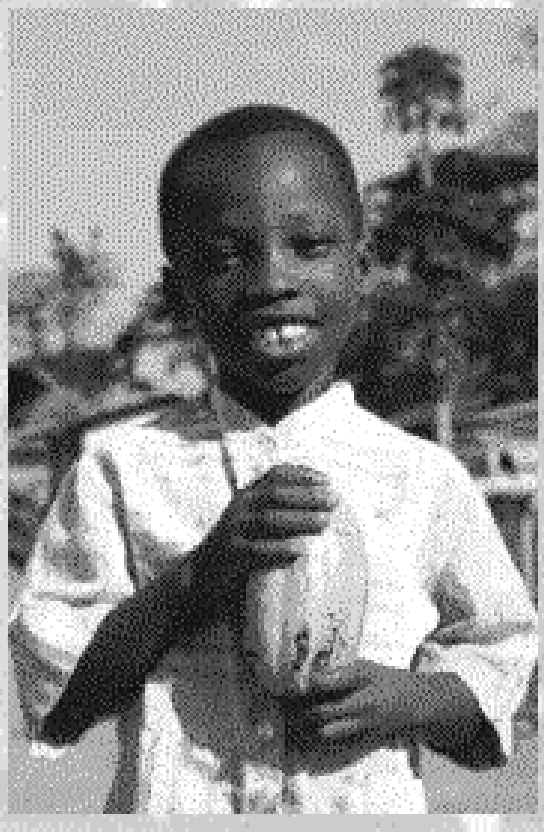
The cocoa market – a background study*



Contents

Cocoa - at a glance

Total production	- 3.05 million tonnes (1999/00)
Annual value of cocoa trade	- US$ 6 billion (1998)
Number of smallholders	- 2 million in major producing countries
Price per lb (October 2000)	- 41 cents (ICCO)
Top producers (by volume)	- Côte d'Ivoire (43%), Ghana (13%), Indonesia (12%), Brazil (6%), Nigeria (5%), Cameroon (4%), Malaysia (4%), Ecuador (3%)
Cocoa as percentage of export revenue (1999)	- Côte d'Ivoire 37.5%, Ghana 29%
Cocoa as percentage of government revenue (1999)	- Côte d'Ivoire 10%, Ghana 9%

EXECUTIVE SUMMARY

Cocoa provides livelihoods for millions of people in over 50 countries in Africa, Latin America, the Caribbean and Asia. In major producing countries, the income of around 2.5 million small producers and their families depends on cocoa production. The livelihoods of an estimated 14 million rural workers involved in cocoa picking on big plantations and cocoa processing factories also directly depend on cocoa.

World prices, and the proportion of export price captured by smallholders, and the wages paid to labourers on cocoa farms, have a critical bearing on poverty and vulnerability, including the ability of rural households to meet health and education costs.

The price of cocoa reached a 27-year low in October 2000, selling for only US 41 cents per lb (90 cents/kg). As of January 2001, prices remain at that record-low level. By comparison, the fair trade price for cocoa, which would ensure a decent living for farmers, is $1.75 per kg. A farmer from Ghana with 2 hectares would make only $240 a year (65 US cents per day – just over half of the extreme poverty threshold) at current prices.[1] If the farmer received fair trade prices, he would have made $460, doubling his income.

An estimated 70% of the world's cocoa supply is provided by smallholders, who cultivate on average around 3 hectares each. However, the extreme volatility and long-term decline in cocoa prices on international markets endangers the livelihoods of those for whom cocoa is the only source of cash income.

As one farmer explains: '[*Before our participation in fair trade*], *The price we could get for cocoa was so low it was not worth harvesting. Many of us abandoned our trees. Some farmers went off in search of work on plantations. It was a very difficult time for us.[…] Life was very insecure.'*
Justino Peck, former chairman of Toledo Cocoa Growers Association, Belize

Providing livelihoods to farmers in developing countries is a crucial challenge for reducing world poverty. When fairly priced, export crops, such as coffee or cocoa, can help millions of farmers and their families to lift themselves out of poverty.

The economic growth of many of the Least Developed Countries is closely linked with cocoa production, as well as other primary commodities. Many producer countries depend on cocoa exports for a large part of their foreign exchange earnings and government revenue. In Cote d'Ivoire, for instance, cocoa contributes more than 20% of government revenue. When international cocoa prices are low, governments have difficulties meeting debt service obligations and are unable to make much needed investments in basic health, education and infrastructure.

The adverse market conditions faced by small producers are the result of chronic world oversupply of cocoa and high price volatility fuelled by speculation on commodity exchanges. They also derive from a lack of competition along the cocoa supply chain. Badly designed market liberalisation reforms in producer countries also frequently undermine the ability of poor producers to participate in cocoa markets on more equitable terms.

There is a huge discrepancy between cocoa supply and demand. In 1999/2000 stocks reached 50% of total world consumption, which means that supply is roughly 1.5 times higher than demand. There are several factors behind this imbalance between supply and demand. On the supply side, increasing production in Cote d'Ivoire and Ghana, as well as the tripling of production within a decade in

[1] Under the assumption that the farmer receives 70% of the export price, has a yield of around 280kg/ha and production costs of $60 per ha.

Indonesia, has led to oversupply. Demand has not expanded on a scale sufficient to absorb this increase in supply.

Oversupply is also fuelled by the lack of viable alternatives for small cocoa producers. Diversification out of cocoa, as advocated by Northern governments, is usually neither profitable nor feasible given current market conditions. First, most cash crops (such as cocoa) have seen a drastic decline in prices. Second, food crops are not much more profitable than cocoa, so there is no incentive to justify the significant costs involved in switching production in the absence of access to credit or technical support. This low profitability of food crops is partly the result of the lack of market access in OECD countries. Therefore, as long as harvesting costs are covered (harvesting is usually done by the family), farmers keep on producing, even with rapidly falling prices.

Cocoa prices are highly volatile. International prices fluctuate according to macroeconomic conditions in OECD countries, whose average annual demand has varied over the past 50 years by anything between 0.4% and 5.5%. Cocoa is also highly susceptible to the vagaries of disease and weather, which can provoke wide fluctuations in world production from one year to the other. There is also a time lag between increase of demand and increase of production as it takes at least three years for trees to start producing. This lag further contributes to price volatility. Finally, price volatility is magnified by trading in cocoa on futures markets. Speculation on these markets is huge (the volume of cocoa traded in futures contracts is ten times higher than actual world production) and rarely corresponds to production, consumption or price.

Price volatility makes cocoa farmers even more vulnerable, as they never know in advance what the international price will be when the harvest comes, and cannot plan their production accordingly.

A lack of competition along the cocoa supply chain means that farmers capture as little as 0.5% of the retail price for cocoa.[2] Small farmers, often cash strapped and isolated, are easy prey for local traders, exporters and subsidiaries of multinational trading and processing companies, which can offer them low prices in exchange for their crop. The fact that processing is controlled by powerful multinationals, and that retail outlets are concentrated in the hands of supermarket chains, means that corporations can use monopolistic buying practices to artificially inflate prices. This in turn reduces demand for cocoa, contributes to excess supply and exerts a downward pressure on producer prices.

The difficult conditions faced by producers are not only the result of international markets. Local market factors can make a sizeable difference in terms of farmers' income. Good access to technical assistance, inputs, credit, transportation, and marketing information are critical for ensuring that small farmers get a good price for their products. They are also necessary conditions for improving yields, quality of production and processing capacities at the farm level. Conversely, taxation at local and national levels, can also place a heavy burden on small farmers, as can regulations that prevent competition between intermediaries along the supply chain (such as trade or export licenses for instance) or discourage the creation of strong producers' associations.

Despite the obvious importance of local conditions on market outcomes, few producer countries have policies that provide small farmers with a level playing field. Poorly-designed cocoa market liberalisation reforms in producer countries have left many small producers without any access to credit, inputs or markets, and clearly unable to compete with bigger plantations. Yields and quality of crop have often decreased following these reforms, reducing even further the meagre income of small producers.

[2] It should be noted that the average chocolate bar sold in the UK contains only 20% cocoa, which means that the farmer's share of the retail price is necessarily in a low range.

As outlined in this paper and the attached discussion note, major policy changes are urgently needed to provide some relief to small producers and allow them to earn a decent income from their activities.

Low international prices

Supply management is needed in the short-to-medium term to raise international cocoa prices and provide some relief to cocoa producers, before more sustainable solutions can be found to the problem of oversupply. The ICCO agreement, which (unsuccessfully) set out to achieve these goals, is due to be renegotiated in November 2000. It needs to ensure strong cooperation between producer and consumer countries to present a united front in withholding supply to promote prices.

In the longer term, production management is a necessary condition for stabilising prices at more remunerative levels. The main obstacles to this are insufficient cooperation and trust between producer countries, and the lack of instruments at national level to control production given that marketing boards have been dismantled. However, these hurdles can be overcome by the reintroduction of strong regulatory bodies in producing countries.

Diversification out of the cocoa sector in producer countries is another essential requirement for bringing about a better balance between world demand and supply in the cocoa market. This will require greater market access for Southern agricultural commodities and processed food products in OECD countries, better coordinated and larger projects financing diversification initiatives at country level, and wider access to credit for small producers willing to switch production. It will also require public investment in infrastructure and better access to credit and technical assistance for smallholders

An industry-led proposal known as the International Sustainable Production Programme emphasises long-term partnerships between small producers and chocolate manufacturers to develop future cocoa production in environmentally, financially and culturally sustainable ways. Methods of production that foster environmental conservation and higher bean quality must be encouraged, especially in countries where more intensive cocoa production leads to environmental degradation because of deforestation and water pollution. Sustainable production is also desirable because it suits smallholders (rather than plantations). However the plan offers no concrete solution to global oversupply, and may actually exacerbate the problem by encouraging more production. Producer countries are suspicious of the initiative, arguing that it is an industry-led attempt to ensure future oversupply and low prices

Price volatility

The World Bank Initiative for a price insurance mechanism (offering a guaranteed price floor to producers) should be supported.. But price insurance is unlikely to be enough on its own without significant efforts at supply/production management since prices are on a long-term decline. Therefore, price floors via insurance could reduce short-term price risk but would not provide producers with a higher income since price floors would be still very low compared with production costs. Far more has to be done to protect vulnerable farmers from the market

A ‘Tobin’ tax on commodity transactions, whereby a very small tax is levied on futures contracts, could complement the scheme put forward by the World Bank. As well as reducing the volatility of the market (by curbing speculation) the tax revenue could fund a variety of aims: diversification of production, or price insurance management for small producers.

Low share of export and retail price to farmers

Farmers get a very low proportion of the retail price of chocolate, and of the export price of their cocoa. This is mainly due to the fact that most of the value added to cocoa between the farm gate and the retail outlets is captured by intermediaries, including major multinationals. Small farmers are powerless in relation to local traders, exporters and subsidiaries of major multinationals and are unable to negotiate a good price for cocoa. Because of poor access to credit, infrastructure, transportation and information, or lack of competition between traders, small farmers cannot choose their buyer or the timing of their sales.

Fair trade channels guarantee a higher floor price (US$ 1,750 per tonne) for cocoa than prices offered by intermediaries. Unfortunately, less than 1% of the world cocoa production is traded on fair trade terms. Because of trends towards vertical integration, multinational companies are buying more and more directly at the source. They could therefore be pressured either to provide a price similar to the one fair trade organisations provide, or require their suppliers to offer these prices.

The development of producers' associations is another key to increasing the bargaining power of farmers. Associations can provide information to their members about international prices and production techniques and gaining access to credit and price insurance. They can also enable farmers to do some initial processing which significantly raises the value of cocoa beans. Local processing significantly raises the proportion of value-added retained at a local level by producers. By marketing bigger volumes of production, cooperatives could also sell their products directly to exporters and international buyers.

Finally, appropriate market regulation - for instance lower export taxes and no licensing fees on intermediaries - can help decrease marketing costs and foster competition among intermediaries, both of which contribute to higher producer prices. To avoid cartels and monopolistic behaviour, strong regulatory bodies should be put into place to monitor competition. Finally, improvement in rural infrastructure, transportation, storage capacities and communications would help farmers market their products at a better price, and when necessary, bypass local intermediaries.

Yields and quality

There is evidence that liberalisation has led to declining quality and yields, which reduces the premiums available on international markets for cocoa. This is because cocoa marketing boards were used to prevent the sale of small beans and ensured tight quality control; restrictions that were lifted with liberalisation and market deregulation. Despite the lessons of the problems encountered when coffee markets were liberalised, no alternative systems have been put into place (with the exception of Ghana, which plans to keep government imposed quality controls).

Regulatory boards are needed to replace the old marketing boards. Their activities should be aimed at monitoring markets (including adequate level of competition between intermediaries), but also at levelling the playing field for small farmers through technical assistance, provision of credit guarantees and building storage facilities (to ensure quality and enable crops to be used as collateral). When appropriate, import duties on inputs need to be eliminated and competition between input suppliers encouraged.

The cocoa industry is currently developing many different hybrid varieties with particular attributes; disease and pest resistance, flavour, yields etc. These new varieties could help protect small farmers against catastrophic loss of their crop through weather, disease or pests. While these new varieties would mean higher and more stable yields for small farmers, their widespread introduction might contribute to more oversupply. These varieties work best for larger plantations because they require greater use of chemical inputs to which are unaffordable for small farmers. Increased use of inputs also raises environmental concerns.

However, technical assistance to improve yields and quality by using traditional varieties of tree and growing methods would be desirable as they are more suited to smallholder production and better protect the environment.

Section 1. Production, consumption and prices

Cocoa production

Production of cocoa, the key ingredient in chocolate, has expanded and increased sharply during the twentieth century. Cocoa is produced by more than fifty developing countries across Asia, Africa and Latin America – all of which are in tropical or semi-tropical areas.

In the 1999/2000 harvest, world production of cocoa tipped the scales at just over 3 million tonnes - an increase of 6.3% on the previous year (2.75 million tonnes) and a new record high – up 0.7 million tonnes from only 5 years ago. Production has been rising fairly steadily over the past ten years fueled by increasing production in the Côte D'Ivoire and Ghana as well as the tripling of production within a decade in Indonesia.

It is estimated that 70% of world cocoa production comes from smallholdings[3], though some put the figure as high as 90%[4] It is estimated that there are currently 2.5 million cocoa smallholders. If one included those for whom cocoa is not the main activity, the figure could reach 3 million.[5] Smallholder yields average 350kg per hectare, but range from 200kg in Ecuador, to 1,500kg in Indonesia. Smallholdings average around 3 hectares, but vary between 0.9ha in Cameroon, to 13.3ha in Indonesia (35ha in Brazil) on average.

Overall the cocoa market is characterised by a heavy concentration of production in West Africa – which leaves world production (and hence world price) at the tender mercies of the West African weather. Despite the large number of producing countries, around 70% of the world's cocoa production comes from just three countries – Ghana, Côte D'Ivoire and Indonesia. Outside of these countries Nigeria, Brazil, Cameroon, Malaysia and Ecuador together produce 20% of output. The other forty countries produce just 10% of the total.[6]

Cocoa consumption

One way of judging the level of demand for cocoa and cocoa products is to look at the volume of cocoa being ground (processed) each year. In 1999/2000 the volume of 'grindings' also reached a record level of 2.832 million tonnes (out of the total production of 3.046 million tonnes).
Two thirds of all cocoa is ground in the consuming countries of the north, which are the main consumers of chocolate.[7] In 1997/98, the US comes out as the world's largest consumer of chocolate, eating a fattening one-quarter of the world's share. Trailing far behind are Germany (11%), the United Kingdom and France (with 7% each), then the Russian Federation, Japan and Brazil with around 4% each.[8]

Falling commodity prices and price fluctuations

The price of cocoa on the international markets has declined by more than half over the last 20 years. 1999 heralded a particularly steep fall in price. By the end of the year cocoa stood at 41 cents a kilogram – a 27-year low and a level that persisted throughout most of 2000.[9] This downward trend is

[3] ICCO, www.icco.org/questions/environ.htm
[4] CIRAD, www.cirad.fr/presentation/en/idr/cacao.htm

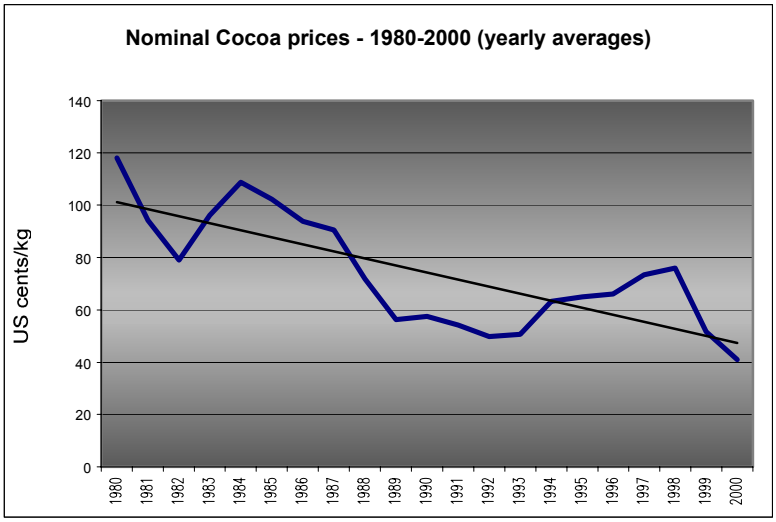
[5] ICCO estimates.
[6] LMC, The World Cocoa Market Outlook, 2000
[7] EIU commodity report
[8] LMC Cocoa report
[9] Fair Trade Study 2000, Oxford Policy Management.

reflected in the general picture of the international commodity market, which, over the past fifty years, has seen a consistent and drastic decline in the price of commodities.

There are in fact two structural problems facing cocoa producers. The first is the downward spiral in cocoa prices. The second is the short to medium term fluctuation in the price of the cocoa as set by the international commodity markets in London (LIFFE) and New York (CSCE). The former reduces the income of farmers, and the revenue of producer governments. The latter means that farmers (and governments) are not able to plan in advance as they cannot determine the price they will receive.

Declining prices

Figure 1 shows how cocoa prices have decreased between 1980 and 2000. In real terms, prices have decreased by over 77% over the last two decades.[10] The sharp decline in cocoa prices has had devastating consequences on small producers and plantation workers. At the macro level, countries dependent on cocoa production have seen a decline in economic growth and government revenues. For example, cocoa and robusta coffee combined provided almost half of the Cote d'Ivoire's export revenues in 1998.[11] The recent slumps in the prices of cocoa and coffee caused total exports to fall from US$4.6bn in 1998 to US$3.7 billion in 1999.[12] Real GDP growth slowed to 4% from an initial target of 6% - largely as a result of the 30% drop in world cocoa prices.[13] Cocoa is the government's primary source of revenue and with the world price of cocoa slipping constantly this has drained reserves of foreign exchange.



The price of cocoa reached a 27-year low in October 2000, selling for only 91cents per kilo. By comparison, the fair trade price for cocoa, which would ensure a decent living for farmers, is $1.75 per kilo. **A farmer from Ghana with 2 hectares would make only $240 a year (around 65 US cents per day or just over half of the extreme poverty threshold) at current prices).**[14] If the farmer received fair trade prices, he would have made $460, thereby doubling his income.

If international prices had remained at their 1980 level (i.e. $2.1kg), producing countries would have received an extra $24 billion in export revenues over the last 20 years. Cote d'Ivoire would

[10] ICCO statistics
[11] Economist Intelligence Unit Country Profile 2000
[12] Ibid
[13] Ibid
[14] Assuming that he received 70% of the export price, had a yield of 280kg/ha and production costs of $60/ha.

have received an extra $7.7 billion, equivalent to just under 80% of its total net overseas development assistance for the same period. On average, Cote d'Ivoire has lost around $400 million per year in export revenue – a figure which represents almost its entire annual education budget.[15]

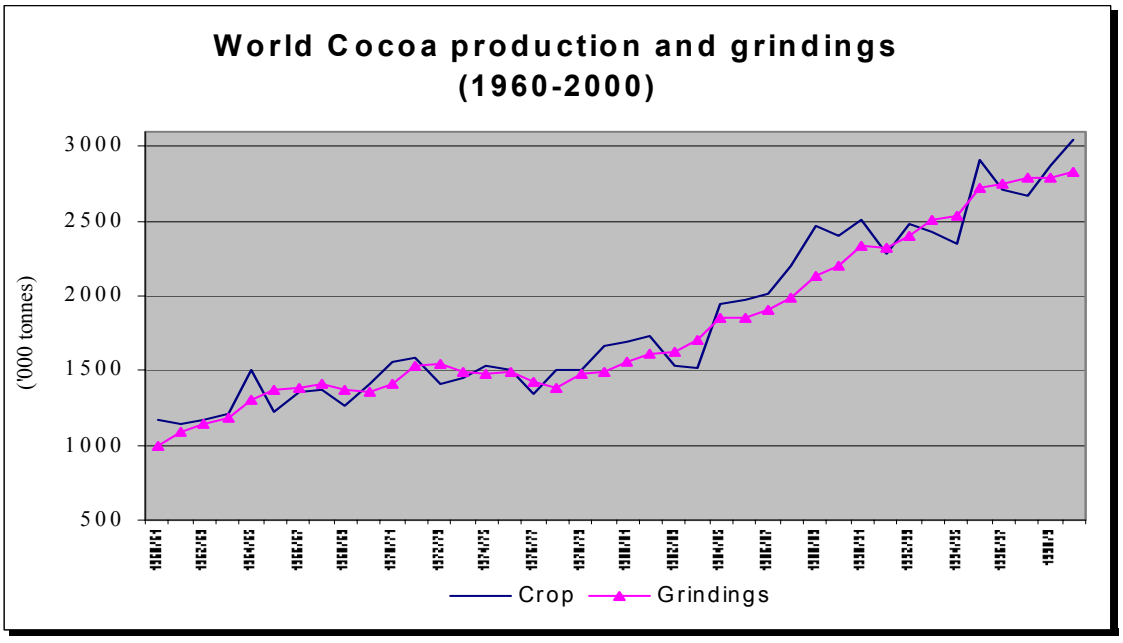
Causes for declining prices

The main cause of the long-term decrease in cocoa prices is the chronic imbalance between world supply and demand.

As shown by the figure below, demand and supply seem to have increased at roughly the same rate over the last 40 years. Production of cocoa, the key ingredient in chocolate, has increased by 162% between 1960/61 and 1999/2000 or around 4% annually. During the same period, demand increased by 182%.

However, looking more closely at the graph, in fact there have been several periods of significant imbalance between supply and demand. These periods of oversupply result in an accumulation of stocks, which forces down prices (as buyers and sellers both know there is more cocoa than the market wants). In recent years, production, given the already high levels of stocks, has been greater than demand, during a period of excessive stocks. In 1999, stocks represented over 50% of annual world demand. The result has been an unprecedented price slump.

Figure 2:



Public intervention by governments and the macroeconomic context in producing countries can encourage oversupply. The recent increase in world production, which has led to massive oversupply, was fuelled by increasing production in the Côte d'Ivoire and Ghana, as well as the tripling of production within a decade in Indonesia. New plantations in Côte d'Ivoire and Indonesia have been strongly encouraged by land clearance schemes, land grants and tax exemptions. For all these countries, increasing production has become a priority to generate export revenues (often to pay national debts) and to provide livelihoods in rural areas. The result of this uncoordinated increase in

[15] All figures in current US$. Production figures: FAO database, cocoa prices: ICCO statistics, ODA figures: OECD, DAC database, Cote d'Ivoire education figure: UNDP Human Development Report 2000

production is that all the producer countries lose out over the long term due to the decline in prices. Competitive devaluation (Indonesia) or the government subsidisation of price (Côte d'Ivoire) also contribute to the problem, since they prevent supply from falling in response to low prices.

Causes of price volatility

Demand for cocoa depends initially on the fluctuating economic health of OECD countries. This is a major source of price volatility. Over the past 50 years average annual demand has grown by anything between 0.4% and 5.5%.

Supply-side factors are also important. World supply fluctuates quite widely from one year to the other. As with many other crops, cocoa is affected by a cyclical pattern of production – where a bumper harvest one season is offset by a poorer crop the next as the exhausted trees recover. The cocoa tree can be fairly susceptible to disease and weather (such as El Niño). For example, production in Brazil's main growing region of Bahia fell dramatically from 378,000 tonnes in 1990/91 to 118,700 tonnes in 1999/00 after the appearance of the witches broom fungus in the late 1980s. The fungus has spread so rapidly that it is thought to be present in 99% of the region.[16]

As with the coffee tree, the cocoa tree itself explains part of the apparent discrepancy between world price trends on the one side and production on the other. Faced with conflicting price signals, producers respond by planting new trees when prices are on the rise. But actual supply does not increase right away because it takes three years for new cocoa trees to start producing. Once trees are planted, they produce for 25 years, which means that supply is ratcheted up every time prices increase, contributing to oversupply.

The time lag between demand (which raises prices and encourages new planting) and supply (which eventually over-satisfies the demand and drops the price) is crucial to understanding the price fluctuations and overall behaviour of the market. When low prices cause a reduction in the planting of new trees, there is a delay in clearing the mature trees before production begins to decline. If the growth of demand is constant, demand eventually outstrips supply, the quantity of stocks fall and prices climb back up again. This in turn causes a renewed interest in planting trees. There is a delay of several years before the trees reach fully productive maturity, leading to oversupply and falling prices. The cycle reaches its conclusion only to set off once more. In effect, the producer is trapped in a vicious circle

The role of speculation

Cocoa is attractive to investors precisely because it is relatively volatile. Price volatility encourages futures trading, which in turn magnifies volatility. Cocoa is sold in both London and New York – so it is possible to buy in one place and sell in the other (a practice known as 'arbitrage') – allowing the investor to take advantage of currency fluctuations. On a single day, there can be up to 31,000 options contracts (of 10 tons each) in New York. Daily trade value can reach a billion pounds sterling on the cocoa commodity markets in London alone. Speculation is currently huge – the volume of cocoa traded in futures contracts is ten times that of actual world production.

The president of the New York Cocoa exchange has said: 'Since we make our income on volume, we like volatility. We prefer high volatility periods because it keeps the market more active.' As for

[16] LMC, The World Cocoa Market Outlook, 2000

capital markets, the cocoa market tends to overreact to information, including inaccurate information, inducing unwarranted fluctuations in price. Increased communication, computer based trading and rapid information sharing have all contributed to the rise of speculation.

To make things worse, speculation on international markets often gives wrong price signals to producers A good example of this occurred when in 1998, producer organisations, researchers, environmentalists, NGOs and chocolate manufacturers came together to discuss ways to make cocoa growing more sustainable, both in market and environmental terms (see part B of Policy Responses section). Interestingly, the meeting was originally misinterpreted by the New York Times as a crisis meeting to deal with an anticipated world-wide shortage of cocoa. This story was picked by around 350 other news providers and the price of cocoa rose by 5% over the next two months.[17]The price signals sent to producers by speculation have usually little to do with market fundamentals. Major commodity funds make investment decisions depending on fluctuations in other markets (such as stocks or bonds). One detailed study of price trends in 1993 to 1994 found that fluctuations in the price of cocoa directly mirrored changes in speculation by large investors. The study concluded that *'the rise of cocoa prices was largely initiated and sustained by managed fund investment'*.[18]

A grim future for cocoa producers?

Future market prospects will depend on changing patterns of supply and demand. None of the information available provides a cause for optimism, except for the news of an excepted drop in cocoa production in 2000.

The United Nations Cocoa conference in charge of the 1993 International Cocoa Agreement is currently under review has failed to reach an agreement on whether to introduce supply and production management objectives and specific instruments. Negotiations are expected to restart in February 2001 but prospects of an agreement with strong economic components are limited.

In the longer-term, traditional markets such as the United States and Western Europe are close to saturation. But new markets could expand if household incomes rise, such as Central and Eastern Europe, Russia and China. In developing countries consumption of chocolate is limited. Asia, Africa and Latin America account for 75% of the world's population and yet consume just 20% of the world's cocoa. In addition to the high price of chocolate, climatic conditions make it difficult to store and consume chocolate. Africa consumes just 2% of the world's cocoa.

Unfortunately for small cocoa producers supply is likely to increase faster than demand. Several countries, such as Nigeria, plan to double their output in the next 5 years. Indonesia's stated objective is to overtake Cote d'Ivoire as the world's largest producer of cocoa within a few years. Moreover, regulatory and technological developments might reduce the overall demand for cocoa, thereby worsening the current crisis in the cocoa sector. The change in the EU's definition of chocolate could pose a significant threat to future demand (see box below).

The European Union's chocolate directive

After intensive lobbying from the chocolate industry, the EU passed a new chocolate directive in May 2000. The directive modified the definition of chocolate, allowing vegetable fats (up to 5% of the final product weight) to be used in chocolate as a partial replacement for expensive cocoa butter. This recipe is already permitted in the UK and the directive harmonised European Union regulations accordingly.

[17] It is not clear that these are directly related.
[18] New types of non-trade-related participation in commodity futures markets, UNCTAD Secretariat report, May 1996

Opponents in the International Cocoa Organisation argued that this undermined the promotion of chocolate, and that it would lead to less cocoa being used in chocolate. This, they suggested, would cut demand for cocoa by between 100,000 and 180,000 tonnes of cocoa each year. A long-term decline in the consumption of cocoa, lower cocoa prices and reduced producer incomes would result. They estimated that by 2005/6, cocoa production would be 50,000 tonnes less and prices about 8% lower representing (in constant 1995 terms) a loss in revenue to cocoa producers of US$780m.[19]

However, other observers argued that the real impact would be much smaller.[20] The Economist Intelligence Unit, for example, pointed out that the use of vegetable fats in chocolate would allow more innovation in types of product and would also permit chocolate to be stored in hot climates – which could only serve to increase general demand. They suggested that these benefits would more than compensate any reduction in demand caused by less cocoa in European chocolate.

Multinational funded advances in biotechnology pose new threats on the supply and demand side. New technologies are being used to develop higher yielding trees. For instance, Ghana's Cocoa Research Institute has been raising large numbers of cocoa seedlings of the high yielding, early maturing hybrid varieties and distributing them to farmers. Research is being conducted varieties of cocoa that can be grown in countries such as Vietnam and Australia. A major collaborative project is underway to investigate the feasibility of growing cocoa in northern Australia. The research is being driven by Cadbury-Schweppes Australia, who are concerned about declining world cocoa stocks. The company intends to introduce cloned cocoa into the region, which produces higher yields. These developments have potentially serious consequences for oversupply.

There is mounting concern that biotechnology patents could have devastating effects for cocoa farmers. A British-based company, Mars UK, has patented two genes thought to be responsible for the taste of high quality West African *Amelonado* cocoa (the main variety grown in Ghana and Nigeria) – cocoa that is used in the world's finest chocolate. These genes could be transferred into lower quality, higher yielding and cheaper varieties of cocoa, creating the *impression* of quality. Cocoa traders and retailers would save huge amounts of money by not paying the premium attached to the high quality cocoa, thus depriving Nigerian and Ghanaian cocoa farmers of their livelihoods.

Even more worryingly, these patents allow companies based in the North to substitute cocoa crops based in the South. According to the patents, the intention is to produce the flavour of West African cocoa in laboratories by transferring the genes into vats of yeast. Cocoa dependent countries fear that the use of cheaper artificial substitutes will imperil their cocoa exports. Biotechnology firms have already replaced a substantial part of sugar crops from developing countries. This was done by using sweeteners derived from crops that can be grown in the North, and resulted in the collapse of entire economies in the Caribbean and parts of the Philippines.

Like Mars UK, a Danish company, Aarhus Oliefabrik, has taken out two patents on gene coding for flavour producing proteins in cocoa. These compounds have anti-cancer, anti-microbial and anti-oxidant properties. If cocoa is already being used for similar medicinal purposes in producing countries this would be a clear case of bio-piracy. According to World Trade Organisation rules, companies are allowed to patent the cells that make up plants and then charge farmers license fees to grow them. Under the agreement on Trade Related Intellectual Property Rights (TRIPS), the 135 WTO members must recognise patents on the genes and cells of plants and animals in their local laws, a ruling which many African countries argue amounts to legalised theft. ActionAid is developing research.

[19] ICCO website
[20] The Economist Intelligence Unit, Commodities Study, 2000

ActionAid is developing research into the potential impacts of TRIPs on small producers and world food security. They argue that the potential benefits of genetically modified varieties (such as greater yields or disease resistance) are likely to be far outweighed by the privatisation of control over crops.

Meanwhile, exporters are transporting cocoa in greater and greater bulk. As transport in bulk damages the quality of the beans this is leading to less demand for high quality beans (whose premium would be destroyed in transit). This constitutes a threat to many West African farmers, who often specialise in high quality beans.

Policy Responses

A/. Supply management

The International Cocoa Agreement (ICA), which is due to be renegotiated in November 2000,[21] needs to provide an effective policy response to the problem of oversupply. In the past, it has not been an effective instrument for ensuring balance between demand and supply for the following reasons:

1. Export quota and buffer stock arrangements contained in past international agreements (1972, 1975, 1980, 1986) were abandoned in 1990. Due to a decline in market prices, buffer stocks accumulated to an unsustainable level of 250,000 metric tons in 1990. Members failed to pay their levies to finance stocks and disagreed on the level of price support, causing the collapse of the agreement.

2. The international agreement negotiated in 1993 is weak and ineffective (see key elements of the 1993 agreement in annex) for at least three reasons:
   - The 'Production Management Plan', designed to reduce world production, was only negotiated in 1998. Its modest goal to reduce the size of stock relative to consumption levels has neither been achieved nor monitored.
   - The non-participation of major producers (Indonesia) and importers (United States) means that the percentage of world production and grindings covered by the current ICCA has been declining to 82.9% and 70.9% respectively, reducing its effectiveness.
   - Provisions about working conditions and environmental considerations have not been implemented.

As the re-negotiations start, and prices hit a 27-year low, consumer and producer countries are divided about what a new ICA should entail. Producer member countries are in favour of stronger supply management focused on the elimination of low-grade cocoa from the production and marketing chain.

The main goal of the consumer countries is to ensure a reliable supply of cocoa for world consumption, not higher prices for producers. To ensure reliability, they want dependence on a single region (i.e. West Africa) to be reduced. Moreover they want to abolish the provisions of the 1993 agreement which refer to production management.[22]

Consumer countries are cynical about production management, claiming that it has been used in the past by producer countries as an empty threat to manipulate prices. They claim that oversupply is best resolved by long-term crop diversification coupled with investment in higher quality cocoa production.[23]

The Cocoa Producer's Alliance,[24] which accounts for 85% of world production, has announced that it will attempt to manage supply outside of the ICA framework since consumer countries have clearly voiced their opposition and hold voting rights in the ICCO. The objective of the CPA is to eliminate 10% of the world cocoa production from the market by withdrawing low-grade cocoa. Its goals also include finding alternative uses for low-grade cocoa and encouraging diversification.

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[21] The negotiating dates are the 13th to 24th of November. In the absence of an immediate agreement, negotiations could continue until the end of September 2001 when the extended 1993 agreement expires.
[22] Robin Stainer. Reform Roadblock? Coffee and Cocoa International, May/June 1999.
[23] Robin Stainer. Reform Roadblock? Coffee and Cocoa International, May/June 1999
[24] Brazil, Cameroon, Cote d'Ivoire, Dominican Republic, Ecuador, Gabon, Ghana, Malaysia, Mexico, Nigeria, Sao Tom and Principe, Togo, Trinidad and Tobago.

Key countries from West Africa (Côte d'Ivoire, Ghana, Cameroon and Nigeria), representing three-quarters of world production, agreed in July 2000 to destroy 250,000 tons of cocoa in the 2000/2001 season. Markets have been sceptical about whether this agreement will be implemented. In the past, producers have only managed to destroy negligible amounts of damaged/poor quality cocoa beans. Cameroon and the Côte d'Ivoire have announced that taxes will be levied on farmers and exporters to finance the plan and compensate growers for their losses. Côte d'Ivoire has also prohibited the export of small beans (though this ban seems to have been lifted in September 2000) and started to plan the destruction of low-quality cocoa plantations

Though the objectives of this plan are valid, implementation could be problematic: it is to be financed through taxes on farmers who are already impoverished as a result of the low international prices. The plan's benefits are more than uncertain due to the lack of credibility of the plan in the eyes of market players and past failures to destroy significant amounts of sellable cocoa beans. In addition, political realities dictate that the smallest, and most impoverished producers are more likely to see their lower-quality production destroyed than larger producers, and are less likely to receive compensation. Improving chances of success will require:

- Independent monitoring;
- Indonesia's participation;
- Transparency in destruction and compensation process;
- Financial support by donors (rather than taxation on producers).

B/. The international sustainable production programme

An alternative proposal for ensuring a long-term equilibrium between supply and demand focuses on achieving an assured and sustainable supply of cocoa through the development of smallholder production via research and development of direct links between major buyers and cooperatives.

In March 1998, a meeting in Panama brought together representatives of producers, researchers, NGOs, the environmental community and chocolate manufacturers to discuss ways to make cocoa growing more sustainable – both in environmental and market terms. The resulting declaration of intent, signed by the representatives, paved the way for an internationally coordinated research and development programme (the International Sustainable Cocoa Programme) to understand and implement better practices in small farms in bio-diverse tropical regions around the world. This is being coordinated by the American Cocoa Research Institute (ACRI); the research arm of the American chocolate industry and is supported by the world chocolate industries.

The rhetoric announces an integrated global approach to cocoa research, which aims to ensure a sustainable and geographically diverse supply of cocoa. 'We share a broad vision for the future of cocoa production which includes long-term profitability for the small farmer, environmental preservation and a dependable cocoa bean supply' says Carol Knight of the ACRI.

The programme includes research on agroecology (selecting plant varieties that perform well in a sustainable environment), identifying new growing regions (to reduce reliance on West Africa), developing new techniques for dealing with pests and disease (which cause up to 40% crop losses) and learning from other small producers' economic models to develop ideas of 'best practice'. There is also a pilot project to buy cocoa directly from farmers' cooperatives.

Cocoa producers are suspicious of the industry-wide initiative, fearing that it could be aimed at increasing supply and thereby keeping the squeeze on the cocoa producers. The Cocoa Producers Alliance claims that the programme will result in a 50% increase in production. Likewise the Fair Trade movement has criticised the initiative, which they believe concentrates too much on efficient production and high yields and which will result in inevitable over production and low prices. The

ICCO, for its part, thinks the initiative should focus less on increasing supply, and more on expanding consumption.

C/. Diversification

One way of tackling both the long term price decline of cocoa, and the vulnerability of small producers to price volatility is to diversify production away from dependence on cocoa. This happening in Malaysia where the government is actively supporting diversification away from the production of cocoa towards more profitable commodities such as the oil palm. By reducing production, diversification supports higher prices and ensures higher incomes. By varying production, diversification can protect small producers (and national economies) from slumps in particular commodity prices or the impacts of poor harvests.

Successful diversification faces various obstacles. First, it is not always possible to grow alternative crops in the particularly hot, wet conditions needed by cocoa. Second, diversification needs to be profitable to the individual farmer, which means that the profitability of switching cocoa production to another crop must be apparent. The problem here is that most other cash crops face a long-term price decline similar to the experience of cocoa. In addition, diversification has high transition costs. It is expensive to diversify, as producers have to tear down cocoa trees, plant other crops and learn new skills. Farming in a more diversified way also loses the smallholder some of the economies of scale (however small) that made the crop profitable in the first place.

The market restrictions in the US and EU are among the most important obstacles to successful diversification. Tariffs, quotas and phytosanitary barriers remain on major food crops produced in the United States and the European Union. As a result, developing countries can only grow crops that cannot be produced in Northern countries and are effectively shut out of the production of maize, wheat and other essential food crops. The protectionism continues to impoverish small producers, stall economic development and maintain dependence on aid.

D/. Risk management Schemes

One way of insulating producers is to provide risk management, instead of trying to reduce international price volatility directly.

National price stabilisation programmes have been abandoned in all major producing countries (CHECK GHANA). When crop liberalization programs were put in place by governments pressured by the World Bank and the IMF, no other mechanism was created to protect farmers though it was clear that these reforms would leave them without any protection in countries. Counting on private players to offer price insurance was unrealistic as financial and insurance markets are clearly underdeveloped in most producing countries.

It is worthwhile mentioning that both the United States and the European Union do not leave it to the market to provide farmers with protection against price volatility. The European Union stabilises producer prices through the Common Agricultural Policy. The United States provides subsidies for crop revenue insurance, which covers them against price decline and crop loss due to bad weather. No one is arguing in favour of replicating these costly schemes in producer countries. But the central role of government into agricultural production and marketing suggests that it is not realistic to expect poor farmers from the developing world to deal with price volatility while farmers in OECD with much higher income, access to credit and markets, cannot do it without public intervention.

Widening small farmer access to price insurance: the World Bank initiative

To fill in this vacuum created by ill-planned liberalization reforms, an International Taskforce on Commodity Risk Management (ITF), led by the World Bank, has just launched an initiative focused on widening the access of small farmers to price insurance products available on financial markets to protect them from price volatility. Greater access to financial market risk management schemes would, in theory, enable farmers to shelter themselves from price volatility at a lower cost and more efficiently than with traditional risk coping methods (such as inter-cropping or informal credit). In practice, there are many obstacles to extending access to small producers:

- **Cost**: Small farmers might not be able or willing to pay for the premium (i.e. crop insurance or option)

- **Volumes involved**: To limit transaction costs, insurance and financial market instruments always involve large volumes of commodity, which is much higher than the production volume of small producers.

- **Risk**: providers of risk management instruments (local traders, exporters, and international commodity exchanges) are vulnerable to several types of risk.[25] Therefore, providers are unlikely to sell instruments to small producers or to producers in the poorest countries. If they enter into forward contracts, they are likely to do it at a very high price to the farmer (i.e. fixing a price well below the anticipated trade price, or buying well in advance). In most instances, farmers enter into forward contracts because they need immediate cash rather than because they want to limit price risk. As a result, their bargaining power is minimal.

- **Political obstacles**: farmers might not have information about these instruments and might not be willing to use them. In Africa, cooperatives, which would be natural intermediaries for linking the farmers to financial markets were often used to tax the farmers further and gained a bad reputation.

To ensure wider access to small producers, the World Bank proposes to create an international organization to help mediate the gap between providers of risk management instruments and interested entities in developing countries (such as large farmers and producer cooperatives, commodity traders and processors, local rural banks and public bodies). The intermediation agency would provide partial guarantees (notably against sovereign risk) to encourage market offers of price insurance to small farmers, provide price insurance directly (in the absence of market supply) and provide core services and technical assistance. While generally working on a commercial basis, the agency would have a separate budget (funded by aid resources) to help the poorest producers pay for the premium of price insurance.

This approach has some potential, along with some serious limitations. None of the measures cited above would protect farmers against ***long-term*** price risk as risk instruments typically have a maturity of between 1 to 12 months and, in exceptional cases, up to 24 months. In addition, in periods of very low prices, these instruments might provide a price floor that is still below production costs. While such schemes would help stabilise the level of farmers' income, the level at which it would be stabilised would be still insufficient to prevent further indebtedness and impoverishment. Unless they are complemented by production risk management schemes, ***price risk instruments do not provide income protection***, since the farmer is still vulnerable to a catastrophic decline in production. There is a possibility that these instruments could also worsen chronic oversupply if they created a

[25] Such as commercial risk (default of counterparty due to insolvency), basis risk (change in the relationship between local and international price due to location, quality, storage, transportation and processing costs), Country risk (country-specific risk such as government policy change — e.g. export bans or weak legal infrastructure to resolve contract disputes) and events risk (default due to natural or man-made disaster).

reasonable floor price. Farmers would have wider access to credit, and might be tempted to invest to increase yields or plantation area to take advantage of potentially higher prices at harvest time.

Finally, the implementation of the World Bank proposal requires significant capacity building in producing countries to make sure that small farmers gain access to price insurance. Too often, these instruments never reach the intended targets. At an international level, it is crucial to choose a proper home for the proposed organisation that guarantees efficiency, solvency and sense of "ownership" by developing countries.

Section 2. Processing and marketing arrangements

The impacts of trade liberalisation and market deregulation

Until the 1990s most producing countries heavily regulated the cocoa sector. Under pressure from international institutions like the IMF and the World Bank, most cocoa producing countries abolished marketing boards and allowed private players into the market, eliminated price fixing and support mechanisms, as well as reduced export taxes. In most cases, liberalisation occurred at the beginning of the 1990's. However, Côte d'Ivoire's began liberalisation in 1999, and Ghana's marketing system has only been partially liberalised.

One motive for these reforms was that producers were getting too small a share of the international price from government run marketing boards due to high marketing costs and high taxes. Marketing boards were seen as inefficient and corrupt, often failing to pay to farmers on time. Export taxes on cocoa were used as a major source of government revenue, which reduced the price received by producers even further. But the marketing board system also had its advantages: it provided small farmers with guaranteed market access, stable and fixed prices, quality control measures, cheap access to inputs and technical assistance to increase production.

However, in many countries, liberalisation reforms occurred 'overnight' without taking into account the need to establish mechanisms to safeguard production, quality and producer incomes beforehand. The end result has been a serious disintegration of cocoa marketing and distribution networks as well as sharp drops in the net incomes of small producers. Côte d'Ivoire was a particularly severe example of this.

In Côte d'Ivoire, the absence of any kind of preparations prior to liberalisation led to total mayhem on the market. Previously, the Ivorian marketing board had a financing system in place to phase sales throughout the year. When the old system of forward selling up to two thirds of the crop was abandoned, all the producers sold their harvest at the same time and flooded the market, causing international prices to collapse. The subsequent collapse in price (40% within a year, 1999-2000) caused considerable social unrest in the country as cocoa growers protested at the way the government had liberalised their industry. The reductions in export taxes on cocoa had the added effect of reducing the income of the Ivorian government, which until liberalisation had relied on cocoa for 20% of its entire revenue.

Liberalisation has also led to declining quality and yields, which reduces the premiums available on international markets for cocoa from Nigeria, Ecuador and Cameroon (to pick three examples). In Nigeria, the premium paid for cocoa compared to cocoa from Côte d'Ivoire ranged between £50 and £100 per ton in the 1980s, to zero in the 1990s. This is due to the fact that the marketing board used to prevent the sale of small beans and ensured tight quality control; controls that were relaxed with liberalisation and market deregulation. Despite the lessons of the problems encountered when the coffee market was liberalised, no alternative system was put into place before liberalisation (with the exception of Ghana, which plans to keep government imposed quality controls).

Production fell in several countries: in Cameroon, production fell by 50% the year after liberalisation as the government scaled down extension services and ended input subsidisation. Producers also lost access to credit (formerly provided through the marketing board), making it impossible to finance the purchase of inputs. Private banks refused to plug the gap because of the insolvency risk that producers represent: most of them do not have collateral because as share croppers they do not own land and do not have access to storage facilities that could enable them to use their crops as collateral. Another factor which increases the risk born by lenders is that because of volatility, the value of stock can vary dramatically.

Finally, liberalisation, together with the decrease in import tariffs in consumer countries, has opened up new business opportunities for multinationals in producer countries and led to a growing concentration and vertical integration among traders, grinders and the chocolate manufacturers, where large scale multinational corporations increasingly dominate the processing and marketing chain.

Impact on prices and production for smallholders

Due to liberalisation, the percentage of the export price received by cocoa producers has increased to an average of 70%. However, the impact of ill-imposed liberalisation on international prices often negates any short-term positive benefit to small producers. According to a recent report, a Ghanaian farmer can expect to see just 0.5 pence from a typical milk chocolate bar selling in the UK for 90 pence. This compares with the 5.3 pence farmers get from the fairly traded *Maya Gold* bar, which sells for £1.35.[26]

In the absence of price support mechanisms, farmers' revenues are also much more volatile. Because small farmers do not have adequate savings or access to credit, they are particularly ill-equipped to deal with volatility. Price volatility adds to already high production risk from the disease and weather prone cocoa. This high level of risk results in lower levels of consumption, investment and more inter-cropping, which reduces benefits from specialisation.

Regional differences

Few small farmers actually get 70% of the f.o.b. price. While all farmers obtained the same purchase price under the marketing board system, there are now marked regional differences. In November 1999 producers' associations in Cameroon reported that buying prices in the eastern region were only 33% of the f.o.b. price, 56% in the Central and South Eastern region, and 58% on the Coast. Buying prices were the highest in Cameroon's capital city, Douala (around 68%). Remote and smaller production areas, which do not have all-weather road access to markets may lose their access to markets altogether as difficult access and small volumes make them unprofitable suppliers for private intermediaries.

But the distance to markets is not the only factor. Lack of competition or access to price information can reduce the bargaining power of producers and result in lower producer prices. In the absence of local competition, small farmers also have little access to information and marketing channels, which prevents them from bypassing intermediaries and establishing business links with international buyers. Anemena Denis, a farmer from Mbam in Cameroon, reported that 'there was a lack of buyers in the region' which pushes down farm gate prices.[27] Producers also reported that prices to individual producers were around 10% lower than prices to producers' associations. Similarly, producers' associations in Cameroon noted that there was no improvement in producer prices in 1999 despite the

[26] The Cocoa Chain – Facts, www.oneworld.org/ni/issue304/facts.html
[27] CCIB News, April 200, page 4.

decrease in export tax. Similar observations were made in Cote d'Ivoire. This clearly proves that lack of competition at the local level still prevent the farmer from obtaining a fair share of the price.

Benefits of a Free Cocoa Market: the Experience of Sulawesi

On the Indonesian island of Sulawesi there are virtually no taxes or barriers to entry into the cocoa marketing sector, a policy which has led to high numbers of small-scale middlemen ('collectors'), and larger scale middlemen entering the market. A recent report claims this increase in the number of middlemen has created a more transparent market as greater competition has forced middlemen to give producers a high share of the f.o.b. price in order to stay competitive. In 1997, for example, a tonne of Sulawesi cocoa fetched US$ 150 to 200 less than a tonne of Ivorian cocoa. Despite this, Sulawesi producers were getting 20 to 40 cents/kg more than their Ivorian counterparts. The Sulawesi experience clearly demonstrates that a deregulated market can have a beneficial impact.

However, it is not liberalisation alone that has allowed producers in Sulawesi to operate in a transparent market and receive a high share of the f.o.b. price. Public investment in infrastructure and communications were essential to achieving greater access for farmers to markets as well as greater transparency. Other beneficial factors include an abundance of rainfall and suitable land that favours high yields, as well smallholders' entrepreneurship.

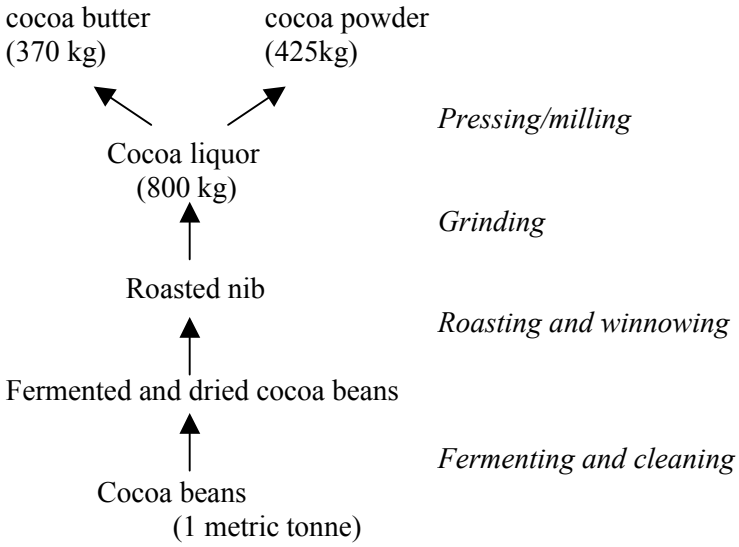
However, the fact that producers receive a high proportion of the f.o.b. price means little if the world price is low. In January 2000, the highest prices received by producers for the whole of Indonesia did not exceed 82 cents/kg, and was as little as 41 cents. These prices fall below the minimum levels deemed necessary to support sustainable livelihoods for growers. A government 'hands off' policy has seen fertiliser costs increase by 100-200% since 1997, while cocoa prices have been in a downward spiral.

Source: Plantations, recherche, développement, May-June 1998/ July-Aug 1999.

The global processing and marketing chain

Once harvested, cocoa beans undergo many different stages of processing before they can be mixed with other ingredients to produce chocolate Cocoa butter and liquor are used to make chocolate, while cocoa powder is used in beverages and other confectionery. Good quality chocolate will contain a relatively high percentage of cocoa (up to 70%), however most of the popular bars in the UK and North America contain only 20%.

The Cocoa Processing Chain



Farmers

As a result of the complex processing chain, farmers receive at best about 5% of the retail value of chocolate. According to a recent report, some farmers can expect to see as little as 0.5 pence from the typical milk chocolate bar selling in the UK for 90 pence.[28] While beans are usually dried, fermented and cleaned on farm grounds, the rest of processing occurs in factories in both producer and consumer countries.

Local traders and exporters

Competition among these intermediaries is essential to ensure that farmers get a fair share of the prices. Farmers in countries that have zero entry barriers to traders and exporters (such as Indonesia and Malaysia) tend to enjoy the highest share of the export price. Other prerequisites for ensuring high levels of competition, are good access for farmers to price information as well as low transportation costs (through development of quality rural infrastructure) and functioning rural credit markets. When these conditions are not met, local traders and exporters are free to expand their profits at the expense of small farmers, especially when cooperatives are weak or non-existent.

International traders and grinders

In 1980, there were more than 30 cocoa trading houses trading in London, now there are fewer than 10. The traders seem to have lost their niche to the cocoa processors who have been vertically integrating to get a presence in all stages of the journey from bean to bar.

The grinding industry is dominated by a handful of very big multinational players. ADM, Barry Callebaut, Cargill and the German Hosta Group control 40% of the world grinding industry. As most

[28] The Cocoa Chain – Facts, www.oneworld.org/ni/issue304/facts.html

multinationals are vertically integrated, they are involved both in trading, grinding, pressing and milling, as well as some chocolate manufacturing. This increases their dominance at many different levels of the market.

Two thirds of all cocoa is ground in the consuming countries of the North.[29] The Netherlands (via ADM Cocoa and Cargill Gerkens Cocoa) were the largest grinders of cocoa in 1999/2000 processing 432,000 tonnes or 15.2% of the worlds share. They were closely followed by the US who ground 430,000 tonnes (also 15%). Côte D'Ivoire, the largest grinder among the cocoa producing countries, ground 230,000 tonnes or 8% of the worlds total. Other important grinders include Germany (7%), Brazil (6.9%), the United Kingdom (5.9%), France (4.2%) and Malaysia (3.5%). The value added from coffee bean to liquor (grinding) is an estimated 30% (based on average f.o.b. price for beans and liquor, 1998).[30]

In terms of cocoa butter production, more than 55% of cocoa butter exports come from developed countries, which provides a rough estimate of their contribution to world production. The Netherlands and France are the two biggest exporters, followed by Indonesia and France. The export price of cocoa butter is 2.5 times that of beans (1999, average US/Netherlands).

The growing penetration of multinationals into national markets has been beneficial to farmers in the short run because of higher competition among buyers. But the competition process might end up in a new powerful monopsony, as local competitors have poorer access to finance and smaller economies of scale. For instance, three processors buy up almost all Cameroon's cocoa.

In June 2000 **Cargill** attempted to increase its market share and buying power in Cote d'Ivoire by offering a higher price to producers: 375 CFA francs (US$ 0.53) as opposed to the 300 or 325 CFA francs (US$43 – 46 cents) that was being offered by most other competitors. One of these competitors complained that this was a tactic by Cargill to increase their purchases in Côte d'Ivoire after which they could force prices back down again.

The domination of multinationals has two other important impacts: on one hand it leads to a fall in the percentage of the international value of cococa retained in the country as these companies use Western countries' services (finance, insurance, logistics). But on the other hand, multinationals are increasingly outsourcing processing to producer countries (as in Côte d'Ivoire), which increases cocoa-related employment.

Chocolate manufacturers

Like the traders and grinders, the confectionery manufacturing sector is controlled by major multinationals. Six manufacturers account for about 50% in global chocolate sales. Ahead of the field is Nestlé, with $7.7 billion worth of sales in 1995 (9.2% of the market). Then comes Mars (US$5.9 bn, 7%), Philip Morris/Kraft Jacob Suchards ($4.8 bn, 5.7%), Cadbury Schweppes ($3.8 bn, 4.5%), Ferrero ($3.5 bn, 4.2%), and Hershey ($3 bn, 3.6%).[31] Each of these manufacturers produce a bewildering variety of different brands – which gives the consumer the impression of choice.

In the UK, the confectionery industry is mainly controlled by Cadbury (20%), Nestle Rowntree (20%), Mars (18%) and Trevor Bassett (10%).[32]

In a typical milk chocolate bar, there is only 12% cocoa liquor and 22.6% cocoa butter (minus 5% if fat substitutes are used). The rest is composed of milk (20%); sugar (45%); lecithin and flavourings.

[29] EIU commodity report
[30] Taking into consideration that 1 ton of beans is needed to producer 800 kg of cocoa liquor.
[31] ICCO 2000 from the Manufacturing confectioner, 1998
[32] Fair trade study, Oxford Policy Management, 1999 – figures are from 1996

The cocoa component of the manufacturing price is very low, reaching only 15.8% (29% of cocoa cost is due to cocoa mass and 71% to cocoa butter). But the share of all raw materials is not much higher, representing only 34% of manufacturing price. Many confectionery manufacturers complain that other inputs such as milk and sugar are often protected by import tariffs, which raises their production costs.

Retailers

The five biggest supermarket chains in Europe have a market share of about 50%. They also have organised central purchasing organisations, which increases their bargaining power vis-à-vis suppliers and puts downward pressure on purchase prices. The cocoa cost component of the retail price is around 10%. The percentage of farm gate price in final retail value is lower, reaching only 5% while the margin for the retailer on chocolate products is as high as 20% (in 1988).[33]

In-country processing and tariff barriers

The production of chocolate in producing countries has been traditionally hindered by technological hurdles such as climate (high temperatures makes chocolate melt), high tariffs and difficulty getting the other ingredients (such as milk, nuts, etc) to make finished chocolate. High tariffs between producer countries also makes blending costlier, as cocoa from several different countries is needed.

But the export of semi-processed products such as liquor, butter and powder to consuming countries does not face the same obstacles. Though tariff escalation still exists in major consumer countries, tariffs have decreased following the Uruguay Round trade negotiations and many producers enjoy preferential market access (see box).

Before the Uruguay Round, tariffs ranged between 3 to 16% in major consumer countries and also included variable charges and quotas.

Post Uruguay Round MFN Tariffs on cocoa in selected consumer countries (to be achieved before 2002)				
	EU	**US**	**Japan**	**Poland**
Cocoa Beans	0	0	0	5 %
Cocoa Liquor	9.6 %	0	5 %	9 %
Cocoa cake (defatted liquor)	9.6 %	0.2c/kg	10 %	9 %
Cocoa Butter	7.7 %	0	0	12 %
Cocoa Powder (unsweetened)	8 %	0.52c/kg	12.9 %	16 %

In the case of the EU, although the most favoured nation status (MFN) tariff schedule clearly shows tariff escalation, most producer countries are eligible for African Caribbean Pacific (ACP) benefits, which exempt them from the above tariffs. The recently negotiated Cotonou agreement of July 2000 provides a complete exemption of EU tariff barriers on all unprocessed and processed cocoa products from ACP countries. In the case of other producers, there is significant tariff escalation: Malaysia and Indonesia face 0% tariffs on beans, 8.4% on liquor, 6.3% on butter and 4.2% on powder. Brazil faces 0.7% on beans, 10.2% on liquor, 7.6% on butter and 8.2% on powder.[34] Indonesia recently complained that the European Union had imposed a high import levy on Indonesian cocoa beans and products while providing free access to African cocoa.

New markets such as Central and Eastern Europe have high tariffs against processed cocoa products from developing countries, as shown by the example of Poland. In addition, there are non tariff

[33] 1988. UK?????

[34] European Fair Trade Association

barriers such as labelling requirements or phytosanitary regulations. In the case of the US market, the National Association of Chocolate and Sweet Manufacturers (ANFCD) insisted that Mexican exports have wrappers printed in English rather than have English language stickers on Spanish labels.

Due to these decreases in import tariffs and lower labour costs in producing countries, processing activities are transferred from consumer to producer countries at an increasing rate. In an effort to reduce costs, major multinationals have already developed processing facilities to major producing countries, such as Côte d'Ivoire or Brazil.

Policy responses

A/. Fair trade

During the early 1990s, efforts were made to introduce fairer marketing arrangements into the international cocoa trade by paying a guaranteed minimum price to small producers and raising consumer awareness of the problems facing southern farmers.

In 1993 the Max Havelaar Foundation began marketing chocolate with the Fair Trade (FT) label in the Netherlands and Switzerland, with the cocoa for its products coming from farmer cooperatives in Bolivia, Colombia, Ecuador, Ghana, Peru and Sierra Leone. In the UK, the Fairtrade Foundation label was first used for chocolate in 1994. In 1996, TransFair began introducing FT brands of chocolate in Germany, Austria and Luxembourg. Other types of FT cocoa products now on the market include instant cocoa powder, chocolate spread and chocolate covered nuts and raisins. The table below compares the FT prices paid for cocoa (which apply worldwide and have remained constant since 1994) with the current mainstream price for standard quality cocoa.

Price arrangements specified by the Fairtrade Labelling Organisation (FLO) International as conditions for the use of fair trade labels (US$ per MT)

Commodity	Min. price for standard quality (f.o.b.) inclusive of FT premium	FT premium over world price	Min. price for organic quality f.o.b. inclusive of FT premium	Organic (additional to FT) premium	Price for standard quality cocoa (1999) average
Cocoa	1,750	150	1,950	200	1,140*
Cocoa butter	4,200	360	4,680	480	3,070*
Cocoa powder	875	75	975	100	752*

Source: Fair Trade Study, Oxford Policy Management
* Figures adapted from ICCO average daily price for 1999, and LMC Cocoa Commodity Bulletin 2000

FT organisations contend that speculation taking place within the global cocoa market, along with the high level of concentration amongst cocoa processors and chocolate manufacturers, exacerbates the instability of world prices and leaves small producers vulnerable to price changes. FT organisations buy cocoa at a guaranteed floor price that provides for adequate livelihoods and capacity building for farmer organisations. By purchasing the cocoa direct from farmers' organisations, FT bypasses the local intermediaries or 'middlemen' who, it is claimed, often abuse their strong position. By raising awareness of farmers' difficult living conditions, FT organisations can pass on the additional cost to consumers who are willing to pay extra in order to ensure farmers get a fair price. The lack of a need to earn a return on capital employed or pay dividends to shareholders also enhances the capacity of FT to provide a redistributive transfer from rich consumers to poor producers.

According to a report commissioned by DfID[35], the most significant impact of FT initiatives relate to its capacity building activities for producer cooperatives. These potentially have an impact larger than the small volumes of cocoa attracting the price premium. FT has also played a significant role (relative to its size) in improving market transparency and information.

Studies have shown there have been real livelihood gains for small scale cocoa farmers under FT agreements. Kuapa Kokoo Limited is the only source of fair trade cocoa in Ghana and the only trader to pay farmers more than the government purchase price, as well as a premium which is used to fund cooperative capacity building and community projects (see box …).[36] In Belize, farmers growing fairly traded cocoa have been able to send their children to secondary school, improve housing conditions and make long term plans to improve production as a direct result of fair trade initiatives.[37]

The Kuapa Kokoo Farmers' Cooperative

Ghana's Kuapa Kokoo Limited (KKL) was formed in 1993 as a private licensed buying company (LBC) after Ghana partially liberalised its internal cocoa marketing. In 1996 the Kuapa Kokoo Union (KKU) was set up as a farmers' cooperative association, and a Kuapa Kokoo Farmers Trust was formed to receive FT premiums. The KKU was admitted to the Fair Trade Labelling Organisation (FLO) international register, and has expanded rapidly since 1996. There are now 468 primary societies producing cocoa for the KKU with a total membership of around 30,000 farmers.[5] Twin Trading, a UK based fair trade organisation, facilitates the purchase of KKL cocoa to make European fair-traded chocolate.

Farmers who are members of the KKU and deliver to KKL under fair trade terms enjoy the following advantages:

- KKL is the only trader to pay farmers more than the government guaranteed purchase price. The premium during the 1999/00 season was 500 cedis per bag (US$1 = 3,600 cedis, 2000)

- Depending on KKL profit margins, it may pay farmers an end of year bonus, as it did for the 1998/99 season

- KKL pays 400 cedis per bag to the primary societies to fund cooperative development

- Revenue from fairly traded cocoa is used to fund community projects via the Kuapa Kokoo Farmers Trust

- Farmers gain a sense of empowerment through their ownership stake in the company and their say in how it is run

Many farmers also emphasise the fact that they felt cheated when dealing with other intermediaries as they believed that their cocoa was underweighed by purchasing clerks.

A community leader explains how membership of Kuapa Kokoo has benefited his village:
'Before we were involved with Kuapa Kokoo we had no water in the village, we just had dirty water from rivers and streams. People spent a lot of time collecting water and there was always someone who was sick… Once some of us joined Kuapa Kokoo, we saw that they paid us a fair price, and on time. More people in the community wanted to join the cooperative. Even young people who were

[35] Fair Trade Study 2000, Oxford Policy Management (not for circulation or quotation)
[36] Ibid
[37] The Fairtrade Foundation – Cocoa Producers' Stories, www.fairtrade.org.uk/belize.htm
[5] The Cocoa Chain – A Peoples' Organisation, New Internationalist

going to leave the village because they thought there was no future in cocoa farming are now staying… The money we used to get from selling our cocoa beans to the government didn't give us enough to buy materials or a pump for our own water supply. Thanks to Fair Trade, we have more money, no illness, and we are growing more cocoa.'
Mana Osei Yawu III, Chief of Niveneso Village.

But there are also downsides and limitations. Mainstream competitors to FT brands have increasingly been contesting the claims made by the FT movement. They argue:

- against the idea of unproductive 'middlemen', stating that intermediaries provide a range of services such as marketing, information and bulking
- that labelling cocoa as fairly traded or ethical implies that other trading relationships are exploitative, and that the activities of many mainstream companies could be encompassed within fairtrade definitions
- that buyers already pay a fair price (Nestle, for instance, makes such a claim).

Transnational companies have responded by maintaining that it would be difficult to manipulate commodity markets and control commodity prices. This is because the main points of reference for pricing cocoa are futures contracts traded on markets in New York and London. The volumes traded on these markets are many times higher than those traded in physical cocoa in spot markets around the world

In other words, TNCs cannot decide the price of cocoa as they do not control the futures market. Commentators also argue that although sometimes destabilising, speculators play a vital role in maintaining the liquidity of the world cocoa market, as well as allowing the main players to 'discover' prices and manage price risk. Potentially, this opportunity also exists for farmers and exporting countries, a possibility that may need further exploration.

Fair trade prices are only available to a very limited number of producers. There are criticisms that the poorest groups are excluded through restrictive labelling definitions, and that fair trade initiatives rarely extend to those most geographically marginalised. However, it should be noted that restricted access occurs because the FT market is expanding too slowly to absorb all of the potential supply. There has also been criticism that as the premium is usually pooled, benefits will sometimes accrue to cooperatives rather than the individual producers.[38]

Despite its small market share, the impact of fair trade has been significant as it has raised consumer awareness about the welfare of small farmers. It has also forced mainstream market operators to adapt their own practices at the local and international level, and there is evidence (from the coffee sector at least) that intermediaries have been forced to pay higher prices in order to compete with FT initiatives.[39] However, these changes are still marginal.

Because they have economies of scale, strong brand familiarity and large profits, most multinationals would still be making sizable profits if they gave higher prices to producers. Although cocoa prices have recently been reaching $1/kg or less, the annual price in constant terms from 1980 to 1998 averages $1.71/kg – only four cents less than the current floor price for fairly traded cocoa.[40] This shows that chocolate traders and manufacturers have paid fairer prices in the past without losing profitability. Furthermore, an increase in price would have a relatively low impact on chocolate

[38] Partnerships in fair trade: reflections from a case study by CafeDirect
[39] Analysis and conclusions of the participatory impact assessment process of APECA-Haiti, Oxfam Report

[40] ICCO Statistics (www.icco.org/prices/pricesave.htm)

manufacturers, as cocoa makes up only 50% of their raw material costs.[41] In addition, a higher price would foster higher quality production, which would be to the manufacturer's advantage.

To maximise the impact of fair trade, mainstream companies have to be pressured by consumers and NGOs to give similar prices to small producers. Fair trade has shown that consumers are ready to pay a little bit more for cocoa products produced on a fair trade basis. This means that a leading brand adopting these practices would incur fewer costs and actually profit from fair trade practices by capturing a higher share of world markets. NGOs involved in fair and ethical trade could play an essential role in monitoring the claims of mainstream brands and certifying that products are bought at a fair trade price.

B/. Ethical trade

The Ethical Trading Initiative (ETI) is a UK based partnership of NGOs (including Oxfam, the Fairtrade foundation and Save the Children), trade unions and high street companies, with support from the government. The ETI's aim is to ensure that internationally recognised labour standards are observed at all stages in the production of high street goods sold in the UK.

Ethical trade is distinct from fair trade in that it targets workers employed in predominantly formal sector businesses which already have the capacity to export, and sets out to achieve this through enforcing codes of conduct. By contrast, fair trade targets disadvantaged communities and organisations working in the informal sector, and supports them to become involved in international trade by guaranteeing a minimum price to producers and sometimes a premium specific for community development projects.

There are around 14 million workers employed on cocoa plantations.[42] Conditions on cocoa plantations are often harsh. The majority of plantations do not respect the country's labour laws; holidays, social security and payments above the minimum wage are rare. Women often receive even lower wages than men do, child labour is common, and housing, education and health provisions are usually minimal and of a very low standard. To add to this, labourers who organise themselves are often intimidated or fired.

On 28 September 2000, the UK television station Channel 4 broadcasted a documentary on children from Mali being used as slaves on Cote d'Ivoire's cocoa plantations. The programme alleged that 90% of cocoa farms in Cote d'Ivoire use slave labour, though the Ivory Coast government disagreed with this claim. Farmers using slave labour would include 'small producers'—which often employ 4 to 5 workers, a situation that highlights a potential contradiction between ethical and fair trade.

One way in which ethical trading could benefit cocoa plantation workers would be to ensure freedom of association and to educate them about their rights. This would strengthen worker organisations at the local and national level. Encouraging a direct relationship between cocoa producers and cocoa buyers would contribute to the improvement of working conditions on plantations by handing partial responsibility on conditions to consumers.

These issues point to an overlap between ethical and fair trade, which, although distinct, can complement one another. An example from the coffee industry in Chiapas, south-west Mexico reveals that many farmers used work on large plantations part-time to supplement their income. However, after forming an association that sells to the fair trade market, its members have ceased

[41] The Financial Express, 03/03/98 (www.financialexpress.com/fe/daily/19980303/06255714.html)

[42] Ibid.

working on plantations as they have increased productivity and incomes as a result of entering the fair trade market.[24]

Ethical trade's advantage over fair trade lies in the fact that it is more widely applicable. Presently, the fair trade market is too small to satisfy the demands of the transnational corporations. However, buying from sources that adhere to ETI codes of conduct would be more viable for TNCs. A downside is that plantations will often simply sign codes of conduct to create the impression they have an acceptable policy, yet do nothing to implement the code in practice.

Labour conditions on cocoa plantations

Cocoa plantation workers are covered by national legislation, which lays down provisions for wages, hours of work, welfare standards, holidays and pension rights. The cocoa industry claims that legislation is on the whole adhered to, and there is no widespread or generalised disregard for the law. Multinational companies argue that they are under increased scrutiny from an ever more sceptical consumer base, and must protect their brand image, and that providing good wages and conditions makes good business sense as contented employees are more efficient.

These claims are difficult to verify however, as companies often distrust NGOs and do not welcome them on their estates. Moreover, larger companies set their own standards and do not see the need to have them externally verified. NGOs and grassroots organisations have claimed that wages are abysmally low in the cocoa sector; that women workers are discriminated against; that there is an increase in 'casualisation' with fewer welfare and employment rights; that there is substantial employment of child labour, and that workers do not have freedom to join a trade union of their choice.

Plantations often use 'imported' labour on estates, which leads to a sense of isolation and low self-esteem amongst the workforce. For instance, Côte d'Ivoire has a relatively high GDP per head when compared with other West African countries. As such it attracts many landless workers from Burkina Faso and Mali, some of whom, as a recent Channel 4 programme alleged, become trapped into working in the cocoa plantations, often under conditions of slavery. The programme alleged that 90% of Ivorian cocoa is produced under conditions of slavery. Some observers have since refuted the extent of the allegations made by the programme, pointing out that workers could only be held against their will in the most remote of plantations.

Owners and managers also face problems however. Apart from difficulties in gaining full access to financial data, the lack of secure markets along with the low price of cocoa means there are considerable commercial pressures. It is apparent that larger, financially stronger foreign cocoa companies have higher standards than financially weaker, locally owned companies. A lack of investment in factories leads to inferior product quality, which in turn attracts lower prices, further compounding financial difficulties. A way to raise productivity however would be by improving working conditions and increasing wages.

However, wages received on cocoa plantation are not adequate to meet the basic needs of workers and their families, and on many plantations have not increased in real terms. The lack of alternative employment is also linked to the low income levels of workers, as well as the system of remuneration which allows owners to accumulate profit without sharing the benefits with workers.

Observers agree that international pressure is needed to support national activities to improve conditions on cocoa plantations. Support is needed to form new or strengthen existing workers'

[24] The viabilty of a code of conduct in the coffee sector in Guatemala, Fair Trade Organisatie, July 2000

associations, as well as improving educational facilities on plantations, and in particular, informing workers of their rights.

C/. Market Regulation

A better balance has to be found between heavy-handed public intervention in cocoa production and marketing and no regulation at all. The absence of any public intervention leaves smallholders without any technical or financial support while they face intense competition from plantations and also downward price pressure from intermediaries. This situation, presently occurring in several West African countries, has long term adverse effects on yields and quality. It also feeds into oversupply and leaves the activities of big private players (such as multinationals) unchecked.

Keeping a strong regulatory body that ensures quality control at the border enables countries to keep a high premium for their exports on international markets. This regulatory body should also monitor markets to ensure that there is a high enough level of private competition in the marketing chain and prevent domination of the domestic market by a single multinational company. When dwindling, competition should be encouraged by decrease in barriers to entry of new competitors (reduction of taxes and licensing fees for example). This regulatory body could be responsible for monitoring working conditions on plantations and medium-size farms.

In terms of production management, state intervention (via regulation and targeted subsidies) can have an important role by encouraging the rejuvenation of the tree stock held by smallholders, while strictly limiting new plantations and other practices adverse to production control and environmental protection. State intervention is also warranted to encourage low-productivity producers, when appropriate, to diversify into other crops, an essential component of production management in the long-term. State intervention can also be used to provide producers with information on world demand trends, so that they can plan production according to the market fundamentals.

The state can also play a key role in leveling the playing field for small producers. Efficient extension services, which provide smallholders with access to technical assistance, are essential to maintain yields and encourage higher quality production. Rural infrastructure development (ensuring all weather access roads for instance) is also crucial to help small producers in remote areas get to market. When private markets fail, the state has to act as a facilitator to develop access to rural finance and insurance for smallholders. In addition to financial regulatory reforms, public intervention can provide guarantees to the banking sector, or build storage facilities to help farmers use their crop as collateral. Finally, the state should encourage the formation of producers associations and cooperatives that represent small producers and provide quality and timely information on international prices to help cooperatives negotiate with intermediaries.

D/. Producers' associations

The presence of democratically-run producer associations could provide better access to risk management for the farmers as well as better prices, access to labour, inputs and tools. In many countries, local producer associations could also help smaller farmers take advantage of the programmes and technical assistance from government assistance programmes. But in some areas (for example some countries in Africa) producers' associations do not exist, are weak or discredited. Therefore, awareness raising campaigns as well as support to capacity building are urgently needed. Donors have started to finance these types of programs in Africa (French Government) as well as USAID (Guatemala).

International Cocoa Agreement (1993)
--To be renegotiated in November 2000.

Members: Most producer and consumer countries, which exception of Indonesia, Colombia, Mexico and the United States.

Share of ICCO members in world production, grindings and trade*:*
82.9% of production, 70.9% in grindings, 86.4% in exports. 58.7% in imports.

Main objective: "to contribute towards stabilisation of the world cocoa economy in the interest of all members by seeking to[…]:
- secure an equilibrium in the medium and long term between demand and supply […]by facilitating necessary adjustments in production and promoting consumption
- assure adequate supplies at reasonable prices equitable to producers and consumers."

Important elements:

Article 10: Votes
Exporting members shall together hold 1,000 votes as well as importing members. Among importers and exporters, votes are determined by the market share. No member can have more than 400 votes. Decisions are made by simple majority.

Article 29: Production
" In order to deal with the problem of market imbalances in the medium and long term, and in particular, the problem of structural overproduction, the exporting members undertake to abide by a production-management plan designed to achieve a lasting equilibrium between world production and consumption. […] The committee shall fix indicative figures for annual levels of production necessary to achieve and maintain equilibrium between supply and demand […] Each exporting member shall be responsible for the policies, methods and controls it applies to implement its production programme […] as well as for its financing. […] The production committee (of ICCO) shall follow and monitor the implementation of the production-management plan and programmes."

Objectives of production management plan (1998): to cut production by 257,000 tons by 2000/2001 to reduce the stock-consumption ratio to 30% and support prices.

Article 49: Fair labour standards
"Members declare that, in order to raise the levels of living of populations and provide full employment, they will endeavour to maintain fair labour standards and working conditions in the various branches of cocoa production in the countries concerned, consistent with their stage of development, as regards both agricultural and industrial workers employed therein."

Article 50: Environmental aspects
"Members shall give due consideration to the sustainable management of cocoa resources and processing, bearing in mind the principles on sustainable development agreed at the 8th session of UNCTAD and the UN Conference on Environment and Development."