The challenges of globalization and opportunities for accessing value-added markets for African producers

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Abstract

Globalization is the term used to describe the recent impact of innovations in communication and transport systems on trade and the increasing integration of world markets. This process has encouraged nations to liberalize their economies to increase their volume of trade, including agricultural products. Whilst it has been proved that increased economic liberalization and openness leads to growth, it is also recognized that for many developing countries, liberalization has caused serious economic difficulties.

Most African countries have recognized the importance of international trade and have adopted liberalized economic policies. However, this has exposed their economies to highly competitive global agricultural markets. A combination of the impact of structural adjustment programs and partial reform of international trade policies has reduced the prices of primary commodities exported by many African countries and caused an increase in imports of agricultural products from more competitive producers, some of which remain highly subsidized.

The result of oversupply of the commodities markets has led to commodity prices falling to their lowest levels in 40 years. This bleak situation is reflected in the dramatically falling terms of trade for many African countries and suggests a profound downturn in their economic outlook. At the same time, the profits of the major trading houses and the processing and retail companies in developed countries have shown yearly increases.

The international community has recognized some of these difficulties but has made little effort to assist developing countries overcome them. In our opinion, many African countries have not fully appreciated the scale and implications of globalization on their futures and that, without urgent action on their part, they may seriously weaken their economies in the years ahead. The conclusions of this study are that decision-makers and development agencies should give urgent consideration to the following suggestions: (i) improving the negotiating powers of least-developed countries for global trade; (ii) managing the oversupply of primary product exports; (iii) stimulating production of added-value products; (iv) strengthening market information services; (v) developing export strategies based on highly differentiated higher value products; and (vi) reducing imports of goods that can be competitively produced domestically. These measures are required to regain more ethical trading values between rich and poor nations in regard to existing products and wherever possible to find innovative ways of adding value to commodities before export, such that a higher percentage of the final market price is realized in the producing countries.

Introduction

In recent years, governments in Eastern and Central Africa (ECA) have been convinced by the major economic institutions that, by liberalizing their economies, agriculture would prosper and provide the necessary growth for investment to improve the country's infrastructure, form the foundation for industrialization, and improve public services. In the 1980s, some African countries began to reform their economic policies. However, the process was delayed or hampered by a combination of domestic conflict and or poor management. In many cases, reform in ECA countries only recently began to liberalize their internal economies, but the external environment has changed considerably and new models are required to improve trading prospects.

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As such, the success of internal liberalization measures (for those countries that have adopted them) has been patchy. Most countries in ECA have found it difficult to compete with more efficient foreign agricultural producers and are suffering surges in imported products that compete with domestic production. At the same time, the expected improvement in exports of their products has not materialized. This may be due, in part, to the difficulties of complying with the high quality standards required by many importing countries. Most importantly, the international market prices of almost all agricultural commodities have fallen to their lowest levels (in real terms) in living memory. This is due to overproduction encouraged by the export-orientated economic policies of competing producing countries. The cut in agricultural subsidies in the developed world has also reduced surplus stocks of food, which has had the effect of reducing supplies available for food aid.

It has now become clear that although a link between economic growth and the liberalization of the economy has been established for some types of economy, it has not been established for others. According to Baniane and Mukherjee (1998), there is mounting evidence to suggest a strong positive association between export development and the acceleration of income growth. It should be noted, however, that the relationship is between exports of manufactured goods and income growth, but is less assertive about the relationship between exports of agricultural goods.

Just as liberalization affects different countries in different ways, it has also produced winners and losers in different parts of the agricultural sector within individual countries. The lowering of tariff barriers by consuming countries has offered more opportunities to exporters in developing countries. The exposure of agricultural production to foreign competition has forced some producers to become more efficient. The dismantling of government-controlled marketing boards has stimulated the evolution of the private-sector trading networks needed in a modern economy. However, some actors in the agricultural sector have seen little benefit from the liberalization process.

Communities of small-scale, isolated farmers (which make up the majority of the population in many ECA countries) find it more difficult to obtain inputs and credit. Extension services have been significantly reduced and the value and quality of their surplus production has fallen. They are especially vulnerable to changes in production systems and market dynamics. The trend towards larger farms, plantations and value-added processing has marginalized many rural groups, thus adding to the problems of unemployment, urbanization and cultural disintegration.

This paper examines the main benefits and disadvantages of the trend towards globalization and the liberalization of agricultural markets. It also attempts to offer some suggestions on how ECA countries might maximize the opportunities offered by a more open global trading system and how they might respond to some of the negative aspects of liberalization. In particular, this report highlights key issues that need to be addressed by all agencies involved in agricultural development in an increasingly globalized economic environment.

Agricultural development strategies

SINCE independence, the effects of conflict, poor governance and more recently the HIV/AIDS pandemic have severely hampered development in Africa. The result has been that national economies have fallen further and further behind those of the leading industrial nations. Many different development strategies have been tried. Some African countries have successfully encouraged investment in mining, tourism and industry. In agriculture, producers have been encouraged to move away from subsistence farming towards a more commercial approach as governments realized that income generated from the sale of surplus production could be used to improve productivity.

Agricultural development in ECA has faced an uphill struggle for the last 20 years. In an effort to stimulate development, many countries borrowed heavily from bodies such as the International Monetary Fund (IMF) and from the commercial banking sector. However, these loans were not granted without strings attached. Most African countries were obliged to liberalize their economies by adopting significant policy changes often applied in packages known as structural adjustment programs (SAPs). These programs generally included requirement to:

- devalue the currency (to discourage imports and make exports more competitive)
- make the currency freely convertible with other currencies
- cut public expenditure (in order to lower taxes)
- dismantle state-controlled marketing boards
- privatize state-owned industries (to raise capital and stimulate competition)
- cut import restrictions (to encourage local industries to become more efficient)
- allow foreign companies to freely repatriate profits (to encourage inward investment)
- boost exports.

The economists who designed SAPs were convinced that the only way African countries could transform their economies was to encourage inward investment and earn foreign exchange to invest in infrastructure and lay the foundations for industrialization.

These measures assumed that any country could compete in the world market if production and investment were concentrated in areas where they were deemed to have a competitive advantage. The only activity in which ECA nations could be said to have a competitive advantage in the world market was in the production of agricultural products and the exploitation of natural resources such as forestry, fishing and mining. The major flaw in this strategy was that similar advice was given to almost all tropical countries at the same time. Coffee-producing countries were encouraged to boost coffee production, sugar producers to produce more sugar, and so on. This resulted in overproduction of these commodities, which caused prices to plunge in the international markets (Figure 1). On average, the current prices of tropical products (taking dollar inflation into account) are only about one seventh of those prevailing in 1980 (United Nations General Assembly) (Table 1). Economists call this phenomenon the 'fallacy of composition'—less income is earned as more commodities are produced.

Table 1. Changes in commodity prices USD/t between 1980 and 2002.

Commodity	1980	Adjusted	2002	% value
Palm oil	617	1345	312	23.8
Sugar	254	553	126	22.8
Cocoa	2832	6174	1190	19.2
Coffee	3989	8696	1234	14.2
Groundnuts	945	2060	650	37.5
Rubber	1430	3117	650	20.9

Note: Goods bought for USD1 in 1980 would cost USD2.18 in 2002 (Bank of Minneapolis).
Source: P. Robbins (unpublished data).

Another component of SAPs that many observers believe to have been counter-productive was the requirement to cut public expenditure. All too often this meant a cut in health programs, education and agricultural extension. These measures have tended to reduce, rather than enhance, the flexibility of the workforce and to curtail agricultural development.

Overall, the record of inward investment has been poor and the ending of currency controls has increased opportunities for transfer pricing abuse (where companies overprice imports and underprice exports to reduce tax liability). The ability to undertake these types of operation is enhanced when industries are concentrated in the hands of a few companies or actors and inevitably transfer pricing abuse increases as the value of the commodity increases and volumes decline, i.e. abuse is much easier for gold than for coffee.

The most important SAP reform affecting the distribution of agricultural products has been the dismantling of state-controlled marketing boards and the practice of setting fixed purchasing and sales prices for commodities. It was assumed that government control of markets had obscured the forces of competition in supply and demand in the economy. A free-market system would unleash these forces and increase productivity. It would force producers to meet the demands of consumers both in price and quality. Farmers would be able to buy inputs cheaper from competing suppliers, and the country, as a whole, would become more competitive in world markets.

Unfortunately, competitive and transparent markets did not emerge spontaneously (Shepherd and Farolfi 1999). Most African farmers have too little land to produce truck-loads of goods and they are widely dispersed over the countryside. There is not enough business to encourage more than one trader to operate in many areas. Farmers have no means of communicating with the outside world or even the nearest town and they are often unwilling to risk the investment of

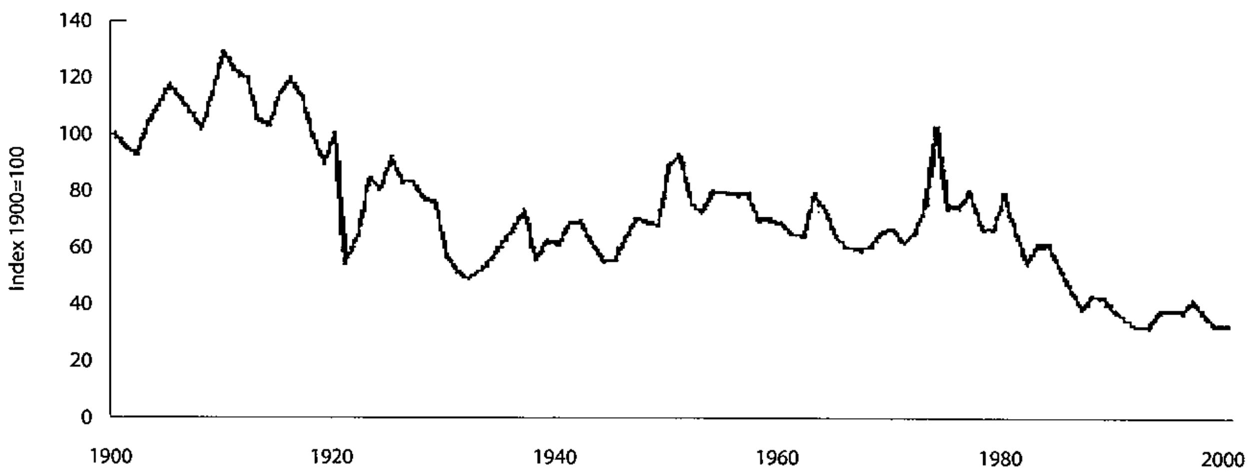

Figure 1. Long-term trends of non-oil commodity prices. Source: D. Giovannucci, The World Bank (2002).

bringing their goods to market, resulting in considerable waste. Laws may have been passed which ban collusion among traders to pay low prices to farmers and charge high prices to consumers, but there are often insufficient resources to enforce such laws. Most traders have no experience of free-market conditions and are reluctant to put their fellow traders out of business with serious competition.

Advocates of SAPs point to examples of countries that have improved their economies after adopting SAPs (World Bank 2001), but there are few in Africa. Most ECA countries were not able to implement SAPs until relatively recently, but rates of poverty have increased in many of these countries. Intense conflict, both within and between countries of the region, drought, desertification, and HIV/AIDS have further weakened economic development in ECA. Most critics of the reform process, however, acknowledge that markets in African countries must be made more competitive and SAPs are designed to do that but the process may take a considerable time.

Links between the liberalization process and the 'adding-up problem'

OBSERVERS have identified a direct link between global and national liberalization policies and the oversupply of primary products, which has caused the dramatic fall in the value of agricultural exports from developing countries (see Figure 2). The recent history of the coffee market serves as an illustration of this linkage.

The coffee market: an illustration of the problems of oversupply

The recent history of the coffee market is used as an illustration of how oversupply has reduced prices of many primary commodities produced in developing countries. In 1980, green Arabica coffee beans traded on the New York market at USD1.50/pound (3.30/kg). By November 2001, the price had dropped to USD0.46/pound. Throughout this period, inflation has, of course, reduced the value of the dollar. In terms of the value of goods that can be bought on the international market with the revenue from coffee sales, producers now receive only about one seventh of the price they received 20 years ago. At the same time, retail prices of products made from coffee (roasted and instant coffee) have increased substantially over the same period. A 200 g jar of instant coffee that was retailing at GBP2 in a London supermarket now costs GBP3.99. In London or New York, a cup of coffee now costs about USD3—the weekly income for many coffee farmers in Africa.

This phenomenon also applies to many other primary commodities produced by developing countries—cocoa, sugar, cotton, gold, copper, maize, spices, hard fibres etc. (see Figure 3), indicating the relative changes in the prices of processed versus raw materials over the past 20 years.

Given that these commodities represent the bulk of exports from developing countries, it is clear that this phenomenon must represent a major cause of poverty in these countries and this view is to a large extent substantiated by the flows of income shown in Table 2, in which farmers receive a fraction of the value of the

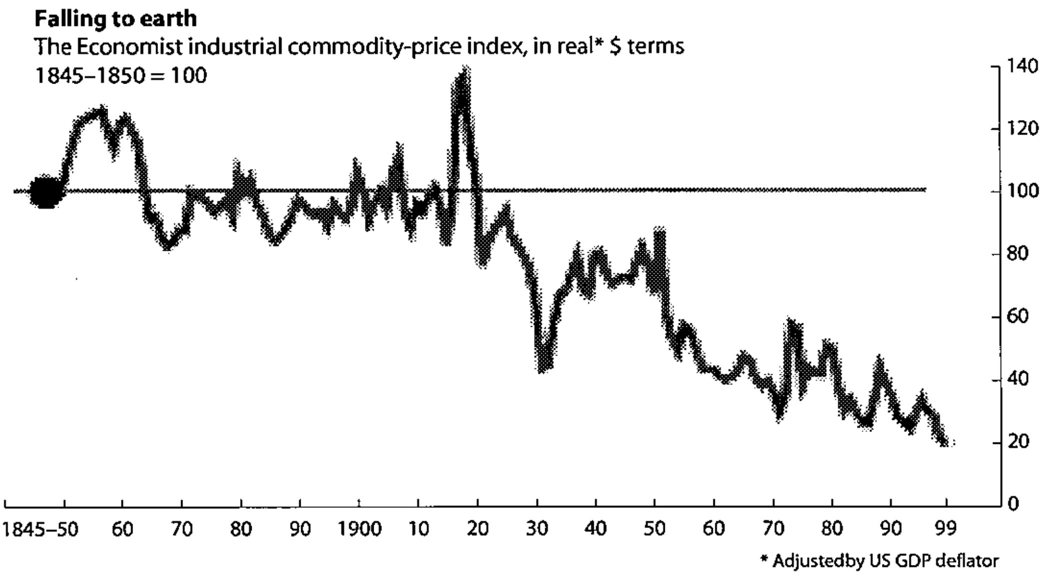

Figure 2. Long-term commodity prices. Source: *The Economist* newspaper London, 17 April 1999.

price paid by the final consumer in industrialized nations.).

Table 2. The coffee money trail (September 2002).

In Kintuntu, a small village in Uganda, a farmer sells 1 kg of coffee beans for USD0.10–0.14 to a trader.
The trader mills the product and sells it to an exporter for USD0.20–0.26/kg.
The exporter sells FOB [free on board] at Mombasa port for USD0.40–0.45/kg.
The CIF [cost, insurance and freight] price for coffee in Felixstowe is USD0.52/kg.
Transport to a factory in the United Kingdom (UK), for example, takes the price to USD0.63/kg.
Processing loose product increases the price to USD1.64/kg.
Supermarket price for product is USD26–40/kg.
Price of a cup of coffee in a coffee shop in UK is USD3.50.
Price differential between farm gate and shopper's trolley is an increase of 22,000%, increasing to more than 31,000% if drinking a retail cup of coffee.
The global figures show that coffee-producing nations receive about USD5.5 billion in a market worth USD77 billion.

Source: Gray (2002).

It would be wrong to suggest that all the growing difference between raw material and retail prices has accumulated as profit to the large multinational companies who dominate the trading and processing of coffee, although this is certainly a factor. As the income in the coffee-producing countries falls to levels that are in many cases below production costs, at the same time profits for the major coffee-processing divisions of the four main multinationals has increased. Table 3 shows the billion dollar profit levels of the top four coffee houses in the world compared with the income gained from coffee sales in Uganda, which is the eighth largest global producer.

Most of the difference is taken up with the increasing cost of marketing, which includes advertising, branding, packaging and retailing which appeals to increasingly discerning customers in developed countries. However, all these components of the retail price are accrued in the consuming countries. At the theoretical level, this problem is explained by the Prebisch hypothesis of secular decline in commodity terms of trade. According to this theory, the relatively inelastic demand for commodities leads one to expect scant change in demand as a result of changes in price and income levels. Over the long term, as income increases in importing countries, the real price of commodities falls (P. Berthelot, unpublished data).

So, what are the reasons for the fall in the price of coffee beans? Observers have identified three main causes, as outlined below.

- **Increased production by a few coffee-producing countries.** Vietnam increased production from 4 million bags to 11 million bags between 1995 and 2000. Brazil increased production from 15 million bags to 32 million in the same period.
- **Devaluation of currencies by developing countries.** SAPs, encouraged by the World Bank and IMF and adopted by most developing countries,

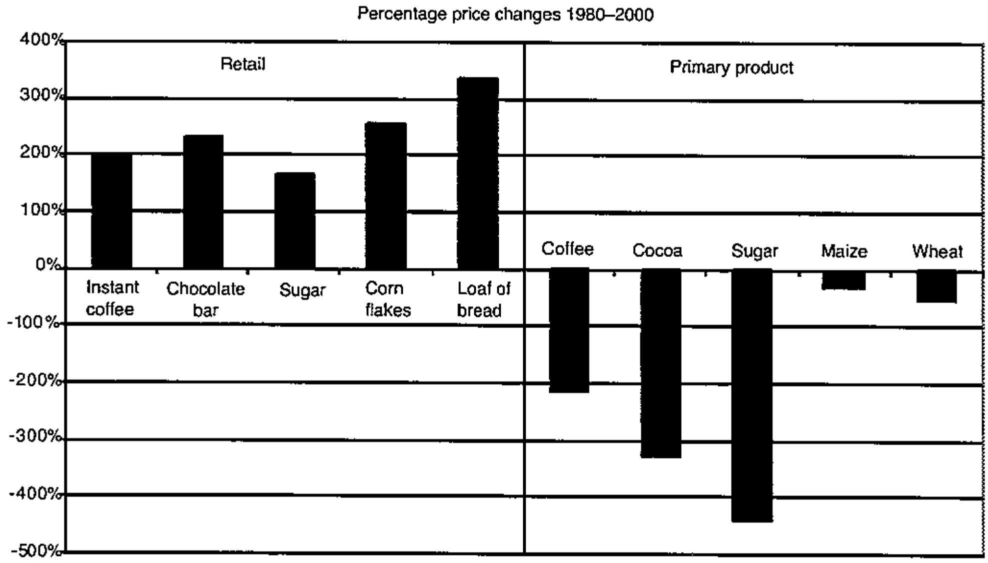

Figure 3. Percentage price changes of key commodities between 1980 and 2000. Source: Robbins (2000).

included the requirement to devalue the local currency. This measure was designed to make exports more competitive and therefore boost the volume of exports.

- **The withdrawal of the economic clauses of the International Coffee Agreement (ICA).** In 1989, consuming countries, led by the USA and UK, decided to end funding to support the coffee price within the retention scheme of the International Coffee Organization (ICO). Their stated reason for doing this was to prevent countries becoming dependent on raw material production based on artificially high prices. It should be said, however, that consuming countries have saved considerable sums of money by having access to coffee at very low prices.

All of these market effects can be attributed to the adoption of internal and international market liberalization policies.

The intention of the market policies was to boost developing-country exports, but since the same inducements were given to almost all coffee-producing countries, the net result has been chronic overproduction. The average annual supply of coffee increased by 3.6% over the last five years—consumption increased by only 1.5%. Stocks doubled between 1997 and 2000 (according to the ICO). The policies adopted to boost coffee production are a clear example of the 'adding-up problem' (see Akiyama and Larson 1994). More and more is produced at a lower and lower price.

This is not to say that coffee is no longer in such great demand. The 1.5% annual rate of growth in demand would be thought of as extremely positive in many industries. In fact, it was calculated some years ago by Christian Aid that the demand for coffee would not be seriously negatively affected if the price of green coffee beans were as high as USD5/0.45 kg (1 pound)—ten times the current level. This is because the raw coffee price is such a small component of the retail coffee price, compared with the cost of advertising, branding, packaging etc.

The accelerating difference between the raw and retail price suggests an obvious strategy that could be adopted. Coffee-producing countries should brand and package their own coffee and sell it directly to Western supermarkets. However, such a strategy would be 'easier said than done'. Firstly, developing countries would face the problem of escalating tariffs. Many processed products are protected by a high tariff wall around the main consuming markets. With the advent of the 'Everything But Arms' and similar initiatives by developed countries, least-developed countries (LDCs) may be able to attract investment to do this. However, such opportunities are not available to developing countries such as Kenya.

In addition to the tariff wall problem, developing countries would also have to compete with their own customers (in developed countries) who are themselves major exporters of processed coffee products, selling under established brands such as Nestlé and Maxwell House. The US imports about 24.5 million bags of coffee beans each year, but exports the equivalent of 2.4 million bags—half of which are in the form of roasted or soluble coffee. The European Union (EU) imported 46 million bags and re-exported the equivalent of 13 million (half-roasted or soluble) (Association of Coffee-Producing Countries).

What solutions to this problem have been proposed?

In 1993, the Association of Coffee-Producing Countries (ACPC) resurrected another retention scheme, this time without the assistance of coffee-consuming countries. Association members were obliged to keep 20% of their potential exports off the market. Unfortunately, the scheme collapsed in early 2001. ACPC has offered several reasons for the collapse—lack of funds, failure to attract all producers as members, cheating etc. Mexico faced a legal challenge if it took part under its association with the North American Free Trade Agreement (NAFTA).

Other ways of addressing the problem have been proposed, including several of what could be called conventional approaches, in that they rely on the market to provide an answer:

- elimination of tariff escalation (higher import duties imposed by importers on processed products)—this measure might allow coffee bean producers to attract investment to process coffee into a higher value product
- promotion of consumption in new markets, especially Russia and China

Table 3. Profit levels (USD) of the top four coffee trading and processing multinationals.

Multinational company	Proctor and Gamble	Nestlé	Sara Lee	Kraft
Profit	3 billion	4 billion	2.3 billion	5 billion
Income	Uganda, 80 million			

Source: Gray (2002).

- use of hedging techniques offered by brokers in futures markets to reduce the risk factor between high and low prices within a year
- improving the quality of the beans
- finding niche markets for coffee beans or selling to fair trade organizations that pay up to 20% more for a tiny percentage of world output.

None of these proposals would do anything to address the problem of overproduction or historically low prices. Some would promote even more competition between producers.

The central problem with the coffee market, from the producers' point of view, is that there is simply too much coffee being produced.

The orthodox economic view is that the market should simply be allowed to determine output, consumption and price. In fact, some multilateral agencies are encouraging even more coffee production in some countries. The assumption is that, as the price falls, the less efficient producers will be forced to stop production. In the case of coffee, however, the reverse is likely to happen. Efficient coffee plantations—often owned by large companies—might indeed find something better to do with their investment if they cannot reduce production costs further. Most small-scale growers (representing 80% of production), however, have no choice but to continue coffee production however low the price falls. The cost of education and health care are no longer heavily subsidized by many governments since structural adjustment policies were adopted and farmers must earn cash from whatever they know how to do best.

After the collapse of the ACPC retention scheme in 2001, the Association's chairman wrote to the President of the World Bank to ask for assistance in the crisis but it was thought unlikely that the World Bank would offer a solution involving global market management.

Stock retention schemes are innately unstable and international coffee traders know this. Coffee cannot be stored forever. The sentiment of the market will not be changed by another attempt at such a strategy. Production capacity would have to be reduced as fairly as possible. This may not be an insurmountable problem if farmers understood that they could double their income with a 10% cut in production freeing land to grow food. However, producing countries would need financial and technical assistance with such a task. They would also need to make binding agreements with each other and to promote the full and active participation of associations of coffee farmers (for more details, see Annex 2).

Capacity-reduction schemes are allowed under World Trade Organization (WTO) rules under 'Blue and Green Box' provisions. In Europe, for instance, farmers are paid by their governments to 'set aside' land from production with the objective of providing habitat for wildlife and for reducing production.

Poverty is widespread among the 25 million people in the world who produce coffee. At present, many of these people are supported by aid programs. This help would not be necessary if they were able to earn a living by producing a product for which there is a growing demand.

Compounding the problem

THE impact of the commodity crisis on the terms of trade for countries such as Uganda, Kenya, Ethiopia and Rwanda, where coffee has traditionally been the main source of foreign income, has been catastrophic. Ugandan earnings from coffee which were in the region of USD450 million in the mid-1990s have fallen to USD60–80 million in 2002. Consequently, the rates of economic growth, which had been showing such promise in the early 1990s, are declining steadily as there is no alternative market that Uganda can readily switch into that will provide such high levels of income for the rural poor.

At the same time, because agriculture in the region is reliant on rainfed systems, it suffers from periodic and in some areas chronic food insecurity. Ethiopia is currently suffering from the worst famine since 1984, with a grain deficit estimated at 3 million t. Less food aid is available and more food has to be purchased by governments on the commercial markets, which further depletes foreign reserves. In most cases, agricultural research and extension services in ECA are production focused, poorly coordinated, often under-funded, and find it difficult to meet the changing needs of their private-sector clients.

Cheap and subsidized agricultural products are in some cases being 'dumped' on the ECA markets—some aid programs depend on this process. According to Bond (2001), lowered least-developed country (LDC) import tariffs are causing de-industrialization across Africa, which further reduces scarce employment opportunities. Services such as education and health care are weak, and privatization programs are reducing access of these primary services to the most needy. The HIV/AIDS pandemic is also significantly reducing the useful workforce and is the leading cause of knowledge/experience loss on the continent. The result of these factors is that the number of people living below the poverty line (<USD1/day) in Africa has increased by 25% in the past decade (Bonnet 2002).

Too poor to pay the debt

IN addition to the increasing rural poverty, at the national level, a major implication of declining commodity prices is the linkage to the external debt issue. In Eastern Africa, where income from sales of raw commodities can account for over 80% of export incomes, falling commodity prices prevent such countries from meeting their debt targets. As a result, countries find it increasingly difficult to buy in new technologies and inputs to remain competitive. This downward spiral to poverty also means that they may not be able to meet their debt repayment targets, which enable them to qualify for the debt relief. Little headway will be made on the debt issue until the debt–commodity nexus is acknowledged and something is done about it (P. Berthelot, unpublished data).

Market problems require market solutions

ALL of this adds up to a near-emergency situation. Most agricultural research and development programs have not adjusted to this rapidly changing trade environment and continue to focus on improving output, productivity and exports. As more countries adopt such programs across a range of tropical commodities, the value of primary export goods will continue to fall. Unfortunately, ECA countries have few other industrial or service sectors, and farmers must produce, however low the prices fall.

Whilst the situation appears grim, there are several opportunities and strategies that governments can adopt in order to offset the worst aspects of this process, and governments in industrialized countries have made attempts to support the trading opportunities for the LDCs.

New trading agreements, such as the US-sponsored 'African Growth and Opportunities Act' (AGOA) and the EU-supported 'Everything But Arms' (EBA) Agreement are mechanisms through which LDCs can access value-added markets at zero tariffs. Previously, all value-added goods were subject to sliding tariffs, which increased with the value of the product. As such, it was virtually impossible for LDC producers to sell anything other than the raw commodities. With these new agreements, governments have the opportunity, for the first time, to find ways of attracting foreign direct investment (FDI) in order to build the capacity to process their raw materials and sell value-added goods. This process should increase both income and off-farm employment. Countries such as Uganda have made considerable efforts at high level to promote these opportunities and attract investors and President Y. Museveni led a series of high-profile meetings aimed at raising awareness and building momentum in the areas of reducing dependency on primary agricultural commodities, promoting the production of value-added products based on agricultural raw materials, and linking higher value products to growth and emerging markets.

Below, we outline a number of components that support a strategy of increased market integration with the aim of improving the ability of countries in ECA to take on the challenges of the new globalized economy.

1. Strengthen negotiating capacity in trade talks

African countries have been disappointed by the effects of decisions made in previous WTO and African, Caribbean and Pacific (ACP)–EU negotiations. ECA countries are poorly represented in these and other multilateral and bilateral talks and they lack of capacity to analyze important and highly complex issues, to develop negotiating positions, and to respond quickly and effectively to their various negotiating teams. Consideration should be given to establishing national and regional teams of experts with the necessary authority to analyze the interests of their stakeholder groups and to establish appropriate negotiating positions. Negotiating teams should be significantly strengthened, especially in Brussels and Geneva. Resources should be made available by cutting diplomatic expenditure in other countries where necessary. The negotiators need to be directly linked to the policy analysis groups and to the Ministries of Trade, Agriculture and Finance, so that informed decisions can be made rapidly and effectively. Such reform will be particularly necessary in the forthcoming WTO trade round which will focus on greater inclusion of developing country interests and may take into account proposals associated with 'Development Box' and other non-trade issues proposed by developing countries.

2. Manage the oversupply of primary product exports

Over the last two decades, the adoption of internal and international market liberalization policies has led to a catastrophic fall in the prices of many of the agricultural products exported by ECA countries. As noted earlier, the plunge in prices has been caused by systemic overproduction stimulated by components of SAPs. ECA countries are highly dependent on the production of cash-crop commodities for employment, economic growth and export revenue.

Countries that produce and export raw commodities, such as coffee, sugar, tea, cotton etc., through small-scale production systems, are unable to create new jobs or re-invest into alternative market sectors. Countries and individual farmers who rely on cash-crop production for revenue are obliged to continue to grow and sell these commodities no matter how low prices fall.

To address this issue, efforts should be made to encourage cooperation between producers of these commodities in Africa and in other continents, to bring some order into these markets and to devise strategies that involve donors and support agencies, such as the IMF and the World Bank, to bring supply of these products in line with demand.

3. Enforce existing trade protection

ECA WTO members have agreed to limit the protection given to domestic farming. However, fixed import tariffs still apply in many categories. Greater efforts should be made to increase control of porous borders to discourage unwanted imports and to collect excise revenue. The dumping of heavily subsidized agricultural commodities from developed countries should be actively opposed where such imports disrupt local farming economies. These efforts need to be pursued within the WTO mechanism and in bilateral exchanges.

Efforts should also be made to analyze the impact of imports of food aid and food monetization schemes on domestic and regional farming. Such imports should be controlled with the objective of meeting relief needs whilst avoiding the undermining of local and regional production.

4. Stimulate production of added-value products

Most analysts believe that the prices of primary agricultural commodities will continue to fall in the foreseeable future. Unless the mix of industrial activity is changed, economic growth will not occur.

The 'Everything But Arms' initiative, the 'Africa Growth Opportunity Act' and other, similar market-access measures now offer LDCs in ECA the opportunity to attract investment into the region to improve the quality and range of products and, more importantly, to produce value-added products made from locally produced raw materials. Every effort should be made to capitalize on these opportunities by promoting inward investment now that many tariff barriers to value-added products have been removed in the main consuming markets. (Kenya should seriously consider applying to be re-classified as a LDC for this reason.)

Consideration should be given to strengthening the role of existing export and investment promotion organizations to include the preparation of detailed investment plans and packages in added-value products that will attract greater foreign direct investment (FDI). Tax regimes should be modified where necessary to encourage this form of investment. Vertical diversification may represent the only option for ECA countries to avoid the economic damage caused by falling raw commodity prices.

5. Establish agricultural market analysis units

An agricultural market analysis unit should be established in each ECA country. This unit would be concerned with coordinating and developing policy on the development of market-orientated strategy in agriculture and setting policy guidelines for agricultural research. The unit should also coordinate its activities with relevant regional bodies. It should be staffed with appropriately qualified economists and market experts. The unit should work closely with the private sector and especially with private-sector support groups that are working to stimulate production for growth markets.

6. Establish a national market education program

Many actors in the agricultural sector in ECA countries are still not familiar with the idea of competitive markets. A national market education program should be established—primarily targeted at farmers, traders and agricultural product processors. Such a program needs to be linked to the agricultural market analysis unit (see above), market information services (see below) and run in conjunction with other stakeholders, including Ministries of Agriculture, Education and Trade, farmers' and traders' associations and other private sector actors, and with extension services.

The program needs to set targets for training farmers to understand how competitive markets work, to take advantage of market information and to inform them of the difficulties and opportunities associated with market conditions. Issues addressed need to include the stimulation of collective activity to improve economies of scale, linking supply variety and quality to market needs, negotiation of sales and inputs, and the use of credit and business management.

The program should have a limited duration and should be administered efficiently as a separate unit within a national agricultural development reform program.

7. Establish a market information service

Many typical, small and medium-scale farmers, traders and processors in ECA countries are very poorly informed about prices and market conditions of the commodities they produce. Farmers find themselves in a weak bargaining position with traders, which results in lower-than-market farm-gate prices, high transaction costs and wastage. Market information services need to be established at local, national and regional levels to gather, process and disseminate market information in the appropriate language of intended recipients. Such services need to be fully coordinated with each other and involve full participation of stakeholders.

The aim of these services should be to stimulate more competitive markets. They are likely to be supported by the agricultural industry itself, as they are in more developed countries, once competitive markets become more established.

8. Strengthen agricultural research and extension services

Research and extension services need to continue with their vital role in controlling plant and animal disease and pests, discovering and distributing new varieties, training farmers to improve their technical abilities etc. If countries in ECA wish to compete successfully in the world economy, however, the institutions providing these services need to develop or acquire new skills and expertise in market analysis and market linkage. Producers need to ensure that there are viable markets for any existing or new products. They need to ensure that the quality and packaging of those products meet the requirements of customers both on the domestic and export market. Research and extension services have a vital role to play in this effort and must be prepared to reform quickly to meet the challenges of globalization.

In many respects, national research programs have succeeded in their goal to achieve food security, and the emphasis should now be on developing dynamic and commercially orientated research that supports improved market analysis, market access and added-value processing. Extension services should now focus on assisting producers to trade more effectively within a liberalized market. Special attention should be given to aspects such as linkage of production to markets, access to credit, and collective marketing which will enable the millions of small-scale farmers to gain from economies of scale in their input and output markets.

Government research services need to work closely with the private sector, which is increasingly developing its own research capacity, particularly in regard to higher-value commodities and research related to issues and problems further up the value chain.

9. Reduce importation of goods that can be competitively produced domestically

Many ECA countries import fruit juices, soluble coffee, cooking oils etc., even though they are rich in all the raw materials needed to make these products and have low labor costs. An effort should be made to examine import data and to analyze the prospects for developing the local manufacture of such products and to encourage investment in the production of such goods, but only if this can be done profitably without having to resort to market protection. It should be remembered that savings on imports are as valuable as export revenue.

10. Strengthen the legal framework for market activity

Market manipulation and collusion among traders to the detriment of farmers, consumers and exporters are widespread practices in ECA countries. In some countries, road tolls and taxes are arbitrarily applied and often restrict trade and increase transaction costs. Where necessary, governments must institute a program to reform the legal framework within which agricultural product transactions take place, establish or reform laws of contract, outlaw restrictive practices, and regulate a competitive market in agricultural goods. In addition, governments must ensure that these laws are properly enforced.

Trade versus aid

THE strategies outlined above aim to provide a pathway through which countries can position themselves better in terms of global trade negotiations and also attain skills that will make them more competitive in the global market. Adopting these strategies is, however, not a simple task and requires considerable integration of all players involved in the development process. Despite being challenging, the rewards from development through trade rather than aid are clearly highly desirable and, in the long term, will provide the only means of sustainable development.

For example, it is estimated that if coffee prices could return to the same levels as in the 1980s, an additional USD19 billion would be injected into the pockets of producers and, therefore, small-scale farmers. The opportunity to find market solutions to development programs has not been missed by many charitable and advocacy groups and at present Oxfam International is leading a major campaign for 'Fair Trade', based on the coffee crisis. In addition, the Commonwealth has supported a series of meetings at the WTO in 2002 to address the issue of management of market supplies (see Annex 2). According to Mike Moore, WTO Director General, 'full agricultural trade liberalization would result in financial flows to the least developed countries of more than eight times the level of official development aid they receive'.

The dilemma for the industrialized nations is that, although liberalization is based on the principles of free trade, the Organization for Economic Cooperation and Development (OECD) nations current spend between USD350–400 billion/year, i.e. more than USD1 billion/day, subsidizing agricultural production. In the EU and USA, these funds support 3–4% of the society. In stark contrast, in Africa, where 75–90% of the people are involved in agriculture, subsidies are considered unworkable, despite the fact that their products are losing value (Annex 1).

Despite the clamors for change from the developing world, new policies on farm subsidies show little prospect for rapid change. The new US Farm Gate Bill will increase subsidies to US farmers by up to 70% over the next decade, and whilst the EU talks of change, it is unlikely to significantly reduce the Common Agricultural Policy (CAP) on subsidies. There are also worrying signs that direct agricultural subsidies within the EU are now being hidden within environmental support programs that will enable governments to avoid potential trade sanctions in regard to their commitment for reducing direct subsidies to the agricultural sector as agreed through the WTO.

Clearly, development organizations and donors need to seriously review the ground rules in the international commodity markets if progress is to be made in the poorest countries and it would seem that although food security may be strengthened, few agricultural technologies being developed by research and development organizations will assist the poor countries in reducing poverty within the current imbalance of market access and subsidies for trade. The issue of market access was the key message from LDCs at the Earth Summit held in Johannesburg in 2002 and President Museveni of Uganda was particularly vociferous in his argument that

> Uganda had made all efforts to reform the economy within the Bretton Woods formula, but if market conditions remain as they are, the prospects for growth are extremely poor and that the gains that had been made of the past 10 years may well be lost due to continual declines in prices of raw goods.

The loss of income channels increases the need for aid, increases internal debt, and reduces political stability—these problems affect us all.

Conclusion

GIVEN the seriousness of the trading situation, it is important that agricultural research and development organizations and their international investors consider new strategies that will enable them to integrate their activities and include policy-makers in trade, transport, finance, donors and the private sector to address the most pressing aspects of the market condition.

A new round of WTO reforms will be with us soon and this will expose ECA countries to further competition from more efficient/more subsidized agricultural producers. In order to take advantage of the opportunities offered by WTO/trade changes and protect themselves from their most negative aspects, research and development strategies in the ECA countries need assistance to undergo a radical reform. We believe that a major reform is required and that the market/trade-based approach should be incorporated in the future work of the organizations represented here.

Bibliography

Akiyama, T. and Larson, D. 1994. The adding-up problem. Washington, DC, The World Bank.

Badiane, O. and Mukherjee, N. 1998. Global market developments and African exporters of agricultural commodities. Washington, DC, World Bank/International Food Policy Research Institute.

Bond, P. 2001. The new partnership for Africa's development, an annotated critique. On the Internet: <http://aidc.org.za/NEPAD/nepadannotatedcritique.pdf>.

Bonnet, D. 2002. Plugging the dyke with a plaster: debt relief in a skewed international trading system. Traders: Journal for the Southern African Region, Issue No. 11, August–November 2002, p. 5–6.

Corea, G. 1992. Taming commodity markets. Manchester, Manchester University Press.

Centre for Technical Assistance (CTA) 1998. Reducing poverty through agricultural sector strategies in eastern and southern Africa. On the Internet: <http://www.agricta.org/pubs/redpov/index.htm>.

Economist, The, 2001. The globalisation debate. September 29th edition.

Food and Agriculture Organization of the United Nations (FAO) 2000. Production year book. Rome, FAO.

Friis-Hansen, E., ed. 2000. Agricultural policy in Africa after adjustment. Copenhagen, Centre for Development Research, 112 p.

Gray, C. 2002. High coffee prices leave a bitter taste in mouths of impoverished farmers. Independent Newspaper, Wednesday, September 18, 2002, p. 3.

Oxfam International 2002. What's that in your coffee? International Fair Trade Campaign, 2002. On the Internet: <http://www.maketradefair.com/>.

Robbins, P. 2000. Review of market information systems in Botswana, Ethiopia, Ghana and Zimbabwe: study report. Technical Centre for Agricultural and Rural Cooperation (CTA), 83 p.

Robbins, P. and Ferris, R.S.B. 2003. Impact of globalisation on the agricultural sectors of countries in Eastern and Central Africa. IITA-ASARECA Monograph (in press).

Shepard, A. and Farolfi, S. 1999. Export crop liberalisation in Africa—a review. Rome, Food and Agriculture Organization of the United Nations.

World Bank 2001. Globalisation can work for Africa. Washington, DC, World Bank.

ANNEX 1 Economic indicators for countries in Eastern and Central Africa.

	Burundi	DRC[a]	Eritrea	Ethiopia	Kenya	Madagascar	Rwanda	Sudan	Tanzania	Uganda
Land area ('000 km^2)	26	2267	101	1000	569	582	25	2367	884	200
Population in 2000 (million)	6.8	51.4	4.1	64.3	30.1	15.5	8.5	29.7	33.7	22.1
Percentage population in agriculture	90.8	65.8	78.8	85.3	77.7	75.9	91.2	67.9	83	83.1
Annual population growth rate (%)	1.9	3.2	2.6	2.4	2.2	3.1	2.4	2.3	2.3	2.7
Population density (people/km^2)	265.1	22.7	40.6	64.3	52.8	26.7	344.9	12.5	38.1	110.5
Life expectancy at birth (years)	42.1	45.8	50.4	42.4	47.7	54.3	40.0	55.5	45.0	42.1
Fertility rate, total (births per woman)	6.1	6.2	5.6	6.3	4.5	5.6	6.0	4.5	5.4	6.4
Infant mortality (rate per 1000 live births)	104.8	85.0	60.4	103.7	76.5	149.0	123.2	67.2	94.8	88.3
Child malnutrition (% underweight 1989–95		35		47	23	32	28		28	23
Primary school enrolment, 1996 (% net)	–	–	30.4	32.0	–	–	–	–	47.8	–
Illiteracy rate, male adults 15+, 2000 (%)	43.4	26.5	32.6	56.4	11.1	26.5	26.4	30.2	15.3	22.4
Illiteracy rate, female adults 15+, 2000 (%)	59.3	49.7	59.3	66.8	24.0	40.3	39.8	53.7	32.9	43.1
Gross national income (GNI) per capita, 2000 (USD)	140	–	170	100	360	260	230	320	280	310
Inflation, gross domestic product (GDP) deflator, 2000 (% annual)	22.9	–	17.7	1.3	6.2	7.1	1.0	8.0	8.7	2.8
Agriculture, value added, 2000 (% of GDP)	50.7	–	–	–	23.2	30	45.7	–	44.8	44.4
Forest area, 2000 (km^2)	940	1.4 million	15,850	45,930	171,000	117,300	3070	616,300	388,100	41,900
Total external debt, 2000 (USD million)	1114	11,410	300	5481	6343	4359	1356	15,636	7104	3668
Total debt/GDP, 2000	161.7	251.3	49.4	85.9	61.3	112.0	77.0	140.0	78.7	59.1
Total debt service/exports, 2000	42.0	3.3	1.3	54.0	23.5	7.0	46.9	3.3	15.3	25.5
GDP average annual growth										
1990–2000	–2.6	–	3.2	4.7	2.1	2.0	–0.2	8.1	2.9	7.1
2000–2004	2.7	–	9.3	6.8	4.4	6.4	6.3	6.2	6.2	6.3
Terms of trade (1995 = 100)	–	158	–	66	78	84	102	98	98	56

[a]DRC = Democratic Republic of the Congo
Sources: World Bank; United Nations Conference on Trade and Development (UNCTAD).

ANNEX 2

Towards a new initiative for supply management of primary commodities from developing countries

Peter Robbins

THE international prices of most major commodities produced by developing countries, such as coffee, cocoa, tea, spices, cotton and sugar, are lower now, in real terms, than ever before. Falling commodity prices represent a major reason for poverty and lack of development for all those countries that depend on primary products for employment and export revenue. Prices are predicted to fall further in the foreseeable future despite an increase in world demand. The simple reason for these low prices is oversupply.

If the supply of any manufactured product increases to a point were production becomes unprofitable, factories are closed and production cut until supply once more is balanced by demand. The economics of primary products produced by poor countries is completely different. These countries do not have the prerequisite conditions, including an adequate infrastructure, alternative investment opportunities, and an educational and skills base, to develop non-agricultural industries in manufacturing and services. They must rely on cash-crop production for export revenue generation no matter how low prices fall.

Overproduction can be attributed to the adoption of internal and international market liberalization policies. Under the conditions of structural adjustment programs (SAPs), developing countries adopted policies to boost exports. These policies included offering investment incentives for cash-crop production and the devaluation of the local currency. Coffee-producing countries were encouraged to boost coffee production, sugar producers to produce more sugar, and so on. This resulted in overproduction of these commodities, which caused prices to plunge in the international markets. Economists call this phenomenon the 'fallacy of composition': less income is earned as more commodities are produced.

In the case of some commodities, including coffee and cocoa, prices had been maintained at an adequate level under international commodity agreements. In 1989, however, consuming countries, led by the US and UK, decided to end funding to support prices within the retention schemes. Their stated reason for doing this was to prevent countries becoming dependent on raw material production based on artificially high prices. It should be said, however, that consuming countries have saved considerable sums of money by having access to these commodities at very low prices.

During the last 20 years, demand for these products has risen, but not as fast as supply. Demand for coffee, for instance, has risen by 1.5% a year over the last five years, a respectable rate compared with the demand for many manufactured goods. Supply over the same period, however, has risen by 3.6% a year (stocks have doubled between 1997 and 2000) and the price of Arabica coffee has dropped from USD1.34/0.45 kg (1 pound) to USD0.5 (International Coffee Organization).

Demand for tropical beverage products is also extremely inelastic. It was calculated some years ago by Christian Aid that the demand for coffee, for instance, would not be seriously negatively affected if the price of green coffee beans were as high as USD5/0.45 kg (1 pound)—ten times the current level. This is because the raw coffee price is such a small component of the retail coffee price, compared with the cost of advertising, retailing, branding, packaging etc.

The case for reintroducing some international management of supply of these commodities is now very powerful. Control of the supplies of other commodities has proved to be very successful and has benefited the producers of those products enormously. One could not conceive of a commodity more difficult to control than gem diamonds. Millions of dollars worth could be smuggled in a matchbox. Yet De Beers have limited supply to meet demand at a profitable level for over a hundred years. Oil, the world's most important raw commodity, is successfully controlled by Organization of Petroleum Exporting Countries (OPEC) countries, despite the huge political differences between them. The prices of drugs (medicines) are also kept artificially high by invoking patent agreements, despite the fact that many lives could be saved if they were cheaper.

Opponents of supply management condemn the idea as contravening free-market forces. In his book, *The State of the World's Children* (1989), J.P. Grant counters this argument. He says

> Action of this kind can surely not be rejected on the grounds that it interferes with the laws of the market place when the industrialized world itself continues to spend between USD125 and USD150 billion a year [1980s levels] on agricultural subsidies which deprive the developing world's exports of the right to compete for markets and are essentially commodity agreements to stabilize and guarantee incomes of Europe's own farmers.

Instead of encouraging the establishment of supply management systems, the developed world has decided to address the problem of increasing levels of poverty in developing countries by encouraging further liberalization reinforced by aid programs. Liberalization has not yet, however, delivered its promised rewards and aid programs are often porous and extremely difficult to target at typical, poor, small-scale farms which employ the bulk of the population in most developing countries.

Any increase in revenue derived from commodity price rises, however, is likely to accrue to individual producers. In other words, extra income will be naturally targeted at people needing help. An international plan to manage supply could be achieved with a comparatively modest bureaucracy compared with the colossal machinery of an equivalent aid distribution system. This extra revenue would be substantial. A reduction in oversupply of coffee, for instance, to balance supply with demand (maybe 5% of production) to raise the price from USD0.5/0.45 kg (1 pound) to USD2 (a fairly modest objective) would increase producers' revenue by USD19 billion a year (world production 6 million t). The scheme would have the added bonus of releasing good land for food production.

A mechanism for a new supply-management initiative

The world has changed since the effective collapse of the UNCTAD-initiated international commodity agreements, but the essential lessons learned by UNCTAD in establishing these agreements should be understood before designing a system that would be in harmony with today's economic climate.

The essential reading on this topic is *Taming Commodity Markets* (1992) by Gamani Corea, the Secretary General of UNCTAD during this period.

Considering the book was written a decade ago, Corea displays considerable prescience by stating that:

> Supply management by producers, whatever the instrument used, may prove to be a necessity in the light of the prospects for commodity prices over the next decade.

He begins by arguing that the need for developing countries to act together is essential:

> When commodities are supplied by a large group of countries, none of which has significant market power individually, it is only by collective action that markets could be influenced.

And, acknowledging that the failure of developing countries to work together reduced the effectiveness of the supply management program, he says:

> The most important shortcoming on the side of the developing countries was, however, their relative failure to coordinate their positions and agree among themselves on a decisive plan of action. The essence of price stabilization arrangements is supply management, whether through export quotas or stockpiling. Commodity supplies are under control of the producing countries and if they were to succeed in restricting or managing these supplies through agreement among themselves they would be able, unilaterally, to influence prices. This is especially true of export quotas since these do not require actions by consumers.

Corea continues by encapsulating the essence of any such agreement:

> The commonest are schemes for the restriction of production or exports. The regulation of total supplies to world markets would require the allocation of export shares or quotas to individual producing countries and an agreed basis for determining such shares would need to be established. Moreover, within each country, means would have to be found for distributing that country's quota among its domestic' producers and administrating the allocations that have been decided upon.

He goes on, however, to explain one of the most important difficulties he encountered in forging and maintaining these agreements:

> It would seem also that the developing countries, lacking the organization and facilities needed to design and foster agreement on price stabilization schemes, placed unduly heavy reliance on the Secretariat of UNCTAD to help in this task."

For this and other reasons, Corea concludes that any scheme designed to manage production is best undertaken with the agreement of consuming countries as well as producing countries.

Indeed, supply management could also be said to be in the interests of consuming countries. Another commentator, Sydney Dell (*The origins of UNCTAD*), has put it this way:

> While...[the]...opposition [of the industrialized countries] could be understood in terms of their short-term interests, it was less clear that it was rational in the longer run perspective, since rising real income in the developing countries was clearly in harmony with the interests of developed countries from many points of view, including the larger markets for their exports that a prosperous Third World would imply

It should be borne in mind that the UNCTAD-initiated commodity agreements were between states, not representatives of the commodity producers themselves. I know from my own experience as a commodity trader that this feature of the agreement represented a weakness. Firstly, commodity producers have a more direct and urgent interest in maintaining higher prices for the goods they produce. Secondly, some governments, given the power to allocate export quotas to producers, abused that power by offering quotas to domestic producers whom they favoured and denying them to producers whom they perceived to oppose some aspect or other of government policy or on the basis of racial or cultural identity. The system too was abused in some cases by corruption.

Another serious weakness of the UNCTAD commodity agreements was that they were based on agreed export quotas rather than agreed export capacity. This is known as an export retention scheme and allowed for the funding of surplus stocks. This funding was advanced primarily from consuming countries rather than producing countries. This put the power to continue or abandon the program in the hands of developed countries who could benefit, at least in the short term, by ending the agreement. This they duly did in 1989 by withdrawing from the funding arrangement.

In most producing countries, there exists at least a semblance of organization of farmers. These may be farmers' unions, associations of cooperatives and/or associations of producers of a specific commodity. In order to reflect the change in thinking among development economists, it would seem likely that any agreement would be considerably strengthened if these private sector actors represented the main participants. Clearly, the representation of the interests of farmers differs from one country to another. Moreover, these arrangements may vary from producers of one commodity to those of another. This suggests that a new initiative to manage supply of commodities should identify, and where necessary support, these organizations in each country and enable them to acquire the necessary resources to allocate export quotas among themselves by mutual agreement.

Gamani Corea was able to organize the establishment of the international commodity agreements with only the 25 professional staff of the UNCTAD Commodity Division—the number of staff that would be considered a small company in the private sector. Some of the apparatus of the agreements remains intact. Institutions like the International Coffee Organization, and similar organizations for cocoa, sugar, and rubber-producing countries, still help to represent their members' interests. The Common Fund for commodities, another construct of the agreement, also functions, but only for non-market intrusion work such as supporting sales promotion, quality improvement and futures market risk management schemes.

In other words, any new supply management program would not be starting from scratch.

In addition to these institutions, there have been several other attempts to reintroduce some order into commodity markets. In 1993, the Association of Coffee-Producing Countries (ACPC) resurrected another retention scheme, without the assistance of coffee-consuming countries this time. Unfortunately, the scheme collapsed in early 2001. The ACPC has offered several reasons for the collapse—lack of funds, failure to attract all producers as members, cheating etc. Mexico faced a legal challenge if it took part under its NAFTA agreement.

The difficulties of reaching agreement between all developing country producers of a particular commodity should not be underestimated, as Corea's book clearly illustrates. However, what is certain is that these countries have a massive interest in trying to reach agreement. It could also be said that developed countries could be persuaded to support such a program if it could be demonstrated that it was in their long-term interest to do so. The revenue derived by poor countries would not only reduce the need for some aid programs, it would also help to ensure more stability in the developing world.

One component of new agreements might be to include a linkage with investment of the extra revenue in value-added products. Just as the prices of primary commodities have fallen over the last two decades, the price of products processed from these raw materials—chocolate bars, instant coffee etc.—sold in Western supermarkets have staged almost as significant a rise in price. This suggests an obvious development strategy. The processing and packaging of domestically produced raw materials could form the basis of new manufacturing and service industries, thus reducing reliance on raw material production. This, after all, is the ultimate goal of all economic development programs. If developing countries can be allowed to establish new industries, rather than relying on sterile aid programs, they can truly contribute to the world's economy.

The task of coordinating new thinking on this subject, especially in developed countries, also has some potential partners. The major development non-government organizations (NGOs) have, for many years, identified low commodity prices as a major cause of poverty. They have considerable influence in many forums and could be relied upon to support and lobby for such arrangements.

The UNCTAD agreements were based on export quotas, not production capacity. This gave rise to the problem of storing surplus supplies. Apart from the problems of having to raise the necessary finance to keep these stocks, the organizers had to cope with the problem of keeping semi-perishable goods, like cocoa beans, in stores for sometimes several years. As production capacity often exceeded a country's export quota, the retention arrangements also encouraged cheating by member countries and many traders were willing to smuggle surplus coffee out of the country and sell it on the open market. This had the effect of keeping prices down.

A more robust arrangement would involve the destruction of a small proportion of production capacity. This would, of course, include the added problem of inspecting individual producer's land in order to regulate the cutting down of trees and the planting of crops. It is possible that new satellite imaging technology could be used for this task. It should be borne in mind that cocoa trees and tea bushes do not come to maturity until five years after planting and coffee bushes take three years before becoming productive, so, in the case of these important crops, inspections would not have to take place very often. Again, local farmers' associations would need to be responsible for such work.

In order to understand how a new supply management program could operate successfully, some knowledge of how commodity markets work is essential. Although the differences between the volume of supply and demand represent the most important influence on price movements, sentiment also plays a major role. Traders do not only act as intermediaries between buyers and sellers. They make the bulk of their income be taking a position on the market, i.e. they are also speculators. They perceive the markets of tropical products as fundamentally weak—mainly because they see no prospect of successful supply management in the foreseeable future. It would be important, therefore, for any new initiative to be supported by organizations with a reputation for integrity and professionalism. The sentiment in a market can be turned instantly if the right signals are given. Such a change would, in itself, lead to a stronger market.

It is probably also important for the initiative to begin with a single commodity, rather than attempt to tackle several commodities at once. Corea agrees and goes on to say:

> The possibilities in the area of tropical beverages, for example, where demand elasticities are relatively low and production heavily concentrated in developing countries, might be better than in the case of several other commodities.

I would go further and suggest coffee as the first commodity for a new program. Success with one commodity would make the subsequent control of the supply of other commodities much more likely.

It would of course take some time to ensure that all member countries had taken steps to control production and exports. It may therefore be necessary, both as a practical measure and from the point of view of sending a robust market signal, for some proportion of stocks to be destroyed as the first act of a new supply management program. This measure is not as drastic as it sounds. Since the deregulation of markets it has been more difficult to control the quality of many commodities and there has been a build-up of large stocks of sub-standard products. Destroying these will not only help to introduce some rigidity into the market but also improve the reputation of suppliers on quality standards. Clearly, funding will be required to compensate suppliers for the loss of their stocks but some system for recovering this cost could be built into the system once prices increase.

Individual farmers are likely to respond to the suggestion that they should reduce production capacity as just another 'trick' from the outside world which will impoverish them further. It is very important, therefore, that the substantial benefits likely to arise from a successful program are explained to them by people they trust—preferably fellow farmers. If they could be sure that cutting production by 5% would double their income, they are likely to cooperate.

Enlisting the support of developed country governments, the international commodity organisations, United Nations' agencies and other governmental organizations and the Common Fund for Commodities would, of course, be extremely useful. However, it should be borne in mind that the producing countries have sovereign control over exports of their products and of their farming and export policy. Governments of producing countries need to support and work closely with the producers' associations chosen to implement the program in each country. It would also be important to enlist the full cooperation and offer the necessary support to the international commodity organizations which would be the most likely bodies to coordinate activity.

Tropical commodities are the only things that developing countries have which the rest of the world cannot or would not be prepared to do without. Some effort needs to be made to capitalize on that fact.

It is not the purpose of this paper to offer a detailed design of how a supply management program would work. It should be said, however, that the large trading firms regularly and substantially influence the price of these commodities through speculative activities. They do this without sovereign control of any production and by manipulating relatively tiny amounts of stock. It seems reasonable, therefore, that a robust program controlled and regulated by the producers with international assistance and the full understanding of the markets concerned could bring back proper market control of the commodities they produce.