. Sugar canes are mostly grown in plantations with employed workers. Some other crops have been introduced or reintroduced in northern Mozambique as possible cash crops for the peasants. These include soya beans, sunflower and paprika. These crops are grown in very small quantities compared to tobacco and cotton though.\(^10\)

In the areas we have visited the main cash crops are tobacco and cotton. Therefore our work mainly deals with the issues surrounding cotton and tobacco although there are other cash crops cultivated in Mozambique.

1.2 Identification of the problem

What are the factors and obstacles that determine whether or not peasants in northern Mozambique chose to expand from just growing food crops for subsistence and cultivate cash crops for money income? These factors can include economic considerations, access to labor, access to land and other factors.

Our goal with this study was to try to identify the effects these choices have on the situation for the peasants and society in general.

We will also try to examine, by using Lewis two-sector model and Scott’s theories about \textit{food security}, if a peasant can make the transition from the agricultural sector to the industrial sector and what the factors needed for this transition are.

\(^9\) Interview with tobacco growers 20/4 -07
\(^10\) Anuário Estatístico Statistical Yearbook Mozambique 2005, Instituto Nacional de Estatistica
1.3 Purpose of the study

The purpose of the study is to examine what factors influence peasants when it comes to starting to grow cash crops in Mozambique and what effects those have on the economic situation for the peasant.

1.4 Questions

- Why do the peasants choose to cultivate cash crops?

- In what way does the choice of cultivating cash crops effect the peasant’s economic situation and do these factors make it possible for the peasant to make that transit from the agricultural sector to the industrial sector?
2. Method

We have interviewed many different people on almost every level of the society during our 5 week study in Mozambique. These include cotton growers, tobacco growers, buyers of agriculture products, provincial agriculture directors, director and division manager of a tobacco company, a former minister of agriculture etc. This broad base of sources has given us a lot of material to process in order to complete our study concerning agriculture commercialization and it’s on these interviews we base our whole source of information.

Our field study mainly took place in and around the city of Cuamba which is located in southern parts of the northern province of Niassa close to the border of the province of Nampula. We met with representatives of the state, cotton and tobacco growers, MLT (Mozambique Leaf Tobacco Inc), Amoder (credit institute of agriculture), director of cotton manufactures, agricultural associations and the faculty of agriculture in Cuamba to mention a few. We also conducted some interviews in the city of Nampula and in the capital Maputo. In Maputo and Nampula we interviewed among others representatives from UNAC (a union for peasants), the Swedish Embassy, the owner of a larger maize mill and IKURU, a company buying and selling food and cash crops.

2.1 Interviews

2.1.1 Method of interviews

The method we applied while doing interviews can be seen as a mix between structured and semi-structured interviews. Most interviews were done as semi-structured where the questions asked were adapted to the interview subject and the situation that arose during the interview. The risk with these kinds of interviews is that it might get too informal and leave the subject all together and turn more into conversations. Still it’s a part of the semi-structured interviews that the interviews are conversational. If the interview leaves the subject it is the interviewers’ task to lead the interview in the right direction.

During the field trip to Mozambique we had an interview guide with questions constructed while still in Sweden. These were a form of back-up if the situation arose that the interviewers ran out of questions. The need to use this interview guide never arose but it’s always good to have a back-up in case you run out of questions. Having these questions

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somewhere in the back of our minds while doing the interviews the questions evolved during the field trip as our understanding of the situation in Mozambique grew. This also had the effect that interviewing became easier as time went by because of our growing knowledge and understanding of the situation in Mozambique and the time taken for the interview subjects to explain some things took a lot less time because our background knowledge had grown.

The need to be adaptable as an interviewer is very important. Every interview situation is unique and therefore we feel that the flexibility semi-structured interviews gives the interviewer was the right way to go for our fieldtrip in Mozambique. Adapting to various kinds of situations takes a little more effort from the interviewer. “Many questions will be formulated during the interview”.14

Structured interviews have their good sides and their bad sides. The good being that because you always ask the same questions to every interview subject, the answers are easier to compare than answers given on a semi-structured interview.15 The bad side is that structured interviews lack the flexibility of the semi-structured interviews where the interviewer can ask follow-up questions when he sees the need for it for example when an interesting subject arises during the interview that the interviewer feels needs more attention. Mikkelsens (2005) explains this as: “Unexpected, relevant issues are followed up with further questions or probing”.16 This diverting from the questions is not possible if using structured interviews. The structured interview form can also be seen as to mechanical and impersonal by the interview subject.17

We saw this possibility of flexibility as an important part of the interviews and therefore we chose to use semi-structured interviews. “Field researchers who enjoy some level of flexibility regarding how an interview is administered but who wish to maintain some structure over its parameters might prefer a semistructured interview”.18

2.1.2 Field trips vs. studies through second- and third hand material

Although we had read a lot about Mozambique we feel that you never quite understand the things you read about a country until you are there and see things for yourself. This was one of the major reasons why we chose to go on this field trip to Mozambique. Instead of just reading about facts and figures in books about Mozambique, or another country, we felt that

13 Mikkelsen 2005, page 169
14 Mikkelsen 2005, page 169
15 Mikkelsen 2005, page 172
16 Mikkelsen 2005, page 89
17 Mikkelsen 2005, page 172
18 Bailey 2007, page 100
it’s much better to get out in the field and see things yourself and get a personal understanding for how things work in the world. It takes a lot of books to replace the personal experience of a field trip like this.

The interviews with people living in the middle of the things you try to examine are also very hard to replace with books and articles. Books and articles are also very important for the studies of this kind but the interviews give another perspective to consider when dealing with studies like this. We are quite confident that if we were to base this study only on books and articles and without doing any interviews in the field the result would be quite different and on a more speculating level because we would have no way of checking the facts written in the books and articles.

2.2 Criticism of the sources

All sources have their positive and negative aspects when it comes to objectivity, credibility, reliability and validity. All five types of sources that we have used have their own types of problems when it comes to these criteria.

2.2.1 Interviews

The main issue here is that everyone you interview when you do this kind of field study is biased and has own interests to consider when being interviewed. This should be taken into consideration when choosing interview subjects and the interviewer should always reflect upon an interviews subjects interests and how this affects the subject’s answers.  

As an example you can take a tobacco grower from northern Mozambique. Of course he will complain about low prices of the crops, the high costs of pesticide and fertiliser they have to borrow from the tobacco company, and that they often feel fooled by the company. His living conditions makes him eager to earn more money and often lacking the knowledge of how a company like a tobacco company works he feels that they are fooling him because he doesn’t understand all the processes involved in the company.

Everyone you interview always wants to look their best when it comes to their actions and behaviour. Therefore everyone you interview is somewhat biased and their answers have to be taken into consideration about why the person answers in his or her way.

Still, interviews are the best way to get first hand information concerning a subject. Because of the problem with bias it’s important to get enough interviews to double check all information.

19 Mikkelsen 2005, page 72-73
2.2.2 Books

The books we have used in this masters essay are mainly for the theory we have applied on our results from the interviews conducted in Mozambique and the method we used to get these results.

One of the books, “Cash Crop Production under Market Liberalisation” has only been used for a definition of cash crops.

2.2.3 Internet

Internet is always an insecure source to refer to because of its changing nature. Information on the Internet changes from day to day and minute to minute. This is the charm but also the curse of the Internet. The way information can easily be deleted and lost on the Internet therefore makes it an insecure information source. Therefore we have tried to confirm all the information we have collected from the Internet with books, articles or other sources on the Internet.

2.2.4 Articles

Most articles used in this study were found on the Internet through the ELIN search engine at the databases section for the library at Växjö University. Although the same problems as with other Internet sources is present the ELIN search engine consists of articles almost exclusively from scientific databases and web pages. Therefore we feel that the validity of the articles and its contents is more reliable than ordinary web pages.

2.2.5 Statistics

One main problem about doing studies about a country like Mozambique is that the statistics you find both on the Internet and also in many books and articles, including the World Bank and Human Development Report, differs and sometimes they differ a lot. This makes it difficult to draw anything more than general conclusions about the country. This difference in numbers when it comes to statistics we trace to that it’s difficult to collect facts and figures for a poor country like Mozambique that often lacks the infrastructure of the public sector that many western countries have. Also a lot of figures are probably estimations from different international organisations and the government of Mozambique.
3. Conceptual approach

In order to investigate the peasant’s choice to start cultivating cash crop and explain the transition between different economic sectors in Mozambique we will use two different conceptual approaches. The first one is Lewis two-sector model that explains the transition of labor between the agricultural sector and the industrial sector. This transition is crucial to describe in order to understand the development in the agricultural sector and how the transition between the two sectors in Mozambique is proceeding in reality. The second conceptual approach is James C. Scott’s theory about food security. It explains the conditions under which the peasant may start cultivating cash crop. This theory will be used to understand the mechanisms that guide the peasants’ in Mozambique and his choice to expand from only food crop production to include cash crop.

3.1 The Lewis two-sector model

The two-sector model can be described as follows: The economy consists of two different sectors, an overpopulated rural subsistence sector characterized by zero marginal labor productivity. There is also a high-productivity modern urban industrial sector, to which labor from the agricultural sector is transferred. The theory focuses on the labor transfer, and the growth of output and employment in the industrial sector. An output expansion in the industrial sector is a condition in order to make the labor transfer and modern sector employment to grow. The earnings in the industrial sector must be at least 30 % higher than in the agricultural sector to make the rural workers to leave for employment in the industrial sector. The marginal productivity in the agricultural sector will be zero as long as there is a surplus labor in the agricultural sector. The continued existence of surplus labor implies that output from agriculture production can be increased without increased productivity. When surplus labor ceases to exist the industrial sector has to increase productivity and investments are necessary in order to increase production. When it’s no longer zero, the transition from an agricultural economy to an industrial economy have taken place. The transition of labor is illustrated in the figure below.\textsuperscript{20}

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{fig1}
\caption{Transition of labor from agricultural to industrial sector.}
\end{figure}

At a first glance at this model there is some doubt if it really manages to describe the current situation in Mozambique, concerning the economic development and the transition of labor. We will present some figures to illustrate our concerns.

<table>
<thead>
<tr>
<th>Sector</th>
<th>% of total GDP</th>
<th>% of total Work force</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural</td>
<td>21%</td>
<td>81%</td>
</tr>
<tr>
<td>Industrial</td>
<td>31%</td>
<td>6%</td>
</tr>
<tr>
<td>Service</td>
<td>48%</td>
<td>13%</td>
</tr>
</tbody>
</table>

These are some basic figures to illustrate the case of Mozambique. These figures indicate that the Lewis two-sector model might not explain the economic development and the labor transition in Mozambique.

### 3.2 Food security

One of the main assumptions is that the peasant will avoid the risk of being ruined rather than to maximize the profit and at the same time take a great risk of crop failure. He minimizes the probability of the maximum loss. This is called “the safety first” principle.

Peasants might although take risks that they can avoid during certain circumstances when the risk of losing their food security is low or none at all. Especially when it is almost certain that the new technique or crop will yield a profit. We will apply this model of thoughts on the peasant’s choice to start cultivating cash crop in Mozambique.

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21 CIA The world fact book - Mozambique  
22 Scott, James C. The Moral Economy of the Peasant – Rebellion and Subsistence in Southeast Asia, Yale University Press, 1976, p 24,
4. Agricultural commercialization in Northern Mozambique

In the previous chapter we have explained how the research will be approached. This chapter will highlight and describe the conditions and the nature for some parts of the agricultural sector in Mozambique.

4.1 Geography

4.1.1 The province of Nampula

The province is the third most industrialized area in the country and it has great agricultural potential. The Nacala port, one of the potentially most important harbors on the east cost of Africa is located here. From this harbor trading originates with Zambia and Malawi among other states on the African continent.23 24

But there are some problems concerning the agricultural production and commercialization according to the provincial governor. These problems include infrastructure, agricultural commercialization and a lack of processing of agricultural goods.25

4.1.2 The province of Niassa

The Niassa province is located to the west/northwest of the Nampula province and the railway that connects the Nacala port and Malawi runs through the province.26

The province is considered to be one of the poorest in the country with an overwhelming part of the population making their living out of agricultural activities. At the same time the province of Niassa is almost always self sufficient when it comes to food. Only on years when the crop fails situations occur with shortages of food.27

The soil of the province is very suitable for cotton and tobacco that needs almost similar conditions. This differs from the southern and the central parts of the country where in the south rice is much more common and in the central parts where the conditions are much more suitable for sugar cane.

23 Interview with CDN 10/4 -07
24 Interview with the governor of the Nampula province, 30/4 -07
25 Interview with the governor of the Nampula province, 30/4 -07
26 Interview with CDN 10/4 -07
27 Interview with the governor of the Cuamba district, 13/4 -07
4.1.3 The district of Cuamba

The district of Cuamba consists of 150 villages and the traditional language of the area is Macua. The climate is tropical and is therefore ideal for farming of many different crops. Cuamba is located in an area considered to be developing when it comes to the economics because of the railway link that connects the Nacala port and Malawi runs through the city and Cuamba benefits from the railways in many different ways. The agriculture in the area produces a wide variety of crops including maize, rice, beans, cotton and tobacco. There have been efforts to commercialize soya beans, sunflower and sesame but the results so far have not been conclusive enough to draw any conclusions of these attempts.

4.2 The structure of agriculture in northern Mozambique

There is a high potential for agriculture production in these parts of the country. Classical food crops like maize are cultivated beside cash crop production of cotton and tobacco. The biggest part of the agriculture production is carried out by small family peasants and their land is often no more then one acre. Most of the production consists of subsistence farming and not of cash crop cultivation.

The area is called a granary, not because it produces a lot of agriculture products but because it has all the potential to do that. The conditions for agriculture are great in the area, the soil is fertile and it rains regulary. When it comes to access to water it is possible to divide the farms and peasants in Mozambique in two different groups. The two different groups are the ones that use irrigation and the others who are dependent on rain to cultivate crops. In the Niassa province and all of northern Mozambique very few, if any, peasants have access to irrigation systems.28

The agricultural sector consists almost entirely of family units, cultivating small areas of land and there is little state owned or privately owned agricultural enterprises in the area. The number of families growing tobacco in the area is 20000.29 Peasants use very basic farming techniques, often without manure, chemical fertilizers and pesticides keep the yield on a low level. In a good year the yield in Mozambique for one hectare of maize is between 600 and 700 kg. This can be compared to for example Malawi where yields can be as high as 1500 kg/ha in good years. 30

28 Interview with representative from the Ministry of Agriculture, 16/4 -07
29 Interview with director of MLT (Mozambique Leaf Tobacco), Cuamba 19/4 -07
30 Interview with representative from the Ministry of Industry and Commercialisation, 9/4 -07
4.3 Infrastructure

4.3.1 Main means of transport

The inland of the country is connected with the coast through three major railways. These three railways are called the Maputo Corridor, the Beira Corridor and the Nacala Corridor.

There are also ordinary roads connecting the cities in the countries. These are mostly gravel roads. 31

4.3.2 The peasants’ means of transport

The major means of transport of goods for the peasant is to carry the goods on their heads. Many peasants including tobacco and cotton growers expressed a wish for a bicycle. Few have a bicycle as a means of transporting themselves and goods. Many peasants lacking a bicycle listed it as a priority if they would get enough money to buy one. 32 The bicycle is a huge improvement in time effectiveness for the peasant.

4.4 Industry

The manufacturing industry in Mozambique is limited in that only 6% of the total workforce works in this sector even though it constitutes 31% of the GDP. 33 The main industry products include food, beverages, metallurgy and minerals. Besides the aluminium smelter there has been little or no investment at all in the industry and most of the companies have reduced their number of employees. Most of the companies in Mozambique lack the skill of other regional African companies and therefore they have not been able to compete on equal terms. The country is a difficult market for industries and investors, because of the high transport costs due to bad infrastructure and low labour productivity. The ineffective bureaucracy is also a part of the problem for the industries. 34

4.4.1 The Mozal aluminum smelter

The high-technology industry in Mozambique is very limited; the biggest industry by far is an aluminum smelter near Maputo called Mozal. The smelter is the biggest investment ever made in the country and the start up investment was 1.3 million US dollar. Many investors are involved in the project and the shares in the project are: Billiton Plc 47%, Mitsubishi Corporation 25%, the industrial development cooperation of South Africa 24% and the

31 Interview with representative of PAMA, 17/4 -07
32 Interview with tobacco growers 20/4 -07
33 CIA The world fact book - Mozambique
34 Country assistance paper for the republic of Mozambique, 2003
government of Mozambique 4%. It started its production in June 2000 and in 2001 it produced 250000 tons of aluminum. When it is in full production it will consume around 450 MW of electricity, the rest of the country besides Mozal, consumes around 220 MW 2001.\textsuperscript{35}

The expansion of the smelter, Mozal II, was ready in October of 2003. The capacity has now more than doubled from 250000 tons to over 500000 tons of aluminum per year.\textsuperscript{36} There are 1089 employees at the smelter and 90.5 % of them are Mozambican. They are in the age of 25-45 and have at least a basic technician degree. The smelter also creates an additional of 3500 jobs, which is not directly connected to the smelter. The company has its own education and training programs, each employee average 10 days of training a year.\textsuperscript{37}

### 4.5 Cash crops

#### 4.5.1 Cash Crop cultivated in Mozambique

The main cash crops, seen to amount and how long they have been grown in Mozambique, are cotton and sugar cane. Tobacco, oilseed crops (sunflower and sesame), paprika and ginger have recently (in the last 10 year period) been introduced and encouraged by industrial producers. Tea has long been an important crop in Mozambique but during the liberation wars and the civil war almost all production stopped. Recently tea has been reintroduced in many parts of the country and encouraged by several companies.\textsuperscript{38} Cotton was traditionally grown and cultivated in the northern parts of Mozambique while sugar cane is cultivated in the central parts of the country. Because of the similar soil and water needs for cotton and tobacco, tobacco is now along with cotton also grown in the northern parts.\textsuperscript{39} Paprika was, according to several interview subjects, introduced by NGOs and claimed by these NGOs to be “the saviour for the peasant in Mozambique”.\textsuperscript{40} These expectations were not fulfilled and the surplus and revenue from the cultivating of paprika was much lower than expected. Some peasants we interviewed claimed this to be one of the reasons that the peasants of Mozambique have little or no confidence in NGOs. These statements are contradicted by

\textsuperscript{35} Fact Sheet: Mozal smelter, http://www.bhpbilliton.com/bbContentRepository/News/RelatedContent/NR_firstmozal.pdf

\textsuperscript{36} Mozal smelter expansion officially opened October 2003

\textsuperscript{37} Welcome to Mozal, a presentation

\textsuperscript{38} Mozambique Food Security Issues Paper 2002, page 20

\textsuperscript{39} Interview with director of MLT (Mozambique Leaf Tobacco), Cuamba 19/4 -07

\textsuperscript{40} Interview with peasants in Napacala 18/4 -07
some authors who claim that there is a “strong demand for the crop on the Malawian market and the produce is sold quickly and easily”\textsuperscript{41}

Tea and sugar is grown in larger plantations with wage labourers but still there are smallholder peasants growing sugar cane in their fields.\textsuperscript{42}

4.5.2 Cotton and Tobacco

Almost every family peasantry has some production of cash crops, mostly cotton or tobacco. The ones that start to cultivate cash crops are the peasants who already have their access to food secured, therefore they do not take any risk of starvation if the cash crop production would fail, because of for example a severe drought. Even if you have a steady income from cash crops, you do not stop cultivating for your food demand. This phenomena is called the safety first- principle, which is described extensively in James C. Scotts book “The moral economy of the peasant”. The approx pay to the peasants for cash crops is 5.3 Mtn/kilo for cotton and 28 Mtn/kilo for tobacco, which is a lot compared to the price paid for maize which is between 2 and 3 Mtn/kilo.\textsuperscript{43, 44, 45} The yield of tobacco and cotton is almost the same. The yield is about 1 ton/ha for cotton and about 1.1 ton/ha for tobacco in average.\textsuperscript{46, 47} 50 – 60 % of all cultivated land consists of maize and this production is not as labor intensive as production of cotton and tobacco.\textsuperscript{48, 49, 50} The access to skilled labor is one of the problems in order to extend the production in Mozambique, even though other issues also effect the production negatively.\textsuperscript{51}

One of the companies that run the production and promotion of cash crops, especially tobacco of course, most in northern Mozambique is MLT (Mozambique Leaf Tobacco). The company works in different provinces and districts in Mozambique and its sister companies work all over southern Africa.\textsuperscript{52}

There are three different kinds of tobacco used in cigarette production which all have their unique character, and therefore are used for different purposes.\textsuperscript{53} They are called:

\textsuperscript{41} Mozambique Food Security Issues Paper 2002, page 21
\textsuperscript{42} Mozambique Food Security Issues Paper 2002, page 20
\textsuperscript{43} Interview with representative Ministry of Agriculture, 16/4 07
\textsuperscript{44} Interview with director of MLT (Mozambique Leaf Tobacco), Cuamba 19/4 -07
\textsuperscript{45} Interview with director of Export Import Trading Co, 14/4 -07
\textsuperscript{46} Interview with director of MLT (Mozambique Leaf Tobacco), Cuamba 19/4 -07
\textsuperscript{47} Interview with director of SAN cotton factory, Cuamba 26/4 -07
\textsuperscript{48} Interview with director of MLT (Mozambique Leaf Tobacco), Cuamba 19/4 -07
\textsuperscript{49} Interview with director of MLT (Mozambique Leaf Tobacco), Cuamba 19/4 -07
\textsuperscript{50} Interview with tobacco growers, Cuamba district 20/4 -7
\textsuperscript{51} Interview with director of SAN cotton factory, Cuamba 26/4 -07
\textsuperscript{52} Interview with representative Ministry of Agriculture, 16/4 07
\textsuperscript{53} Interview with director of MLT (Mozambique Leaf Tobacco), Cuamba 19/4 -07
• **Burley Traditional**, which is the filling in a cigarette. 80% of the tobacco in a cigarette consists of this sort of tobacco. This is also the main tobacco grown in the Niassa province.

• The second sort is called **Fluke Virginia** and is mainly used for the flavor of cigarettes.

• The third one is **Dark Fired Cured** and is used in cigars and cigar production.54

The production of Burley in the Cuamba district has increased a lot over the last three years, from 6500 tons to 16000 tons. The production is becoming more effective since it was 49600 peasants that produced 6500 tons three years ago and season 06/07 26500 peasants produced 16000 tons. This means fewer peasants cultivate more tobacco.55

It is mostly small family peasants that grow tobacco and some use land as small as 0.3 hectare for tobacco plants. The tobacco growers’ food security is important also for the company and the growers are told to switch crops on the fields in order to maintain the productivity of the soil. To illustrate the method, one field of maize, one of beans, one tobacco and one resting, the next season you switch fields. This is because the rest needed for the soil to recover.

The yield of maize is claimed to be doubled when it is grown on the field where tobacco has been grown the year before. This is because of the fertilizers that are still in the soil. These fertilizers are leftover from growing tobacco and there are still enough fertilizers in the soil to affect the maize grown the year after. 56, 57
The origin of cotton production is the lowlands where cotton was produced near the river sides, because of the easy access to water. This changed in the 1940s when the cultivation of cotton moved to the highlands. The cultivation of “today” began in the 1960s. The capacity of cotton production is underused, mainly because of lack of knowledge which leads to low yields. This problem has its origins in the wars that Mozambique has suffered from. First the war of independence and later on the civil war damaged the cotton industry and the cotton peasants. From the perspective of the cotton industries in Mozambique the main problem for the production in Mozambique are the subsidies that are paid by the governments of Europe and North America to their own cotton growers. This leads to that the rules of market economy are not working properly and the prices on the world market are so low that the cotton industry in Mozambique can not compete on the same conditions. Here lies one of the biggest problems for the agricultural sector in Mozambique and the African continent in general.

4.5.3 Tobacco growers

We interviewed six different tobacco growers about their lives as cultivators of tobacco. In average they have one acre of tobacco and one to one and a half acre of other crops, mainly food crops such as maize. They work in groups of up to 15 people, where they help each other on the fields and to pay back debts to the company which one peasant might have. The workload on the tobacco fields is very heavy and usually they can not afford to hire workers and therefore it is very convenient for the peasants to work together in groups. The main reason to start to grow tobacco is to earn money and by that keep the worst poverty away. Of one acre of tobacco the peasant earns on average 27000 Mtn/year (1000 kg of tobacco per hectare in average and 27 Mtn/kg in average pay for tobacco). This figure is without subtracting payments for pesticides and fertilizers.

The money earned is mainly used to buy a bicycle or some comparable means of transportation. One other important priority is to pay for the children’s education, with the extra money they may stay in school a few more years. The profit of growing tobacco makes it possible for some of the peasants to invest in other businesses such as a small shop. As an example one of the tobacco growers we met had opened a shop by one of the main roads in the area where he was selling different products. He sold grocery products such as crackers, sodas, fruit and vegetables (some of it from his own fields), bread and canned food. This is a

57 Interview with lecturer at the Faculty of Agriculture in Cuamba, 19/4 -07
58 Interview with director of SAN cotton factory, Cuamba 26/4 -07
59 Interview with tobacco growers, Cuamba district, 20/4 -07
good example of how tobacco growing can contribute to further economic development in the rural community. It will be further discussed and examined later on in the paper.60

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60 Interview with tobacco growers, Cuamba district, 20/4 -07
5. Factors influencing the economic situation and development of the peasant in northern Mozambique.

Here we are going to present the factors that influence the peasants of Mozambique and their economic situation and development. Not all factors can be presented here but we will present those that, according to our interview subjects, mainly influence the peasants economic situation and their economic development.

5.1 Transports in Mozambique

One of the main problems in Mozambique that almost every person we interviewed mentioned as a problem is the lack of or high cost of transports. There are many aspects that the interview subjects mentioned that make the transports in Mozambique difficult and expensive. We identified six different aspects that most of the interview subjects spoke of. Several of the people we interviewed suggested solutions for these problems. Here are the problems and suggested solutions some which have already been done or are underway:

Problem I: The condition of the roads.
Most roads are gravel roads with little or no maintenance. Compared to western standards most roads are in very bad condition. 61, 62, 63, 64

Suggested Solution for Problem I:
Work has begun to restore and maintain several roads in Mozambique. Also some roads are being paved but this is mainly the attempts to build freeways from southern to northern Mozambique. Many NGOs and national aid agencies are interested in building and paving roads but maintenance is not something they are interested in. Building a road is something that looks good in the public eye while costs for maintenance isn’t that good looking in the eye of the public. Mozambique can’t afford all the maintenance cost themselves and therefore you end up in a situation were Mozambique can’t pay for maintenance and the NGOs and national aid agencies won’t pay for maintenance. 65

Problem II: The high cost of fuel.
The figures we got when we checked were that a litre of gasoline cost about 1 US dollar. This is a major problem for transports because it’s only economical to transports high value goods.

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61 Interview with the major of Cuamba, 13/4 -07
62 Interview with the District administrator of Cuamba, 16/4 -07
63 Interview with representative of PAMA, 17/4 -07
64 Interview with the governor of the Nampula province, 30/4 -07
65 Interview with representative of PAMA, 17/4 -07
For an ordinary person in Mozambique fuel is very expensive. At the same time only people who can afford cars can afford gasoline.66

**Suggested solution for Problem II:**

Some suggested that the government of Mozambique should subsidise the cost of fuel for transport companies, peasants and bus companies. If this suggestion becomes reality the cost for transport should become lower. The problem with this is if the government of Mozambique can afford or be allowed to subsidise fuel for so many people.57

**Problem III: High cost of maintenance of vehicles.**

The condition of the roads cause the vehicles wear down faster and break down more often compared to vehicles in the western world. This makes transports more expensive because the owners of transport vehicles such as pickup trucks, trucks and buses have to calculate for much higher maintenance costs and this adds to the price of transports.68

**Suggested solution for Problem III:**

Here it’s a question of solving the problem with the conditions of the roads in Mozambique. With better roads the amount of maintenance for vehicles goes down and the cost goes down.

**Problem IV: North to south, east to west.**

There is a major problem with transports from the northern parts of Mozambique to the southern and vice versa.69 One such aspect is that all railroads, who are large transporters of goods and people, are in east-west directions and none are in north-south directions. This is mainly a leftover from the Portuguese colonial era where the aim was to transport natural resources from the inner parts of the country to the ports on the coast and then transport them to Portugal.

**Suggested solution for Problem IV:**

Without the economical means to build new railways from the north to the south there is no solution including railways.

**Problem V: The condition of the railway system.**

During the civil war much of the rails were left without maintenance and therefore many sections of railroad are still in bad condition.

**Suggested solution for Problem V:**

There are several attempts to restore the railways. For example CDN, that owns the railway in the so called Nacala-corridor, have made huge efforts to restore the railway from Nacala to

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66 Interview with representative of PAMA, 17/4 -07
67 Interview with representative of PAMA, 17/4 -07
68 Interview with representative of PAMA, 17/4 -07
69 Food Security Warning: Mozambique, 2003, page 1
the Malawian border and further into Malawi. The trains today run from Nacala to Cuamba because the section from Cuamba to the Malawian border is in such a bad condition you can’t use train on them yet. The company is working on restoring this section of the railroad to expand their services into Malawi.  

**Problem VI: Flooding and the destruction of roads.**

Flooding causes disruptions of the transport infrastructure. Flooding is a serious problem because the water washes away parts of roads and railways so the ability to use the roads and railways for transport is lost. Most roads in Mozambique are gravel roads that can’t withstand a flooding.

**Suggested solution for Problem VI:**

With paved roads some of the problems with roads washing away when flooded disappear.

### 5.2 Difficulties and challenges for peasants of Northern Mozambique

One typical example of how a buyer/peasant lives and works in northern Mozambique is a man we met just outside the city of Cuamba. He had been buying agricultural products for 10 years. Amoder had helped him with credits for a period of 3 years, but there were still a lot of problems in order to carry out the business successfully. One of the main problems is the infrastructure which is in really bad condition. As mentioned above the roads in the area are not in condition to handle effective transports of trucks and bigger cars. Therefore the cost for transporting goods is really high and it is hard to reach profitability if you are dependent on transport in order to run your business. This issue affects the whole agriculture sector when it is economically “impossible” to transport your goods to the cities and harbors were the big markets are located.

Despite that the peasants produce more and put more products on the market they do not see that their living conditions are improving. One reason for this is that the prices on agricultural products are low and it’s therefore hard to make a profit. It is considered that the prices of food crops, like maize, are way to low but the peasants are forced to sell anyway because they need to get at least some money. This differs a lot compared to cash crop like cotton and tobacco where the prices are fixed. The buyer promises to buy at a certain prices when the crop is harvested. Even though, the peasants and organization mean that if the

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70 Interview with CDN 10/4 -07  
71 Food Security Warning: Mozambique, 2003, page 1  
72 Interview with representative of PAMA, 17/4 -07  
73 Interview with representative of PAMA, 17/4 -07  
74 Interview with peasant/buyer, Cuamba district, 16/4 -07
market would be open for more buyers of tobacco and cotton in a region it would benefit the peasant’s position. As it works now, a company buys a license from the government to get permission to work with tobacco in a certain area. The company then has the monopoly to deal with tobacco in that certain area, which means that there is no competition on the market. The peasants are forced to deal with the one company that bought the license in the region where they live. An open market would most certainly improve the peasant’s position and in turn they would get more money from their business.\(^7_5\)

When Agricom was up and running there were also private actors buying and selling the surplus crops in Mozambique. The difference was that these private actors only dealt with and bought the crops they knew they could earn a profit from. Agricom on the other hand dealt with all crops and bought the entire surplus yield. When Agricom was shut down these private actors were the only ones left buying the surplus of crops. The safety net that Agricom acted as for rural producers was now gone and the peasants of Mozambique have in some cases had a hard time adjusting to this situation. Despite this new uncertain situation the peasants continue to produce as they have done before.

One problem with these private actors is that they have extensive power in relation to the poor family peasants. They have almost monopoly as buyers and they dictate conditions which mean that the peasants are put in a tough situation because of their dependence. Another important issue is credits, which almost no peasant can get and at the same time it is very important in order for the peasant to experience economic development.

5.3 Tobacco growers and the tobacco company

Even though tobacco farming contributes to the peasant and the community the peasants express some concerns about their situation and their relationship to the tobacco company and buyer in the area, MLT. One of the main concerns that the peasant talks about is that there is only one buyer in the area, which makes them very dependent on that company. It’s hard for the peasants to demand better conditions of the company, when the peasants are totally dependent on them in order to cultivate cash crops. And they also believe that the prices would be higher if there were more than one buyer in the area. (In Mozambique one company buys the license to buy and sell tobacco in an area and it is only the company with the license that is allowed to do business in that particular area.) Here in lies an obvious problem for the peasants as described above. Another issue is that they get fertilizers and pesticides from the tobacco company and these chemicals are necessary to grow tobacco. But the peasant does

\(^{75}\) Interview with representative for Unio Lurio, Cuamba district 24/4 -07
not get the chemicals for free. It’s a form of credit and when they harvest the crop they have to pay back the costs for pesticides and fertilizers and if the yield is low it can be difficult to afford it. It rarely happens but in this extreme case the peasant might lose money if he or she can not sell good or enough tobacco and have to pay back for the chemicals. This case is not common but it might happen, and the peasants had a system where they try to help each other to pay off the debt. These are the main issues that the peasants brought up, but overall they are satisfied with tobacco farming. They think it contributes to their standard of living in many positive ways, even though they believe that the company should pay them more for the hard work that they put in when cultivating tobacco.76

5.4 The complexity of growing cotton and tobacco

One important issue when it comes to cultivating tobacco, and also in some ways cotton, is the complexity compared to maize and other crops. Therefore it’s important for the tobacco growers to be able to read and write because many tobacco companies send out information pamphlets on how to grow tobacco so their contracted growers do right. Here is one of the challenges both for the growers and the tobacco companies because many of the peasants in Mozambique are illiterate. This has led to problems with cultivation and growers not following instructions because of misunderstandings and inability to read the instructions the company has sent out. Some of the tobacco companies try to improve literacy rates by investing and building new schools.77 The director of MLT in Cuamba had a very striking saying about this: “Literate peasants are the future tobacco growers”78 meaning that to improve the yield of the tobacco growers and the quality of the tobacco the growers have to be able to read and write. Both the company and the growers would benefit from this because the company can sell more tobacco of higher quality and the yield and quality of the tobacco grown increases and therefore the income of the tobacco grower also increases.

5.5 The lack of diversification

A problem in the society of Mozambique is that almost the whole population lives of the same things. As shown before these are growing maize for food security and perhaps growing a cash crop for money. Many people we interviewed expressed a wish to get enough money to open a little store where they could sell whatever they get their hands on. The problem with this lies in that almost everywhere you come in Mozambique there are stores like that and a

76 Interview with tobacco growers, Cuamba district, 20/4 -07
77 Interview with director of MLT (Mozambique Leaf Tobacco), Cuamba 19/4 -07
78 Interview with director of MLT (Mozambique Leaf Tobacco), Cuamba 19/4 -07
lot of them. The competition between the many stores has the result that none of the storeowners earn any considerable amount of money because they all sell the same wares.\textsuperscript{79} That is Coca Cola, cigarettes, crackers, cigarette lighters, some capulanas and beer.

This approach can also be applied to agriculture where almost every peasant in the country grows maize and almost every peasant, at least in the northern parts of the country, has a surplus of maize. The amount of this surplus is of course dependant upon how well the yield has been. If the surplus is high it leads to a situation where almost every peasant tries to sell their surplus on the market or to buyers of agricultural products. Here the supply and demand create a situation where the prices are very low and almost nobody is making any profits. Too many actors supplying the crop and a market where there isn’t enough demand for maize for all the surplus maize to be sold.\textsuperscript{80} This situation is unprofitable for the peasants because they can’t get their surplus sold and the crops are just stored in their warehouses where it rots away. Therefore the question arose among some interview subjects why the peasants of Mozambique don’t diversify and try to grow something else than maize or not so much maize and try to grow some cash crops instead. The risk though with doing this is the risk of low yields and the risk for food shortages if there is low yield of maize.

**5.6 The credit system and its limitations**

The credit system has many flaws and for many reason it is hard to get credits for many poor people, including the peasants. The commercial banks issues loans with very high interests, usually around 30% which makes it hard for ordinary people to afford loans. Amoder is a financial institute for rural development. They give credits to the agricultural producers to help them to sell their product in the market. Amoder has limited capacity so they try to concentrate their efforts and capital where the potential for development is best. The organization and its activity has grown every year since 1994 when they issued 5 loans, in 2006 this number had increased to 1200 loans with an average size of 20000 Mtn. Amoder works close with international aid organizations and with some of their money. And therefore Amoder must follow these organizations and the areas where they work, even if they want to work in other areas of the country.\textsuperscript{81}

As mentioned earlier it has been harder to get credits from the commercials banks since they have been privatized. Amoder does not work as a Bank, but they try to fill

\textsuperscript{79} Interview with former Minister of Agriculture, 3/5- 07
\textsuperscript{80} Interview with former Minister of Agriculture, 3/5- 07
\textsuperscript{81} Interview with representatives from Amoder, Maputo, 4/5 07
the void, when the rural population can not get credits from the ordinary banks. Amoder’s three main services in order to promote rural development are: Micro credits that has been really popular during the last years. Nearly half of Amoder’s loans are now issued as these types of loans. The second one is loans and financing for development business activity in the rural areas. Now they have a capacity of 7 million Mtn for these types of loans. The third type is joint ventures. Which is cooperating and financing in collaboration with other companies and the average size for these loans is 40000 Mtn. Amoder’s activity is risky because many of their clients are of course poor and sometimes they have hard to pay back their loans. But they have an interest rate of 25%, revenues 12 million Mtn and expenses 19 million Mtn. There has not been any evaluation of Amoder’s activity and their effect on the rural areas, so it is hard to say how much they have contributed to the economic development in the rural areas of Mozambique.82

5.7 Tobacco and the world market

Tobacco industry and production is important for many countries and regions around the world. The industry is often heavy regulated by the state, most commonly through taxes. At the same time tobacco exports yields significant export revenues to many countries, both in developed and developing countries. Tobacco products are present in almost every country of the world, but must of them are not producing it themselves because tobacco only grows in special weather conditions. North and Central America have for a long time been the largest exporters of tobacco with a share of 30% of the world market in the beginning of the 70s, in the end of the 90s this number had shrunk to 17.5%, Europe has the biggest share of import at 58%.

<table>
<thead>
<tr>
<th>Continents</th>
<th>Export</th>
<th>Import</th>
</tr>
</thead>
<tbody>
<tr>
<td>North &amp; Central America</td>
<td>17.51%</td>
<td>14.05%</td>
</tr>
<tr>
<td>Asia</td>
<td>20.98%</td>
<td>18.44%</td>
</tr>
<tr>
<td>Europe</td>
<td>27.07%</td>
<td>58.39%</td>
</tr>
<tr>
<td>Africa</td>
<td>17.34%</td>
<td>6.91%</td>
</tr>
<tr>
<td>South America</td>
<td>17.03%</td>
<td>1.33%</td>
</tr>
<tr>
<td>Australia</td>
<td>0.07%</td>
<td>0.88%</td>
</tr>
</tbody>
</table>

82 Interview with representatives from Amoder, Maputo, 4/5 07
The chart above shows the patterns of the world trade with leaf tobacco, during the period 1990-2001.\textsuperscript{83}

Prices on tobacco are complex because different qualities give very different prices on the market. Here are some examples of prices on American tobacco to give an example of price level on the market. The tobacco sort in the example below is American burley and the prices are the one paid to US tobacco growers.

<table>
<thead>
<tr>
<th>Quality</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality A</td>
<td>2.05 US dollar/lb</td>
</tr>
<tr>
<td>Quality B</td>
<td>1.97 US dollar/lb</td>
</tr>
<tr>
<td>Quality C</td>
<td>1.94 US dollar/lb</td>
</tr>
</tbody>
</table>

The prices on tobacco are affected on the many obstacles that exist on the world market nowadays. Among these are legal, social and political issues which have build up against the tobacco industry in many countries around the world, particular in Europe and North America. The US growers for example are meeting many different obstacles such as health concerns, higher cigarettes prices, smoking restrictions and higher taxes etc. These factors points to an uncertain future for the world market of tobacco according to the article.\textsuperscript{85}

### 5.8 Cotton and the world market

The other cash crop that we have focused on is cotton, the world market prices on cotton are significantly lower compared to tobacco. The world market price for cotton with quality of Color 41, leaf 4, is 41.9 US cent/lb during the period Apr 27- May 3 2007.\textsuperscript{86}

<table>
<thead>
<tr>
<th>Average direct subsidies for cotton\textsuperscript{87}</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999/2000</td>
</tr>
<tr>
<td>Spain</td>
</tr>
<tr>
<td>USA</td>
</tr>
</tbody>
</table>

\textsuperscript{83} Novkovic & Petrovic, Tendencies on the Tobacco and the Tobacco Products Market, Acta, Agriculturae Serbica
\textsuperscript{84} Snell Will, Burley Market Outlook 2001, University of Kentucky
\textsuperscript{85} Snell Will, US Tobacco Grower Issues, University of Kentucky, Feb 21 2001
\textsuperscript{86} USDA Cotton program, May 31 2007
\textsuperscript{87} Becerra Carlos, The world cotton market, International Cotton Advisory Committee
The chart above shows the extensive economic assistance that some countries get in order to uphold their cotton industry, for example growers in Spain gets 74 US cent/lb and sells in for around 40 US cent/lb in the world market. In 1986 growers in 25 countries got economic assistance, it equaled to 69% of the world production. This numbers has shrunk to 8 of 73 countries in 1998 Brazil, China, USA, Egypt, Greece, Mexico, Spain and Turkey, the combined assistance is 5.4 billion US dollar, the part of the world market with assistance was 52%. The estimated value of the world market of cotton is 17 billion US dollar, this number is essential to understand the other numbers presented above and their relations.88

The production of cotton is increasing and therefore have the world market prices been low. National cotton economist Gary Adams says that if the prices would stabilize on a slightly higher level, both China and Brazil will extend their cotton production. China’s acres with cotton are up 36% in the last two years, at the same time Brazil has extended its acres by 50%. As an example is these two countries increase in production twice as high as the annual production in West Africa. According to Adams China is the country that affects the world market price the most because they are the largest producer of raw cotton in the world. China’s dominance on the world market will increase even more, for example have the export of textiles to USA doubled since 2001 and it is expected to grow.89

<table>
<thead>
<tr>
<th>Country</th>
<th>Assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greece</td>
<td>60</td>
</tr>
<tr>
<td>China</td>
<td>12</td>
</tr>
<tr>
<td>Turkey</td>
<td>8</td>
</tr>
</tbody>
</table>

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**World production of cotton 1980-2000**

<table>
<thead>
<tr>
<th>Year</th>
<th>World Market Consumption</th>
<th>Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>14.1 million ton</td>
<td>13.9 million ton</td>
</tr>
<tr>
<td>1985</td>
<td>15.0 million ton</td>
<td>18.0 million ton</td>
</tr>
<tr>
<td>1989</td>
<td>18.0 million ton</td>
<td>18.0 million ton</td>
</tr>
<tr>
<td>1993</td>
<td>18.0 million ton</td>
<td>19.0 million ton</td>
</tr>
<tr>
<td>1996</td>
<td>18.5 million ton</td>
<td>19.0 million ton</td>
</tr>
<tr>
<td>2000</td>
<td>19.0 million ton</td>
<td>18.0 million ton</td>
</tr>
</tbody>
</table>

88 Becerra Carlos, The world cotton market, International Cotton Advisory Committee, Washington DC
89 National council of America, Charges of U.S. overproduction misplaced, July 15 2004
6. Conclusion

We have identified some clear patterns concerning the rural development in Mozambique, particular in the northern part of the country where we spent most of our time. We consider that the two-sector model should be extended into two more sectors to better explain and promote the economic development in Mozambique. This will also even out the leap in production and technology that exists between the agricultural and the industrial sector. The extended version of the Lewis two-sector model is described below, we consider that it explain the case in Mozambique in a better way then the original model.

6.1 The agricultural sector’s importance for the economic development

As we have shown in our presentation of the material in chapter 4, 5 and in the conceptual approach chapter, there are some doubts about how well the two-sector model really describes the economic development in Mozambique.

The main argument against the two-sector model is that the lack of transition between the agricultural sector and the industrial sector depends on the big technological difference and productivity between the two sectors. The industrial production in Mozambique is almost exclusively in high-technological industries like the Mozal aluminum smelter and the Cohora Bassa power-plant. This means that it is not realistic that the industry receives workers directly from the agricultural sector. In order to make this transition possible there must be an industry for consumption products, such as bicycles or simpler tools for the agriculture. This industry would be based on an increased demand from the population. An industry like this would be much closer to the agricultural sector in terms of productivity and technology. Since this type of industry does not exist in today’s Mozambique, an increasing cash crop production would be an interesting alternative. There should be more focus on the cash crop production. This is why the Lewis two-sector model is not suitable for the situation in today’s Mozambique.

Our suggestion is to develop the two-sector model into two more steps between the agricultural sector and the industrial sector as illustrated in the figure below. All first three steps are different stages of development in the agricultural sector, these steps are essential, in order to decrease the difference in productivity between the production sectors. After these stages the transition to the industrial sector can take place. The transition between the production sectors and what factors that effects it will be explained more extensively in the next three chapters.
6.1.1 Food crop production – Cash crop production

As described earlier almost every farmer in Mozambique grows maize on their fields, in order to secure the family’s demand for food. Maize is the most common food source among the rural population in northern Mozambique, 50 – 60% of all cultivated land includes this crop. As Scott describes the supply of food must be met before a farmer can take the risk of starting to grow cash crops like tobacco or cotton. This is the basic step in the economic development in the rural areas of Mozambique and all peasants are at least included in this production because it is necessary for their survival. The productivity in this sector is low and the peasants usually do not have chemicals like pesticides and fertilizers to improve the yield/acre. Some farmers have thus been able to take the step to the next level of production, cash crop.

In order to describe this transition we have to discuss the concept of food-security further and put it in the context of Mozambique. As shown in chapter 3, there are three main criteria’s that is involved in his concept of food security, which is one of the conditions that are important for the farmer when he chooses to start cultivating cash crop. When their food supply is secured by for example one acre of maize, which is standard size of a food crop field in rural Mozambique, they have the possibility to start growing some cash crop. One of the most profitable crops in northern Mozambique is tobacco, and the typical farmer will grow it on fields with a size between 0.3-1 acres. The yield in this sector is usually higher because of pesticides and fertilizers provided by the tobacco and cotton company as a sort of credit. This is the first time in this development model that the farmers can accumulate cash money, which leads to a new type of consumption. The rural population is able to buy capital products thanks to their cash crop production, a market that they have been barred from earlier because
they lacked cash money income. The accumulation of money gives the farmer the ability to raise the standard of living which has not been possible before the main benefits that the farmers mentioned were that they now could pay for the children’s education and buy means of transportation, usually a bicycle. This is a major change compared to the first sector, where the farmers are limited to the rural agricultural market.

6.1.2 Cash crop production – Semi-industrial production

The main area of activity in semi-industrial production is small mills, mostly in the rural areas, and the informal service sector, including the small rural grocery stores. This is the next step, for example the farmers that have accumulated enough cash growing and selling crops like cotton and tobacco. They choose to extend their activity beyond traditional farming, in order to make an even greater profit with a new business. Examples of businesses are small mills and grocery stores, mainly in the rural areas. This is usually made possible by organizations like Amoder, because the investment needs capital which the average peasant does not have. Another way of earning this kind of money is from a successful cash crop production as mentioned before.

As an example we met a woman who earlier had traded with cattle but now she traded with maize. She loaned 40000 Mtn to be part in the maize commercialization, with the profit she was able to buy a mill. The mill have yielded much more capital compared to her other businesses, now she only needs to loan 20000 Mtn and at the same times she has 40000 Mtn worth of savings. She has also employed three people; one takes care of the mill, one night guard and one assistant. This is not possible for a peasant in the food production sector, it might be possible in the cash crop production sector, but this shows that the productivity gap is less wide to the industrial sector then it was in Lewis original two-sector model.

6.1.3 Semi-industrial – Industrial production

According to Lewis theory the transition will take place between the basic agricultural sector and the industrial sector, if the difference of average productivity can sustain a difference of 30% of wages between the two sectors. Although our numbers in chapter 3.1 do not show productivity in conventional terms, they can be said to reflect a huge difference in productivity between the sectors. Still, no or very little transition between the sectors is taking place. With such an extreme difference in productivity between two different sectors in the country, it might be relevant to challenge the Lewis theory since in Mozambique there seem to be only a very small transition of labor to the industry.
6.2 The peasant’s choice of cultivating cash crop and economic development

The peasant of northern Mozambique has several dilemmas when it comes to cultivating cash crops:

- **I.** The need for food security to be able to grow cash crops
- **II.** The lack of transports and/or high costs of transports. This is less of a problem for tobacco growers, at least in the Cuamba district, because of the tobacco companies network of buying centers were the company buys tobacco from the peasants.
- **III.** The insecurity of world market prices. This has in some cases led to that especially cotton companies have not come and collected the harvest because it costs more to collect it than you make out of selling it. This has a severe effect on the willingness amongst the peasants to grow cash crops or at least cotton.
- **IV.** With some cash crops it’s important that you can read and write to understand the written instructions for growing the crops because of the complex ways needed for cultivating especially tobacco but also to some extent cotton. Many peasants are illiterate and therefore this is a huge obstacle for many peasants.

These factors all influence the choices of the peasant when it comes to cultivating cash crops. Although there are many obstacles cash crop is the only real way for many to get a monetary income. There isn’t enough industrial capacity as of yet to employ the vast majority of the peasants in the society of Mozambique but the need for monetary income is still needed for the development of the economy of Mozambique. Therefore we see cash crops as one of the few ways today for the peasant of Mozambique to improve his economical situation.

As shown before the industrial sector in Mozambique is quite small seen to the workforce employed in it and still contributes a large part of the GDP. The agricultural sector in Mozambique contributes much less per person compared to the industrial sector. For the ordinary peasant of Mozambique it’s not always easy to get an industrial job and instead cash crops is a good way to increase his or hers monetary income. When and if the peasants of Mozambique increase their monetary income their demand for commercial goods will increase and this will influence both the service and industrial sector. It’s a long and slow process but instead of gathering all their effort on industrialization, as the government of Mozambique does, the efforts should also include cash crops and the promotion of it to the peasants of Mozambique.
7. Concluding thoughts

Here we present our own concluding thoughts about the subject in this study. Many of our own thoughts are quite controversial and therefore we chose to have a chapter containing them. We simply felt that there are questions concerning both cotton and tobacco that are not discussed among the international community.

7.1 Tobacco

Tobacco kills. That is a simple fact. At the same time tobacco as we have seen in Mozambique is one of the few ways for many poor peasants on the country side to earn a monetary income and develop economically. Tobacco is a high priced crop because of its complexity to grow and it’s also a sought-after crop. The demand for tobacco doesn’t seem to diminish in the foreseeable future when countries like India and China develop and more and more people can afford a luxury commodity like tobacco smoking. For that is what it is, a luxury commodity. Poor people in Africa can’t afford to smoke even if they wanted to. Or at least not smoke as much as smokers in richer countries do. The estimate is that the number of smokers in the world will increase more in the foreseeable future.

Many anti-smoking organizations criticize poor tobacco-growing countries like Mozambique and claim that it’s immoral to grow tobacco. The tobacco grower of Mozambique is only satisfying the demand for tobacco from the western world. He or she does nothing immoral by growing tobacco. If the western world really wanted to ban smoking they could do so. If there was no demand for tobacco nobody would grow tobacco and the ordinary smoker at least in the developed countries in Europe and North America is fully aware of the health risks with smoking. So saying that the ordinary tobacco grower or the small tobacco companies in Mozambique is doing something immoral is wrong. They are simply filling a demand from the richer countries of the world.

Perhaps we should see the growing of tobacco as something positive for many poor people because they provide a monetary income for them. This income often is used, at least what we have seen, to put the growers children through school and/or to buy a bicycle. These things are very important for the peasants of Mozambique’s development and the amount of money they have access to.

So in conclusion we believe that the tobacco growers in Mozambique should continue and perhaps even try to expand the tobacco growing. The demand in the world for
tobacco isn’t going down although many countries are restricting smoking. As long as there is no global ban on smoking the peasants of Mozambique should continue to cultivate tobacco.

These thoughts are almost taboo in the world of development studies because of the moral issues of tobacco smoking. Instead the NGOs in tobacco growing countries should encourage and support tobacco growing as a means of development for the poor peasants in countries like Mozambique. The problem there is that no NGO or government aid organization wants to be associated with supporting tobacco growing. It simply looks bad in the public eye to support growing a crop like tobacco.

7.2 Cotton

Cotton on the other hand has its problems to. The subsidiaries in many countries and the unstable and low world market prices make this crop very insecure for the peasant of Mozambique to cultivate. Also the competition from mechanized growing of cotton makes the situation for cultivating cotton in Mozambique very difficult. At least if you try to make a decent profit from cotton growing.

We believe that these obstacles make the cotton cultivation in Mozambique to ineffective and unprofitable. Without countries like Spain, Greece and the United States subsidizing their own growers with equal or more then the world market prices per kg perhaps Mozambique and its cotton growers would have a fair chance to compete on equal terms. With these subsidiaries still in place it’s difficult for them to do it.

7.3 Comparing prices

Comparing the prices of cotton and tobacco both in the World market and in Mozambique you see a clear pattern. On average cotton growers gets paid 5.3 Mtn/kg for cotton and a tobacco grower gets paid 28 Mtn/kg or tobacco. This equation is simple although tobacco is more labor intensive it still earns the peasant a higher monetary income for the peasant. As we have shown earlier the yield for one hectare of cotton and tobacco is about one ton. When comparing how much the peasant gets paid for the same amount of crop the tobacco pays a lot more, around five times more, in average. Tobacco is still more labor intensive but still the amount of money earned from tobacco is much higher and if development is measured in money tobacco is a much sounder and profitable alternative than cotton or at least when the world market of tobacco and cotton and the subsidiaries of cotton look like they do today.
7.4 Subsidiaries

Tobacco is one of the few cash crops in the world today not affected by subsidiaries in any way. This means that no matter the level of development of a country, growers are equal and gets no extra support for their cultivation of this crop. The reason for this lack of subsidiaries, we believe, is that no government can subsidize it because of the health issues with tobacco. This means that poor peasants from Mozambique can compete on more equal terms with the tobacco growers from the rest of the world. The world market prices are also more stable compared to crops like cotton and sugar.
8. List of sources

8.1 Interviews

Interview with representative from the Ministry of Industry and Commercialisation, 9/4 -07
Presentation on how the ministry works to promote agricultural commercialization. The purpose was to understand what the government does to promote commercialization.

Interview with CDN, Nampula 10/4 -07
An interview with representatives from the railway company CDN located in Nampula. This company is American-owned and the company owns the railroad between the Nacala port and Malawi. They also own locomotives and railroad cars that currently are being used on this railroad.

Interview with the governor of the Cuamba district, 13/4 -07
A formal meeting with the governor for an introduction of the Cuamba district. He presented his view on the problems and the opportunities in the Cuamba district.

Interview with director of Export Import Trading Co, 14/4 -07
A company located in Cuamba buying and selling mainly food crops such as maize and beans. Also deals with some small quantities of cash crops. The purpose was to understand agricultural commercialisation.

Interview with representative from the Ministry of Agriculture, 16/4 -07
Presentation of the ministry and its work on agriculture in Mozambique. The purpose was to understand what the government does for the peasants and the agriculture, besides commercialisation, in Mozambique.

Interview with the District administrator of Cuamba, 16/4 -07
The government’s representative in this district. The purpose was to examine what the government does for the peasants on a small scale.
Interview with peasant/buyer, Cuamba district, 16/4 -07
Interview with a small sized buyer that deals mainly with maize but also different kinds of beans. The purpose was to see how credits are used by the buyers and its effect on commercialisation.

Interview with representative of PAMA, 17/4 -07
PAMA is a government sponsored organisation that deals with the reparations and maintenance of roads in Mozambique. The purpose of the interview was to understand the governments work on infrastructure.

Interview with representative for Unio Lurio, Cuamba district 24/4 -07

Interview with peasants in Napacala, Cuamba district 18/4 -07
Interviews with an association and its representatives in a village outside of Cuamba. Purpose was to understand the associations’ role in agricultural commercialisation. We also had the opportunity to interview peasants during this.

Interview with lecturer at the Faculty of Agriculture in Cuamba, 19/4 -07
Interview with a lecturer, specialised in crop production, lecturing in the Faculty of Agriculture in Cuamba. The purpose of the interview was to get an idea about how the faculty studied and worked when it comes to cash crops.

Interview with director of MLT (Mozambique Leaf Tobacco), Cuamba 19/4 -07
The tobacco company that hold the license for tobacco in the Cuamba district. We interviewed the director of the company about tobacco as a cash crop in Mozambique and the effect it has on the peasants.

Interviews with tobacco growers, Cuamba district, 20/4 -07
During a visit to one of MLTs buying centres we had the opportunity to interview a number of tobacco growers about their view on tobacco and the effects it has on their own economy.

Interview with director of SAN cotton factory, Cuamba 26/4 -07
A company dealing with cotton and it has its own cotton processing plant in Cuamba. We interviewed the director about his view on the world market and the history and future for cotton in Mozambique.
Interview with the governor of the Nampula province, 30/4-07
A formal presentation of what conclusions we had got so far. Also he presented his view of the problems facing Mozambique now and in the future.

Interview with former Minister of Agriculture, 3/5-07
Purpose of this was to get his view on agricultural development in Mozambique and how this has changed over time.

8.2 Books
Anuário Estatístico Statistical Yearbook Mozambique 2005, Instituto Nacional de Estatistica

Dorward, Andrew, Jonathan Kydd, Nigel Poole and Colin Poulton (editors), *Smallholder Cash Crop Production under Market Liberalisation – A New Institutional Economics Perspective*, CAB INTERNATIONAL, 1998


8.3 Articles and Internet

*Country assistance paper for the republic of Mozambique*, 2003
CIA The world fact book – Mozambique, 2007,


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http://www.bhpbilliton.com/bb/home.jsp

USDA Cotton Program, Memphis TN, 19 July 2007,
http://www.ams.usda.gov/mnreports/MP_CN208.txt