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Cocoa Satellites

A study of the cocoa smallholder sector in Sabah, Malaysia

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1. Introduction

Scholars in the economic sciences have through the years heavily debated the economic consequences of an increased integration of peripheral regions into the world economy and a dependency on primary products for export. Some of these would argue that a movement towards a greater integration in the world economy is in fact unambiguously beneficial, both to the peripheral region as a whole and to the rural population that is being integrated. The farmer, for example, in the peripheral region will indeed prosper when he leaves subsistence agriculture or the local economy behind and starts producing for the world market. Some scholars on the other hand clearly beg to differ, arguing that integration into the world economy only brings despair to peripheral regions, subjecting their rural population to a merciless world economic system that will only rob them of what they produce and what is rightfully theirs to keep.

One scholar who actually adopts this indeed very pessimistic mind frame and sceptic view of the world economy is the economist André Gunder Frank. In a book published in 1967 entitled "Capitalism and Underdevelopment in Latin America", Frank paints a very dark picture of the benefits of integration in the world economy for peripheral regions, predicting nothing but hardship for farmers tossed into this cash nexus. According to Frank, the world economic system is in fact nothing less than a system of monopolistic exploitation. All the way from the world financial centres to the most isolated farmers in the most peripheral of peripheral regions of the world, there is a continuous chain of relations that is fully monopolistic and exploitative and where the economic surplus only runs in one direction. The economic surplus created by the farmers and the others in the third world countries constantly slips out of their hands and into the pockets of the western world; leaving third world farmers condemned to poverty and third world countries condemned to underdevelopment. It is Frank's conclusion that integration into the world economy is not the solution to underdevelopment but rather its cause – it is the other scholars who have in fact mistaken the disease, the actual cause of the sickness, for the cure.

The historic position of Sabah, one of the two Malaysian states on the island of Borneo, in the world economy can in all fairness be described as highly peripheral, with an economy almost solely based on the export of a few primary commodities and with dismal poverty rates. Ever since the dawn of its integration in to the trading networks of Southeast Asia, when various jungle products attracted Chinese merchants to its shores, up to the present day, Sabah's role has been restricted to that of a resource frontier (Cleary & Eaton 1992). Sabah's role in the world economy as a resource frontier has fundamentally persisted during the twentieth century, but the resources in question have over time changed, now with a greater emphasis on agricultural cash crops than before.

One of the major cash crops that has emerged during the second part of the twentieth century in Sabah, and one of the crops that played the most important role in integrating rural Sabah into the world economy, is cocoa. Beginning in the 1970s, the cocoa sector in Sabah has undergone a huge expansion, resulting in thousands of farmers leaving subsistence agriculture behind and venturing into the world economy with this novelty crop. Today a great number of Sabah's rural population, many of them still drenched in poverty, rely on the incomes from this crop for their livelihood. The crop is naturally also very important for the economy of Sabah as a whole, earning vital export revenues, and also to peninsular Malaysia whose grinding industry is heavily dependent on the supply of cocoa beans from Sabah.

This shift towards a larger emphasis on an export and commercially oriented agriculture and the expansion of the cocoa sector has to a large extent been the result of conscious government efforts,

aiming to replace Sabah's traditional agricultural system based on subsistence with precisely a modern commercially oriented one with closer ties to the world economy. Sabah is and always has, despite blessed with fertile soils, been cursed with the highest rural poverty levels in Malaysia and the integration of rural Sabah into the world economy, by for example introducing cocoa, has been seen as an attempt to rid Sabah of this plague and to increase the living standards of the farmers in the state.

Now, although Frank's theory and its general conclusions, briefly hinted above, has since long been discredited (probably inflicting a sigh of relief among most of us) through powerful counter examples, it still contains some interesting parts worth considering and can in fact still be highly relevant for Sabah and its cocoa sector. Frank's description of the structures of the peripheral regions' economies, such as Sabah's, as being monopolistic as a general rule is an intriguing contrast to orthodox economic theory that as a general rule instead considers the structures as inherently non-monopolistic and non-exploitative - sparkling with fairness and harmony.

It seems that Sabah in so many ways resembles a Frankian satellite - with its high incidence of rural poverty, dependence on primary products and general peripheral status in relation to peninsular Malaysia, the rest of the expansive Southeast Asia region and the world economy as a whole. Was in fact Frank completely off target when he foresaw a monopolistic structure characterising these economies? Should we trust the orthodox economic theory when considering the rise of the cocoa sector in Sabah, concluding that it has been a rise coupled with perfect competition and farmers always retaining the rightful amount of economic surplus and never suffering exploitation at the hand of the ones above them in the marketing chain? This paper contends that there is a definite case for reasonable doubt here and will proceed by examining the actual nature of the relation between the smallholder cocoa farmers and the ones above them in the marketing chain and the structure and competitiveness of the Sabah cocoa market - trying to answer the question of whether or not the farmers are subject to monopolistic exploitation when marketing their cocoa.

1.1. Purpose of the study

The purpose of this study is twofold; the first part will be devoted to outlining the history and aspects of cocoa cultivation and marketing in Sabah, while the second part will deal with the specific question asked at the end of the introduction - of whether or not the smallholders in this sector have suffered any direct monopolistic exploitation when marketing their cocoa beans.

The two specific questions this paper will try to shed some light on are:

- How did the cocoa sector in Sabah rise to its current position within the state and which are the basic characteristics of the smallholder cocoa cultivation and marketing in Sabah?
- What characterises the nature of the relationship between the buyers and the cultivators and the structure of the cocoa market in Sabah?

Imbedded in these two questions and the purpose of the study are of course a number of smaller questions that will represent stops on our way to the realm of general conclusions. First, which were the main driving forces behind the appearance of a cocoa sector in Sabah; was it primarily government efforts or private initiatives and market forces, or perhaps a combination of the two? Furthermore, is it possible to identify one or more factors that eventually triggered the rise at the

particular point in time it actually took place and how has the area under cultivation developed, also in relation to the plantation sector? Understanding the aspects of cocoa cultivation and marketing will involve answering the questions of where in Sabah the cocoa is grown and by whom, and how the marketing is carried out and who the buyers are.

Secondly, is there anything imbedded in the structure in the cocoa market or in the relation between cocoa farmers and cocoa buyers that results in the farmers ending up being paid a too low price and if so, what? Is the government involved in the marketing process and has any of its actions depressed the producer prices for cocoa? Are a few large buyers monopolising the cocoa market or can anyone challenge any existing monopolies by entering the market? Can the farmers freely choose between numerous buyers or are they tied to a particular buyer and find themselves in an inferior position in the business relationship?

1.2. Limitations of the study

The limitations of this study are basically a combined result of the comprehensive, perhaps too comprehensive, purpose of the study and the very limited amount of available literature on the Sabah cocoa smallholder sector.

As a result of the limited space available in this c-level paper, the first part will in reality be reduced to a form of stage setting for the analysis that will follow and should hence not be seen as a comprehensive history or detailed description of the Sabah smallholder cocoa cultivation and marketing. Beside the absolute necessary facts referring to the question asked, only aspects that are felt to be of importance to the analysis that will follow or can serve as an interesting background, will be highlighted.

Due to the severe lack of literature, a lot of time and effort had to be spent on collecting different background information from various primary sources. This made for a study with a lower degree of quantitative features and a more explorative nature since it could only to a very limited extent build on previous research and basically had to venture in to uncharted territory – thus failing to reach any noticeable depth. The lack of secondary sources also forced the paper to mainly focus on present and quite recent time in the analysis.

1.3. Outline of the study

This study will after this section proceed with a theoretical chapter where, among other things, the concepts used in the introduction - such as satellite economies, monopoly and exploitation - will be provided with definitions and made testable. It will be apparent after this chapter what predictions Frank actually made about the economic structure in "satellite economies", and what "monopolistic exploitation" actually means and how it can be tested. The chapter will shed light on the question about monopolistic exploitation asked in the introduction - filling it with meaning and making it more concrete. Due to the fact that this after all is a paper in economic history, not economics, the economic theory receives a quite thorough, almost textbook like, treatment - hopefully enabling readers without a background in economics to follow the latter analysis. However, anyone with a background in intermediary microeconomics should be able to quickly sift through the section without encountering any difficulties or surprises. In fact, anyone feeling fairly confident about his or her skills in theory of imperfect competition could quite frankly skip the section all together.

Chapter three deals with the methodology of the study. The reason for this chapter to be placed after the chapter on theory is primarily because an understanding of the theoretical concepts in this paper is needed to appreciate the methodological choices made; the choice of theory in combination with the question asked somewhat dictates the method adopted.

Chapter four will then mark the beginning of the presentation of the findings of this study by addressing the history and aspects of cocoa cultivation and marketing in Sabah. The reason for this chapter to be placed before the predominantly analytical ones is that it in a way serves as a background to the analysis, and also some findings that will be used in the analysis of the cocoa market are presented in this chapter.

Chapter five, testing the product homogeneity on the Sabah cocoa market, will then initiate the analysis and detailed study of the structure of the Sabah cocoa market, and will get us underway to answering the second question in the introduction. The reason this chapter was placed first among the analytical chapters was because it contained the most descriptive features of all. This made for a smooth transition from the quite descriptive chapter four to the quite analytical chapters six and seven. This chapter, and the two that will follow, are not purely analytical but a great deal of empirical findings will be presented in them as well. As already mentioned, these chapters will frequently make references to chapter four, but the analysis will mostly be based on empirical findings presented in these chapters alone; immediately integrated in the analysis. The reason for not separating the analysis from the empirical findings is an attempt to make the paper more readable and accessible. It was felt that the empirical facts needed for the analysis are so diverse, ranging all the way from the broad objectives of the Malaysian government to details of the fermentation and drying process, that lumping them together in one place, separated from their analytical context, would give a quite strange impression. Another reason for immediately integrating the empirical findings into the analysis was to save space.

Chapter six is the main analytical chapter and it deals with entry barriers on the cocoa market and will to a fairly large extent utilise findings presented in chapter four. The different sections in the chapter follow the theoretical structure developed in chapter two – with the different types of possible entry barriers identified in the theoretical chapter constituting the sections.

Chapter seven wraps up the analysis by considering the numbers of buyers on the Sabah cocoa market as a whole and in three different studied areas in Sabah. The chapter will begin by considering the Sabah cocoa market as a whole, and will then individually deal with the markets in Tenom, Ranau and Tawau.

The last chapter, number eight, will feature a summary of the important findings of the study, and will weave all the individual findings together to form some conclusions answering the questions asked in the introduction. It will also feature a discussion about possible implications of the findings - relating them to Frank's theory of dependency and the debate about integration into the world economy.

2. Theory

This paper will feature and utilise two distinctly different theories that also will be used in two very different ways; André Gunder Frank's dependency theory and the neoclassical theory of imperfect competition. Frank's theory will represent a sort of general theory, or meta-theory, having provided the paper with its general hypothesis and dictating its focus of study. The neoclassical theory will on the other hand act as a more practical theory; used to test Frank's hypothesis and providing us with some important definitions. The neoclassical theory will dictate both what will be looked for in the analysis and how the analysis will be structured. That is, Frank's theory asks the question and neoclassical economics provides the methodology to answer it. This chapter will be devoted to presenting these two theories, first of all clearing out the actual nature of Frank's prediction, whether or not it can be used on Sabah and also illustrate why neoclassical economics is needed. After this, it will of course also be illustrated just how the neoclassical theory of imperfect competition can and will be used to answer the second question asked in the introduction.

2.1. Frank's theory of dependency

It has already been revealed in the introduction that Frank's theory¹ stipulates that an expropriation of economic surplus runs through the world economic system in a chain-like fashion, supposedly exposing the smallholder cocoa farmers to exploitation by the ones in the level above. In Frank's mind the capitalist system on which his analysis around, is not a system characterised by a particularly large degree of harmony but by built in conflicts and contradictions that have adverse effects on the different parts making up the world economic system – creating development for some and underdevelopment for some.²

Frank identifies three fundamental features or contradictions, as he likes calling them, that are imbedded in the world capitalist system and that are central to his analysis. These three contradictions are: the contradiction of expropriation/appropriation of economic surplus, the contradiction of metropolis-satellite polarisation, and the contradiction of continuity in change. The first contradiction implies that all relations in a capitalist economy, mainly commercial but also to a certain extent political and social, between individuals, groups and classes are characterised by one of the parties being in a stronger position than the other and also taking advantage of this position - thus always ending up with the lion's share. These exploitative relations furthermore do not appear in a random fashion in the world economic system, but they have a distinct structure to them - they run upwards from a world satellite to a world metropolis, which is the contradiction of metropolis/satellite polarisation. Frank envisions the world economic system as being composed of so called metropolises and satellites and the relations between them are characterised by exploitation. The satellites at the bottom of the chain are exploited by their nearest metropolis, which at the same time is a satellite to another metropolis which it suffers exploitation to and so on. Thus, economic surplus flows through a chain of exploitative relations all the way from the world satellite, and most backward and remote areas, to the world metropolis that reaps the benefits of

¹ Frank's dependency theory as presented in this paper will be limited to the themes developed in Frank's book "Capitalism and underdevelopment in Latin America" (Frank 1967). The reason for this is not to complicate the matter further by including ideas brought forward in later essays - the matter is complicated as it is.

² The theory treats the whole world as a single entity and Frank goes to great lengths to make the point that even the most backward and seemingly isolated areas of the world are in all respects also part of this world economic system, because he feels some are inclined to argue differently.

this monopolistic structure of the system. Frank gives a description of this system in the perhaps most frequently cited paragraph of his book;

Indeed, it is this exploitative relation which in a chain-like fashion extends the capitalist link between the capitalist world and national metropolises to the regional centres ... and from these to local centres, and so on to large landowners or merchants who expropriate surplus from small peasants or tenants, and sometimes even from these latter to landless laborers exploited by them in turn. At each step along the way, the relative few capitalist above exercise monopoly power over the many below, expropriating some or all of their economic surplus and, to the extent that they are not expropriated in turn by the still fewer above them, appropriating it for their own use (Frank 1967:7-8).

Does the nature of the theory then allow it to be used on Sabah? Well, although the book is called "Capitalism and Underdevelopment in Latin America: Historic Studies of Chile and Brazil", it is a little more than a historical study, containing a holistic general theory that in fact can be applied to Sabah. Frank also clearly states this himself when declaring his purpose:

My general purpose is to contribute to the building of a more adequate general theory of capitalist development and particularly underdevelopment rather than to undertake the detailed study of past and present Chilean reality (Frank 1967:13).

The last contradiction of continuity in change also makes this exercise legitimate since it implies that although taking on different forms over time - the two fundamental contradictions of exploitation and polarisation within the system remain the same. As long as a region is integrated in the world capitalist system its economic structure has these monopolistic features and is characterised by polarisation.

However, the reason we now have to turn to neoclassical economics is because the terms exploitation and monopolistic power are never properly defined in the sense that they are not testable. Thus we can conclude that according to Frank's theory the smallholders in Sabah should indeed be located at the bottom of a satellite metropolis chain and that their relation to the level above them should be characterised by monopoly and exploitation, but that we need a way, or method, to test whether this is in fact the case.

2.2. Neoclassical theory of imperfect competition

As we saw in the previous section, the main mechanism that according to Frank directly produces exploitation and expropriation of economic surplus upward in the satellite metropolis chain is monopoly. Frank defined this situation as being comprised of the few exercising monopoly power over the many. The problem with all this is basically that none of it is in any sense testable in itself. Exploitation is defined as expropriation of economic surplus - that is one party retaining a larger part of the surplus than is legitimate. However, the definition stops at this. We must of course have a definition of how much economic surplus each party is entitled to get - that is a normative definition based on a theory of value.

As a consequence, we cannot simply go out and get an approximation of the incomes the different parties earn and solely based on this, conclude whether one party or the other is getting too little or too much. Frank's definition of monopoly is also insufficient because it cannot be used to test his prediction of exploitation. We cannot go out and see if monopoly exists that creates exploitation,

because the only definition we have is the few exerting monopoly power over the many. Because how few are "few" and how many are "many", and what does monopoly power really imply? Frank gives no clear definitions. There is no doubt that there is a need for additional theory if we are successfully going to test the presence of monopolistic exploitation, and this is where neoclassical economics³ enters.

The starting point for neoclassical theory of imperfect competition and its definition of exploitation is of course the perfectly competitive market, where all production is efficient and, more importantly in our case, no exploitation exists. The theory places a number of requirements on a market for it to be able to work as perfectly competitive, and these requirements are usually the following:

- Many firms with an insubstantial market share
- Free entry
- Homogenous products
- Perfect factor mobility
- Perfect information

Herein lies the neoclassical definition of exploitation; a market that lacks one or more of these basic requirements and where someone is paid a lesser amount than he would under the hypothetical situation of perfect competition, contains exploitation. Thus, when investigating the possible presence of exploitation using neoclassical theory, the focus is turned to the structure of the market, not the actual flow of economic surplus.

Neoclassical theory makes numerous predictions about what will happen when the assumptions of perfect competition fail, and some of these violations cause exploitation of one particular party. This will now become apparent when we turn to the specific conditions. Perfect factor mobility will not be dealt with, since it holds no relevance in this context, and perfect information will be dealt with under free entry, both here and later in the analysis, since imperfect information in this context mostly matters as an entry barrier. The emphasis will mostly be placed 'product homogeneity', 'many firms' and especially 'free entry' - and the factors preventing it - both in this chapter and the actual analysis, since they are the most important assumptions.

2.2.1. Many firms

Neoclassical theory does not either directly specify how few firms actually "few" are, as opposed to being many, or how small an insubstantial market share is supposed to be. However, it stipulates that there should be enough firms to ensure that every firm has such an insubstantial market share that none of its actions should in any way influence the price of any product or service the firm buys or sells. In our case, no cocoa dealer should be able to alter the price on the market by altering his purchases of cocoa - he should always be a price taker. Thus, monopoly or monopsony power, resulting from too "few" firms, consists of an ability to influence the prices on a market - in

³ The theory used in this paper, which has been labelled neo-classical theory of imperfect competition, is basically standard microeconomics. The two books used in this respect are the two textbooks used at the c-level course in microeconomics at the department of economics at Lund University; "Intermediate Microeconomics - A Modern Approach" by Hal R. Varian and "Intermediate Microeconomics - A Modern Approach" by Andrew Schotter. The reason for choosing these books and this approach was due to the fact that the author was already familiar with this literature and felt that a sufficient theory could be adopted from them with relative ease.

technical terms, firms facing an upward sloping supply curve for the production input. Facing these conditions the firm(s) with monopoly power will be able to depress the price of the input (in relation to the perfectly competitive price) creating above normal profits. However, for this situation of above normal profits, due to sub-competitive prices, to be sustainable, other conditions also have to fail.

2.2.2. Free entry

In the monopsony situation described above, the firms, through the expropriation of the economic surplus of the producers, earn above normal profits that under perfect competition would not exist. Other firms, assuming that there is perfect information, will realise this and quickly enter the market to get a piece of the above normal profits. New firms will continue to enter until the above normal profits have been eliminated, which will coincide with every firm's market share again dropping to an insubstantial level, robbing them of their monopsony power. Thus, to be able to find any exploitation due to monopsonistic power, factors preventing such entry would have to be found.

There are numerous circumstances and actions by various actors that can lead to entry prevention - cementing a market of imperfect competition, above normal profits and exploitation. If one were to have a desire to bring some order among the various possibilities of entry prevention one could divide the different barriers into a couple of categories, for example; natural barriers, entry preventing strategies, loyalty/inertia and switching costs, imperfect information and government created barriers. This categorisation is the author's own and although it could perhaps have been done in another way, these categories seemed appropriate given the task at hand.

The strongest type of natural barrier to entry – where the cost structure of the industry in fact makes entry impossible or at least irrational – is the case of natural monopoly. Usually, constant returns to scale are assumed in neoclassical models, but in this particular one the assumption is lifted. A natural monopoly can exist when the average cost of production decreases for every additional unit produced, and when this is true at least up to the point where actual production takes place. At this point, the price of the product sold will equal the average cost of production, thus creating a situation of no above normal profits and no motive for entry, but with the cost structure and market volume only allowing for one or a few firms. The seller thus still has to face a monopsony buyer and a sub-competitive price, regardless of the fact that the monopsonist can not retain the surplus expropriated from the producers as it is instead passed on to the next level in the marketing chain. The market features to look for when examining the prerequisites for a natural monopoly are thus large fixed costs in relation to variable costs and other factors creating increasing returns to scale.

The entry barriers do not however have to be of natural origins, the monopolists themselves, trying to preserve the above normal profits, might as well create them. There are numerous neoclassical models dealing with how firms artificially can create barriers to entry by resorting to different pricing and investment strategies, for example the Dixit-Spence model. However, just by considering one of these possible strategies or models and using it to test the existence of exploitation would already exceed the scope of this paper. They are however still useful to us in the sense that in all their complexity, these models usually require the existence of large sunk costs and customer loyalty/inertia for the strategies to work. Thus, instead of using the models to meticulously study firm behaviour and ultimately market imperfection, one can instead resort to simply studying the persistence of large sunk costs and loyalty/inertia – in this way indirectly

studying the existence of entry preventing strategies by looking for necessary prerequisites. This course of action is rather blunt, but still a perfectly viable alternative considering the task at hand.

Furthermore, neoclassical theory usually assumes that producers on an industrial market always sell their products to the buyer offering the highest price, and if some buyer, old or new, overbids everyone else, all producers will instantly and without cost switch to this buyer. That is, there exists no loyalty/inertia and no switching costs. If this assumption is not fulfilled, another entry barrier is created because possible entrants are unable to lure producers with a higher price altogether or are crippled by losses while the producers take their time to switch.

Lack of information or the ability to process it, can also prevent entry and create a market setting with monopsony in a number of ways - and this lack refers both to possible entrants and the producers. As already indicated above, a very important prerequisite for entry is that the possible entrants realise the existence of above normal profits. If the above normal profits go unnoticed to all possible entrants, entry will not occur and the monopsony will be sustainable. Furthermore, the producers also have to be informed about the alternative buyers and the prices they offer. If all buyers but the one they are currently selling to and the prices they offer are unknown, the buyer can of course behave as a monopsonist without fear of losing the producer to a competitor. Thus, lack of information on behalf of the producers creates a sort of inadvertent loyalty/inertia.

Lastly, the government of course holds a unique position in the market setting in the sense that it can, either directly or indirectly by artificially creating any or all of the above-mentioned barriers, prevent entry as much as it likes. The government has the power to directly prevent or dictate all entry by simply making it illegal or regulating it and giving the market to a monopolist or a few monopolists. The government can of course also alter the cost structure of a market, artificially creating natural monopolies or prerequisites for entry preventing strategies. Furthermore, the government also naturally plays a large role in the dissemination of information and can artificially create loyalty - legally tying producers to a particular buyer - or switching costs at will.

2.2.3. Product Homogeneity

When in fact the two requirements of many firms and free entry have been violated, the third requirement of perfect competition to be considered here, product heterogeneity, can act to further depress the producer prices, taking the situation from bad to worse. The requirement of product homogeneity basically means that all products on a market, in our case the market for cocoa beans, have to be identical. This is not saying that every cocoa bean has to be an exact replica of the next, but that there cannot be any important differences between the beans traded that will foster a market where different beans fetch different prices.

Such a situation of product heterogeneity above all creates certain inefficiencies regarding production volume and costs. But, it also has the potential of complicating and distorting the marketing process in such a way that smallholder cocoa farmers could find it more difficult to get a fair price for their beans, under the condition that they already find themselves in an inferior position in relation to the buyer. Thus, in combination with entry barriers and few buyers, product heterogeneity can further act to depress the prices the smallholders get.

3. Methodology & Data

The great majority of the data collected for this study – both referring to data from primary and secondary sources – was gathered during a three-month stay in Sabah, Malaysia. During the stay in Malaysia, interviews with several farmers, processors and government officials were conducted, and also a certain amount of statistical material and literature was gathered mainly from the Malaysian Cocoa Board (MCB) and the Institute for Development Studies, Sabah (IDS).

3.1. Methodology

When considering the purpose of the study outlined in the introduction, and the possible methods one can resort to in order to accomplish the task at hand, the dichotomy of quantitative/qualitative readily comes to mind. At first, the mind may sway towards the quantitative realm; economic history and economics are traditionally sciences where numerical data rule - surely the question put forth is best answered by a quantitative material, economic surplus and hence exploitation is after all measured in dollars and cents (or in our case ringgits and sens)? However, one should also perhaps realise, primarily after considering the theoretical concepts and definitions presented in the previous chapter, that a qualitative approach might also be possible. In fact, this section will show why a quantitative study in reality was not a viable option, and will then outline the primarily qualitative approach used in its place, illustrating how this approach better served the purpose of answering the questions asked in the introduction.

The theoretical chapter already suggests that the analysis primarily will focus on the structure and various qualitative aspects of the Sabah cocoa market when investigating possible exploitation. A more quantitative approach might instead have focused on actual flows of resources and prices; investigating the actual incomes earned by the farmers. However, the neoclassical definition of exploitation as presented in the previous chapter - that is a situation resulting from a certain market structure - shifts the focus away from these quantitative parameters towards more qualitative aspects of the marketing situation and the relationship between buyers and sellers. Thus, exploitation is not measured in itself but rather, the circumstances that according to neo-classical theory lead to exploitation are looked for, and in our case using a mainly qualitative “spyglass”. Thus, all evidence - continuing with criminological analogies - will be purely circumstantial.

The main problem with a quantitative study in this case, and the fact that ultimately makes for a qualitative approach, is however that a large amount of qualitative data would still had to be collected if a mainly quantitative approach was adopted. A quantitative study of market imperfections and exploitation on the Sabah cocoa market would have to build on an already existing body of knowledge about the structure of the market; how the marketing is carried out, in which forms the beans are sold, who the buyers primarily are etc. Considering that no such knowledge existed, but had to be collected through various primary sources, a quantitative approach seemed like a quite risky, time consuming and expensive option.

The approach adopted in this paper is thus primarily qualitative in nature - almost all the material collected from the first hand sources is qualitative and the quantitative material actually utilised stems from secondary sources. It was decided, after assessing the available secondary sources that the best approach was through a variety of primary sources collect as much broad information about the cocoa sector that could be relevant to the analysis as possible. In the light of this, interviews with different respondents - mainly farmers and processors – and discussions with

different informants well briefed on the everyday activities of cocoa farming, trading and processing (as the MCB officers were found to be) and visits to cocoa growing areas, farms and processing sites definitely seemed like the best alternative. Because, although the analysis itself and the underlying theory contains a fair degree of complexity; the data needed for the analysis is surprisingly simple in nature and can easily be collected through such an approach.

3.2. The interviews - primary sources

The interviews with the farmers were carried out in three different areas, located within three different divisions of Sabah. The original plan was to interview farmers from all divisions, basically to enhance the possibilities of coming to conclusions about the Sabah cocoa sector in general. Mainly due to practical reasons, only three out of five divisions were covered: the West Coast, the Interior and the Tawau divisions. The two divisions that were omitted, Sandakan and Kudat, were left out primarily because the other divisions seemed to be of more interest to the study. Leaving out Tawau was not an option, since the majority of cocoa is concentrated in this region. The Interior and West Coast divisions also have larger smallholder areas than Sandakan and Kudat, and they represent very interesting areas of study because of the great distance between them and Tawau and the fact that they are the stronghold of traditional family based agriculture, practised by various indigenous people, such as the Murut in the interior and the Kadazandusun in the entire West Coast division (Department of Statistics, Malaysia 1995). One district from each of these three divisions was then picked out and the choices fell on Tawau (Tawau division), Ranau (West Coast division) and Tenom (Interior division). The three different areas should not be seen as representatives for three different case studies. Rather, the purpose of picking out three separate areas, based on their many differences, was to clear the way for better conclusions about the cocoa sector in Sabah. The different interviews all contribute to the same body of knowledge that make for the conclusions about the Sabah cocoa sector and market, and only when important differences appear and where the situation prohibits treating the areas as a single entity, the different "cases" are highlighted (see chapter seven).

Tawau was the most obvious choice among the three studied areas, despite its great distance from Kota Kinabalu, which obviously presented some practical problems. Tawau has ever since cocoa appeared in Sabah been the undisputed metropolis of the crop; it has since the beginning been the centre for research, the majority of planted area has always located in there, and currently Tawau has the only export port and grinding factory for cocoa in Sabah. Leaving out the cocoa capital of Malaysia was of course not even an alternative

The choice of Ranau was almost as obvious as that of Tawau. Ranau is the only stronghold of smallholder cocoa cultivation in the West Coast division, so when it had already been decided that a district from this division was to be included, Ranau was the obvious choice. In addition to this, Ranau is a very interesting area in itself and it proved to be a good contrast to Tawau. As opposed to Tawau, where the port and all the exporters are located, Ranau is very isolated on the slopes of Mount Kinabalu and the area thus offers entirely different conditions for cocoa cultivation and especially marketing. Furthermore, Tawau has since long been geared on commercial agriculture and the commercial estates have been a marked feature of the east coast landscape the whole century, whereas the setting in Ranau is a lot more rural and traditional and the agriculture is more family oriented, with subsistence farming being far from a thing of the past.

Whereas the choice to include a district from the Interior division was clear cut, the choice of Tenom over Keningau, the other large cocoa area in the division, was not completely obvious – the two areas are very similar and any one of them could in fact have been chosen. In the end the decision fell on Tenom mainly due to practical reasons. In the same way as Ranau, although maybe not to the same extent, Tenom acts as a good contrast to Tawau. The agriculture is more traditional and family based and the distance to the ports is even greater than in the case of Ranau. Furthermore, if Sabah is divided into two parts, the east and the west side, Tenom and Keningau are the undisputed centres for cocoa on the west side - omitting both of them would not be a viable option.

Altogether, seven farmers – five in Tawau and one each in Ranau and Tenom – were interviewed. Two of the farmers, one in Tawau and one in Ranau, were also involved in processing and in addition to these two, an interview with two processors was carried out at a processing plant in Tenom. The interviews, which coincided with visits to different farm and processing sites for observational purposes, were carried out on the 14th-17th May in Tawau, the 26th June in Ranau and the 11th-12th July in Tenom. Due to the fact that none of the farmers or processors, except one, spoke any English, a translator had to be used during the interviews. Two different translators were used; one for the interviews in Tawau, and one for the interviews in Tenom and Ranau and both of them were MCB officers.

The interviews were all semi-structured in nature with a pre-designed interview guide dictating the topics and areas to be covered⁴. The use of a translator naturally presented some problems. Misunderstandings are frequent and both the questions and the answers tend to be very short and simple in nature; a free flowing discussion is of course impossible. Although the quality of the interviews and the quality of the data they produced would have been higher had the author mastered Bahasa Malaysia, the negative effect should not be exaggerated. The quality of the interviews was in fact quite good, and this was mainly due to the fact that very competent translators were used. Not primarily competent in the sense that their English skills were perfect, but in the sense that they possessed a great knowledge of the topics brought up in the interviews. As already mentioned, the translators were in fact local MCB officers and they, more than anyone else, are certainly well briefed on cocoa cultivation and the situation in the local area. If in fact the interviews would have been conducted with a translator with no or limited knowledge about cocoa cultivation and local conditions, the quality of the interviews would have suffered immensely.

When a decision is made to interview only a few respondents, as was the case in this study, the selection is of course of utmost importance. In contrast to a quantitative study, where the selection is often both large and random, one has to carefully and purposely select the respondents that would in ones mind be best suited to provide the required information that one is looking for (Hartman 1998). This naturally creates a problem since it requires a pre-existing knowledge about the potential respondents; one has to know which of them are most likely to give the best type of information. This particular problem was to a great extent solved by arranging the interviews together with the MCB. The type of information required and the type of farmer most likely to be able to give this information was passed on to local MCB officers who then used their knowledge about the farmers in the area to find the best possible respondent. The farmers sought were the ones who had a long experience of cocoa farming, thus being able to testify about previous times, and with a good general knowledge about the situation in the village.

⁴The book "Den kvalitative forskningsintervjun" (Kvale 1997) was used as guidance when designing the interviews

There of course also exist serious problems with this type of selection. The farmers interviewed most likely have a more positive attitude towards cocoa cultivation, they are better motivated and more successful than the “average farmer”. It is also very reasonable to suspect that they are inclined to describe the MCB in very positive terms, partly because they obviously have a good relationship with the MCB being picked by the officers, and partly because at least one, but sometimes two or three, MCB officers were present during the interviews. Therefore, extra caution has been practised when producing conclusions from the interviews, and questions about any government related topics were not brought up in the interviews.

Another primary source that was utilised, both as a preparation to the interviews and as a compliment and a follow up to the interviews, was the many personal communications with MCB officers in connection to the trips to the different cocoa sites and the visits to the MCB headquarters in Kota Kinabalu. Due to the severe scarcity of written material on the Sabah cocoa sector, the knowledge of these informants proved to be a vital input, especially by providing background material for the interviews. A formal interview was also conducted with Director of Licensing and Grading at the MCB, Mr. Omar bin Hj. Tompang. The interview was in a similar fashion as the others semi-structured in nature, using an interview guide. The interview was conducted in English, which of course allowed for a deeper discussion.

In order to protect the identity of farmers, processors and MCB officers, all their names have been omitted and they have instead been assigned different codes; the farmers are labelled by different colours, the processors by numbers and the MCB officers by letters. The identities of the farmers and processors are protected because they themselves do not speak English, and therefore cannot read this paper and check its content. The identities of the MCB officers are protected since the material they contributed originated through informal communication - not through formal interviews – and because they often expressed personal views and opinions.

3.3. The statistical material – secondary sources

This paper also make use of some statistical material, collected from various secondary sources, some of which have to be commented on because they contain a fair degree of uncertainty and putting to much trust in them would mark a serious error.

First of all, the figures for planted area of cocoa in Sabah depicted in Table 1 have been collected from two different sources; the figures from 1970 to 1995 originate from the Department of Agriculture, Sabah (DOA) and the ones from 1995 and onwards are from the MCB. The MCB in fact has figures for planted area all the way back to 1981, but although the DOA in Sabah is listed as a source the figures do not match at all the ones from the DOA. Or rather, some years the figures for the smallholder sector match while the estate sector is way off and sometimes vice versa. The main point is however that the figures for total planted area always seem to differ – and therefore the differences cannot be due to categorising the estate and smallholder sectors in different manners. The reason for utilising the DOA’s figures up to 1995, despite the fact that the figures from the MCB seem popular in recent academic papers, is partly because they spontaneously looked more realistic (the MCB figures contains large drops and rises from year to year) and the fact that these figures have a more clear origin; they are annual estimates of the DOA, while the MCB figures are of more uncertain origin because as already mentioned, the DOA is listed as a source but those figures are apparently not always utilised.

The reason for then switching to the MCB figures from 1995 and onwards, although the very same estimates are still produced by the DOA, is that they are more reliable. The reason for this is that from 1995 the MCB started producing their own numbers on the planted area in Sabah – figures based on an actual count of the planted area in the state and not pure estimates as in the case of the figures from the DOA. Thus, the figures from 1955 and onwards are to be considered more reliable than the previous ones. A peculiar fact is that the DOA still produces estimates of the planted area in Sabah, despite the more reliable figures now produced by the MCB. There still is a large discrepancy between the two agencies figures, the previous phenomenon of the DOA constantly producing larger figures for the estate sector continues. But this time the MCB's figures are based on an actual estate census, so it is reasonable to assume that the DOA's figures for the estate sector is, and have been, a bit optimistic.

The only figures hinting the volume of production of the Sabah cocoa sector that exists are the ones for dry cocoa bean production depicted in Table 2. These are of course figures for the total volume of dry cocoa bean production - that is, including the contribution from the estate sector. No estimates exist for the production of wet beans and the production figures for dry beans cannot be divided up into the contribution of the smallholder and estate sector since the figures are based on the export figures of dry beans.

As already mentioned, the figures of planted area produced by the DOA tend to overestimate the estate sector, a phenomenon surely also featured in Table 3 depicting the planted areas in the different divisions and districts of Sabah. Based on the author's own judgement, these figures are to be considered, for several reasons, quite unreliable. The reason for including them anyway is because they serve the purpose of illustrating some important trends during the turbulent nineties and also revealing which the major cocoa producing areas in Sabah are.

The underlying numbers forming the base for Figures 1 to 3 are not as controversial and can be considered quite reliable. The material in Figure 1 has been gathered from the MCB and represents a monthly average of the current producer prices supplied to them by the cocoa processors in the different cocoa growing areas. The reason Tenom enters a bit late in the figure is because apparently, the collection of prices started a bit later there.

4. History & Aspects of Cocoa Cultivation & Marketing

4.1. The beginning

Cocoa cultivation did not appear in a rapid or spontaneous fashion in Sabah as a pure reaction by private interests to prevailing market conditions. Rather, the start of cocoa cultivation in Sabah, as in the rest of Malaysia, was due to a conscious and lengthy effort by the government in co-operation with private interests. It was the government who first recognised the potential benefits and possibilities of cocoa cultivation in Sabah and acted upon this to provide the necessary conditions - only after considerable time passed did market signals spark a rapid development.

As early as 1922, the first government steps, then the colonial government, were taken to establish cocoa as a commercial crop in Sabah as a government experimental garden was set up near Sandakan on the east coast (Kaur 1995:71). The cocoa cultivation during this time was however purely conducted on an experimental basis, as cocoa did not stand a chance in terms of profitability to rubber, which had already been established as a plantation crop in the state.

However, in the aftermath of the Second World War the prospects of rubber cultivation, which had so far completely overshadowed cocoa cultivation and had made it superfluous, began to wane. There was also some doubt on the world market over how well the traditional cocoa producing countries could respond to the expected increase in demand. The government realising this, and still eager to diversify the agricultural base and add another industrial crop which could contribute with precious export earnings, continued and intensified pre-war efforts to establish cocoa cultivation in Sabah.

To once and for all determine the feasibility of cocoa cultivation in Sabah, and Malaysia, Professor E.E. Cheeseman was given the task of evaluating the prospects of successfully growing the crop in the three territories of Peninsular Malaysia, Sarawak and Sabah. Indicating the dawning interest by the private sector, Cheeseman was accompanied by a representative from the chocolate manufacturer 'Cadbury Brothers', conducting an independent study on behalf of his employers who were considering investing in Malaysia. Professor Cheeseman's report, when published in 1948, was indeed very positive concerning the prospects of successful cocoa cultivation in Sabah and it might be considered as the most important document in Sabah cocoa growing history, since it acted both as a guideline to future government policy and spurred private interests to venture in to cocoa cultivation in the state (Kaur 1995:72, Kaur 1988:134, Hashim 1993:24).

Cheeseman assured in his report that Sabah indeed had excellent prerequisites for cocoa cultivation. The volcanic soils on the east coast were perfect, and the fact that the good soil was limited to a fairly small area around Tawau only meant that Sabah could grow its cocoa in a concentrated area. This had numerous advantages over a scattered production inescapably facing peninsular Malaysia. However, numerous obstacles to cocoa actually becoming an industrial crop to reckon with in Sabah still remained. Further research on planting materials had to be conducted - suitable materials for the specific conditions prevailing in Sabah had yet to be developed - and poor communications and labour shortage represented serious problems. Encouraged by Cheeseman's report, research efforts on cocoa cultivation intensified and further trials were made, this time with a higher degree of involvement of the private sector. The activities were at first however mainly concentrated to peninsular Malaysia (which had received even greater praise in Cheeseman's

report), but in 1956 the DOA in Sabah established a cocoa research station in Tawau - a station that was to have a great importance to the cocoa sector in Sabah.

4.2. The take-off of cocoa

Finally then, in the late 1970s - following decades of groundwork by the colonial, federal and state government, along with the private interests - cocoa took off as an industrial crop. There were two main reasons for this takeoff taking place during this particular point in time; the New Economic Policy (NEP) outlined in the Second Malaysia Plan (Malaysia 1971) and the soaring world market prices for cocoa that characterised the late seventies and early eighties (see Figure 2).

The NEP, devised in the aftermath of the 1969 racial riots in Kuala Lumpur where reportedly hundreds of Chinese were killed, gave cocoa and especially the smallholder sector a special role in the governments struggle against poverty that now gained momentum. The economic status of the Bumiputeras⁵ had to be upgraded and the poverty plagued smallholder sector, dominated by Bumiputeras, became one of the focal points of the efforts. Through diversification of the agricultural base and the introduction of cash crops into the traditional rural economy, the poverty was to be eradicated. In Sabah, the choice of cash crop fell on cocoa (State of Sabah 1977).

As can be seen in Table 1 and 2 smallholder cocoa cultivation rose steadily during the seventies, averaging a 55% annual increase in planted area, of course starting from a very low level. In 1980, almost 14,000 hectares of smallholder cocoa plantings were to be found in Sabah compared to only 176 a decade ago. The favourable price conditions that emerged in the late seventies continued through the first half of the eighties (see Figure 2), and fuelled by government efforts, the area under cocoa cultivation continued to rise. In 1990, 36,500 hectares of smallholder cocoa could be found in the state, mirroring the average annual 10% increase during the decade.

The high profit margins, caused by the bullish international cocoa market, were of course the main reason for this violent expansion. This is especially in reference to the plantation sector, but also to a number of profit seeking rural entrepreneurs, that is larger smallholders, responding to the market signals. Sabah already had a history of cash crop cultivation, and many now ventured into cocoa cultivation that promised higher returns than the traditional cash crops. The situation in Sabah during the late seventies and early eighties could be described as a sort of cocoa gold rush, with private estates clearing large jungle areas to plant cocoa and small and medium-sized capitalistic farmers seizing the opportunity and jumping on the cocoa band wagon. What made this expansion possible was of course the vast land stretches in Sabah that laid idle (Hashim 1993:25, Abidin & Siok 2001), available for cocoa cultivation, the large pool of Indonesian and other immigrant workers and the fact that the DOA in Sabah after years of research had developed successful hybrids suited for the specific soil and climatic conditions in Sabah (Ti 1991).

In addition to the already capitalistic oriented enterprises and farmers opting for cocoa, a great deal of farmers thus far devoted to subsistence farming, with limited experience of cash-crop cultivation of any sort, ventured into cocoa cultivation. This was mainly due to the government diversification drive. Apart from the fairly well known settlement schemes - a trade mark of Malaysian

⁵ Bumiputera literally means “son of the soil” and it is a term used for all the indigenous peoples and the Malays in Sabah (and in the rest of Malaysia also of course), thus excluding for example Chinese and Indian Malaysians and of course all non-Malaysians. These are hence logically classified as non-Bumiputeras and cannot benefit from the many special privileges given to the Bumis.

agricultural policy - the DOA in Sabah also subsidised cocoa cultivation in a number of ways. Farmers previously occupied mainly with rice cultivation were offered a possibility to start to cultivate cocoa with the DOA supplying the necessary planting materials, and many keen on the possibilities of this new crop converted their wet rice fields into cocoa sites. Due to this desire by the government to improve the rural living standards by diversification, whole villages previously occupied with subsistence agriculture became geared on production for the world market. This was especially true for the western and interior districts of Sabah where agriculture was, and still is, dominated by small-scale subsistence agriculture, and where the large estates dominating the east coast were few (Schulze & Suriani 1999). In these parts with its various types of indigenous people, the introduction of cocoa on the small family managed plots was a true novelty in all respects.

However impressive the expansion of the smallholder sector was, both on the east coast and in the interior, during the twenty-year period between 1970 and 1990, it was still thoroughly overshadowed by the colossal rise of the plantation sector concentrated on the fertile east coast. Not only did the estates, utilising mostly foreign labour, completely dominate in terms of planted area and as one would expect in production, they also had a significant advantage in terms of productivity, general efficiency and they were in the forefront of research on planting materials and cultivation practices.

The smallholder sector was in turn considered as backward and quite inefficient, suffering from chronic low productivity levels and uneconomical farm size. In 1980 the plantation sector accounted for 76 per cent of the planted area in Sabah, and at its peak in 1988, 84 per cent of the state's cocoa could be found on plantations. During this period Sabah emerged as the major cocoa producing state in Malaysia, and the plantation sector concentrated on the volcanic soils on the east coast became synonymous with Sabahan cocoa.

4.3. The collapse of the plantation sector

Events however took a drastic turn in the late eighties and early nineties and changed the face of Sabah's, and Malaysia's, cocoa sector in a profound way. As a consequence of the very favourable prices in the late seventies and early eighties, world production as a whole also began to soar while consumption stagnated. Naturally, not only investors and farmers in Malaysia and Sabah reacted to the favourable price conditions by investing into cocoa production or expanding their acreage, but investors and farmers all over the cocoa-producing world did the same. Especially during the period of from 1976 to 1980 when price conditions were at their most favourable level, cocoa producing countries ventured into large scale planting using high yield varieties (Fu 1988). Bearing basic principle of supply and demand in mind, the end result is obvious – cocoa prices on the world market took a nosedive as the market became saturated. There were some efforts by the newly formed International Cocoa Organisation (ICCO) to halt this price drop, but all efforts failed.

To add insult to injury, the Sabah cocoa sector also experienced increased production costs during this particular period. The eighties saw the appearance of the dreaded cocoa pod borer in Sabah, which led to significant crop loss and bloated production costs due to forced counter measures to fight the pest (Singh 1989). Prices for inputs also increased during the period and the estate sector was having some problems with the legalisation of immigrant workers (Ti 1991). The depressed prices and the increased production costs, making cocoa cultivation a highly unprofitable enterprise, finally made the plantation sector in Sabah turn its back on cocoa. Almost over night the huge plantations bulldozed their fields of cocoa, replacing it with oil palm, which currently fetched

a better price. The collapse of the Sabah cocoa plantation sector, and the Malaysian cocoa sector in general, came almost as a complete surprise. It had of course been noted that the international cocoa prices had taken a turn for the worse, and that this might cause a slowdown or even stagnation in planted area. As late as 1991, when the collapse in fact already was under way, the Malaysian government predicted that the total area of cocoa would increase from 400 000ha in 1991 to 450 000ha in 1995 at the end of the plan period (Malaysia 1991). This prediction could not of course have been more off target since the actual planted area in 1995 only came to amount to 190 000ha, less than half of the predicted amount. The creation of the umbrella organisation MCB in 1989 also mirrored the government's belief in the continued expansion of the cocoa sector.

The smallholder sector in Sabah however remained surprisingly intact during these turbulent times. The expansion was obviously halted and during a couple of years in the nineties the cultivated area actually dropped somewhat. This drop was however nothing compared to the ones that hit the other sectors in Malaysia where cocoa production was practically wiped out.

The experiences for the various regions in Sabah were somewhat different which can be seen in Table 3. Sandakan and Kudat took the hardest blows, with the previously towering estate sector in the Sandakan division shrinking beyond recognition. Smallholder cultivation also dropped notably in these regions. Tawau retained its position as cocoa capital in Sabah and Malaysia despite the large drop by the estate sector. The development in the Interior and West Coast divisions were quite similar. In both divisions the smallholder area actually increased during these difficult times, while the estate sector suffered notably. In the interior the private estates previously residing in the region all but disappeared, and on the west coast the government settlement schemes, which made up almost the entire 'estate' sector in the region, was reduced to half of its previous size.

When the smoke had cleared, the smallholder sector had in fact surpassed the previously dominant estate sector and in less than a decade the roles had been completely reversed. In 2001 the total area under smallholder cultivation was about 32 000ha, while the estate sector, including government settlement schemes, only amounted to about 20 000ha. In 1988, only 14% of Sabah's cocoa could be found on smallholdings, whereas the figure in 2000 had risen to 62%.

This collapse of the cocoa plantation sector in Sabah and Malaysia of course had a large impact on the smallholder sector as well, changing the settings under which they produced and marketed their beans. For one, the decrease in the total volume of beans produced in the state, and throughout the different districts, had a number of consequences. Earlier, beans had been exported from a number of ports besides Tawau, for example Sandakan and the state capital Kota Kinabalu (KK). The collapse however meant that the quantity of beans produced was not enough to support several ports, and all other ports besides Tawau stopped shipping cocoa. This of course had severe consequences for cocoa farmers located far from Tawau, notably those in the interior and on the west coast. The beans, after they had been processed, now had to be transported all across the state to Tawau, crossing the Crocker Range travelling on uneven roads, for export to either peninsular Malaysia or Singapore. The farmers located far from the cocoa capital of Tawau obviously had to endure even lower profit margins because of the bloated transportation costs that were to a great extent passed on to them. This event is quite unfortunate since the interior and west coast divisions, located furthest from Tawau and benefiting most from an export port in KK, were the only two areas that, despite the conditions for cocoa cultivation by the day turning from bad to worse, actually experienced an increase in smallholder acreage during the period.

Another effect the collapse had, which is of relevance to this study, was that it seemingly changed the attitude of the government towards the smallholder sector. The crown jewel that previously was the estate sector had been turned into a shadow of its former self and the future of Malaysian cocoa now lay in smallholder cultivation. The federal government, through the newly formed MCB, concentrated more of its efforts on the smallholder sector, devising various smallholder programmes and rehabilitation schemes, and stepped up research on developing new clones and pesticides. The research impetus of the estate sector had to a large extent vanished and much knowledge had been lost, and the government had to step in to fill the gap (although it has of course been ever present to a large extent). The smallholder sector in Sabah therefore also benefited somewhat from the collapse, which ended up putting it in the limelight. The sector had always been considered a vital part in the fight against rural poverty, but now the sector also became important in reference to the future of Malaysian cocoa as a whole and as a supplier to the grinding industries based on the peninsula, to a much larger extent than before.

4.4. Present status of the cocoa sector

Presently the cocoa sector in Sabah is in a process of rehabilitation and consolidation (Abidin & Siok 2001), and not as in previous decades in a process of rapid expansion. There are not much new smallholder areas currently being planted with cocoa. It would however be wrong to say that all activities within the smallholder sector has seized. The government is as active as ever conducting extensive research on new clones and pesticides as well as devising various rehabilitation programmes in close co-operation with cocoa farmers. The drive within the Sabah cocoa sector is now not directed at expanding the planted area but mainly to boost productivity on already existing sites. Although, there still exists a strong motive for the government to try to increase the production volume of raw beans, especially since during the last couple of years Malaysia have been forced to import large quantities of raw beans from Indonesia to cover the demand of the grinding factories located on the peninsula, built during a period when no one thought the increase of cocoa cultivation would ever seize.

4.5. Aspects of cocoa cultivation in Sabah

As previously mentioned, cocoa is mainly grown on the east coast of Sabah, notably in the Tawau division whose volcanic soil and annually evenly distributed rainfall provides good conditions for cocoa cultivation. Currently, Tenom and Keningau in the Interior and Ranau in the West Coast division are the other main smallholder areas besides the different districts in the Tawau division (see Table 3). This relative concentration of the cocoa planted in Sabah stands in contrast to peninsular Malaysia where the cultivation is scattered over a much larger area.

The MCB estimates that the average farm size for smallholders in Sabah lays between one and five hectares (<http://www.koko.gov.my/Board/Programme/smallholder/Smallholder.htm>). However, this is only an estimate, and since the definition of a smallholder is a farmer who manages a farm less than 40,5 hectares the range is quite wide, so even a correctly calculated arithmetical average could be quite misleading. What is clear however is that the average farm size for smallholders in Sabah (and also Sarawak) is larger than in peninsular Malaysia.

From the beginning, cocoa in Sabah has been planted as a sole crop whereas in peninsular Malaysia it has been more frequently planted together with other crops, mainly coconut. The fact that a

farmer grows cocoa as a sole crop, which is quite common in Sabah, does of course not mean that he does not cultivate any other crops; it just means that he separates his crops. It is in fact highly uncommon that a smallholder in Sabah cultivates only cocoa - most, if not all, farmers has opted for a risk spreading strategy by cultivation supplemental crops, mostly fruit trees, as well. The fact that more farmers in Sabah separate their crops is probably because, as previously mentioned, the average farm size is larger than in peninsular Malaysia. It makes more sense to separate your crops when you have a larger farm. This rule is of course not a general one, and there of course exists a large group of quite small smallholders in Sabah as well, and they frequently inter crop their cocoa with local fruits such as rambutan, langsung, mangosteen and durian.

The majority of smallholders cultivating cocoa in Sabah are Bumiputeras, as are the great majority of smallholders in Malaysia in general (Aziz 1995:131). In Sabah, there is also a presence of some Chinese and non-Malaysians, mainly from Indonesia, in the cocoa smallholder sector (Department of Statistics, Malaysia 1995). The Chinese however, who if they engage in agriculture almost without exception grow cash crops (Sin 1971), often manage larger farms, and the non-Malaysians frequently grow their cocoa on government schemes or work on plantations. It has been estimated that around 90% of the plantation labour force consists of immigration labour and larger smallholders also employ non-Malaysian citizens to work on their farms. So even if the non-Malaysians equal the Bumiputeras in terms of pure numbers engaged in agriculture, they mainly represent a rural workforce.

4.6. Aspects of cocoa marketing in Sabah

Turning now to the marketing of the beans the different marketing channels the smallholders use and the circumstances under which the cocoa is sold, varies somewhat with the farmers' geographical location in Sabah and especially with the form - wet or dry - in which they sell their beans.

After the beans have been successfully cultivated and separated from their pods, the farmer can either sell his beans as wet (unprocessed), or he can process them himself and sell them as dry (fermented and dried). The farmers that sell wet beans usually sell them directly to the local processing plant(s). This processing factory, which can vary greatly in size in relation to how much cocoa is grown in the area, is often located in the absolute vicinity of the cocoa growing area. The reason for the processing plants being located so close to the farmers and the reason for beans only being processed locally is first of all that wet beans are not easily transported over a great distance. The beans have to be processed without delay after they have been separated from the pods and they are very bulky – making transportation over an even fairly moderate distance unprofitable. This fact is very significant and we will return to this issue numerous times in the paper. The reason for this is of course that we instead of having one market for wet cocoa beans have many individual markets, separated by transportation costs, where the smallholders market their beans. The market segregation is also illustrated by the large differences in prices cocoa beans fetch in the different areas of Sabah (Figure 1). Ahmad Zubaidi Baharumshah has in fact already empirically shown this phenomenon in a study where the Sabah cocoa market was found to suffer from lack of integration. He writes in his conclusions:

Overall, the empirical tests indicate that the extent of regional integration in Sabah is still very low. /.../
The high transportation costs and risk associated with transferring wet cocoa beans may explain why the

degree of cointegration is affected by distances in Sabah. /.../ Finally, we cannot rule out the possibility of non-competitive pricing behaviour in the regional markets in Sabah (Ahmad 1995:133).

The possible explanation of lack of market integration in Sabah brought forward by Ahmad is thus in line with the reasoning in this paper, and the closing words of Ahmad's study, referring to the possibility of exploitative prices on the regional markets in Sabah, is of course enticing when one considers the purpose of this study and the analysis that will follow.

The other reason for the beans being processed locally by nearby plants is because the processing factories do not require any hefty machinery or advanced technological equipment or support, but can be quite simple in nature. The process involves fermentation, where the beans are placed in stepwise arranged wooden boxes where they are turned, and a drying process that is also quite simple in nature (Lembaga Koko Malaysia 2002d). Hence, the processing plants can easily be placed throughout the different districts, very close to where the cocoa is grown making regional processing possible.

It is quite common practise for the processors themselves to go to the farms and pick up the wet beans, although some just wait for the farmers to themselves bring the beans to the factory. The processor sets a date in agreement with the farmers when he will come and pick up the beans, and the cocoa farmers are paid in cash upon delivery (Farmers green, red, blue yellow, brown & orange, Interview, Processor one & two, Interview). The other alternative is that the farmers themselves deliver the cocoa to the processors, which is generally done by larger farmers who possess their own means of transportation or farmers located very close to the plant. The farmers delivering the beans themselves can enjoy the freedom of choosing whichever day they want to deliver their beans, whereas the farmers relying on the factory to provide the transportation, of course have to wait (Processors one & two, Interview).

The majority of the smallholders in Sabah sell their beans as unprocessed. It is difficult to find an estimate of the percentage of beans sold as wet as compared to dry, especially over time, but a very good guess is that around ninety percent of the beans are sold as unprocessed (Omar, Interview). There are several proposed reasons for why the farmers do not process their own beans; lack of know-how (Matthew 1991:15) and the fact that centralised processing as opposed to farm-level processing has been advocated by the government (Hashim 1993), probably out of concern for quality, are two of them.

Furthermore, most farmers in Sabah selling wet beans appear to deal directly with the processors and do generally not to employ the services of middlemen. This finding is a bit surprising, especially when one considers a statement made by Abdul Aziz A. Rahman in a paper dealing with the marketing of agricultural products in Malaysia:

The middlemen constitute the dominant intermediary, accounting for 70% of the smallholders' marketable cocoa /.../ extremely few middlemen undertake further processing of the beans produced by the farmers. Instead they sell the cocoa directly to the second-level, and larger processors (Aziz 1992:180).

Although it is not explicitly stated within the text, Aziz' paper appear to refer to the marketing of cocoa in peninsular Malaysia and not in Sabah. As previously mentioned, the smallholder sites in peninsular Malaysia are smaller and especially a lot more scattered which could possibly explain a larger presence of middlemen. The cocoa sectors in peninsular Malaysia and Sabah are so different

in so many ways that treating them as a single entity could be very hazardous and might lead to very misleading general conclusions.

Disregarding the statement made by Aziz, all sources point to the fact that the numbers of middlemen buying wet cocoa beans in Sabah are if truth be told negligible. In the interviews all farmers state that they, and everyone else in their area, only sell directly to processors, a fact that is also backed up by the local MCB officers and the processors themselves (Farmers red, blue, yellow, green, black, brown & orange, Interviews, MCB officer A, Personal communication 16th May, Processors one and two, Interview). Furthermore, the director of licensing and grading at the MCB states in an interview that, with the possible exception of Sandakan and Lahad Datu, there are no cocoa middlemen in Sabah buying wet beans (Omar, Interview). Based on the information collected during the visits to Tenom, Ranau and Tawau and the information collected from various informants at the MCB, the existence of any middlemen in these above mentioned areas is yet to be proven, and a large presence of middlemen in Sabah as a whole seems highly unlikely – most farmers in Sabah selling wet beans do appear to deal directly with processors.

Marketing dry beans, which is done by a small percentage of the cocoa farmers in Sabah, is in numerous ways a quite different enterprise from marketing wet beans. First of all, dry beans have the advantage over wet beans that they can be stored for quite a long time (about three months), whereas wet beans have to be sold to be processed without delay (often meaning the same day) when separated from the pods. Farmers processing their own beans can thus wait for the right moment - when a suitable buyer has been found and the price situation is satisfactory – before they have to sell their beans. After the beans have been processed, they are sold to a licensed dealer.

The plantations, who naturally often have their own processing facilities, usually sell the beans directly to the exporters, but smallholder farmers, especially those located far from Tawau, frequently sell their beans to dealers who then in turn sell them to exporters. These dealers can either be larger dealers dealing directly with exporters – in the case of the west coast and the interior they are normally based in Keningau - or they can be the very same local processors who buy the wet beans from the rest of the farmers. This local processor, who is at the same time also a dry cocoa dealer, then sells the beans to one of the larger dealers. Thus, quite often the farmers processing their own beans deal with the very same person as those farmers selling wet beans.

A third way in which farmers market their beans in Sabah is through farmers' communities. In areas where there exists a problem for the farmers to market their beans, due to a lack of processors, the government has stepped in – strengthening the farmers' community in the targeted area and providing them with resources to build a processing plant. Thus, a processing plant is passed over to the farmers and they can, through the community, start selling dry beans to dealers, also with some government assistance. Naturally, this phenomenon is most common in peripheral areas with a rather limited cultivated area, or areas isolated from other cocoa growing areas.

If the Bumiputeras can be said to have a certain grip on smallholder cocoa cultivation in the state, this is nothing compared to the Chinese supremacy in the cocoa processing and trade, as among other things a run-through of the licences issued by the MCB shows (Lembaga Koko Malaysia 2002a & 2002b). All the way from the owner of the processing factory in some small village, to the dry cocoa bean trader in a regional cocoa centre - which are the two categories of importance to this paper - to the large exporters in Tawau and the owners of the grinding factories in peninsular Malaysia, the Chinese are in overwhelming majority. Furthermore, the Chinese engaged in cocoa dealing and processing on smallholder level in Sabah are as a rule also of the same language group,

namely Hakka. The Hakka constitutes the largest group of Chinese in Sabah and are basically the only Chinese group found in the rural areas where the cocoa is grown, the other Chinese groups are mostly found in the larger cities. The "foreign element" that the Hakka represent should however not be exaggerated. Although they certainly are distinguishable from Bumiputeras and still mostly speak their native tongue, the Hakka have been part of rural Sabah for quite some time now. Most of the Hakka immigrated between 1890 and 1940 and have since then been an integral part of the rural setting as most of them came to Sabah as farmers and settled in the rural areas (Sin 1971).

5. Product Homogeneity

After this historic run-through of cocoa cultivation in Sabah and the presentation of some important aspects of the cultivation itself and the marketing of the beans, the stage is now set for the detailed analysis of the Sabah cocoa market. The analysis will kick off with briefly addressing the question of product homogeneity. As previously mentioned, cocoa beans are traded in two basic forms by the smallholders in Sabah namely wet and dry. This difference can however not be considered to display a product heterogeneity, since the two types of beans simply represent two different levels in the production process and thus form two separate markets. There is a market for wet beans and there is a market for dry beans, and never the twine shall meet.

5.1. Homogeneity of wet beans

Starting with the market for wet beans, one can easily observe that there has always been a certain degree of heterogeneity among the beans traded and also that this heterogeneity has increased over time. The beans marketed by the smallholders differ in a number of ways and the differences of significance can here all be summed up under the term “quality”. The main reason for the wet beans not being of uniform quality is because of the many different planting materials used. When cocoa was first introduced in Sabah, special varieties of cocoa had to be developed to suit the specific conditions in the state. However, not just one variety was developed and countless new hybrids and clones, all different from one and other in certain ways, have since seen the light of day and come into use. The research on new planting materials has always been confined to the plantations and the government research stations, but the new varieties always find their way to the smallholdings – with smallholders acquiring the new hybrids or clones from the plantations or for example through the government rehabilitation programmes where new varieties are grafted onto old trees.

Depending on what type of hybrid or clone the farmer uses, the end result can differ widely (otherwise such extensive research in developing new clones could of course hardly be justified) and keeping it as simple as possibly can; some clones and hybrids are better than others. Naturally, all farmers strive to use the best available clone or hybrid (i.e. presumably the most recently developed one) and the government is very committed to the effort of helping them. But still, a great number of farmers continue to use outdated and inferior planting materials, mainly due to lack of knowledge or resources, and the end result is that the wet beans that are traded in Sabah originate from a wide range of different planting material that all produce beans of different quality.

Another factor that adds to the heterogeneity of quality among the traded beans is the presence of various pests and diseases, which in a random fashion reaps havoc amongst the cocoa smallholdings in Sabah. In the beginning when cocoa was a relatively new crop in Sabah this problem was not too great, but when the trees started getting older and especially with the appearance of the dreaded cocoa pod borer in the 1980s, the situation changed. There are various pests and diseases that haunt the cocoa farmers in Sabah, some of them affecting the trees and some damaging or even ruining the beans (Lembaga Koko Malaysia 2002e & 2002f).

The presence of various pests and diseases and the wide variety of planting materials used act together to create a market with a quite low degree of product homogeneity which complicates the marketing in a number of ways that is inconsistent with a perfectly competitive market. Rather than being a simple process where cocoa farmers market a perfectly homogenous product of uniform

size and quality that will fetch a certain price, not differing from what other farmers supplying the exact same product supposedly will get, a situation of haggling over the quality of the farmer's beans appears. In the interviews, all the farmers stated that if or when they argue over the price with the buyers it is basically an argument over the quality of the beans (Farmers blue, red, yellow, brown, orange & green, Interview).

This situation also arises from the fact that the determining of quality is in no way an exact science. The parties do not have perfect information about the quality of the beans - obtaining such information would be too costly. It is therefore quite common for the buyers, in addition to a brief inspection of the beans, to rely on the reputation of the different farmers and their beans. The farmers respond to this by using various strategies to uplift their reputation among the buyers, besides trying to get hold of a good clone and keeping the beans free from pests of course. One practice that is fairly common is to separate the beans that have been infested from the rest of the lot (the farmers of course do not sell individual beans, but all at once in a great big lot, so a few infested beans tend to reduce the kilo price of all the beans sold). Farmers that enjoy a good reputation for not including infested beans in their lot can of course, at least in the short run, seize the opportunity and include a number of damaged beans without the buyer necessarily finding out.

Thus, as a consequence of the lack of homogeneity among the beans, the lack of perfect information and also the lack of a standard grading scheme, the determination of the price becomes a fairly arbitrary process filled with haggling and uncertainty. Although some farmers do take advantage of the prevailing marketing situation it is quite reasonable to assume that when all is added together, the smallholders risk losing out on this marketing situation. In addition to some other things, the heterogeneity may lead to opportunities for the buyers to make excessive price deductions while referring to quality aspects, while in reality taking advantage of the cultivator's weak bargaining position. Coupled with some other source of power held by the buyers, the product heterogeneity observed on the market for wet beans could easily act as a reinforcement of the cultivator's inferior position.

5.2. Homogeneity of dry beans

The quality and degree of homogeneity of the dry beans that are marketed by smallholder farmers are of course closely connected to the quality and degree of homogeneity among the wet; the dry bean can only be of the same quality as the bean that was first processed. If the wet bean was of inferior quality then naturally so will the dry bean, although a good quality wet bean does not ensure a good end result. Thus, due to the difference in quality among the wet beans that are being processed, there also exists a fair degree of heterogeneity among the dry beans that are marketed by the smallholders. In addition to this, the processing and handling of the beans also differ among various processing facilities, possibly adding to the heterogeneity.

The government has established some minimum requirements on processing practices and equipment (which will be dealt with in further detail in section 6.2), which certainly helps to upgrade the overall level of quality of the dry beans and also reduce the heterogeneity since they are after all minimum requirements. However, these requirements, which processors have to comply to in order to get the required licence, does not apply to smallholders processing their own beans; only estates and processors buying beans from farmers have to apply, the smallholders just have to register with no requirements attached (Omar, Interview).

The market for dry cocoa beans is however not to the same extent characterised by the mild form of anarchy when it comes to determining the quality, and thus rightful price, as the market for wet beans. This is mainly because there is a standard grading scheme for dry beans. All dry beans that are to be exported have to be graded into six different categories according to quality, or graded as sub-standard in which case they still can be exported but under certain conditions (Omar, Interview)

6. Barriers to Entry

6.1. Loyalty, inertia & switching costs

One of the situations of entry prevention identified in the chapter on theory was if a market was equipped with loyalty, inertia or switching costs. Each of these had the effect that despite the price offered by another buyer was higher; the farmer would still stay with the old one. Below, two different types of loyalties or inertia will be considered - legal and uneconomic - and lack of perfect information, creating a form of in adverted loyalty will also be dealt with. Lastly the issue of switching costs imbedded in the market setting - that is not artificially created by the government - will be brought up.

6.1.1. Legal loyalty, inertia or switching costs

Legal loyalty/inertia or switching costs can be both a product of government involvement in the cocoa market, but it can also be a pure result of legal contracts signed by the individual parties on the market. To begin with, the government of course has the power to create an infinite amount of switching costs for the cultivators; in its most direct form this consists of the government simply charging the cultivators when they decide to sell their beans to another processor. There of course also exists more subtle ways. Furthermore, the government also has an opportunity to create 'loyalty' by simply stipulating that the cultivators has to sell all, or at least some, of their produce to a particular buyer - for example some government agency. The buyer does not even have to be a particular one, it may well be the case that the cultivators are allowed to at first pick any buyer they wish, but are then required to continue using this buyer to some extent once the choice has been made.

There is indeed no evidence supporting that any of this would ever have been the case in Sabah. The cocoa cultivators in Sabah have always been totally free to choose whichever buyer they want, and the government has never tried to make the switching of buyers more expensive, quite the contrary. The government has sometimes participated directly in the cocoa market by buying beans from farmers, but this has only been seen as supplemental to the private alternatives and has always been voluntary. The farmers have never been obliged by the government to sell any of their beans to a particular buyer. It furthermore would be quite preposterous to claim that the government has in any way made the switching of buyers more expensive. There exists no indications of any such activities, and in combination with the many activities by the ruling Barisan Nasional (BN) coalition making the switching less expensive, by for example constructing roads and other types of infrastructure, this hypothesis can easily be falsified.

The other alternative, the one where the government is only indirectly involved by enforcing the contracts, is where buyers and cultivators sign long-term contracts. In a contract, the cultivator agrees to every year, for a duration of x years, supply the buyer with a certain amount of beans, and the buyer agrees in the contract to buy these beans. This of course creates inertia in the sense that if another buyer doubles the price of cocoa beans, the cultivator is stuck to his old buyer for the duration of the contract.

As in the case of government created loyalty, there is no evidence either supporting that this is the case; contact farming simply does not seem to be in vogue on the Malaysian cocoa market. The buyers and farmer constantly make new deals and there are no contracts stipulating that a cultivator has to produce any amount of beans, and neither is there anything forcing the buyers to buy the beans the cultivators grow. Either, the processor comes to the farm and the deal is made right then and there, or the farmer brings the beans to the plant and sells them on the spot (see section 4.6.). Of course, the buyers are definitely trying to convince the cultivators to increase their production by for example implying that next time the price will be higher (Processor two, interview). But there is of course nothing tying the processor to this promise and the cultivator can of course still freely choose his level of production and how much he will sell and to which buyers. It thus appears as if the cocoa cultivators can move relatively freely between the different alternative buyers without any legal contact tying them to a particular buyer.

6.1.2. Lack of information - cultivators

One of the possible loyalties or inertia is the in adverted one where cultivators simply due to lack of information believes that the buyer that they are selling their beans to is the best alternative, when in reality this is not the case. The question here then naturally becomes; which sources of information concerning available buyers and prices are available to the farmers, how easily accessible is the information and how relevant is it? Is the information sufficient for the buyers to estimate the available choices correctly or are they tied to a perhaps exploitative buyer due to insufficient information?

Concerning prices, most if not all farmers have in the recent decade relied on primarily two sources of information, in addition to the price information given to them directly by the buyers, and these are; price quotations in newspapers, radio and television and word of mouth.

The price quotations in the newspapers are published on a daily basis by the MCB, who collects the information from the processors throughout Malaysia. The price quotations appear in most of the large Sabah newspapers, like the Daily Express and the Sabah Times. The quotations contain the highest price offered by processors, the lowest price and also an arithmetical average. They also contain information about dealer purchase prices for dry beans, with prices divided in three sub-categories according to quality grading. The price quotations are furthermore divided in different areas so that in Sabah, different prices for both wet and dry beans are quoted for the Tawau, Sandakan, Lahad Datu and Tenom areas.

When collecting information on prices, word of mouth is also frequently used among farmers as a very important supplement to the official sources (Farmers red, blue, yellow, green, orange & black, Interview). The information provided by the newspapers and the processors can only be useful to a certain extent since the official price quotations are very unspecified (they cover a large area) and due to the fact that processors frequently offer a different price than the one quoted in front of the factory (although they may not always directly admit to this). Some areas are furthermore not even covered by the MCB price quotations, like Kota Belud or Ranau, and even in Tenom, who gets specific quotations on the prevailing prices, the area can still be divided into different sub areas due to the existence of several separate markets caused by transportation difficulties. So even in the cases of Tenom, Tawau and so forth, the farmers require more specific information and they basically obtain this through word of mouth.

The most obvious source of information on prices is of course the buyers themselves. The cultivators are approached by different buyers in different ways and are given information on how much the buyers are willing to pay. Furthermore, the buyers are required by the MCB to at all time display the current purchase price in a visible place outside the factory (Lembaga Koko Malaysia 1991).

When it comes to information about available buyer/processors, there are not any sources of official information like in the case of prices. The main sources of information thus become word of mouth and information that originates directly from the processors; i.e. processors approaching the farmers notifying them of their existence and willingness to purchase their beans.

How easily then can the farmers get hold of the information and can they make any sense of it? The first question amounts to whether or not farmers have access to newspapers, radio or television where the current prices are quoted. It is difficult to say whether or not cocoa cultivators in general take advantage of the information in the newspapers etc. All the farmers interviewed are aware of the available information and also testified to frequently using it. However, due to the selection of farmers (see chapter three) and the limited amount of farmers interviewed, general conclusions become very difficult. Due to the word of mouth, it is however very likely that all farmers within the studied areas can pick up the information even if they do not have direct access to the newspapers, since prices are a quite widely discussed topic among the farmers. It at least seems that at least during the last decade, farmers have to a quite large extent been utilising the price quotation in newspapers and on the radio.

In many ways, word of mouth seems to be the most important source of information to the farmers. It contains the most detailed information on prices and of course also the available buyers. One can of course question how reliable this information is. There exists a possibility that the farmers do not reveal the actual price they are getting when they sell their beans; for some reason they might for example be exaggerating. It is of course very hard to either falsify or verify this; the issue came up in one of the interviews but the farmer of course stated that everyone always told the truth about the prices they were getting to their friends - to admit otherwise would however put them in a rather bad position (Farmer red, interview).

In the end however, the farmers in Sabah does seem to be surprisingly well informed about the different alternative buyers and the prevailing prices. Due to the extensive use of word of mouth, price information and details about different buyers spread like wildfire, and the information in the newspaper and radios seem to come in handy especially as a tool when bargaining with the buyers. There thus exists very limited opportunities to segregate the local markets and few farmers seem to pick inferior selling options due to informational lack.

6.1.3. Uneconomic loyalty & inertia

Uneconomic loyalty/inertia is simply the phenomenon when a cultivator, despite being aware that some other buyer is offering a better price, decides to stay with a buyer or at least give him a chance to better his bid, although the cultivator would apparently gain economically by not doing so. The cultivator has all the opportunities and all the economic incentives to switch buyer, but for some apparently uneconomic reason he waves this opportunity and remains loyal to the old buyer who is offering him sub-competitive prices.

This type of behaviour is of course perfectly irrational and terribly disturbing in a neoclassical context, but it can still be handled with by introducing for example various power factors. Precisely this is done in a study by Clifford Wharton and the concepts have been adopted by Vargas-Lundius in her study "Marketing Agricultural Products in the Dominican Republic: Competition or Exploitation?". In the paper, two power factors with relevance to the present task are identified, cultural and illegal power (Vargas-Lundius 1988).

The "cultural power" that is referred to here be simply a power originating from something imbedded in the culture that makes the cultivator feels that he or she has to be loyal to the buyer, although the buyer is offering a too low price. In Vargas-Lundius' study, two possible ties that give rise to this are suggested; "family ties" and "socio cultural ties". That is, because the buyer and seller are related by blood or because there is some socio cultural tie between the two, uneconomic loyalties is created. This distinction is however a bit narrow since there is nothing saying that the cultural power has to originate from ties between the buyer and seller. The power might as well originate from a general cultural norm stipulating some form of uneconomic loyalty, which then has implications for the tie between the buyer and the seller because it guides their behaviour when doing business.

Thoroughly here examining uneconomic loyalty originating from the specific cultures of Sabah, Malaysia or Southeast Asia, is quite out of the question, because it's definitely out the scope of this paper and because the issue is rather complex. However, an attempt will be made to say something about this, and briefly examine if there is any reason to suspect that there is something giving rise to an uneconomic loyalty in the above-mentioned way.

The only thing that can be said in the matter of possible kinship between buyers and sellers is that, as already mentioned, most buyers are Chinese and most cultivators are Bumiputeras. This would speak against any widespread family ties between buyers and cultivators, because although intermarriage is not highly uncommon, it is not particularly common either. However, no detailed study of possible family ties between buyer and cultivators has been carried out and no real conclusions in any directions can be made.

Leaving this family affair, there are some other, more interesting things that can be said about the nature of the relationship between the buyers and the cultivators. It seems, judging from the interviews with the farmers, that the relationship between themselves and the buyers are in fact to a large extent guided by economic considerations and seems to be every bit as calculating and cold hearted as standard neoclassical economic theory would suggest. When asked about what guides their choice of buyer, everyone sates that the only thing guiding them is the price, and when asked about the nature of the relationship, everyone states that it is a purely business one (Farmers red, blue, yellow & brown, Interview). One farmer puts it when asked about the relationship with the buyers:

Some buyers are your friends, but in the case of selling the beans they are not, meaning that when you do the enterprise ... it's a business issue, not a friend issue (Farmer yellow, Interview).

When another farmer was asked about whether this situation has always been the case, the reply was:

From the beginning it's the same - strictly business (Farmer red, interview).

Thus, the natural conclusion from this superficial investigation into the relationship between cocoa buyers and sellers, and the social context in which they find themselves in, is that there is nothing suggesting a presence of any uneconomic loyalty or inertia. The cultivators seem to be able to, with surprising ease, switch buyers without any scruples.

The "illegal power" referred to in the beginning is of course such power associated with various threats made by the buyer; threats of harm to the cultivator's own self, family and loved ones and threats of damage to various paraphernalia of value to the cultivator.⁶ To say anything about the existence of such illegal power or illegal threats is of course very difficult. No facts pointing to the existence of such practices have been discovered, there is nothing indicating that the cultivators are being threatened in any way and no farmer indicated any such thing in the interviews. The relationship between buyers and farmers is very business like but still quite friendly. As indicated by the quote above, it is not uncommon for the buyers and farmers to be on friendly terms once the business is done with, especially in small communities of course. But illegal activities are of course not meant to be found or visible to an outsider, so it is difficult to say anything for certain in the matter.

6.1.4. Switching costs

The last type of loyalty to be considered here is indeed the only type that can immediately and without any trouble be classified as perfectly economically rational. In the other sections, cultivators were for some reason unable to take advantage of the more beneficial terms offered by alternative buyers because of legal, cultural or informational reasons. In the case of switching cost, the cultivators remain loyal to the buyer although they would receive a better price from another one precisely because they are able to act in an economically rational way. Although selling to the other buyer would mean a higher price for the beans, there are costs associated with switching from the old buyer to the new, costs that are too large to make the switch profitable. The fact that the roots to this loyalty lie in an economic rationality however does not really matter. This type of loyalty has precisely the exact effect as the others; the cultivator is forced to remain loyal to a buyer that is offering him sub-competitive and exploitative prices.

In the paper "Farmers and Middlemen: Aspects of Agricultural Marketing in Thailand" some suggestion to switching costs are brought forward - above all transportation costs and loss of the right to borrow (Siamwalla 1978). That is, the alternative buyer might be located further away than the current buyer and by switching buyer the seller has to endure higher transportation costs. Furthermore there also exists a possibility that the buyer is also acting as a financier to the farmer's activities. Leaving the current buyer would mean losing these credit privileges and the farmer then has to obtain credit elsewhere which may imply additional costs. This theme is also featured in Vargas-Lundius' study, but using slightly different terms. Rather than classifying them as switching costs, the control of credit by the buyer is labelled "economic power" (Vargas-Lundius 1988) - which is of course basically the same thing.

The switching costs do not of course have to be limited to higher transportation costs or the potential loss of credit; other alternative for sure exists. Credit ties between the buyer and seller may not be the only economic tie that has the potential of creating switching costs; the buyer may

⁶ These types of threats are of course to be kept apart from economic threats, such as threatening to stop supplying the cultivator with credits or deny him access to other resources that the buyer may possess, which are perfectly legal. These will be dealt with in the next section.

control other inputs and economic resources that also hold this potential. This could be production inputs, such as fertilisers or pesticides, or why not basic foodstuff or other necessities to the household. The buyer may monopolise the whole retail trade in the area, and by "betraying" the buyer the cultivator may lose the right to shop in any of his stores, leaving his family starving and his cocoa trees being eaten up by different pests. Thus, all economic ties with the buyer have the potential of creating switching costs and may be a source of economic power that the buyer can assert over the seller.

Turning to transportation costs first, it was already been mentioned in chapter four that it is quite common practice for buyers to go to the cocoa sites and pick up the beans themselves. Thus, switching between buyers that show up at the farmer's site, or at least is willing to show up on request, does not imply increased costs due to transportation.

On the other hand, when it comes to switching to buyers that are not willing to come to the farmer's site, the switching costs due to transportation can be staggering. Naturally, the farmer first of all would have to acquire or arrange for some form of transportation (which would not be that cheap) and then also transport the beans to the factory, the costs of course varying with the distance that the beans has to be transported. For a relatively small farmer these costs would definitely be too large if not the price he could get from the other buyer would immensely exceed the price he is currently getting. It has already been noted that the cocoa market in Sabah is very segregated due to the difficulties of transporting wet beans over great distances, and the choices of buyers that are available to the farmers are only those within a quite small distance and who are willing to pick up the beans at the farm - the high switching costs definitely prevent the use of buyers in other cocoa growing districts. The larger cultivators, who possess their own means of transportation, naturally can choose between all buyers within a reasonable distance, but the high transportation costs also prevents them from switching to buyers located in other areas.

How about economic ties between the buyer and the cocoa producers then, are there any such sources of economic power or switching costs to be found? A bit surprisingly perhaps, there appears to be no credit ties between cultivators and buyers. There probably is some good explanation to why this is the case, but that is beside the point here. When asked about the existence of buyers who are willing to give loans to the cocoa cultivators, one farmer replied;

They don't care. Like Nestlé gives loans to the coffee [farmers], but the cocoa buyers just purchase the beans (Farmer red, Interview).

How about other economic ties then? Well, there certainly appear to be some other economic ties between buyers and cocoa farmers in smaller communities. In Tawau they seem to be non-existent altogether. The cocoa buyers, often Chinese, are frequently involved in other businesses too. It is not uncommon that the cocoa processors also own various retail stores and also deal in other agricultural products. The economic ties between the cultivators and buyers are however quite insignificant in relation to the "cocoa tie" which bears a much greater economic significance. Although the buyer may own some other businesses he does not in any way monopolise the retail trade or anything like that, there exists no such examples to be found.

6.2. Government created barriers

We will now turn to the question of whether the government has through any of its actions - either directly or indirectly - created any entry barriers that may enable an expropriation of economic surplus from the cocoa smallholders. In section 6.1.1 we already touched the issue of government created loyalty among cultivators and no such phenomena could be found. In this section the rest of the possibilities of entry barriers created by the government will be considered and the section will rap up government related activities relevant to this study.

First of all, the federal government in Malaysia has indeed for over two decades, first through the Federal Agricultural Marketing Association (FAMA) and then later through the MCB, regulated the Sabah cocoa market by licensing different actors involved in dealing and processing. The licensing was introduced in 1981 by FAMA, and was according to Abdul Aziz A. Rahman a “measure to curb the malpractice by the intermediaries and thus ensure fair market for the producers”⁷ (Aziz 1992:181). Subsequently in 1991, the licensing was taken over and all the licences converted to the MCB, which basically continued on the same line as FAMA.

It should be fairly obvious that a licensing of dealers has the potential of both directly, by stipulating a maximum numbers of buyers, and indirectly, by imposing large fixed costs connected to the licence, creating entry barriers as described in chapter two. However, the word potential is very important here because the adverse effect on the competition of course varies with the severity of the regulation and with the requirements associated with acquiring a license. If an infinite number of licenses are available and the licence is no more than a pure formality and does not involve any painstaking application procedures, any stiff requirements and does not require the applicant to pay large fees for the licence, the effect on competition will indeed be negligible. If on the other hand very few licenses are issued – either because the government simply wish to limit the number of dealers on the market for some reason, or if the requirements are unreasonably stiff, disqualifying many possible licensees and imposing large fixed costs on buyer/processors – or if the license involves a lengthy application process and steep licence fees, it surely represents an entry barrier.

To be able to answer this question, the licensing process and the licences of course have to be studied carefully, and to add a little depth to the analysis and strengthen the conclusions about the licensing, something will also be said about the motives of the Malaysian government and how they apply in this context.

Two out of a total of five licenses issued by the MCB are of importance to the question at hand; the licence to “buy and process wet cocoa beans” (processing license) and to “purchase, sell or export dry cocoa beans” (dealership licence) (Lembaga Koko Malaysia 1991). Both groups of actors licensed under these two categories deal directly with cocoa smallholders; the first one buying the wet beans directly and then processing them and the latter one buying dry beans from farmers who have already processed the beans themselves. All actors engaged in the above mentioned activities have to be licensed by the MCB, regardless of the size of their business.

⁷ One can make some objections to this statement by Aziz. FAMA and subsequently MCB don't license intermediaries, meaning such individuals buying wet beans from farmers and selling them to processors. In fact, the MCB doesn't even supervise the selling of wet beans since the numbers of transactions are so great that would require a huge staff (Omar, Interview). The licensing is designed to supervise the handling and processing of the beans, securing the quality, not the buying and selling of beans per se.

The conditions placed on potential and existing buyer/processors of wet beans are mainly technical in nature. The licensee should have adequate facilities and equipment to be able to process and store the beans in a correct fashion without damaging them. The conditions also stipulate some practices in the storing and fermentation process that are to be followed, again to ensure that the beans are not ruined by faulty methods or lack of hygiene. There are also some conditions that are directly linked to the buying and selling of the beans. The buyer/processor has to issue a receipt to the cocoa farmer, or whoever is selling the beans to him. The licensee also has to keep record of all the different transactions and also display the current price offered for wet beans in a “conspicuous place that can be seen by all members of the public” (Lembaga Koko Malaysia 1991).

The conditions for dry cocoa dealers are in a similar fashion quite technical and try to ensure that the bean’s quality is in no way compromised in the handling process. The conditions stipulate minimum requirements concerning facilities, equipment, storage and handling practices and urges the licensee to keep records of all transactions and report back with statistics to the MCB, as are the processing licensees required to do. Both of these above mentioned categories are mandatory and government officers do regular inspections at least once every year at every site. The period a license is given for varies between one and five years, the application process is quite simple and the current fee for a license is RM10, no matter the size of the business (MCB officer B, Personal communication 26th June).

Judging from the requirements, the licenses do not constitute an entry barrier to a particularly large degree. The licenses appear to be designed to uphold minimum quality requirements, not to regulate the number of buyer/processors or dealers. The requirements are quite lenient, applications are seldom rejected and existing licenses are almost never revoked. The government does not seem to have any sentiments on how many processors or dealers there are on the market, just that they meet certain quality requirements. Rather than reject a licence, the MCB points out the shortcomings and urges the existing or potential licensee to correct them, and rather than to take legal action against unlicensed buyer/processors, the MCB urges them to apply for a license which they normally then will do (Omar, Interview). The fact that there seems to be very few unlicensed buyer/processors also points to the fact that the license is not a great burden to them and that it does not work to a great extent as an entry barrier.

Apart from the small RM10 licence fee, some additional fixed costs are however created by the licensing. The most important one of these is the requirement to supply the MCB with various statistics. This is mirrored by the fact that it is this requirement that the MCB experiences the most difficulties in enforcing - when in fact a licence requirement is breached by some buyer/processor, it is most likely this one. This view is strengthened by an article listing some problems facing the Sabah cocoa sector, stating that; "Time consuming statistical returns required by the Government take up too much time" (Singh 1989:34). However, the significance of this cost or the degree of time consumption should not be exaggerated - although Singh is of course perfectly correct in pointing out that time consuming activities do indeed take up time, perhaps sometimes even too much time. It surely does represent a fixed cost and it is imposed by the licensing, but when one considers the other costs borne by the buyer/processors, its quite small and does not severely alter the cost structure of the industry - although buyer/processors and representatives for the industry by all means considers it to be a bit of a nuisance.

However, although the requirements mentioned above are quite lenient, they still per definition represent an intrusion in the free market, and acts in a way – be it may to a very small extent – as barrier to entry. We will have to consider the issue a bit more before we can totally drop it.

Because, it is certainly reasonable to assume that under complete free entry, without any licensing at all, the spectra of buyer/processors in terms of quality of equipment, practices and facilities might be wider and the number of buyers available to the cultivators could hypothetically be greater.

However, it appears that saying that this could in the end have a depressive effect on producer prices, although ridiculously small, would be seriously mistaking. This is because the licensing aiming at a higher quality among processors has positive effects on overall producer prices as well, mainly due to the fact that cocoa is a commodity exclusively produced for export. Reputation is a very important factor when prices for different countries' cocoa are determined on the world market; a good reputation means that all cocoa sold by a particular country will fetch a higher price. Only a few dealers or processors using inferior equipment or practices could risk the reputation of all Malaysian cocoa and cause an overall price drop - of course lowering smallholder producer prices as well. Without doubt, the net effect of the licensing of cocoa dealers and processors has a positive net effect on producer prices and serves the interests of the farmers.

The conclusion that the regulations of the cocoa market does not represent an entry barrier and that the government does not seem to in any way be "in allegiance" with the mainly Chinese cocoa processors and traders, is furthered strengthened when one considers the broad social objectives of the Malaysian government.

First of all, the government's devotion to its poverty alleviation programme, targeting especially the rural poor, of course speaks against policies disfavouring the smallholders. The agriculture diversification programme, in which cocoa is one of the main pillars, is one of the most important features of the poverty alleviation struggle and a policy nurturing a monopolistic agricultural market would seriously undermine this struggle.

The other government objective that, in an even more profound and convincing way, speaks against a policy disfavouring smallholder in relation to the buyer/processors, is the government's policy of positive discrimination in favour of the Bumiputeras. For decades now, in reality ever since the 1969 racial riots and the implementation of the NEP which was later replaced by the New Development Policy (NDP) in 1990, one of the central objectives of the Malaysian government (i.e. the ruling party UMNO and the BN coalition) has been to upgrade the Bumiputeras' economic status and economic function in society and strengthen their position against mainly the Indian and Chinese. The government identifies strong links between an improved economic status of the Bumiputeras - in reality an equal distribution of wealth between ethnic groups (or races, which is perhaps the more commonly used term in Malaysia) - and national unity and stability which is indeed absolute top priority in Malaysia.⁸

To achieve an economically just society and national unity the government thus practices various forms of positive discrimination and affirmative action in favour of the Bumiputeras in order to strengthen their economic position in relation to the Chinese. In reality, all programmes devised by

⁸ This objective is of course included in Vision 2020, which is currently perhaps the most important ideological guideline in Malaysia. In the speech that forms the basis for Vision 2020, PM Datuk Seri Dr. Mahatir Mohammad stated that; "The eight challenge is the challenge of ensuring an economically just society. This is a society in which there is a fair and equitable distribution of the wealth of the nation. /.../ Such a society cannot be in place so long as there is identification of race with economic function, and the identification of economic backwardness with race. /.../ If we want to build an equitable society, then we must accept some affirmative action. /.../ We must aspire by the year 2020 to reach a stage where no one can say that a particular ethnic group is inherently economically backward and another is inherently economically advanced" (Mahatir 1991).

the government concerning agriculture contain this ethnic dimension – they all favour the Bumiputeras in one way or another.⁹ Considering this, a policy favouring dealers and processors at the expense of smallholder by erecting various barriers to entry would be totally inconceivable since, as already mentioned, most smallholders are Bumiputeras and most dealers and processors are Chinese. Using the government's rhetoric, such policies would do nothing but contribute to an unjust society and would jeopardise national unity, creating discontent amongst the Bumiputera who would turn against the Chinese. Aziz writes:

the smallholder sector is seen to be vital for the attainment of social and political stability. This stems from the fact that the sector is dominated by Bumiputeras, a fair number of whom are assetless, poor and deprived compared to other Bumiputeras and non-Bumiputeras (Aziz 1996:131).

The Malaysian government is quite consistent in its positive discrimination of the Bumiputeras and there is no reason to suspect and indeed nothing pointing to the fact, after already analysing the licensing of the processors and dealers, that the cocoa smallholders would be an exception.

6.3. Natural barriers

As shown in chapter two, natural barriers occur on markets where there exists increasing returns to scale, caused by for example large fixed costs in relation to variable costs. Does the market for cocoa display any such features; or rather does cocoa processing involve any large fixed costs, since it has already been found that most smallholder beans sell their beans directly to processors?

It is fairly simple to conclude that there are a large amount of fixed costs associated with cocoa processing and trading. First of all, the buyer/processor of course has to possess all the necessary equipment and facilities to process and store the beans. This includes a factory building, boxes for fermentation, some form of drying bed and equipment, a weighting scale, storage facilities, and various other costs such as the collection of statistical material to be sent in to the MCB also has to weighed in (Lembaga Koko Malaysia 2002d, Lembaga Koko Malaysia 1991). Furthermore, the actual activity of buying the beans also involves fixed costs, mainly costs for vans to be able to transport the beans to the processing plant, as has been found to be is the normal practice among buyer/processors. In all, there seems to be a very large amount of at least initial fixed costs. However, as the level of production rises, it seems likely that the variable costs, like labour and various types of fuel, take over a larger part of the total cost of production - the increasing returns to scale will eventually vanish.

Keeping in mind that the prerequisite for a natural monopoly consisted of increasing returns to scale up to the actual point of production, we may at least in some parts in Sabah have all the prerequisites for a natural monopoly. This is due to the fact that, as was already shown in chapter four, the market for wet cocoa beans suffers from some serious natural segregation because of the problems (or economic feasibility) of transporting wet beans over a great distance. Processors located in areas with limited amount of cocoa plantings have no chance of reaching the production

⁹ During a discussion about the different subsidies given to the cocoa farmers, the issue of who is the major beneficiary of the assistance came up. One officer explained that because the MCB is a federal government agency “we have to help the Bumiputeras” and the Chinese as thus often left to fend for themselves. Surely, many Chinese farmers participate in the rehabilitation programmes, but when it comes to direct subsidies – like providing farmers with free fertilizers and seeds – the Bumiputeras are without any doubt the major beneficiaries (MCB officer B, Personal communication, 12th of July).

levels as the processors in the larger cocoa areas because they are restricted to the cultivators in their proximity and the beans they can supply. But the beans still have to be processed, and more importantly, the processor(s) still has to endure the fixed costs associated with cocoa processing and buying. Considering the relatively large initial fixed costs, it seems very likely that cocoa processors in such areas are operating at a production level that is associated with increasing returns to scale, at a production level where the fixed costs are still large enough in relation to the variable to produce this phenomenon. It seems very likely that such areas are in fact only big enough to support one or perhaps two processing plants, which is the same as saying as the market is characterised by a natural monopoly. Entry becomes impossible, or at least irrational, because a new cocoa buyer/processor would not be able to reach a level of production that would cover the fix costs, and neither would the others once entry had taken place - so everyone would be operating at level where average cost is larger than the price, that is everyone would be suffering losses.

There also exists another, perhaps not as obvious, factor that works to the advantage of large buyer/processors and this is the large variation in prices (see Figure 1 and 2). The cocoa market, like most markets for primary products, is haunted by violent price fluctuations, both seasonal and long term, and this of course puts serious strain on both cultivators and processors, occasionally squeezing their profit margins quite severely and for quite long time periods. In fact, the price can during some periods clearly drop to such low levels that the processors have to endure losses for the duration of the slump. The processors of course at the same time have to live with the fear of a bad harvest, which leads to a low supply and high price of cocoa beans that increases the risks for temporary losses.

Of course, during some periods the price for cocoa on the world market is very high, and coupled with a good supply of cocoa from the local farmers, profit margins can easily become very generous during these periods. To be able to reap the benefits of such periods, the processors of course has to survive the slump, and this is the catch. Although the cocoa processing and buying in Sabah might be very profitable in the long run, the processor has to be able to cover occasional losses to stay afloat. Thus, cocoa processors that have spread their risks and own several other businesses have a definite advantage over small processors wholly dependent on the incomes from their cocoa business for their livelihood.

The price fluctuations coupled with the large fixed costs thus clearly foster a market of large processors with the ability to diversify - in the same way as diversification is absolutely necessary for cocoa farmers so it is for processors. For example, during the interviews at the cocoa processing plant in Tenom, the owner of the plant gave an account of how they were able to survive during the slump of the cocoa prices in the nineties by relying on the incomes from the other businesses they owned, like retail and processing of coffee beans (Processor one, Interview).

6.4. Artificially created barriers

As in the case of natural barriers, the prevailing cost structure of an industry also plays a very important role as a possible prerequisite for entry prevention when it comes to artificially created barriers and entry preventing strategies. The other main prerequisite for such strategies was loyalty or inertia, an issue already dealt with in a previous section. The conclusion there was that there most likely were no notable loyalties or inertia among the cocoa cultivators, so the possibilities for successful entry preventing strategies have to be sought elsewhere.

The particular type of costs that are of interest here are the so-called sunk costs - that is fixed costs that the firm does not get back when exiting the industry. A good way of thinking about them is by considering them as costs of unsuccessful entry. The fixed costs for cocoa processors has already been dealt with, the question now is which of these costs are at the same time sunk.

It is obvious that the costs for equipment and facilities are partially sunk; when investing in a processing plant the entrepreneur cannot expect to get all his money back by reselling in the case of failed entry. Learning the trade also constitute a sunk cost, the investment in knowledge about the cocoa processing industry is not anything you can get a refund on. However, none of these sunk costs seem to be particularly great. The fixed costs associated with the processing plant etc. are only partially sunk and learning the trade does not have to be that hard or expensive.

Thus the possibilities for entry preventing strategies are rather limited, but how then can the very large presence of Chinese buyer/processors that has been observed in previous chapters be explained? Is not this in fact prime evidence of successful entry preventing strategies by the Chinese community, that despite the efforts by the Malaysian government to increase the Bumiputera participation in agricultural and other types of trade by positive discrimination, they still maintain their firm grip? This is a quite difficult question that will not be fully answered here, but one could bring forth one suggestion at least. It might be a possibility that due to the network that Chinese community form, they have an advantage over the rest of the potential entrants.

One example of this is the processing factory in Tenom. When the owner of this factory ventured into the cocoa processing and buying business he was thought the nature of the trade, how the processing is done etc, by an already established local processor. When asked about why the other processor would help a competitor for free the owner simply replied:

The Chinese help each other (Processor one, Interview).

The irony of this is that during the nineties, when cocoa prices were depressed, the original factory went out of business, partly as a result of the competition from the newly established factory of course.

6.5. Imperfect information - entrants

The last possible entry barrier considered in this paper is that of imperfect information of entrants - that is the event where above normal profits exist on a market, but because all possible entrants fail to realise this due to lack of information, entry also fails. The most vital information concerning this is of course information regarding prices. To be able to determine how large the profit margin within the processor industry is, potential entrants need information about what price the processors pay for the wet beans, and in turn what price they receive for the beans once they have been processed. Coupled with some basic knowledge about the industry and its costs structure, the potential entrant should be able to determine whether there is money to be made or not.

As already mentioned in section 6.1.2, the dealer purchase prices, both referring to wet beans and three types of quality of dry beans, are quoted daily in newspapers. In the case of above normal profits and depressed producer prices, the resulting discrepancy between the dealer purchase prices for wet beans and the prices for dry beans should be very easy to notice. In fact, at all levels - all the way from producer prices to prices on the world market - information about current prices can

be obtained without significant cost or effort. Thus the profit situation within the industry has a great level of transparency and lack of information is hardly a problem; if for example there would be a dramatic rise in the price of dry beans, due to higher world market prices, and a rise would not follow for the wet beans, this would hardly go unnoticed.

7. Number of Buyer/Processors

We will now turn to the last part of our analysis of the Sabah smallholder cocoa market and this will be our last stop before trying to make some conclusions. This last stop is also potentially the most important one, since we will here consider the number of buyers available to the smallholder cocoa cultivators - that is the degree of monopsony. Are in fact monopsonistic buyer/processors with control over prices roaming the Sabah cocoa markets or does the situation more resemble the perfectly competitive case, with buyer/processors only holding an insubstantial market share, not being able to influence the prices at all?

Before we proceed we must however consider the market segregation that first was mentioned in chapter four, because it has its most profound consequences in this section, making things a lot more complicated. It was already established a while ago that there is in fact no integrated market for wet cocoa beans in Sabah, but rather several regional markets all separated by transportation costs. A cocoa cultivator in Tenom selling wet beans could care less about how many processors there are in Tawau that are willing to buy wet beans at fantastic prices. If the prices are not fantastic enough to pay for the long transportation of the bulky wet beans all the way across Sabah, the cultivator in Tenom will stick to the local, perhaps monopsony buyer, offering prices that are anything but fantastic. It becomes impossible to investigate the degree of monopoly on the market for cocoa beans in Sabah by treating it as one market, because in reality there are dozens of them, each with the potential of independently exhibiting monopsony and sub-competitive prices.

This section will despite this start off with some remarks on the total number of buyer/processors in Sabah, but only referring to the trend. Very little can be said about the degree of monopsony by simply looking at the total figure, but looking at how the figure has changed over time and comparing it to the volume of beans being cultivated, something can perhaps be said about whether the cocoa markets in Sabah in general are becoming more monopolistic or not. After this brief exercise, the possible presence of monopsony in the three studied areas in Tenom, Tawau and Ranau will be considered by looking into the number of buyers available to the cultivators in these separate regions.

7.1. Total number of buyer/processors

The total number of both buyer/processors and dry cocoa dealers has decreased rapidly since 1992 as can be seen in Figure 3. In 1992 there were 165 enterprises or individuals licensed to buy and process wet beans, but in 2001 only 72 were left (Lembaga Koko Malaysia 2002c). Does this downward trend in the number of processors and dry cocoa dealers represent a monopolisation of the cocoa market? Surely the most important reason for the reduced number of dealers and processors has been the decrease in cultivated area and production during the same period. The number of buyer/processors decreased during the period by 45%, but at the same time the total area under cocoa production decreased by 69%, as did total production of dry cocoa beans (see Table 1 & 2).

However, if we consider two facts presented in chapter four - that the collapse of the Sabah cocoa sector in reality was a collapse of the estate sector, and that most estates process their own beans - the situation becomes flipped upside down. During the period when the number of buyer/processors dropped by 45%, the area under smallholder cultivation only dropped by 8%. If we take the reasoning to its extreme, assuming that the buyer/processors only deal with smallholders, this

means that in 1992 there was one buyer/processor per every 209 hectares of cocoa, while in 2001 there was only one buyer/processor per every 443 hectares of smallholder cocoa. Now this could certainly be an indication of a tendency towards a monopolisation of the Malaysian cocoa market; with fewer and fewer processor, supposedly buying wet beans from smallholders at more and more monopolistic prices.

There are some other feasible explanations to the downward trend, none of them however being totally satisfying. First of all, the number of smallholders processing their own beans could have increased during the last decade, making the services of central processors obsolete. There also exist an uncertainty as to which processors have shut down; it could well be the case that most of them mostly did business with the estates. The third, and perhaps strongest counter argument against the monopolisation thesis, is that the current figures for the acreage under smallholder cocoa cultivation are overrated, and that the drop in acreage the last decade has been underestimated. Still, the thesis that there indeed has been a monopolisation of the trading and processing of the wet cocoa beans in Sabah remains very hard to falsify when backed up by the figures above.

7.2. Number of buyer/processors in Tenom, Ranau and Tawau

Turning now to the three individually studied areas we will first consider Ranau, the Kadazandusun dominated and family farm oriented area with its fair share of cocoa located on the slopes of Mount Kinabalu. As it turns out, the smallholders in Ranau has always faced severe difficulties when marketing their beans and their choices between different buyer/processors has always been very limited; up until 2000 there was in fact only one processing plant located in the area (Farmer black, Interview, MCB officers B & C, Personal communication 26th June). The marketing situation was in fact so bad and the prices so terribly depressed compared to other cocoa growing areas that the MCB finally decided to help the farmer community in Ranau by subsidising and helping them construct a processing factory of their own.

The processing factory, owned and operated by the community, now acts as a regional processing and collection centre for the entire Ranau area. Individual farmers can choose between being paid directly for the wet beans they supply to the community, thus selling their beans as wet, or they can wait until the processed beans are sold and get a share of the profits amounting from this. The dry beans are sold directly to the large dealers in Keningau, and the MCB also assists the farmers in this respect by contacting the traders and arranging the sale (Farmer black, Interview & MCB officers B & C, Personal communication, 26th June 2002). This situation, where the farmers have the ability to themselves process the beans, storing them in their storage facility (also subsidised by the MCB) until the price is right and selling them directly to the large dealers, appears to be a lot more favourable then the previously prevailing one.

In the studied area in Tenom, the Murut cocoa capital of the west part of Sabah, there have at most been four different processing plants operating at the same time. Currently though, there are only two factories in operation left (Farmer orange, Interview, Processor one, Interview, MCB officer B, Personal communication, 12th July). Both these factories cover a quite large area, and the normal practice for both of them is to frequently go out to basically all the farmers' sites to pick up the beans, although the larger farmers in the area bring the beans to the factories themselves. The farmers in possession of their own means of transportation can furthermore choose between other buyers in the Tenom area located farther away. The two factories that previously operated in the

area, which shut down when the acreage decreased and business slumped, did not go out to the farm sites so for many farmers in this particular area of Tenom, the choice have always been limited to two buyers (Processor one, Interview, MCB officer B, Personal communication 12th July 2002).

The situation in Tawau as far as the numbers of buyers concerned is, as most other things concerning cocoa, quite different compared to Tenom and Ranau. The farmers in Tawau, located very near the export port and the only grinding factory in Sabah, seem to have a vast number of different buyers to choose from. Any exact figures on how many choices of alternative buyers the farmers have cannot be produced here, but in the interviews all farmers state that there are lots of buyer/processors willing to buy wet beans in Tawau. One farmer puts it:

There are hundreds in Tawau, [it's] quite easy to market. You just pick which you want, whichever has the highest price you go to (Farmer red, Interview).

Thus, there exists no apparent problem for the farmers, as opposed to Tenom and Ranau, to get a good price for unprocessed beans. When asked about whether or not they are considering processing their own beans, the farmer all say that there is really no need for that because the price you can get for wet beans is so high. This favourable situation has however not always been the case, at least according to a couple of the interviewed farmers. Speaking about the marketing situation a couple of decades ago one farmer states;

Marketing was quite different from now because [then there were] only a few buyers. So [you] sell the beans to the buyer [you] already recognise. Because at that time, the price [was] very high and the buyers [were of] quite limited numbers so [you] only sell to [a] recognized buyer (Farmer brown, Interview).

Based only on the statements made by the farmers, it thus appears that the situation in Tawau has changed for the better in recent times. This is however a bit double sided since the time period (late seventies and early eighties) referred to by the farmer in the previous quotation was, as he also notes, coupled with very high prices. It seems likely that everyone were making quite large profits on cocoa during these golden years, despite the fact that the marketing situation appears to have been more difficult.

The different situation facing the farmers in Tenom and Tawau is also perhaps mirrored in the prices they receive for their wet beans. As can be seen in Figure 1, the price for wet beans the farmers enjoy in Tawau is a lot higher than their brethren in Tenom.¹⁰ Surely this price difference is to a large part due to the transportation costs that arise when the processed beans have to make their way to Tawau, a cost that is to a large part passed on to the cultivators. But considering the findings above, it seems likely that some of the different is to be sought in the different market conditions in the two areas - with the buyers being able to manipulate the price in Tenom and previously in Ranau.

¹⁰ No exact figures on the prevailing prices in Ranau are available, but when discussing the previous price levels with the interviewed farmer and the MCB officers, the prices mentioned were terribly low – a lot lower than the prices for the other areas illustrated in figure 1 (Farmer black, Interview, MCB officer B, Personal communication 26th of June)

8. Summary & Conclusions

Two questions were asked in the introduction and one of them - how did the cocoa sector in Sabah rise to its current position within the state and which are the basic characteristics of the smallholder cultivation and marketing - received its treatment in chapter four. It was shown how the seeds for an expanding cocoa sector was planted by early government and private efforts, and then how the sector expanded violently during the late seventies and early eighties due to favourable prices on the world market and due to the government's NEP and diversification drive.

Thus, referring to the sub-questions asked in the introduction, the driving forces behind the appearance and expansion of the cocoa sector in Sabah came both from the government and the private sector. The government, through its research efforts and its diversification policy, was especially important in the beginning and in the sense that it helped to integrate a large number of previous subsistence farmers in traditional and isolated areas in Sabah into the world economy through cocoa cultivation. The main trigger behind the colossal rise during the late seventies and early eighties was however, given that Sabah had vast supply of available land and immigrant workers, the favourable price conditions during this time. It was also shown how the favourable price conditions turned, leading to a collapse of the plantation sector, which led to the Sabah smallholder sector to taking over the number one spot as the most important cocoa sector in Malaysia.

The introduction also identified some questions referring to the aspects of cocoa cultivation and marketing that had to be answered; namely where in Sabah is the cocoa grown and by whom, and how is the marketing carried out and who are the buyers? It was shown that the main cocoa growing areas are located on the east coast, especially in the area around Tawau, but that there also exists relatively large cocoa growing areas in the west part of Sabah; most notably in Keningau and Tenom. The cocoa farmers are predominantly Bumiputera, with some Chinese and non-Malaysian also growing cocoa, and the buyers are mainly Chinese. The marketing process, where the farmers most frequently sell their cocoa as wet beans to local processors, was also illustrated in detail leading to among other things some important findings concerning the lack of an integrated cocoa market in Sabah.

The analysis of the structure of the cocoa market and the nature of the relationship between farmers and buyers, aiming at providing the question about possible exploitation of the smallholders with an answer, started off in chapter five with an analysis of the product homogeneity on the Sabah cocoa market. It was found that there exists and has always to a certain extent existed a large degree of heterogeneity among the cocoa beans, especially in reference to the wet beans. It was also noted that this could have a depressive effect on the price the farmers receive if coupled with monopsony power for the buyers.

In chapter six, different possibilities of entry barriers that could give rise to monopolistic exploitation were examined. It was found that there exist no entry barriers created by legal inertia, uneconomic loyalty or imperfect information. Referring to one of the sub-question asked in the introduction, the cultivators were found to be able to move freely between available buyers without any legal documents or uneconomic loyalty tying them to a particular buyer, and they seem to be well informed about the available alternatives. There was on the other hand found to be large switching costs associated with changing to processor/buyers located in other areas, a fact that already was noted in chapter four when describing the market segregation. This means that only

buyer/processor located in the absolute vicinity of the cocoa growing areas represent actual alternatives to the farmers.

Furthermore, no entry barriers created by the government were found to exist and the buyers seem to have very limited possibilities of practising various entry preventing strategies. As in the case of cultivators, possible entrants appear to be well informed about prices and thus able to spot above normal profits. Some disturbing facts were however revealed in section three, where strong prerequisites for natural monopolies were found, at least in areas where the supply of cocoa and hence the production level of local processors is limited. Thus, referring to the sub-questions in the introduction; the government does not contribute to depressed producer prices – quite the contrary – but monopolies could still go unchallenged in smaller areas due to an unfavourable cost structure favouring large processors.

When examining the actual presence of monopolies in Sabah, it was in chapter seven found that the farmers in Tawau have a vast number of processors to choose from, whereas the choices presenting themselves to the farmers in Tenom and Ranau are extremely limited. A possibility of a tendency towards monopolisation on the Sabah cocoa market in general was also brought forward as a larger drop in the number of buyer/processors than could be explained by the drop in cultivated area was noted.

Now, in an attempt to come to some conclusions about the possible presence of exploitation, the findings in the individual chapters about the structure of the market and the relation between buyers and farmers will be weaved together. To begin with, the three most important individual findings in this respect are; the market segregation, the cost structure within the buyer/processing industry that creates a tendency towards natural monopolies, and the observation of the limited choices of buyer/processors in Tenom and Ranau as opposed to Tawau. When considered together, they form a surprisingly coherent unity and leads to some interesting insights as will be apparent below.

The market segregation, one of the marked structural features of the Sabah cocoa market, acts to form many individual cocoa markets in Sabah; where on some, only a small volume is traded in comparison to the ones in Tawau. Together with the cost structure, most likely containing increasing returns to scale up to a certain level of production, natural monopolies are created on those market that are too small to support several buyers. This is confirmed by the observation that there are very few buyer/processors available to the farmers in Tenom and Ranau, whereas the number of choices is a lot greater in Tawau. It might even be the case that the reduced level of production that almost all areas the last decade has experienced has, through the laws of natural monopoly, lead to a general monopolisation of the Sabah cocoa market - as was suggested in chapter seven. As mentioned in chapter four, Ahmad Zubaidi Baharumshah has already observed this market segregation, and his suggestion that there exists a possibility that regional markets are plagued by non-competitive prices (Ahmad 1995) seems to more than a possibility considering the findings in chapters six and seven. In Tenom and Ranau, and supposedly all other peripheral areas in Sabah with limited areas of cocoa (i.e. all areas except for central Tawau), the buyers appear to possess monopsony power, a power which they, trusting the validity of neoclassical theory, use to depress producer prices to non-competitive and thus exploitative levels. The situation in Ranau was only solved after the government stepped in and gave the farmers a processing plant, completed in 2000.

There also are two more facts that enable the buyers to further depress prices now when it indeed has been concluded that they possess monopsony power. Because, when perfect competition fails,

bargaining power suddenly becomes important and there are two factors outlined in the study that enhances the buyers bargaining power and enables them to use their monopsony power in an even more efficient way; the product heterogeneity and wet bean marketing as compared to dry.

As already stated here in the summary, the conclusion in chapter five was that coupled with monopsony power for the buyers, the product heterogeneity of the Sabah cocoa market would have a depressive effect on the price the farmers receive. The presence of buyers with monopsony power has now been confirmed and labelled probable in certain parts of Sabah and we can conclude that the buyers can use the product heterogeneity, and the uncertainty created by it, to depress prices even further by making excessive price deductions while referring to quality.

Furthermore, it was already stated in chapter four that wet beans had the disadvantage over dry beans in the sense that they could not be kept in store for very long, in fact not at all. This fact gain significantly in importance now that the presence of monopsony power has been confirmed. A couple of possible explanations to why so many farmers sell their beans as wet, despite the obvious drawbacks, were brought forward in the chapter (lack of processing know-how and government fondness for centralised processing) but this paper holds that both of these explanation are off target. Rather than being a result of anything else, the fact that so many farmers sell their beans as wet is because of economic necessity, which has devastating consequences for the farmers' bargaining power – placing them in an inferior position in relation to the buyer. The farmer simply opts for the sale of wet beans because they are in an immediate need for money and cannot wait for the beans to be processed. This is most vividly confirmed by the situation in Ranau, where a lot of farmers in the community actually forfeit the opportunity of sharing the profits gained from selling the dry beans and instead demands payment directly when delivering the wet beans. They simply cannot wait for the beans to be processed and sold but requires the payment quickly.

Thus, the cultivators are forced to sell their beans without delay, because of the nature of the wet beans and ultimately because of economic necessity. The buyers, knowing this, will take advantage of the situation and all this puts the cultivators in a very weak and inferior position in relation to the buyer and places him within a vicious circle. In Tawau, none of this of course matters since the market for wet beans appears to be competitive and the cultivators can receive competitive prices for the beans they sell anyway.

Now, after being left aside for some quite a while, it is definitely due time to return to Frank and his theory, trying to figure out what implications the above analysis has in this context – naturally pushing the discussion towards a more speculative sphere. Recalling the predictions made by Frank, the similarities with the results of the analysis of the smallholder cocoa sector are in some ways striking. It seems that we in some areas in Sabah have so called natural monopolises with few buyers exercising monopolistic power over the many cocoa cultivators – that is monopolies that are inherent in the structure of the market. What is also striking is of course that this seems to be true for areas located far from the export ports and larger exporters, research stations, larger commercial estates areas etc. They are instead isolated peripheral areas with a traditional and family based agriculture far from the areas where commercial activities are concentrated. Thus, imbedded within the cocoa sector in Sabah there seems to be several satellites in the true meaning of the word, represented in this paper by Tenom and Ranau, and one metropolis, namely Tawau. The sector does not seem to be homogenous in this sense but exactly as Frank predicts, it contains a large degree of polarization.

As one also should recall, Frank also was of the opinion that the surplus never stays at one level but is furthered expropriated upwards in the polarised chain of expropriation. The analysis also revealed some intriguing facts in this context. Because, due to the workings of natural monopolies, the surplus extracted from the farmers through the price deductions are not likely to stay in the hands of the buyers, but rather move upwards to the next level in the production and marketing chain (see chapter two). It would be wrong to claim based on the analysis in this paper that the buyer/processors in Tenom and previously Ranau retain the entire surplus that supposedly is extracted from the farmers, and this is nothing more than a logical consequence of neoclassical theory. For the buyer/processors in these areas to be able to retain the surplus, it would also have to be shown that they have monopoly power over those buying the processed beans. Until this has been proven, both theories used in this paper actually for then time being assumes that this is not the case – that the buyer/processors in Tenom and Ranau also represent a satellite. Because, neoclassical theory assumes perfect competition and Frank's predicts an upward flow of the economic surplus.

Thus, it would seem that claiming a case for “reasonable doubt” about the perceived idea that integration into the world economy is always coupled with exploitation-free perfect competition, as was done in the introduction, was indeed justified. The integration of, especially referring to the peripheral areas of Sabah, seems to have been coupled with a polarization and monopolization and not by perfect competition. As a previously isolated region is integrated into the world economy, the areas furthest (in all senses of the word) from the regional centre seem to suffer. If this indeed is the case, one can surely ask what implications it has in reference to the discussion about the pros and cons of integration into the world economy that was mentioned in the introduction. Well, it might be time to admit that the number of conclusions that can be squeezed out of the analysis have finally reached their limit. The analysis does seem to imply a possibility for some adverse effects for peripheral regions when they are being integrated into the world economy, that orthodox economics for some reason seems to neglect – and surely this is an important implication. But to go as far as Frank by saying that the integration might be causing underdevelopment or being a negative force is of course out of the question. In addition to this, it was also concluded in this paper that the farmers in Tawau seem to be facing perfect competition, or something closely resembling this at least, which clearly is not in line what Frank predicts and takes us even further from such implications. Rather, the analysis and findings in this paper seem to suggest some imbalances in the development and world economic integration of peripheral regions, and may have some implications in this context rather than referring to the supposedly devastating effects of an open economy in general.

So, returning instead to the explicit purpose of this study – leaving these somewhat speculative discussions about possible implications behind - the answer to the question if the cultivators suffer monopolistic exploitation when marketing their beans is precisely both yes and no. In Tawau, the farmers do not appear to suffer monopolistic exploitation and the market structure seems to resemble a situation of perfect competition, where the nature of the relationship between buyers and sellers is characterized by equality in strength. On the other hand, the farmers in the smaller peripheral areas do appear to suffer exploitation at the hand of buyers on markets of natural monopoly - where the buyers take use of a stronger bargaining position and the farmers' inferior position in the relationship. There thus seems to be perfect competition and no exploitation in Sabah's cocoa capital, but not in its cocoa satellites.

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Farmer/processor blue, 16th May 2002, Tawau

Farmer yellow, 16th May 2002, Tawau

Farmer brown, 16th May 2002, Tawau
Farmer green, 17th May 2002, Tawau
Farmer black, 26th June 2002, Ranau
Farmer orange, 12th July 2002, Tenom
Omar, bin Hj. Tompang, 10th June, Kota Kinabalu
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MCB officer A, 16th May 2002, Tawau
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Map 1 – Sabah positional map



Map 2 – Sabah regional map

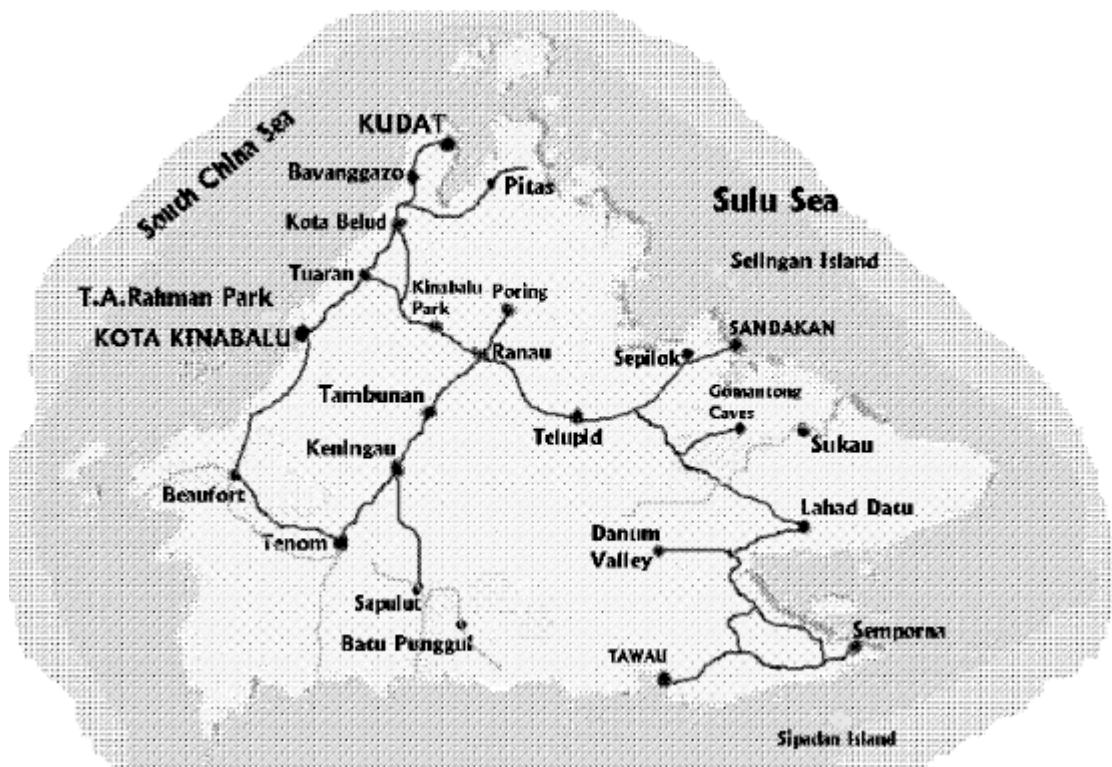


Table 1 – Cultivated area of cocoa, Sabah, 1970-2001

<i>Year</i>	<i>Estate (Ha)</i>	<i>Smallholding (Ha)</i>	<i>Total (Ha)</i>	<i>Year</i>	<i>Estate (Ha)</i>	<i>Smallholding (Ha)</i>	<i>Total (Ha)</i>
1970	3693	176	3869	1986	157058	27419	184477
1971	4118	251	4369	1987	165592	29483	195075
1972	4641	326	4967	1988	170824	33642	204466
1973	5289	417	5706	1989	170465	34795	205260
1974	6584	904	7488	1990	143827	35821	179648
1975	7677	1657	9334	1991	141724	36543	178267
1976	8810	2601	11411	1992	128787	34528	163315
1977	10370	4300	14670	1993	115908	35208	151116
1978	14994	7103	22097	1994	106618	34073	140691
1979	26390	11048	37438	1995	81039	32652	113691
1980	44283	13701	57984	1996	64560	32652	97212
1981	72284	16835	89119	1997	43730	28947	72677
1982	95422	19049	114474	1998	31225	31973	63198
1983	111883	20846	132729	1999	23972	32091	56063
1984	136288	23000	159288	2000	19722	32088	51810
1985	147919	24794	172713	2001e	18476	31888	50364

(Lembaga Koko Malaysia 2001, Matthew 1991)

Table 2 - Production of dry cocoa beans, Sabah, 1970-2001

<i>Year</i>	<i>Volume (MT)</i>	<i>Year</i>	<i>Volume (MT)</i>
1970	1 979	1986	75 484
1971	2 018	1987	114 344
1972	3 133	1988	140 532
1973	3 804	1989	143 000
1974	4 504	1990	145 000
1975	5 418	1991	131 000
1976	6 265	1992	135 000
1977	6 998	1993	129 000
1978	8 240	1994	122 046
1979	9 643	1995	91 953
1980	12 358	1996	88 612
1981	19 485	1997	74 052
1982	29 625	1998	64 338
1983	29 954	1999	64 422
1984	41 472	2000	44 546
1985	65 395	2001	43 462

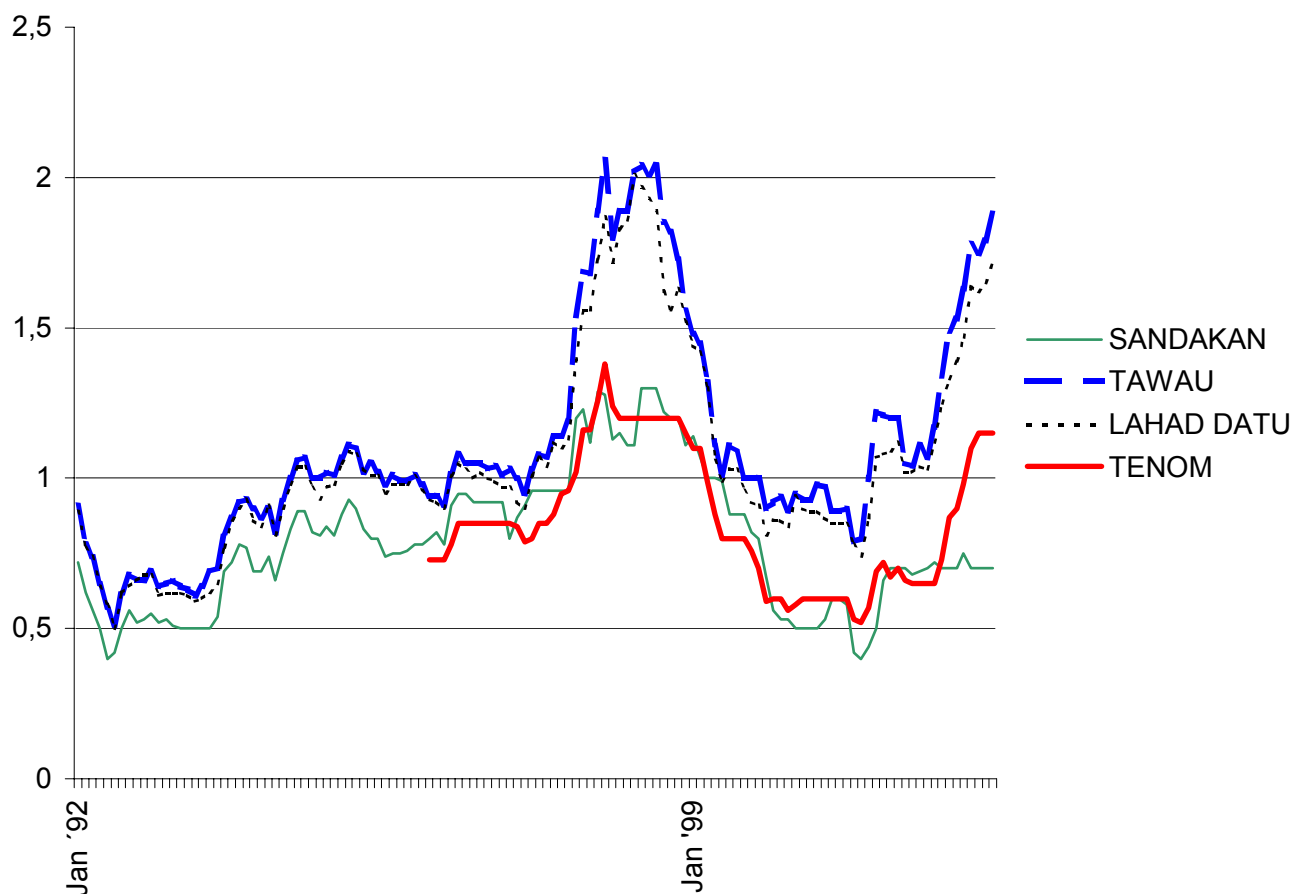
(Lembaga Koko Malaysia 2001)

Table 3 – Cultivated area by division, Sabah (ha)

Year	Tawau		Kudat		Sandakan.		West Coast		Interior	
	Smallholder	Estate	Smallholder	Estate	Smallholder	Estate	Smallholder	Estate	Smallholder	Estate
1988	20062	99123	2835	1225	1985	65800	1269	2123	7491	2553
1989	20962	98983	2926	1227	1884	65316	1289	2260	7734	2679
1990	21546	100511	3045	1221	1935	63117	1442	2465	7853	2841
1991	22160	101108	3035	748	2172	57309	1334	2342	7842	3277
1992	21432	91444	2826	624	2144	56393	1236	2366	6890	3486
1993	21462	88072	2826	642	2113	45583	1247	2264	7560	3490
1994	20885	80152	2551	642	2015	38349	1247	2232	7375	2499
1995	20578	75256	1665	642	1965	28786	1249	2249	7195	2451
1996	19083	56395	1393	551	2399	20653	1116	2257	6055	1834
1997	18791	47354	1377	551	1925	16303	896	2117	3823	1194
1998	16743	45060	1100	451	1493	8169	1363	1164	6374	106
1999	15558	36590	96	0	597	5616	1374	1169	8842	104

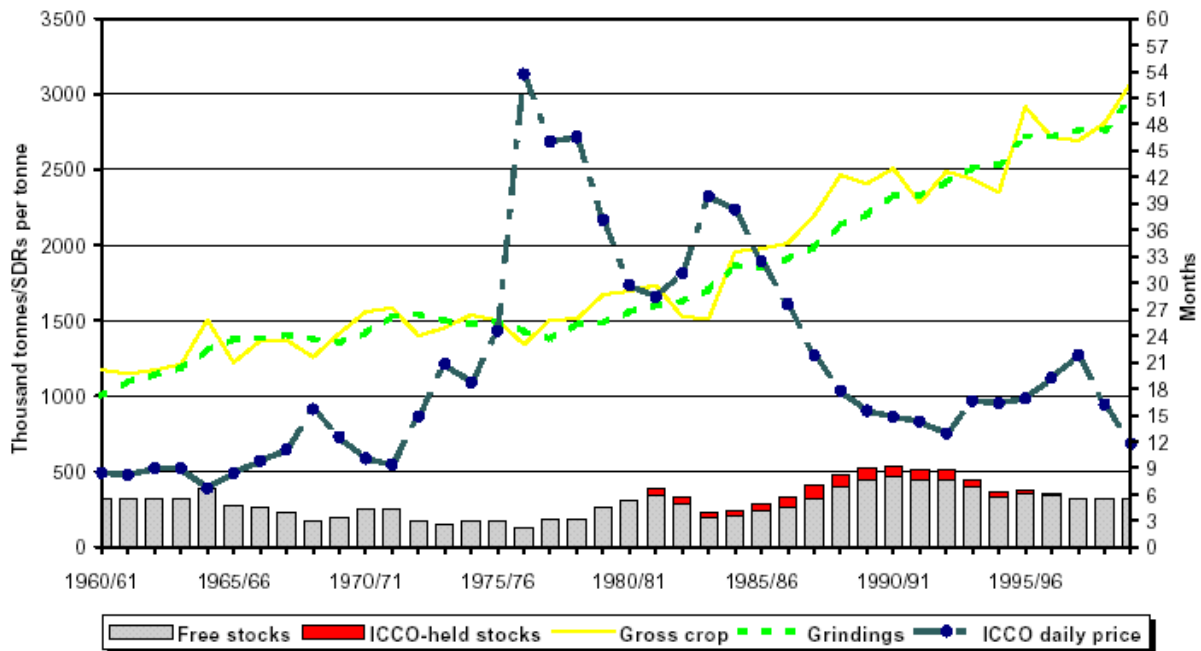
(Department of Agriculture, Sabah 1988-1999)

Figure 1 - Dealer purchase prices, Sabah, wet beans (RM/kg)



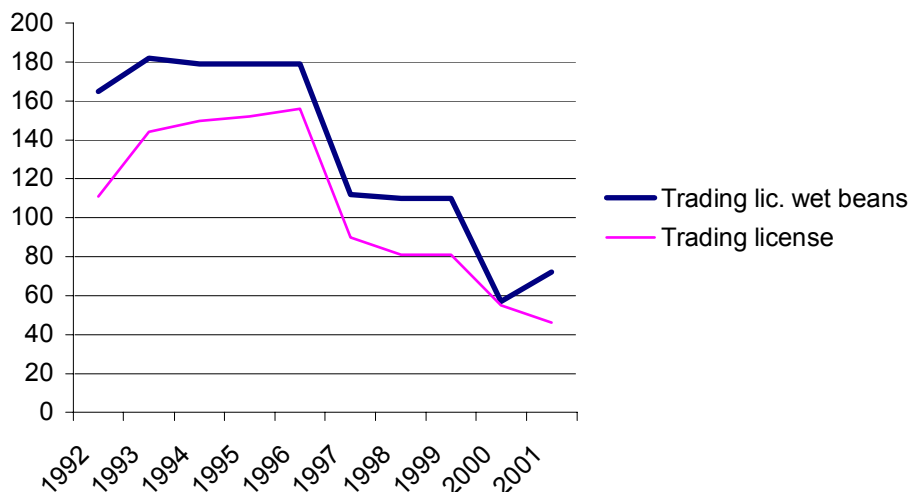
(<http://www.koko.gov.my/Industry/Statistics/Statistic.htm>)

Figure 2 - World cocoa-bean production, grindings, stocks and prices, 1960/61 to 1999/2000



(Adopted from ICCO 2002)

Figure 3 – Number of licenses 1992-2001



(Lembaga Koko Malaysia 2002a & 2002b)