LIBERALIZING

AGRICULTURAL TRADE :

ISSUES AND OPTIONS FOR SUB-SAHARAN AFRICA IN THE
WORLD TRADE ORGANIZATION (WTO)

Edited by

Merlinda D. Ingco
John D. Nash
Dominique Njinkeu
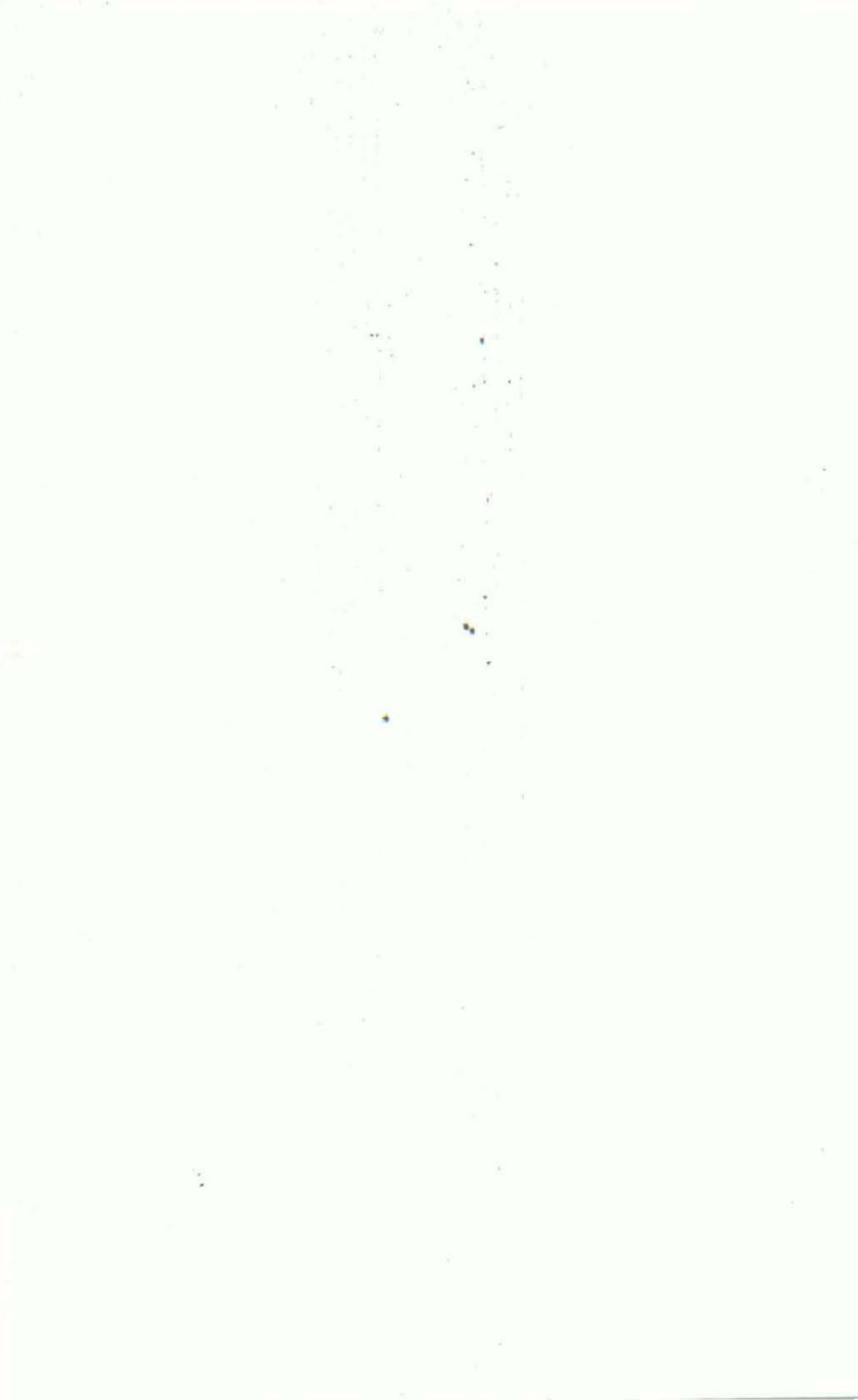
Liberalizing Agricultural Trade: Issues and Options for Sub-Saharan Africa in the WTO

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Macmillan
Nigeria

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List of Abbreviations

ACP	African Caribbean and Pacific
AEC	African Economic Community
AERC	African Economic Research Consortium
AGOA	African Growth and Opportunity Act
AMS	Aggregate Measurement of Support
AoA	Agreement on Agriculture
ASAP	Agricultural Sector Adjustment Program
CBI	Caribbean Basin Initiative
CEMAC	Central African Monetary and Economic Community
CET	Constant Elasticity of Transformation
CES	Constant Elasticity of Substitution
CGE	Computable General Equilibrium
CPI	Consumer Price Index
COMESA	Common Market for Eastern and Southern Africa
CREDIT	Centre for Research in Economic Development and International Trade
CV	Compensating Variation
DRC	Domestic Resource Cost
EAC	East African Community
EBA	Everything But Arms
ECA	Economic Commission for Africa
ECOWAS	Economic Community of West African States
EPAs	Economic Partnership Agreements
ERB	Economic Research Bureau
ESRF	Economic and Social Research Foundation
EU	European Union
EV	Equivalent Variation
FAO	Food and Agriculture Organization
FEPA	Federal Environmental Protection Agency
FGN	Federal Government of Nigeria
FIF	Foreign Input Facility
FIMAC	Financing of Investment in Community-based Micro-Agricultural Projects
GAMS	General Algebraic Modeling System
GATT	General Agreement on Tariffs and Trade

GDP	Gross Domestic Product
GMP	Good Manufacturing Practice
GPVD	Good Practice in the Use of Veterinary Drugs
GSP	Generalized System of Preferences
GSTP	Global System of Trade Preference
HACCP	Hazard Analysis Critical Control Points
HUB	Hunting and Breeding
IFPRI	International Food Policy Research Institute
IMF	International Monetary Fund
IPPC	International Plant Protection Convention
MAC	Ministry of Agriculture and Cooperatives
MFN	Most-Favored Nation
LDCs	Least Developed Countries
NACB	Nigerian Agricultural and Cooperative Bank
NAFDAC	National Agency for Food and Drug Administration and Control
NCPB	National Cereals and Produce Board
NEPC	Nigeria Export Promotion Council
NEWS	National Early Warning System
NEXIM	Nigeria Exports and Imports Bank
NGOs	Non-Governmental Organizations
NISER	Nigerian Institute of Social and Economic Research
NPR	Nominal Protection Rates
NTBs	Non-Tariff Barriers
OECD	Organization of Economic Co-operation and Development
ODC	Other Duties and Charges
RRF	Refinancing and Rediscounting Facility
SACU	Southern African Customs Union
S&D	Special and Differential Treatment
SADC	Southern African Development Community
SAG	Subsistence Agriculture
SAM	Social Accounting Matrix
SAP	Structural Adjustment Program

SEATIN	Southern and Eastern Africa Trade Information and Negotiations Institute
SSA	Sub-Sahara Africa
SPS	Sanitary and Phytosanitary Measures
TBT	Technical Barriers to Trade
TRIPS	Trade-Related Aspects on Intellectual Property Rights
TRQs	Tariff Rate Quotas
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Program
URAA	Uruguay Round Agreement on Agriculture
URT	United Republic of Tanzania
VAT	Value Added Tax
WFP	World Food Program
WIDER	World Institute for Development Economics Research
WTO	World Trade Organization

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Acknowledgements

1 Introduction

Merlinda D. Ingco, John D. Nash and Dominique Njinkeu

During the 1960s and 1970s, inward-oriented import substitution policies dominated the trade policies of many Sub-Saharan African countries, which were then members of the GATT. Their relationship with developed country GATT members was mostly non-reciprocal and their negotiating efforts were concentrated on obtaining preferential treatment in market access and exemptions from many GATT rules. Access under the General System of Preferences (GSP) schemes (not part of the GATT) of a number of developed countries resulted from these negotiations. Such special and differential treatment was the yardstick for judging their links to the multilateral trading system. Further exemptions from GATT rules were provided by the provisions on balance of payment restrictions or development policies in Article XVIII or in other general GATT exemption provisions.[1] The Uruguay Round was the first round to incorporate agriculture fully into the framework of disciplines. Developing countries were again granted partial exemptions from the general commitments to liberalize trade regimes, although many had already undertaken in the 1980s significant unilateral liberalization in the context of structural adjustment programs. But in developing, as in high-income countries, trade barriers in agriculture have been maintained at levels higher than in other sectors. For the Doha Development Agenda to succeed in its objective of creating a more pro-development international trading system, it is clear that agriculture is the key sector in which concrete results must be achieved and these barriers reduced significantly.

The importance of the new round of trade negotiations in the World Trade Organization (WTO) for countries in Sub-Saharan Africa cannot be overstated, as their economic prospects will be greatly enhanced by the full integration of agriculture into the global trading system under

multilateral rules. Many countries in the region with potential to expand exports stand to gain from greater openness in global markets. Even net-food importing countries that face food security challenges stand to benefit from a more transparent and more predictable world trading system in agriculture. World agricultural markets that reflect underlying production costs rather than protectionist government interventions will ultimately help resolve not just the food insecurity faced by many countries, but also help maintain the fundamental macroeconomic conditions that lead to progressive, predictable economic growth. This kind of world trading system will also reduce the volatility of agricultural markets, which will reduce and make more manageable the risks faced by both importers and exporters of foodstuffs.

What should African countries do differently in the new WTO round of trade negotiations from a development perspective? In agriculture, African countries face important decisions, challenges, and risks. While the relevant issues and options are different in each country of the region, there are important areas that are common. Key issues in traditional areas (e.g., market access — reforms in tariffs and non-tariff barriers) remain very important, while several second-generation trade issues have come to the forefront. In the current trade negotiations, major issues raised by the African countries include how to improve market access to high-income countries, improved WTO rules in several areas, and the safeguarding of existing preferences under the various GSP programs and the EU's Lome Convention/Cotonou Agreement with Africa, Caribbean and Pacific countries. Several African countries have tabled proposals to strengthen the WTO rules and implementation of specific provisions of the Uruguay Round Agreement on Agriculture (URAA), such as new specific measures and assurances of compensation to address any adverse effects on food insecure countries of higher world food prices from further liberalization.

This volume presents the key findings of analytical work on important issues facing selected countries in Sub-Saharan Africa in the context of the new WTO round of trade negotiations in agriculture. In contrast to many previous studies, the analysis here focuses upon country-specific issues in Cameroon, Ghana, Kenya, Nigeria, and Tanzania. The analyses are intended to be useful in carrying out well-informed country-specific evaluations of alternative options for further trade and agricultural policy reform. To facilitate ownership of findings, to build local analytical capacity, and to expand the base of local expertise, the studies were

performed by experts residing in the respective countries, in a partnership between the World Bank[2] and the African Economic Research Consortium (AERC)[3].

Background research undertaken for each country case study included four general systemic and thematic issues:

(i) the trade barriers facing major agricultural exports from the country;

(ii) whether the WTO negotiations were pushing domestic reform in the right direction;

(iii) the best approach to market access negotiations based on the country's experience with implementing the Uruguay Round, and

(iv) lessons learned as a result of the implementation of sanitary and phyto-sanitary measures and technical barriers to trade.

Depending on available data, the analytical work in these countries also provides recent estimates of import protection levels in key agricultural commodities. The analysis also evaluates remaining biases in agricultural policy regimes during the implementation period[4], of the URAA compared to the pre-URAA period. URAA implementation coincided with important macro-economic and agriculture-specific policy reforms, which may have reduced or even reversed the bias against agriculture in these countries. The studies include the effects of changes in tariff structures, preferential treatment, rules relating to sanitary and phyto-sanitary concerns, and technical barriers to trade. The analyses consider preferences and terms-of-trade losses from potentially higher food prices to net importers of food as export subsidies are reduced. The analyses provide evidence on whether the implementation of the URAA resulted in a significant burden to Sub-Saharan African countries[5]. Results show that some African countries where liberalization occurred in the 1980s were disappointed at least in the short run with the outcomes of structural adjustment programs and the URAA. But African countries that resisted liberalization during this period missed opportunities to anchor domestic policy reforms in an international framework.

In particular, each of the analytical studies focuses on the following:

♦ Key issues for the country;

♦ Where the country's policies stand today relative to its development objectives and WTO commitments;

♦ What has been achieved at the country level and the implications of these achievements for the new WTO negotiations;

♦ Experience and lessons from actual implementation of commitments;

♦   Impacts of actual implementation of URAA, including domestic policy adjustments;

♦   Market access options in agriculture and other key sectors; (What are the main barriers facing exports from the country in the rest of the world? How large are preference margins in OECD countries?);

♦   Impact of macro, trade, and sector specific policies on domestic incentive regimes;

♦   The domestic trade policy agenda in agriculture; and

♦   Non-tariff barriers to agricultural trade post-Uruguay Round; sanitary and phyto-sanitary measures, food safety standards and other technical barriers to trade.

Some of the key messages from these countries case studies are as follows:

♦   In evaluating the effects of implementation of key URAA provisions relating to disciplines on domestic support, and export subsidies, it is evident that the URAA itself had little direct impact because the 1980s reforms, resulting from structural adjustment programs, had already changed government involvement in agriculture. These reforms resulted in the elimination of support for agriculture through inputs, prices and marketing interventions, essentially covering the URAA provisions on domestic support and export subsidies. African countries generally made commitments in the URAA on tariff bindings that were far above those that they were actually applying.

♦   Sub-Saharan African countries' own high tariffs on agricultural products and restricted access in input markets (including manufactured goods, seeds, and other inputs for agricultural production) creates great potential for them to make significant cuts in the next trade agreement.

♦   On market access issues, these countries benefited from preferential tariffs into developed country markets and the studies all note that a reduction in MFN tariffs in these markets, as required by URAA, will erode their preferential tariff arrangements. This will result in increased competition from other exporters into developed country markets. The studies also note that in the tariffication process, developed countries increased their border protection, using the opportunity to apply higher tariffs to processed agricultural products. This has negatively impacted the competitiveness of developing country exports in those markets. Cameroon and Tanzania note that the major constraint associated with market

access was a domestic one of lacking capacity to respond to market opening opportunities. The Tanzanian study lists rules of origin, environmental requirements, labeling and quality standards as also impacting on market access.

♦ All the studies point to the problems with implementation of the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS) and the possibility of SPS provisions being used for protectionist purposes. All of the country studies attach great importance to financial and technical support for capacity building (both scientific and diplomatic personnel and their attendance at standard setting bodies), and the establishment of a legal framework and institutions. While noting the longer implementation periods for implementation of SPS measures which is in accordance with special and differential treatment provision of URAA, the Ghana study comments that this could lead consumers to question the standards of developing country products and lead to a loss of markets.

♦ The studies recognize the impact that developed country reductions in domestic support and export subsidies may have on food security issues for net food importing countries, and the Kenya study notes that dumped subsidized product impacted on local production.

♦ The issues for these countries in the new round of trade negotiations are affected by both their approach in the negotiations and the continuing and new issues that the negotiations will have to address. On negotiating style, the studies point to the relationships that each country has with neighboring regional groups and the regional efforts to increase trade using preferential arrangements or to limit access. The efforts associated with regional integration will have an indirect effect on the multilateral negotiations as these provide additional trade negotiating frameworks and experience in trade negotiations. The Tanzania study notes emerging regional protection, including safeguard actions, following the removal of quantitative restrictions. The Cameroon study states that a more liberalized international trading environment was to that country's long term advantage. Several of the papers point to the importance of coalitions in the negotiations, particular with more reform-minded countries on the key provisions of disciplines on domestic support, market access and export subsidies. Several of the studies also point to how some developed countries "manipulated" the effects

on both reductions in domestic support and tariffs with the use of aggregates instead of product specific approaches, effectively limiting tariff reduction. The shifting of support from the most distorting category ("boxes") of "amber" to less distorting support of "blue" and "green" also resulted in limited reduction in domestic support. The Nigeria study notes that the "request-offer" approach to tariff negotiations used in the Uruguay Round had an impact, as countries did not have the capacity to analyze proposals, and hence in the current round, Nigeria would prefer to use the "Swiss formula" approach to tariff reductions.

♦ On specific issues such as further tariff reductions, the studies note that their high tariffs ceiling reflected in each Schedule of Commitment may be a problem. As their applied rates are much lower, the negotiations provide an opportunity to return to this issue. One country study comments that high bound tariffs act as a negative factor for investment. Some studies (e.g. Nigeria and Cameroon) suggest that there should be some flexibility in the countries' ability to use domestic support to address rural development or to provide incentives (given the failure of the private sector) to increase agricultural productivity.

♦ On Article 16 of the URAA, the Decision on Measures in Favour of Least Developed Countries Concerning the Possible Negative Effects of the Reform Programme on the Least Developed and Net Food Importing Countries, the studies recommend legally binding language on technical support and financial assistance, recognizing that implementation has been disappointing.

♦ On the establishment of a Development Box, the Nigeria study notes that there should be strict rules for eligibility.

♦ On special safeguards, the Cameroon study wants the approach to be simplified and made more nondiscriminatory.

♦ On Green Box measures, while these are important the studies recognize their somewhat limited use, given the reductions in domestic agricultural budgets.

♦ The Ghana study notes the effect of other WTO work on investment and competition policy, environmental and intellectual property issues.

♦ On export subsidies, all studies note the impact of these on food security issues but the Cameroon study states that these should "ultimately be banned".

These studies should serve as a resource to detail how countries in the Sub-Saharan region of Africa have experienced the implementation of trade liberalization reforms. The level of ambition in relation to liberalization in the three pillars (i.e. market access, export competition, and domestic support) should be of equal interest as there is a need to ensure adequate linkages between these three pillars in the negotiations.

In the area of market access the modalities followed in the negotiations should ensure significant reduction (or elimination) of tariff peaks and tariff escalation. This should be coupled with adequate special safeguard measures to take into account the special conditions of African and other less developed countries. As preferences will be further eroded by the negotiations, adequate compensation should be provided in the form of technical assistance to African countries to enable them to diversify their agriculture.

In the areas of export competition and domestic support, which are primarily used by developed countries with significant negative impact on African production and export, there is urgent need for their significant reduction. This could be attained through a redefinition of the various boxes. Several non trade issues constrain the development of African agriculture and should be recognized and discussed.

In all these specific issues and others that emerge in the new negotiations, it is hoped that the studies of implementation of the URAA are of use to policy makers as they formulate negotiating positions for the present round of agricultural trade negotiations. Conclusions of these studies can also assist other countries in identifying more clearly their own interests in trade negotiations.

End-Notes

1.   These and other GATT exemptions available for all countries to justify trade restrictive measures include
     (i)   General Safeguards (Article XIX);
     (ii)   General and Public Policy Exemptions (Article XX);
     (iii)   exemptions with General Shortages (Article XI); and
     (iv)   State Trading Enterprises (Article XVII).

2.   These analyses were undertaken as part of the World Bank's integrated program of research, policy analyses, and capacity building in agricultural trade and WTO issues.

3.   The involvement of AERC researchers was part of a larger program of trade capacity building; in particular an ongoing collaborative research project "African Imperatives in the New World Trade Order". See *www.aercafrica.org* for details.

4.   From 1995, six years for developed countries and up to ten years for developing countries.

5.   Other studies on the effects of the outcome of the UR on Africa that were undertaken pre-UR implementation showed that the UR Agreements did not result in many obligations and that most African countries were not required to and so did not make meaningful liberalization commitments in the UR. On the other hand, high costs of complying with the new obligations resulting from the previous WTO agreements and limits on development strategies

2 Liberalizing Agricultural Trade: Issues and Options for Sub-Saharan Africa in the WTO

Merlinda Ingco, Tonia Kandiero, John D. Nash and Dominique Njinkeu

2.1 Introduction

The challenges facing Sub-Saharan Africa today include economic stagnation, a widening disparity in international living standards, high international debt, HIV/AIDS, and rural poverty. Of the 1.2 billion world population that lived below $1 a day in 1998, approximately 24% were in Sub-Saharan Africa (World Bank, 2001). And of these, majority live in rural areas. This situation poses a serious concern not only for Sub-Saharan Africa but also for the international community.

Unfortunately, in an age of rapid globalization and liberalization, Sub-Saharan Africa's share of global agricultural export value declined from 8.4% in 1965 to approximately 2.0% in 2000. Factors contributing to this marginalization remain open to discussion. Yeats, Amjadi, Reincke, and Ng (1997) argue that African countries' domestic policies led to the decline in the region's share of global exports. Hoekman, Ng, and Olarreaga (2001) point to restrictive market access policies in developed countries as a source of Africa's marginalization. Others maintain that global demand for primary products (Africa's major agricultural export) has been considerably weaker than demand for high value-added agricultural products, thereby causing a decline in the region's share of world agricultural trade. Greater integration of the countries' economies

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into the world market could play an important role in the promotion of sustainable development and poverty alleviation in the region. Full participation in the Doha Development Agenda has the potential to help Sub-Saharan Africa to resolve some of these challenges.

In this chapter, we identify key policy issues relevant to Sub-Saharan African countries in the context of the new multilateral trade round in the World Trade Organization (WTO), referred to as the "Doha Development Round". We recognize the need for Sub-Saharan Africa to capture the benefits and increased opportunities offered through the multilateral trading system. In this context, the paper evaluates the progress in implementation of agriculture and trade policy reforms agreed to under the auspices of the Uruguay Round. Drawing on these findings, we address some of the high priority areas for Sub-Saharan Africa in the Doha Development Agenda. We focus on the following questions:

1. What is the impact of market access policies in developed countries on Sub-Saharan Africa's agricultural exports?
2. Are trade preferences beneficial?
3. Did Sub-Saharan African countries expand import market access during the implementation of the Uruguay Round?
4. Have domestic agricultural policies improved?
5. What is the way forward?

2.2   What is the Impact of Market Access Polices in Developed Countries on Sub-Saharan Africa's Agricultural Exports?

The issue of market access is of great importance to the countries of Sub-Saharan Africa. Many agricultural exports from these countries continue to face high protection levels in developed countries, exacerbating the concern over Sub-Saharan Africa's declining share of global agricultural exports. Between 1965 and 2000, the region's share of global agricultural export value dropped to a quarter of its previous level (Figure 2.1).

Figure 2.1. Sub-Saharan Africa's in World Agricultural Exports Revenue
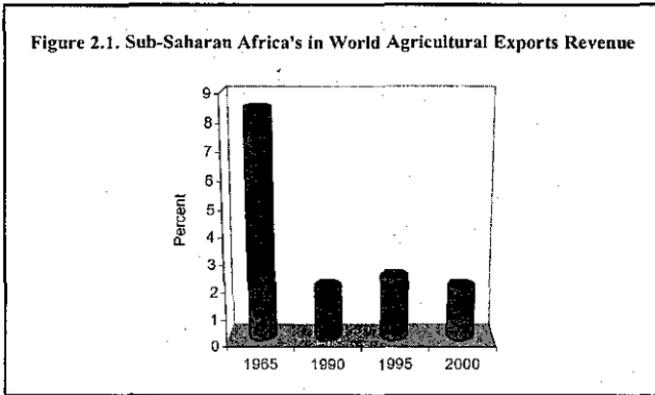
Source: Author's calculation using data from UN Comtrade

In 2000, 45% of Sub-Saharan Africa's exports went to the (EU), 7% to the United States, 6% to Japan, and 1% to Canada (Figure 2.2). In each of these four markets (also known as the Quad), tariff peaks and tariff escalation are relatively common. Despite most-favored nation (MFN) status and in some instances preferential tariffs, many products of trade interest to African countries continue to be subject to tariffs in excess of 100% in developed countries.

Items of major export interest to developing countries which are subject to tariff peaks include: sugar, cereal, tobacco, vegetables, fish, and fruit. Tariff peaks and tariff escalation have a disproportional impact on exports from Africa and other developing countries. Hoekman, Ng, and Olarreaga (2001) estimate that if Quad countries extended complete market access to developing countries on products currently subject to tariff peaks and quotas, Africa's exports would increase by $2.5 billion (11%).

Figure 2.2. Distribution of Sub-Saharan Africa Exports by Market
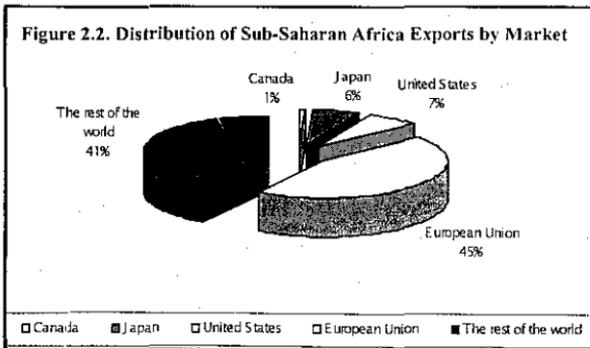
Source: Author's calculation using data from UN Comtrade

Unfortunately, the Uruguay Round actually increased tariff dispersion as tariffication resulted in high duties on agricultural products that were previously restricted by quotas. Essentially, peak tariffs are more than three times higher than the average MFN rates in the EU and other Quad markets (Hoekman and Koestecki, 2001). Table 2.1 presents a selected number of products of interest to Sub-Saharan Africa which are subject to tariff peaks in developed countries. These tariffs are identified as peaks because they have MFN tariff rates higher than 15% (IMF, 2001). Tobacco, coffee, cocoa, maize, and groundnuts face exceedingly high tariffs in developed countries.

Table 2.1
A selected number of tariff peak products from Sub-Saharan Africa (per cent)

Product description	EU	Japan	United States	Canada
Bovine meat (chilled)	86	50	26	26
Sardine, Frozen	23	–	–	–
Tuna, frozen	22	–	–	–
Coffee prepara. & extracts	–	130	27	–
Cocoa powder with sugar	22	30	52	–
Manioc dried	75	15	–	–
Tomatoes (fresh or chilled)	14	–	–	13
Green tea	–	17	–	–
Orange Juice	52	30	31	–
Tapica	34	–	–	–
Bovine skin leather, Tanned	–	30	–	–
Ground nuts	0	550	132	0
Maize	84	60	2	1
Cane molasses	5	95	0	13
Tobacco	5	0	350	0

Note: (–) means that tariff peaks do not exist
Source: UNCTAD (2001)

The post-Uruguay maximum tariff rate for tobacco reached about 350% in the United States; groundnuts and coffee as high as 550% and 130%, respectively, in Japan; and maize around 84% in the EU. While Africa faces tariff peaks in each of the four Quad countries, there are also obvious signs of tariff escalation in major markets (Tables 2.2 and 2.3).[2]

Table 2. 2
Tariff escalation of agricultural products in QUAD (per cent)

Country	Agricultural Product Stage		
	First stage	Semi-processed	Fully processed
Canada	1.7	3.6	7.0
EU	7.3	12	13.1
Japan	4.5	14.3	15.5
United States	7.1	4.5	10.3

Sources: WTO CD ROM 2000 and WTO Trade Policy Review, various issues, 1995-2000

Table 2.3
Average tariffs by region and level of processing (per cent)

	North America	EU-15	Other Western Europe
Grains	25	53	100
Grain products	19	48	122
Oil seeds	18	0	90
Oilcake	13	3	81
Vegetable oils	17	13	95
Live animals	21	30	233
Hides & skins	6	0	22
Fresh & frozen meat	65	54	291
Prepared meat	41	43	282
Fruit, fresh	10	21	51
Fruit preparations	12	21	48
Fruit juice	12	37	49
Vegetables: fresh	11	16	175
Vegetable preparations	12	21	123
Vegetable juice	25	16	26
Sugar beet	12	349	144
Sugar cane	12	56	99
Sweeteners	50	59	82
Tobacco (unmanufactured)	28	14	28
Tobacco (products)	112	38	29

Source: Gibson, Wainio, Whitley, and Bohman (2001).

Data in Table 2.2 presents applied tariff rates in the QUAD for different stages of agricultural products. The first stage has the lowest average tariff rate compared with the fully processed stages. In the case of Canada and Japan, the tariff escalation from stage one to stage three is three times, with Japan reaching the tariff peak, 15.5%. Tariff escalation is more evident in the case of specific items such as meats, sweeteners, and oils (Table 2.3). In the case of meat, the average spread between the tariff applied to the primary product (Live animals) and processed product (Prepared meat) is over 50% in other Western European countries. For tobacco, the average tariff spread is 84% in North America.

2.3   Are Trade Preferences Beneficial?

Trade preferences provide lower barriers on trade among participating countries than trade with nonmember countries. Essentially, preferential treatment through the reduction in tariffs by developed countries is supposed to translate into larger export revenues for developing countries. In addition, market access opportunities are expected to foster investment, technology transfers, employment creation, and income generation. Therefore, the idea of "instead of aid why not trade" has some economic appeal. There are basically three major forms of preferential treatment:

(i)   Generalized System of Preferences (GSP);
(ii)   special Preferential regimes established by developed countries for sub-sets of developing countries (e.g., the EU-Lomé Convention/ Cotonou Agreement with African, Caribbean and Pacific (ACP) countries, the U.S. Caribbean Basin Initiative (CBI), the EU Everything but Arms (EBA), and the U.S. African Growth Opportunity Act (AGOA));
(iii)   and free trade areas such as (SACU, COMESA, ECOWAS, etc).

With increased trade liberalization, there is fear that the perceived benefits from these arrangements will be undermined as continued reductions of MFN tariff rates reduce tariff margins and increase competition.[3] In the particular case of agriculture, trade preferences have the potential to be beneficial, considering that MFN tariffs are exceedingly high for a number of products. Even though MFN rates are in the process of being reduced, it could take some time before exceedingly high tariffs on some agricultural products are low enough for a complete erosion of the margin of preferences to occur. Empirical evidence from several recent studies (Tangermann and Josling, 2001;

Sharma, 1997; Yamazaki, 1996), indicate that some benefits have been realized, since the result of trade preferences as the margin between MFN and preference rates in agricultural products have remained positive. The export value of the ACP preference margin was estimated at approximately 630 million Euros. Beef and sugar had the highest share of the margin   Reducing the MFN rates to 28% of the pre UR base would reduce the margin by more than half.

Table 2.4 presents MFN tariff and preferential rates on a number of agricultural products that enjoy the highest preference margins from the United States. From Table 2.4, the MFN preferential margin rates for products such as oilseeds were as high as 88 percentage points (132%-44%). Other commodities that also had high margins and high preference tariffs included tobacco, fish, rice, vegetables, and dairy. In 2000, Sub-Saharan Africa also experienced positive margins in edible fruits, vegetables, cereal, and tobacco in the EU. Even though U.S. preference schemes offered lower tariff rates for imports from Sub-Saharan Africa, some agricultural products are still subject to high levels of protection even from the preferential rates.

Table 2.4
Sub-Saharan Africa's agricultural exports to the United States
receiving the highest preferential MFN margin, 2000

HS 6	Description	Average MFN Rates (%)	Preferential Rate (%)	MFN preferential Margin (%)
120220	Oil seed	131.8	43.93	87.87
240120	Tobacco	77.8	46.67	31.11
240110	Tobacco	58.3	38.89	19.44
240130	Tobacco	38.9	26.92	11.97
160414	Fish, caviar	11.7	0	11.73
100630	Rice	11.2	0	11.20
071080	Vegetables	10.8	0	10.80
200819	Preparation of vegetables, fruit and nuts	9.5	0	9.54
040520	Dairy Spreads	8.8	0	8.80

Source: UNCTAD and Author's estimates

Although there is strong evidence of an erosion of preferential margins as a result of increased liberalization, the defense for preferences remains strong for some agricultural products, and therefore, the issue of preferences will continue to be implemented for Sub-Saharan Africa. However, in making the case for preferences, some economists such as Wang and Winters (1997) caution that trade preferences could have negative results. They report that preferences may:

(i)   divert resources to export industries and away from sectors that could assist in sustainable development; and

(ii)   diminish incentives to industrialize since preferences are subject to removal at the discretion of the granting country, which increases risk.

Overall, many preference regimes in agriculture hurt industry. The evidence from the Lome Agreement protocols in particular, is that preferences have promoted dependency both on products (bananas, sugar, beef) and markets. Other issues for Sub-Saharan African countries relate to the EU's negotiations of Economic Partnership Agreements(EPAs) with all members of the Cotonou Agreement, both developing and least developed countries. Only the LDCs benefit from the EU's EBA agreement. The EPAs will be negotiated at around the same time that Sub Saharan African countries will be negotiating in the WTO for further reduction in tariffs. Such decisions will further erode their tariff benefits relating to preferential arrangements.

2.4   Did Sub-Saharan African Countries Expand Import Market Access during the Implementation of the Uruguay Round?

Market access, one of the three pillars of the Uruguay Round Agreement on Agriculture (URAA), is comprised of three elements:

(i)   tariffication of non-tariff barriers (NTBs);

(ii)   reduction of tariffs to reasonable levels; and

(iii)   maintaining current access levels for individual products.

Tariffication required member countries to convert NTBs into tariff equivalents during the base period 1986-88 for individual commodities covered by URAA. The average reduction of tariffs after tariffication of NTBs was set at 24% over a six year period for developed countries and 36% over 10 years for developing countries. In the case of maintaining access levels, as determined by volume of imports in the

base period (1986-88), it was agreed that the levels were to be established at not less than 3% to 5% of domestic consumption during the base period. The implication is that a share of imports of a commodity which had been previously subject to NTBs would be allowed into the importing country at a low tariff rate.

Commitments in market access were also made by binding tariffs at negotiated levels.[4] For African member countries that submitted schedules, all of their tariff lines in agriculture were bound. However, as shown in figure 2.3 and table 2A.1 in the Appendix, many countries set their tariff bindings at prohibitive levels (100 to 300 %). Only a few countries bound their agricultural tariffs at levels less than 100 %. The Congo bound its agricultural tariffs at 30%; the Central African Republic at 46%; and four of the five countries of the Southern African Customs Union (Botswana, Namibia, South Africa, and Swaziland) at 40%. Within the Southern African Customs Union, the bound agricultural tariffs for these four countries was reduced by an average of 43% over a six-year period. However, these reductions exclude other duties and charges, which are generally included in applied tariffs. Although required by the URAA, only a few countries that are not in the group of least-developed countries offered to make reductions from their ceiling bindings.[5]

Figure 2.3. Applied and Bound Tariffs for a Selected Number of Sub-Saharan African Countries (per cent)
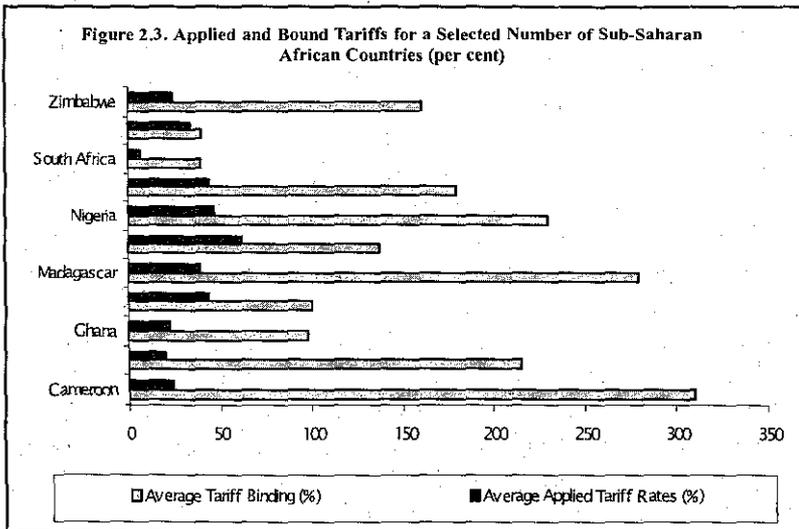
Source: Author calculations based on Finger, Ingo, and Reincke (1996)

Three countries (Cote d'Ivoire, Ghana, and Zimbabwe) offered minor tariff reductions on a few items. While their tariff bindings include the customs duty and other duties and charges (ODC), the ODC rates were not listed in the country schedules in the GATT. Not all African participants reported their ODC rates in their Uruguay Round schedules, although its application is common in these countries.[6] For a number of countries which had previously established bound tariffs (e.g. Cote d'Ivoire), reduction commitments in the UR were made on the previously bound duties, to which the ODC rates were then added. For example, in Cote d'Ivoire, a 7% bound duty on fresh milk was reduced to 6%, but a 200% ODC was added to this tariff item. The end result was a substantial increase in the bound rates of these products.

The experience so far from implementation of Africa's Uruguay Round commitments indicates the following:

First, high tariff bindings have affected the level of applied protection of agriculture in a number of African countries. The URAA has not resulted in "real" liberalization in African agriculture in the sense of reducing applied tariff rates. Although countries do not generally apply tariffs at their bound rates, the higher bindings do not impose any discipline nor require rationalization by African countries of their protection in agriculture.

Second, high tariff bindings have not imposed an effective constraint on policy reversals, although bindings can provide a basis for future tariff reductions. In some African countries, very high tariff binding has undermined the market objectives of stability and transparency. In a number of countries, the applied rates within the bindings are dispersed. Hence, countries are able to change applied tariffs within the margin provided by the bindings. Indeed, most of the maximum tariff rates are too high to provide a meaningful cap on applied tariff rates to improve the security of market access.

Third, the ways that applied rates and other charges have been established and changed undermine the objective of tariffication to abolish non-tariff barriers and convert them into fixed tariffs. The use of ODCs as noted above is one example. In addition, countries are still charging tariff duties at varying levels within the margin of the binding. In some countries, the applied rates are still linked to a domestic threshold or reference price. The applied duty is estimated as the difference between a given domestic price and a reference price as long as the duty charged does not exceed the binding.[7] Thus, in practice, implementation of

tariffication has resulted in a system with characteristics similar to those created by non-tariff barriers such as the variable levy or minimum price systems. While these types of arrangements are in principle not permitted under the Uruguay Round Agreement[8], implementation appears to provide some flexibility. The peace clause provision in the Agreement on Agriculture prevents any challenge to the use of these measures under the dispute settlement system for six years.

2.5 Have Domestic Agricultural Policies Improved?

Agricultural prices remain a critical component of the production incentive provided to farmers in Sub-Saharan Africa. The price relationships faced by these agricultural producers are dependent on a complex nexus among the structures of the broader agricultural economy (marketing systems, transportation costs, infrastructure) and the macroeconomic environment (trade, exchange rates) in which agriculture operates. Several studies have examined these price relationships to assess the extent to which agriculture has been taxed or subsidized (Schiff and Valdés, 1992; Herrman, 1997).

Many policies have tended to tax agriculture excessively, with farmers receiving producer prices lower than the world price equivalent, thereby inhibiting improvements in farm profit and welfare. The extent of these severe price distortions was highlighted by Schiff and Valdés (1992). According to their study, among all developing country regions Sub-Saharan African countries imposed the highest level of taxation (both explicit and implicit) on agriculture, ranging from 46-59 %. The direct tax on agriculture in these countries was similar to the level of the indirect tax. Agricultural pricing policies taxed agriculture about as much as the implicit tax resulting from industrial protection and macroeconomic policies. This differs markedly from findings in other developing countries where the combined implicit and explicit tax on agriculture was lower, and explicit taxes were about a third of the implicit taxes. Herrman (1997) conducted a similar study which focused on individual crops (coffee, wheat and rice) and found significant policy biases against agriculture, which were more excessive for export crops (coffee) than for food crops (rice and wheat). Nonetheless, favorable agricultural policies for food crops were often found to be offset by distorted macroeconomic policies with a resulting decline in the real producer price. Both of these studies used pre-1985 data which limits their use in identifying current distortions facing today's African farmers.

During the most recent decade, there were significant reforms in both macroeconomic and agricultural policies in most African countries which have alleviated the effects of some of these biased policies. Since the early 1980s many of these countries have pursued structural adjustment programs with macroeconomic, trade and sector reforms. The intended impact in the agricultural sector was to increase incomes to smallholder farmers primarily through an expansion in the production of export crops, thereby accelerating rural growth and poverty reduction. Some of these reforms are detailed in the 1994 World Bank study *Adjustment in Africa*, which documents the changes in real producer prices for export crops during the1980s. Of the 27 countries analyzed, 10 experienced an average increase of 25% in real producer prices of export crops, while 17 experienced an average decline of 28% in the real producer price of exports. The explanation provided for the large decrease was the fall in world prices, coupled with countries' inability to reduce both explicit and implicit taxation simultaneously, thus the benefits of the reduction in one was normally offset by the losses from the increase in the other.

To demonstrate how price changes have affected producer incentives in Kenya, nominal protection rates (NPR) for six major products - wheat, maize, rice, coffee, tea, and sugar are used (Table 2.5). Wheat and maize are Kenya's main imports. Positive NPRs provided farmers with an incentive to increase production.

Table 2.5
Nominal protection rates in Kenya (per cent)

Year	Wheat	Maize	Rice	Coffee	Tea	Sugar
1990	9	-25	-36	-6	-7	-47
1991	22	-24	-45	-13	-12	-66
1992	-14	-22	-8	-21	-49	-63
1993	-52	-31	-33	-21	-7	-42
1994	108	11	-6	-12	-9	-63
1995	27	-11	-49	-2	-18	-51
1996	7	-2	-50	-2	-9	-39
1997	55	14	-3	1	-12	-36
1998	43	-16	-7	1	6	-22

Source: Author calculations based on Nyangito (2001)

After 1993, the domestic price of wheat was higher than the world price, with 1994 having the highest NPR of 108%. The price of maize remained below the world price until 1993, but showed some favorable signs in 1994 (11%) and 1997 (14%). NPRs for rice were negative from 1990 to 1998, although there were signs of improvement in the later years. In Kenya, the government generally keeps producer prices higher than world prices, with the intention of boosting production. Higher domestic prices are encouraged through the marketing involvement of the National Cereal Produce Board (NCPB) and the imposition of high tariffs. Changes in import duties on maize and wheat are used as a tool to restrict imports when domestic supply is high and encourage them when domestic supply is low.

The main exports, tea and coffee, had negative NPRs for the majority of the years in the 1990s, but there was some improvement in 1998. The NPRs for tea increased from −12% in 1997 to 6% in 1998. The negative incentives to farmers in the earlier years were greatly caused by primary taxes on exports and deductions by marketing boards on these products. The producer price of sugar remained below the export price in all years studied. The main cause was due to poor marketing arrangements, which translated into high service charges to the farmers, and greatly reduce the producer price.

2.5.1 Estimates of Price Border Wedges in Sub-Saharan Africa

Due to the poor quality of data on transportation costs and marketing margins, the approach taken in this chapter is to simply estimate the producer's share of the border price, which is determined for several crops and countries and summarized in Table 2.6. Policies that influence producer share include activities such as transportation, marketing, pricing, distribution and storage.

Table 2.6
Price shares for export crops

Country	Commodity	Producers Share of f.o.b. Price (percent)
Benin	Cotton	37
Burkina Faso	Cotton	35
Cameroon	Cocoa	76
	Coffee	73
	Cotton	51
Chad	Cotton	36
Cote d'Ivoire	Cocoa	46
	Coffee	62
	Cotton	47
Ghana	Cocoa	39
Guinea	Cocoa	68
Kenya	Coffee	73
	Tea	53
Madagascar	Coffee	70
	Vanilla	33
Malawi	Tobacco	60
Mali	Cotton	44
Mauritius	Sugar	94
Mozambique	Cotton	64
	Cashew	51
Nigeria	Cocoa	98
	Rubber	100
Senegal	Cotton	47
	Groundnuts	51
South Africa	Maize	93
	Oranges	50
	Apples	93
	Sugar	92
	Wool	89
Tanzania	Coffee	77
	Cotton	64
	Tea	58
	Cashew	71
The Gambia	Groundnuts	60
Togo	Cotton	39
Uganda	Coffee	72
Zimbabwe	Tobacco	79
	Cotton	88

Source: Townsend (1998), World Bank and IMF data

Townsend (1998) uses an econometric approach to explain cross country differences in producers' share of border prices. His results suggest that if agricultural and macroeconomic policies are improved, road density increased, road quality improved, more credit made available, and larger crop volumes traded, then producers will receive a higher share of the border price. According to his study, controlled marketing systems continue to distort market price signals in many countries. Three existing marketing systems can be identified in Sub-Saharan Africa,

♦ the free market system,
♦ the *Caisse de Stabilisation* and
♦ Marketing Boards.

Under the latter two systems with interventions in physical handling, price setting, taxation, and marketing costs, farmers receive a lower share of the producer price. Exchange rate pass-through to producer prices has also been inhibited in these two systems. The free market system has resulted in substantially higher prices for farmers and lower fiscal costs.

The overall macroeconomic policy stance in African countries improved significantly after 1990/91. In particular, exchange rate policies have improved substantially, with most countries analyzed having low parallel market exchange premiums in recent years.

Rural infrastructure also plays a significant role in producer price determination. Evidence suggests that it is not only the lack of roads that reduces the producer price/border price ratio, but also the quality of these roads. Feeder roads in rural areas remain scarce and are in poor condition in most Sub-Saharan African countries. Transportation is a particular problem for landlocked countries with large distances between the coastal prices and the border prices. The volume of credit extended to the private sector as well as real interest rates have also had a significant effect on private sector activities and indirectly on the producer price margin. Development of efficient markets requires volume and consistency in supply. Indeed, private sector entry into storage, transportation, and marketing of agricultural products requires some assurance of supply to induce investment.

2.5.2 Subsidies in Developed Countries and their Impact on Prices in Sub-Saharan African Countries

The discipline on the use of export subsidies was considered to be one of the most important accomplishments of the URAA and was expected to have the most direct quantitative effect on agricultural trade. The reduction in export subsidy expenditures was to be applied in equal installments starting from either the 1986-90 base period or the 1991-92 period, whichever was higher. In any case, the final year's commitments have to meet the 21% and 36% reduction levels from the 1986-90 base period. Unfortunately, export subsidies continue to be used rather extensively by developed countries. In 1998, the EU accounted for approximately 89% (US$5.8 billion) of the world's total expenditure on export subsidies (figure 2.4). This sum not only far exceeded SSA export subsidies, it was approximately four times larger than the average agricultural value added (GDP) of the entire Sub-Saharan Africa region.

Figure 2.4. WTO Member Expenditure on Export Subsidies, 1995-1998 (per cent of total world export subsidies)
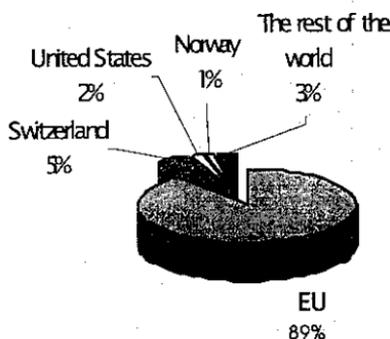
Source: IATRC (2001)

When export subsidies are significant, as in the case of the EU, they have the potential to depress world market prices, leading to lower producer prices received by farmers in developing countries. In the short–run, the elimination of export subsidies could have an adverse impact on net importing countries. However, in the long-run, Sub-Saharan

Africa would likely benefit from the elimination of export subsidies as countries will be encouraged to provide the right incentives to boost food production. Of course, the actual impact of the elimination of export subsidies on Sub-Saharan Africa will depend upon the policies adopted by individual countries, and on the impact on world prices of their elimination.

2.6   What is the Way forward?

Some of the high priority issues for Sub-Saharan Africa in the new trade round are a revisiting of the issues of market access, domestic support, and export subsidies. In addition to these traditional issues, other major areas of interest include food security and relate to other WTO Agreements and provisions such as Sanitary and Phytosanitary Measures (SPS), Technical Barriers to Trade (TBT), The Agreement on Trade-Related Aspects on Intellectual Property Rights (TRIPS), and Special and Differential (S&D) Treatment.

2.6.1 Market Access Issues in Developed Countries

Tariff peaks and escalation: Sub-Saharan Africa is interested in expanded market access to developed countries, in particular the Quad market countries – the EU, United States, Japan, and Canada. However, in each of these markets tariff peaks and escalation are widespread. For both Japan and the EU, more than 26% of all agricultural tariffs are greater than 20%. Tariff peaks are more visible in food staples, fruit and vegetables, and processed food products, while tariff escalation is more evident in commodities, such as meats and oils. According to Ingco, Kandiero, and Randa (2003), a 1 % tariff reduction by OECD countries is likely to increase Sub-Saharan Africa's trade to GDP ratio by 2%.

More simplified and transparent TRQs: The main objective behind the use of TRQs is to allow minimum market access for commodities previously protected by nontariff barriers. So far very few developing countries have established TRQs and for those that have (e.g., Brazil Morocco, and Thailand), there is little information available to report. In this regard, the issue of TRQs pertains more to developed countries. Therefore, in order for developed countries to improve market access conditions for products from Sub-Saharan Africa, it is still critical to identify the conditions under which TRQs are effective. This involves putting in place simplified and transparent TRQs.

2.6.2 Sub-Saharan Africa's Market Access Policies

Bound and applied tariff rates: The URAA made significant efforts to improve market access conditions. However, it is crucial that countries in Sub-Saharan Africa further reduce and move toward greater uniformity across products in their bound and applied tariff rates to capture the gains from the liberalization process. So far, the region has average tariff rates in agriculture higher than the global tariff average (62%). The average protection for Sub-Saharan Africa is between 71% and 75%. Gibson, Wainio, Whitley, and Bohman (2001).

A tariff regime characterized by non-uniformity among products, escalation, and overall high rates has adverse effects on the domestic economy. Among these are implicit taxation of exports, creation of productive inefficiencies, regressive taxation of domestic consumers, promotion of rent-seeking, and corruption. Lowering bound tariff rates in the context of multilateral trade negotiations sends a powerful signal of the government's intentions to permanently adopt an open, pro-export trade regime. In this way, it guides and promotes investment in appropriate sectors and technologies. Sub-Saharan Africa did not take full advantage of the Uruguay Round to lower bound rates and lock in reforms. The region has a higher average tariff rate than the global rate, and should increase its effort in the Doha Round. Concerns about effects on local producers from lowering protection should be addressed by negotiating for transition periods, adjustment assistance, and safeguard mechanisms, not by seeking to avoid reducing bound rates.

2.6.3 Domestic Support

Apart from South Africa, which negotiated in the URAA as a developed country, most countries in Sub-Saharan Africa declared an aggregate measurement of support (AMS) level of zero, while developed countries had a positive AMS. Disciplines on the use of domestic support in OECD countries proved to be less binding than many had envisioned as over 60% of their support programs in agriculture were exempted from URAA reductions. A major objective for Sub-Saharan African countries in the Doha Development Agenda will be to put in place a more structured operational framework for the exemption from reduction provisions.

2.6.4   Export Subsidies

Sub-Saharan Africa continues to be concerned about the use of export subsidies by developed countries. Policy makers can not ignore the distorting nature of these subsidies. Sub-Saharan African countries fear that export subsidies amount to dumping of surplus production, depressing world prices and eventually, lowering producer prices to farmers in developing countries. While in the short-run the removal of export subsidies by developed countries may raise import costs, the long-run impact on import prices has not been convincingly quantified. In the near term, assistance can be provided to help meet domestic demand, and in the long-run the best solution is to stimulate domestic production. The impact of reforms in this area will depend on policies adopted by the individual countries, and the impact of the liberalization package on world prices. Nevertheless, it is clear that a more efficient system to reduce subsidies and to minimize their price distorting effects needs to be adopted.

2.6.5 Sanitary and Phytosanitary Measures (SPS) and Technical Barriers to Trade (TBT)

Sub-Saharan African countries face many constraints associated with the implementation of the SPS and TBT Agreements. The major constraints pertain to lack of resources, infrastructure, and expertise. In trying to help developing countries cope with the provisions of the SPS and TBT Agreements the multilateral trade system should allow sufficient time for Sub-Saharan Africa to adjust and implement new regulations. To help enforce and assess standards, it is critical that developing countries are provided with appropriate technical assistance to enhance their expertise. While developing countries are in the process of improving their capacity in the area of SPS measures and TBT, developed countries should not use standards as a means to reject imports originating from developing countries. Otsuki et al. (2000) analyzed the impact of EU aflatoxin standards on food exports from nine African countries and found that they decreased relevant exports by approximately 64% or $700 million.

In the new trade round members have to consider the following issues:

♦   Formation of a Development Box and whether a Transition Box will be needed;

♦   Whether AMS measures should be applied on a product or sector basis;

♦   Inclusion of multifunctionality into AMS provisions;

♦   Whether AMS should be adjusted for inflation or exchange rate changes; and

♦   A push for an increase in *de-minimis* by developing countries.

2.6.6 Trade-Related Aspects of Intellectual Property Rights (TRIPS)

Apart from market access issues, domestic support and export subsidies, Sub-Saharan Africa is expected to identify some related issues to the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). The TRIPS Agreement grants minimum standards for levels of protection to innovators of intellectual property in numerous fields. This Agreement is considered to be the most comprehensive multilateral agreement on intellectual property rights. However, its relation to agriculture is complex and controversial. Since the TRIPS agreement came to effect, Sub-Saharan Africa and other developing countries have had to deal with issues on technology transfer and the treatment of indigenous knowledge. In this context, better property rights may offer an incentive to developed country innovators to provide a different wave of innovations that are appropriate for the developing countries. Pertaining to indigenous knowledge, companies in developed countries in the areas of pharmaceuticals and agricultural sectors are starting to recognize the importance of biodiversity and indigenous knowledge of local communities regarding plants and medicines. The serious issue is that researchers in developed countries have invented patented products using materials from developing countries. The TRIPS Agreement can play an important role in ensuring that the inventions benefit both developing and developed countries. It is important to note that the TRIPS is of huge importance to Africa regarding AIDS.

2.6.7 Special and Differential (S&D) Treatment

Member countries agree that S&D Treatment for developing countries, including Sub-Saharan Africa, shall be a central part of all the elements of the negotiations in the Doha 'Development' Agenda. S&D Treatment shall be included in the schedules of concessions and commitments and if necessary in the rules and disciplines to be negotiated. The rationale behind S&D provisions is based on two main considerations: first, to

ascertain that there is equity and fair competition where structural conditions differ; and second, to ensure that developing countries effectively take into consideration key development need such as rural poverty and food security. It is clear that the S&D treatment agenda in the Uruguay Round did not meet its goal. Sub-Saharan Africa and other developing countries, in particular, believe that many promises were made and very little was delivered. Elements dealing with technical assistance implementation time must be readdressed since they appear to have been reached in an ad hoc manner and lack structure. The uniform transition period for policies to be implemented does not take into consideration the different speeds at which Sub-Saharan African countries can adjust to new provisions. Other proposals in this area of S&D Treatment include redefining classification of WTO members and issues in relation to special market access through trade preference schemes.

With all these issues considered, the region should also recognize that blocking the negotiations with S&D proposals that will never be implemented is not the way forward. In deciding on S&D provisions, these countries should also focus on those provisions that would have maximum developmental impact and would not postpone or avoid undertakings necessary for domestic reforms.

2.7   Concluding Remarks

This chapter has shown that Sub-Saharan Africa's share of global agricultural export value has declined over the past several decades. This marginalization has been caused by domestic policies employed in the region and by protectionist policies in developed countries. Assessing its own progress during the implementation of the URAA, Sub-Saharan Africa made some improvement in the area of market access, but the work is still incomplete. Africa maintains high tariff bindings and, in addition, export taxes and activities by marketing boards continue to adversely affect producer prices. In order for Sub-Saharan Africa to more fully capture gains from trade it is essential to reduce further applied and bound tariff rates as well as reduce taxation in the agricultural sector. This can be done by eliminating policies that protect the industrial sector, impose taxes on export products, or that maintain government controlled domestic prices below world prices. On their trading partners' side, there is clear evidence of tariff peaks and escalation, in particular in the Quad countries (EU, US, Japan, and Canada). The post-Uruguay tariff

rate for tobacco reached a maximum tariff rate of 350% in the United States; those of groundnuts and coffee as high as 550% and 30%, respectively, in Japan; and the rate for maize was around 84% in the EU. For Sub-Saharan Africa to capture the gains from trade in the Doha Development Round, concurrent domestic polices in terms of low tariffs and sector pricing policies must improve along with market access policies in developed countries. Reducing its own import protection will make African exports more competitive in international markets. But it will also be important for developed countries to create better market access so that countries can realize the full benefits of liberalization. Apart from traditional issues in the area of market access, domestic support, and export subsidies, Sub-Saharan Africa countries are interested in making progress on the issues of SPS/TBT, TRIPS, S&D treatment, among others.

What does the Doha Development Agenda mean for Africa? Sub-Saharan African countries must pay more attention to multilateral trade negotiations, increase participation in the processes, and must redouble efforts to affect the outcomes of the negotiations as they did in the 2001 Doha WTO Ministerial Conference. These countries can use the opportunity to lock in reforms and so increase investor confidence in their approach to trade reform. Sub-Saharan countries can, in partnership with coalitions, negotiate to achieve clearly defined goals such as the dismantling of restrictive trade practices that inhibit export diversification in poor countries.

End-Notes

1.   The authors gratefully acknowledge Joseph Carroll for the helpful comments and suggestions.

2.   Tariff escalation is a characteristic of tariff regimes in which higher rates are levied on processed products than on products closer to raw materials in the processing chain. This protects the domestic processing industries.

3.   Preference margin is the difference between MFN and preferential tariff rates.

4.   This means that countries can apply tariffs at or below the bound maximum, but not raise them above the binding level unless it is renegotiated in GATT and compensation given to affected trading partners.

5.   Only least-developed countries were exempt from cuts in bound rates. The lack of reduction commitments by African countries was accepted by their trading partners.

6.   According to the Understanding on Article II:1 (b) the ODC rates that are listed as part of the binding should reflect actual applied rates on April 15, 1994. Failure to report ODC may under-state protection.

7.   This is also occurring in a number of industrial countries (e.g., European Union) and other developing countries (e.g., Latin American countries' price bands).

8.   The footnote in Article II states that variable levies, etc., are forbidden. Also, the Agreement in Customs Valuation forbids the use of minimum price systems, except for developing countries that make a special reservation for it.

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Appendix 2A.1

Table 2A.1: Summary of Uruguay round commitments in agriculture

Country	GATT Status	Average Bound Duty %	Average Bound ODC %	Total Average Tariff Binding (Duty+ODC) %	Average Applied Rates %	Domestic Support	Export Subsidies
Angola	D	80	0.1	80.1		--	–
Benin	LD	60	18	78		–	–
Botswana	D	40		40**		–	–
Burkina Faso	LD	100	50	150		–	–
Burundi	LD	100	30	130		--	–
Cameroon	D	80	230	310	24.5*	–	–
Central African Republic	LD	30	16	46		–	–
Chad	LD	80		80		–	–
Congo	D	30	0	30		–	–
Cote d'Ivoire	D	15	200	215	20	–	–
Djibouti	LD	42	100	142		–	–
Gabon	LD	60	200	260		–	–
Gambia	LD	102	10	112		–	–
Ghana	D	98	0.2	98.2	22*	–	–
Guinea	LD	38	24	62	–	–	
Guinea Bissau	LD	40	26	66		–	–
Kenya	D	100	0	100	44*	–	–
Lesotho	LD	200		200		–	–
Madagascar	LD	30	250	280	39	–	–
Malawi	LD	124	20	144		–	–
Mali	LD	60	50	110		–	–
Mauritania	LD	37	15	52		–	–
Mauritius	D	120	17	137	52	–	–
Mozambique	LD	100	300	400		–	–
Namibia	D	40	0	40**		–	–
Niger	LD	80	50	130		–	–
Nigeria	D	150	80	230	47*	–	–
Rwanda	LD	80		80		–	–
Senegal	D	30	150	180	44*	–	–
Sierra Leone	LD	40	20	60		–	–
South Africa	IND	40		40$$	7*	by 2000	by 2000
Swaziland	D	40		40**	34	–	–
Tanzania	LD	120	120	240		–	–
Togo	LD	80	7	87		–	–
Uganda	LD	80	0	80		–	–
Zaire	LD	98		98		–	–
Zambia	LD	124	1	125		–	–
Zimbabwe	D	146	15	161	24*	–	–

Notes: ** Reduced from 70% to 40%
     * Trade-weighted average
D   = developing
LD   = least developed
Source: Finger, J.M., MD. Ingco, and U. Reincke (1996)

3 Agriculture and the New Trade Agenda in the WTO: Interests and Options for Cameroon

Ernest Bamou, Dominique Njinkeu and Emmanuel Douya

3.1 Introduction

Current negotiations under the Doha Development Round of the World Trade Organization (WTO), which are expected to lead to greater liberalization of agricultural trade worldwide, present exceptional opportunities for Cameroon. Since the late 1980s, Cameroon has progressively shifted from protectionist policies to policies based on market fundamentals and the policy environment is crucial. Improving agricultural performance in the more liberalized emerging global trading environment requires that more attention be given to measures for enhancing agricultural productivity. The WTO negotiations could allow Cameroon to capitalize on the efficiencies gained in this process to stimulate further development of both food and nonfood agricultural sectors and revitalize its economy.

For that to happen, Cameroon needs to clearly identify opportunities and constraints, and the positions it wishes to take in the negotiations. A priority would be to ensure adequate market access in all markets. Given its small economic power and current export orientation, market access issues are also related to progress on regional integration. The adoption of common regional policies increases market size, reduces transaction costs, and boosts economic efficiency. And a larger, more integrated group can more readily mobilize the human and financial resources necessary to formulate sound negotiating positions. Properly designed,

regional integration can therefore be a building block toward Cameroon's integration in the world trading system.

A second priority should be measures to enhance agricultural productivity and minimize price variability in food and other agricultural products. The relevant WTO policy instruments include export subsidies and restrictions, and the special measures available to food-insecure states.

A third priority relates to WTO rules that treat developing countries differently from developed countries, the rules on Special and Differential Treatment. One important aspect is domestic support. Improving agricultural performance in the more liberalized emerging global trading environment requires that more attention be given to measures for enhancing agricultural productivity. Cameroon has fewer options for enhancing productivity since it removed many trade-distorting measures unilaterally, even those permitted under WTO rules. Thus, Cameroon should use the international trade negotiations to permit measures comparable to those used by developing countries for sustaining development of the agricultural sector.

3.2   The Importance of Agriculture to Cameroon's Economy

Agricultural development is at the center of Cameroon's growth performance. Perennial agriculture (tree crops), forestry, and fishing have been the main drivers of growth in the agricultural sector. Food production, though it does not feature prominently in the economic performance of the sector because of the high level of subsistence agriculture, plays an important role in overall development, especially rural poverty alleviation.

Agriculture has always been Cameroon's main economic activity. Up to the mid-1980s it contributed close to one-third of GDP and more than 90% of exports, with 55% of those exports comprised of cocoa and coffee. Close to 80% of the population was rural and relied essentially on agricultural activities. The country's dynamic food production base had average annual growth of 14% against 3% for agricultural exports (F.A.O., 1995). Beginning in 1982, as both the industrial and agricultural sectors stagnated, oil exports began to substitute for agriculture as the main export.

Agriculture made a comeback from 1985/86 to 1992/93 when an economic crisis created by a crash in world oil prices caused farm exports to total one-third of GDP and more than 50% of export earnings and employment (see MINEFI, 1999). Agriculture also contributed to

Cameroon's economic revival after 1993/94. During this revival, agriculture's share of GDP increased by close to 10% and stabilized at slightly more than one-third until 1997. Its share in overall exports stood at over a third in 1995/96—and reached up to 79% of non-oil exports after the 1994 currency devaluation.

To achieve high economic growth rates and expand international trade, Cameroon must increase productivity and competitiveness in the agricultural sector. The structure of incentives should change to eliminate the anti-agricultural bias of macroeconomic policy. Enhancing the incentives for agriculture also requires deeper reforms, even at the sector level. Cameroon also needs to enhance its resistance to external shocks without significantly changing its long-term development priorities— because of its small size, external shocks can easily disrupt the growth process. Diversification of production and exports is crucial. That will require better access to credit for farmers and a coherent government program for rural infrastructure, basic education, and technology and extension services. Marketing channels, intellectual property rights, and patent rights are very important as well.

3.2.1 Food Security and other Nontrade Concerns

A country's food security can be domestic production-based, trade-based, or transfer- (aid) based. Production-based food security can be changed through policies that affect domestic demand and supply. Trade-based food security can be influenced through policies that affect the level and variability of the relative food price or the ability to generate sufficient foreign exchange to pay for food imports. Food insecurity can arise because production is insufficient or irregular or because of inadequate technologies for marketing and distribution or poor overall agricultural policy. Table 3.1 summarizes these policies for Cameroon with a focus on those that are relevant to WTO negotiations.

Table 3.1. Cameroon and the WTO multilateral agricultural negotiations

Policy	WTO negotiation focus
Food production Input credit Subsidized or free inputs Research and extension Capital expenditure and investment promotion	 Domestic subsidies Domestic subsidies TRIPS Domestic subsidies
Marketing (trade) Market development and regulation Parastatal reform Food price stabilization (buffer stock or funding)	 No direct focus State trading enterprises Domestic subsidies and tariff: Green Box conditions, export regulation
Labor High-value export crops Micro-finance Minimum wages	 Market access, domestic subsidies No direct focus Process criteria
Transfer and safety nets Labor-intensive public works programs Targeted feeding programs Food price subsidies	 Export subsidies Export subsidies Domestic subsidies
Enabling macro and sectoral policies Infrastructure (transport, communication) Exchange rate policy Health Education	 No direct focus No direct focus No direct focus No direct focus

Source: Authors.

Despite remarkable performances in food production, Cameroon's food self-sufficiency coefficient has been low. The contribution of traditional production to domestic consumption decreased from 86% in 1970 to 63% in 1990, with the gap filled by imports and agro-industrial production (FAO, 1995). This growing dependence on imports puts food security at the mercy of external shocks and involves significant outflows of foreign exchange that weaken the country's balance of trade.

The domestic food deficit can be explained by a rapidly growing population, with an annual growth rate of 2.8%, and rapid urbanization (Herbel, 2000). Rising food exports to neighboring countries (regional trade partners and Nigeria) in recent years has worsened the deficit.

To improve food security, in the 1970's the government initially adopted an interventionist policy, creating public enterprises such as the Cereal Authority and the Foodstuff Development Authority to stabilize food prices and supply. Despite annual subsidies amounting to some 700 million CFAF, these objectives were not attained and the enterprises were liquidated. Since the structural adjustment program reforms implemented in 1989, the food security strategy has been based on private initiative. To ensure food of adequate quality and quantity, the government set up a new food security program in 1991 jointly with the IBRD and the Japanese government to cover the organization of food markets in secondary towns, nutrition education, phytosanitary control, financing through the Fund for Agricultural and Communal Microprojects, and a National Early Warning System (NEWS). The early warning system is intended to provide information on food markets, harvests, and forecast, especially in ecologically fragile areas (MINAGRI, 1998). Its effectiveness has been limited, however, largely because of underfunding.

3.2.2 Agricultural Policy in Cameroon

The agricultural sector has, until the mid 1980s, been dominated by government intervention and failure in the supply of inputs and marketing of products and the high taxation rates applied to agricultural exports. Liberalization brought about major changes in government policies on subsidies. The structural adjustment programs eliminated all subsidies, including those for which developing countries are eligible for exemptions under the WTO. Instead of direct subsidies, the government is endeavoring to indirectly assist farmers and other operators in the agricultural sector through grants and the provision of scientific, technical, and business information. Thus, for example, FIMAC was created in 1996 to facilitate the financing of agricultural microenterprises. In conjunction with international organizations such as the World Bank and the African Development Bank, government structures (National Project for Extension Work and Agricultural Training, Support for Peasant Strategies and Professionalism in Agriculture) were set up to provide farmers and other agricultural agents with economic, business, scientific, and technical information. Non-governmental organizations (NGOs), cooperatives, and private service providers are assisting the government in this information and extension work.

Several aspects of food and agricultural policy are related to the agricultural agreements under the Uruguay Round. In particular,

Cameroon's unilateral liberalization of input supply and extension services and its still weak capabilities in sanitary and phytosanitary protection affect its negotiation position in Doha Round of trade talks.

Input policy: Input policy is at the center of Cameroon's efforts to increase agricultural productivity and competitiveness. In the period before the Uruguay Round negotiations, the government intervened heavily in the supply of inputs to agricultural producers, especially fertilizer—proper use of fertilizer can lead to production increases of as much as 40-50% (MINAGRI, 1999). This included the National Fertilizer Program, set up in the 1960s and replaced in 1980 by the National Rural Development Fund (FONADER), which in addition to fertilizers supplied other types of agricultural inputs such as phytosanitary products. Inputs were heavily subsidized and distributed to farmers by the Ministry of Agriculture or by the development corporations in charge of cocoa (SODECAO) and cotton (SODECOTON).

This active promotion and subsidized provision of inputs significantly increased demand for agricultural inputs, but state monopolies proved ineffective in distributing the inputs and the program became increasingly costly to the treasury (Ntsama, 2000). A turning point came in the 1986/87 agricultural season, as a sharp drop in the prices of major export commodities led to increasing financial tensions.

With the backing of international donors, a new strategy in 1987 sought to liberalize and privatize the fertilizer sector through an efficient and sustainable program for the import, distribution, and use of fertilizers. Fertilizer imports declined (Ntsama, 2000) until the 1994/95 season, due to rising prices with the progressive phasing out of subsidies; the oligopolistic character of the market; the fall in the prices of agricultural products, which lowered the purchasing power of farmers; and a high indirect tax burden on agriculture, which penalized agriculture relative to the rest of the economy.

Agricultural extension services and crop development: In 1994 most services were provided by cartels or monopoly state enterprises; by 2001 few were. Agricultural development corporations have played a critical role in Cameroon's agricultural development (see Table 3.2 listing the pre- and post-Uruguay Round state agricultural extension service enterprises). The reform led to some rationalization, with areas previously under state monopoly liquidated, restructured, or privatized.

Direct intervention in the agricultural sector by state enterprises has at times contributed to the transfer of valuable knowledge and the adoption of modern techniques, and even to the provision of social services (schools, dispensaries). For example, the Cameroon Development Corporation, in a partnership agreement with Del Monte, made major investments in the banana sector in exchange for exclusive marketing rights. In return, the government imposed an export tax of CFAF 4,500 per ton on bananas. The state enterprise Organisation Camerounaise de la Banane was involved in the production of bananas and helped create thousands of direct and associated jobs.

Other forms of intervention included the provision of agricultural inputs and the development of farmlands for private producers. The Société de Dévelopement du Cacao served as an intermediary to FONADER, supplying subsidized inputs to cocoa producers and it directly carried out certain production operations such as phytosanitary treatment. Its intervention helped ensure the maintenance of plantations and the production of good quality cocoa. Three state firms focused on developing farmlands, employing independent subsistence farmers in irrigated rice farming, supplying inputs and credit, and processing paddy rice. In the cotton growing regions, SODECOTON trains and supervises producers, employing more than 1,000 extension workers and prefinancing inputs. This continuous training and supervision helped sustain the growth of cotton production while growth of other export commodities collapsed.

State marketing of agricultural products has been less successful. MIDEVIV was responsible for securing a regular and stable supply of staple foodstuffs for the urban population. The National Produce Marketing Board was in charge of marketing export crops, especially coffee, cocoa, and cotton. On the whole, the marketing board was unable to buffer price changes for producers once world prices started their downward spiral toward the end of the 1980s. As part of the agricultural liberalization reforms, the marketing board was liquidated and replaced by the National Coffee and Cocoa Board and by professional organizations including a group of exporters.

The last area of intervention for public authorities was in the training and supervision of farmers in the use of improved varieties, notably maize, cocoa hybrids, coffee clones, and a variety of oil palm. Farm credit is provided by many agencies including the Financing of Investment in Community-based Micro-Agricultural Projects (FIMAC), which in less than a decade has granted CFAF 1.1 billion in credit to 2,885 groups.

Despite the efforts of FIMAC, funds mobilized and distributed remain far below the needs of producers.

Sanitary and phytosanitary protection: The WTO Agreement on Sanitary and Phytosanitary Measures (the Agreement or SPS) permits individual members to apply phytosanitary standards on imports as long as they are consistent with the provisions of the Agreement, are based on scientific principles, and are not used to protect domestic firms. The Agreement specifies that import restrictions to protect human, animal, or plant life should be the minimum necessary to achieve their objectives. Like most other developing countries Cameroon does not yet have the capacity to apply these international standards relating to risk assessments, data provision, and other standards.

Before the structural adjustment program, the National Rural Development Fund (FONADER) financed phytosanitary inputs and agricultural equipment for farmers. Though phytosanitary treatment was left to farmers, the government was heavily involved in treatment campaigns against insect pests, often across entire agricultural zones. Both government distribution of phytosanitary products and treatment of vast infected areas came to an end with the economic crisis and later reforms.

Law 90/013 of August 10, 1990 on phytosanitary regulations in Cameroon specifies the conditions governing the importation, exportation, conditioning, storage and distribution of pesticides for agriculture. Decree 92/223/PM of May 25, 1992, defines the terms and conditions of enforcement of the law. It is aimed at preventing the introduction or propagation of plant diseases and at ensuring the legality, quality, and safety of phytosanitary products. Imports of plants, plant products, or soils require a country of origin document and import authorization, while exports also require a phytosanitary certificate on sanitary status, origin, and destination. Authorization and certificates are issued by the phytosanitary services at the request of the importer or exporter according to the terms set by the Ministry of Agriculture. The decree also regulates authorizations to market and to use pesticides for agricultural purposes. The procedure is long and costly.

Real nominal rates of protection: The real nominal protection rate assesses the effects of all factors such as tariffs, non-tariff barriers, fraud, corruption, weak infrastructure that influence the prices paid to local

producers. Nominal rates of protection on Cameroon's chief agricultural exports have worsened since the reforms, from −47.6% for cocoa, − 54.5% for robusta coffee, and −61.0% for arabica coffee in 1980-89 to −50.6%, −56.3%, and −61.2% in 1990/1999, reducing producer prices by some 30-40% (Table 3.3). Contributing factors include excessive regulation of exports, the poor state of roads, insufficient storage facilities, and delays in loading, which increase transportation and transaction costs. Direct transport costs are also high. Douala port, Cameroon's main transit port, is the most expensive port in West Africa—a ton of rice is charged CFAF 861 at Douala port, but only CFAF 666 in Libreville, CFAF 550 in Conakry, CFAF 357 in Dakar, and CFAF 250 in Abidjan (Njinkeu and Monkam, 2002). Telecommunication services costs are also higher in Cameroon. All of these factors add to the costs of Cameroon's exports, making them less competitive.

The extent of domestic distortion is also reflected in how far producer prices fall short of the border price, which can be influenced by transportation, marketing, pricing, distribution, and storage policies. That share is 70% for cocoa and coffee for Cameroon producers. Factors explaining these price wedges include agricultural and macroeconomic policies, road density and quality, credit availability, and crop trade volumes (Townsend, 1998).

3.3   Unilateral and Multilateral Trade Policy Commitments

3.3.1 Unilateral Agricultural Trade Policy

A comparison of policy outcomes prior to 1988/89 and since 1989/90 gives an indication of the extent of liberalization achieved and of what outcome can be attributed to unilateral reforms and which to the multilateral framework.

Agriculture and trade until 1988: The main objective of trade policy during the two decades following independence was development of the industrial sector. To protect this infant sector from foreign competition, policy instruments included tariff barriers and quantitative restrictions, import and export authorization requirements, import and export price adjustments (using tax revenues from imports of a particular product to subsidize local producers of the same product and authorizing imports in proportion to local purchases of the product), local content prescriptions, and a wide range of price control measures. Table 3.4 shows the products subject to those trade restrictions.

Table 3.4. Cameroon's agricultural products subject to trade restrictions before 1989

Product	Trade distortions
Wheat flour	Import and export authorization and price controls
Pasta	Import and export authorization and price controls
Fungicides, herbicides, and insecticides	Import and export authorization and price controls
Plastic bags and sacks	Import and export authorization and price controls
Concentrated sweetened milk	Import and export authorization and price controls
Salt	Import and export authorization and price controls
Cotton wool	Import and export authorization, price controls, and import and export price adjustments
Tea	Import and export authorization, price controls, and import and export price adjustments
Maize	Import and export authorization, price controls, and import and export price adjustments
Rice	Import and export authorization, price controls, and import and export price adjustments

Corn meal	Import and export authorization, price controls, and import and export price adjustments
Soya-bean and groundnut oil	Import and export authorization, price controls, and import and export price adjustments
Palm, cotton and coconut oils	Import and export authorization, price controls, and import and export price adjustments
Raw and refined sugar	Import and export authorization, price controls, and import and export price adjustments
Edible meat	Import and export authorization, price controls, and import and export price adjustments
Fishery and livestock products	Import and export authorization, price controls, import and export price adjustments, and Supervisory ministry's visa
Food for animals	Import and export authorization, price controls, import and export price adjustments, and Supervisory ministry's visa
Medicaments for cattle	Import and export authorization, price controls, import and export price adjustments, and Supervisory ministry's visa
Other pharmaceutical products	Import and export authorization, price controls, import and export price adjustments, and Supervisory ministry's visa
Alcoholic beverages	Import and export authorization, price controls, import and export price adjustments, and Supervisory ministry's visa

Source: Authors' compilation, based on MINDIC (1989).

The protectionist trade policy of this period is reflected in multiple tax and tariff rates (more than 20 different taxes). Applied in a discretionary manner, they sometimes reached 90% of the cost, insurance, and freight (c.i.f.) value (see tables 3.5 and 3.6). Numerous state-owned corporations also indirectly managed the agricultural market during that period and provided subsidies for agricultural inputs (fertilizers, phytosanitary products). Nominal and effective rates of tariff protection for the agricultural sector were only around 20%, while most industrial sectors had nominal and effective rates of tariff protection from 50% to 70% in 1989/90 (Nguidjol, 1998). Nontariff barriers such as import and export licenses and local content requirements significantly protected important foodstuffs.

The complex protectionist policy regime imposed heavy losses on producers and discouraged new investments in the sector. The effective rate of taxation on cocoa farmers was estimated at 24-76% between 1970 and 1985 and that on coffee farmers at 35-76% (World Bank,1989).

Agriculture and trade since 1989/90: Although Cameroon did not participate in the Uruguay Round negotiations (1986-1993), it achieved significant liberalization unilaterally during the negotiation period through its structural adjustment program policy reforms. Quantitative restrictions and price controls were gradually lifted. Today, protection is limited and is provided almost exclusively through tariffs. Heavy government

Table 3.5: Post-January 1994 reform of tariff and tax structure

Tax/tariff	Field	Base	Rate range
Customs duty	Import	Ad valorum	5 to 30%
Entry tax	Import	Ad valorum	5 to 70%
Turnover tax	Import	Ad valorum	10%
Complementary tax	Import	Ad valorum	0 to 90%
Unique tax	UDEAC imports	Ad valorum	10%
Exit tax	Export	Ad valorum	0 to 40%
Unloading tax	Import	Specific	595 to 6,200 CFAF/ton
Warehouse tax	Import	Specific	na
Petrol tax	Import	Specific	na
Animal circulation tax	Import/Export	Ad valorum	100 CFAF/100kgs
Sanitary and veterinary tax	Import/Export	Specific	1 to 3%
Council tax	Export	Specific	na
Packaging tax	Export	Ad valorum	5%
Additional tax	Import	Ad valorum	na
Computer dues	Import	Ad valorum	1.5%
Fees for establishment of loading slip (customs)	Export	Specific	na
Fees for registration in the permanent survey on merchandise transactions			
Sanitary control fees	Export	Specific	na
Conditioning tax	Export	Ad valorum	50 CFAF/ton
Loading tax	Export	Specific	0%
Cameroon National Loaders Board (CNCC) tax	Export	Ad valorum	247.2 – 588.5 CFAF
	Export		
Toll and weighting charges	Export	Ad valorem	0.30 – 0.39%
Credit distribution tax	Export	Specific	1%
ASECNA royalties	Export	Ad valorem	2 CFAF/kg

na = not available.
Source: Authors' compilation based on *"Tarif Douanier UDEAC"* (1988) and Bamou (1999)

involvement in input supply and distribution have largely been replaced by greater private sector participation. For some products, however, market failures still impede the development of competitive market conditions. And the inexperienced exporters who entered the market often lacked the skills to assess product quality, resulting in a reduction in export quality (Douya, 1995).

Table 3.6: Evolution of effective rate of protection in key agricultural sectors (percent)

Sectors	1989/90	1992/93	1993/94	1994/95	1995/96	1996/97
Subsistence agricultural	13.4	17.5	15.2	19.1	10.0	10.2
Perennial agricultural	5.3	131.7	112.7	34.8	25.2	26.6
Hunting and breeding	5.0	10.0	21.4	20.9	24.4	na
Forestry	14.7	5.9	13.7	30.2	35.0	38.1
Fishing	8.8	126.6	113.4	46.9	10.1	66.2
Entire agricultural sector	6.2	19.0	12.4	24.5	9.7	22.2

na is not applicable.

Source: Authors' calculations using data from MINEFI/DSCN (1999).

Another significant post-1988 policy undertaking was the Agricultural Sector Adjustment Program (ASAP) of 1994, which sought to create a favorable environment to boost production in agriculture, ensure food security, and increase agricultural competitiveness (MINAGRI, 1994). This reform coincided with the Regional Fiscal Reform Program of the Central African Economic and Customs Union (UDEAC), which sought to reduce tariffs, indirect taxes, and the scope of exemptions and customs duties among members by simplifying the fiscal system, increasing the transparency of administration, strengthening revenue collection, and improving the efficiency and competitiveness of enterprises through a wider tax base and reduced and uniform tax rates.[1] The reforms were reinforced by the devaluation of the currency, which removed most of the bias against agricultural development introduced by past macroeconomic policies. These sets of reforms resulted in a substantial reduction in the number of taxes and rates in Cameroon (see table 3.7).

3.3.2 Cameroon's Experience with the Uruguay Round Agreement on Agricultural

The Uruguay Round Agreement on Agriculture established new multilateral rules for market access, domestic support, and export subsidies. What has this meant for Cameroon?

Market access and agricultural tariffs: The European Union remains the main outlet for Cameroon products, thanks to the preferential trade agreements of the Lomé Conventions (and the successor Cotonou Agreement) (table 3.8). The average tariff facing Cameroon exports on international markets is low. For the European Union, the main destination, exports in 95 of 514 lines of the European Union's 9,506 customs schedule lines faced a zero most favored nation duty rate. Overall, 98% of the schedule lines in which Cameroon exports to the European Union pay no tariff once restrictions such as on rules of origin are met (see table 3.7 for tax and tariff rates on some agricultural products before and after the 1994 reforms).

The low tariff does not necessarily mean easy access, however, most competitors have been trading at most favored nation rates, and these are due to fall. Some preference schemes, such as the African, Caribbean, and Pacific countries-EU accords are due to be renegotiated. One of the main consequences of the Uruguay Round negotiations, therefore, is the erosion of preferences affecting the competitive positions for Cameroon's agricultural exports as products face competitors, many with better cost structures. In 1992, Cameroon's non-oil exports faced a 3.81% average tariff into EU markets, but a zero rate was applied because of special treatment, yielding a 3.81% preference margin. The EU's most favored nation rate in the post Uruguay Round is 1.62%, a level that erodes Cameroon's tariff preference margin. And agricultural imports are protected relative to exports by the taxes imposed by Cameroon on its main agricultural exports and by the improvements in tax collection following computerization of customs and duties.

Cameroon undertook most of its liberalization measures unilaterally rather than within the Uruguay Round framework, binding agricultural products at a ceiling rate of 150% and a maximum 80% for other duties and charges. The bound rates for most products are considerably higher than applied custom duties. While a step in the right direction, rates will need to be bound at levels closer to current applicable rates.

Average border protection for agricultural products rather than decrease as a result of the Uruguay Round negotiations actually increased in developed countries. Tariff escalation, which is the difference between tariffs on raw goods and processed goods, is found on important agricultural product categories, and limits Cameroon's opportunities for developing a strong agro-industrial sector and continues to provide incentives for exporting low valued-added primary products.

Market access and nontariff barriers: Cameroon has significantly reduced or eliminated all nontariff barriers on agricultural imports. But the agricultural exports of Cameroon and other African countries still face heavy nontariff barriers in other countries, including safeguards, sanitary and phytosanitary measures, technical barriers, and antidumping measures. The sanitary and phytosanitary measures are probably the biggest constraint. Products affected by sanitary and phytosanitary measures include most of Cameroon's nontraditional agricultural exports (fresh fruits and vegetables, food preparations, meat and meat products). Lack of access to information on the sanitary and phytosanitary

requirements for products in target markets and lack of capability in meeting them are constraining diversification of Cameroon's agricultural exports.

3.3.3 Domestic Policies and Constraints to the Forthcoming WTO Round

Cameroon made no specific commitment under the WTO on domestic support for agricultural production. Nor did Cameroon incorporate special safeguards measures in its WTO submission (which give members the right to increase tariffs above bound rates in response to a surge in imports or a decline in import prices) because it lacked the expertise needed to do so. Domestic supports still in place since the structural adjustment programs are generally WTO compatible and cover government assistance for inputs, export transport and marketing, research, pest and disease control, infrastructure, and food security. Constraints to export-led development come mainly from weak export support services and institutions for production and export (sea and air transport, storage, and packaging), investment promotion for domestic and foreign investors, export promotion schemes, duty exemption schemes, bonded houses, and entrepreneurship or private sector development programs.

3.4 Impact Assessment of Unilateral Liberalization

Partial equilibrium and general equilibrium analysis are used to assess the impact of Cameroon's unilateral liberalization of the agricultural sector.

3.4.1 Partial Equilibrium Analysis

Analysis of the impact of the 1994 currency devaluation on selected export and food products shows an overall increase in profits for cocoa, coffee, and cotton after the devaluation despite a 35% increase in production costs. These results confirm the existence of a potential comparative advantage for Cameroon's agricultural products (see Douya 1998 and Bamou, 1999). Though the devaluation led to a reduction in imports, while some local products, like maize and palm oil, recorded a high upsurge in demand, the absence of a coherent policy environment prevented producers from taking advantage of this opportunity. The expected effects of the devaluation on exports were also inhibited by such government measures as the introduction of excise duties on key

agricultural exports (15% on cocoa, cotton, sugar, rubber and medicinal plants; 25% on coffee; 30% on palm oil; and CFAF 6500 per ton on bananas). The 25% tax on coffee exports reduced the price paid to farmers by about 30%. This helped to erode the incentives of farmers to increase production and encouraged the smuggling of goods into Nigeria.

Analysis of the impact of overall trade reform on the agricultural sector shows a direct and significant effect on the agricultural structure and level of protection. Because of a lack of data on tax rates for individual agricultural products, nominal and effective rates of protection (NRP and ERP) are calculated for the main agricultural subsectors.[2]

Agricultural sector reforms led to a reduction in the level of tariff protection. For perennial agriculture the effective rate of tariff protection went from 74% in 1992/93 to 26% in 1994/95 to 18.4% at the entry into force of the Uruguay Round Agreement on Agriculture (1995/96).

3.4.2 Computable General Equilibrium Analysis

To assess the overall impact of agricultural trade liberalization options, simulations were conducted using a computable general equilibrium model to test five key assumptions:[3]

- ♦ There exists a competitive market where price, quantity of goods and services, and factors are adjusted to determine supply and aggregate demand at equilibrium.
- ♦ Because the sectoral supply of capital is fixed, there can be different sectoral rates of return to capital. Technological parameters characterize the heterogeneity of the sectors.
- ♦ Cameroon's share in international trade is too small to influence international prices.
- ♦ There is underemployment of labor.
- ♦ Sectoral production is homogeneous.

Six liberalization options are considered:

- ♦ *Scenario 1:* Tax exemption of all agricultural imports.
- ♦ *Scenario 2:* Same as scenario 1 but with the exemption of all industrial food products imported from the Central African Monetary and Economic Community (CEMAC) zone.[4]
- ♦ *Scenario 3:* Tax exemption as in scenario 2 but with a further 25% tax rebate on industrial food products imported from the rest of the world.

♦ *Scenario 4:* Same as scenario 3 but with tax exemption of all agricultural exports.

♦ *Scenario 5:* Same as scenario 4 but with increased transfer from the rest of the world equal to the fiscal revenue deterioration in scenario 4.

♦ *Scenario 6:* Same as scenario 5 but with double the transfer and exemption of subsistence agricultural products sold locally.

Results analysis: The analysis looks at the impact of simulated measures on agricultural and agro-industrial sectors, household incomes, and food consumption. The results are summarized in table 3.10.

Scenario 1, exempting agricultural imports from taxes generates positive effects on the overall production of foodstuff commodities and on the food security of households. The immediate impact of this measure is the reduction of import prices relative to local products. The slight decrease in production for the hunting and agroindustrial sectors, which are in competition with liberalized imports, is more than compensated for by production increases in the three remaining agricultural sectors.

Under *scenario 2,* the additional tax exemption of food product imports from CEMAC members reduces the budgetary surplus and, as a result, investment. A slight reduction in economic activity follows, accompanied by a slight increase in unemployment and a drop in household income. But the positive price effects have led to increased food consumption, resulting in a positive change in household welfare and an increase in food security. The macroeconomic, sectoral, and food security impacts of scenario 2 are similar to those of scenario 1, except for a clear reduction in the trade balance surplus with CEMAC. This suggests that a sound, discriminatory regional agricultural and agroindustrial policy toward the rest of the world could revive regional cooperation within CEMAC.

In scenario 3, which adds a 25% tax reduction to industrial food imports from the rest of the world, the positive effects on food security and agricultural production are stronger. However, the negative effects on industrial production, including agroindustry, intensify the negative macroeconomic effects. GDP falls 0.5% and unemployment rises 1%. Not only does the price of domestic products relative to imports deteriorate, but the drop in local agroindustrial product demand affects supply in the

agroindustrial sector. This drop (the agroindustrial sub-sector dominates the industrial sector), coupled with a decline in global economic activity, results in relatively high rates of unemployment. Once more, the positive price effects due to tax rate decreases more than compensates for the negative revenue effects and results in a relative increase in household food consumption and food security.

In scenario 4, the strengthening of the positive effects on overall agricultural production offsets the negative effects on industrial production in scenario 3, spurring a revival in global production that results in a notable drop in unemployment rates. The repeal of taxes on exports boost farmers' prices, stimulating supply. The perennial agricultural sector, with a heavier tax burden than other agricultural sectors, is the main beneficiary. Deterioration in the price of local agricultural products relative to exports results in a significant upswing in exports to CEMAC and the rest of the world. The increase in imports reflects the increase in the country's overall volume of international trade, confirming the theoretical expectations for trade liberalization. The positive revenue and price effects on agroindustrial imports, due to the positive income effects and negative price effects, have a significantly positive impact on food security. However, tax exemptions on imports shrink the budgetary surplus by more than half.

Scenario 5, in which international organizations (World Bank, International Monetary Fund, and WTO) assist agricultural liberalization programs in developing countries, is an attempt to solve the budgetary problem that could arise from agricultural trade liberalization. In general, the effects of scenario 5 are positive, at sectoral (agriculture, agroindustry), food security, and macroeconomic levels. There is a notable improvement in agricultural production as well as a clear increase in the volume of food consumption and in household welfare. The GDP growth rate is higher than in scenario 4, so the decline in the unemployment rate is almost double that in scenario 4. The budgetary surplus of the base year is regained and even exceeded by more than 20%.

Sector demands being addressed through a basket of composite products, increase of these demands is accompanied by producer price increases, which react by boosting supply. This then has a positive bearing on households' income. The combined positive effects of producer price and household revenue which adjust to demand and supply trends, are balanced by a substantial spur of households' welfare due to food consumption and, consequently, by an improvement of their food

. security. These positive effects are more than strengthened in scenario 6.

3.5 Regional Analysis

The regional analysis, conducted within the framework of CEMAC, focuses on two points: the regional trade protocol and the constraints and opportunities of CEMAC countries for negotiating together in the WTO framework.

3.5.1 Regional Agricultural Trade Protocol

CEMAC's framework for coordinating and harmonizing economic and social polices has been liberalized since 1994, resulting in a more neutral and flexible trade and fiscal incentive system.

CEMAC has no provisions on export subsidies and leaves to individual states the decision on export taxes. Cameroon, Central African Republic, and Gabon (see table 3.11) have some agricultural export taxes, largely intended to capture some of the windfall profits due to the 1994 devaluation. Agriculture, dominated by five products, represents about 25% of the value of regional trade. Trade data for 1988 and 1996 show that Cameroon dominates in agricultural trade and Cameroon and Chad in livestock trade.

There are two characteristics of regional liberalization that are relevant for WTO negotiations on agriculture. First, WTO participation is low. Only Cameroon and Gabon have submitted notification to the WTO. Second, the commitment level on tariffs is also low. While the average applied tariff on agricultural goods in Cameroon and Gabon is moderate (18.7% and 22.6%), the maximum notified bound rates are some 9 and 12 times higher. Since there are no quantitative restrictions on agricultural trade, the bindings would have been expected to be close to the actual maximum Common External Tariff (TEC) value of 30% plus the maximum surtax rate of 30%.

What this means is that regional liberalization could offer several desirable features, the most important being policy commitment. For this reason, a properly designed regional liberalization framework can complement integration in the world trade system. The CEMAC offers scope for policy harmonization across member states that could be used to further members' participation in WTO negotiations on agriculture. Member countries have more than 50 years of experience consolidating

the external tariff and harmonizing internal tax structures. Regional trade reform already suggests the level at which consolidated and coordinated regional binding can be made. And a regional approach could help to address the main constraint facing all CEMAC members: increasing productivity for an expanded range of products. Failure to realize the benefits of regional integration has been due primarily to difficulties in sharing the benefits and costs of regional integration. This has in turn limited the benefits that agreement at the regional level could provide with such a high level of policy harmonization.

Thus the main question to be addressed is the extent to which regional and multilateral approaches can become reinforcing processes.

3.5.2 Regional or Multilateral Liberalization—or Both?

While regionalism is a breach of WTO's rule on most favored national treatment of partners, the WTO allows for such free trade areas, transitional time frames and technical assistance for developing countries in implementing various agreements in recognition of their special needs and weak capacity in some areas. Overall, weaknesses in human and physical infrastructure and institutions related to international trade have been identified as key impediments to full participation by developing countries.

The main problem with complementary regional and multilateral approaches is the heterogeneity of CEMAC members. Congo and Gabon depend largely on oil exports, while Cameroon has a more diversified export base. Cameroon, Congo and Gabon are developing countries while the other members are least developed countries, and the two groups are treated differently in the WTO. That differentiated treatment could circumscribe efforts to deepen policy harmonization commitments made at the regional level.

Nonetheless, there are several reasons for Cameroon to coordinate its negotiations with other CEMAC members, other African regional groups, the African, Caribbean, and Pacific group, and other trading partners with converging interests on particular issues. Coordination within CEMAC would require that multilateral negotiations sustain the regional undertakings. With both developing countries and least developed countries in CEMAC, this would call for turning regional achievements into building blocks for multilateralism. Market access conditions need to be consistent with current regional reform. Countries in CEMAC should all opt to bind their CEMAC tariff structure in the WTO. The regional achievements

made in food policy could be consolidated. Further liberalization of nonagricultural trade in the region would help reduce the effective rate of protection and stimulate efficiency and regional trade. In turn, Cameroon and other CEMAC countries would be in a better negotiating position to request a reduction in tariff escalation in their traditional OECD markets.

3.6, Policy Issues, Options, and Strategies for Negotiation

There is a need for Cameroon to understand the context and the instruments of international trade negotiations to determine appropriate strategies and to harness regional alliances to strengthen its negotiating position (see table 3.12 for proposals for Cameroon's negotiating position). The extent of agricultural liberalization will depend on the tariff bindings and tariff commitments and other commitments on domestic support and export subsidies. The focus of the negotiations, already agreed to during the Uruguay Round, will be on lowering bound rates and on the use of export subsidies. The agricultural negotiations should take into account experience with implementation of reduction commitments made under the URAA, the effects of these commitments on world trade in agricultural products, the special and differential treatment to be accorded developing countries, and the overall objective of establishing a fair and market-oriented trading system.

Cameroon should coordinate its negotiating position with that of other relevant trading partners, taking into account what can be obtained from the negotiations. A more liberal international trading environment is, in the long run, to the advantage of Cameroon. Such a long-term objective is however attainable only if proper actions are taken in the short-run. The short-term actions include redressing the imbalances in the current trading system.

The most outspoken WTO liberalizers, such as countries that make up the Cairns Group, are prepared to include in negotiations the principle of special and differential treatment for developing countries, as well as other issues of interest to developing countries such as tariff peaks and tariff escalation. However, these issues will have to be negotiated by Cameroon and other developing countries, as will improved market access for products in which Cameroon has an actual or potential competitive advantage. Improvements in market access will be largely a matter of tariff bargaining, but the general formula for tariff reduction is yet to be

decided. Cameroon, in coordination with other African countries, should lobby for more balance between trade in agricultural and industrial products, with a particular focus on tropical products and on the factors that have constrained expansion of agricultural production and better use of preferences available in previous agreements.

Because the European Union is the main market for Cameroon's agricultural exports, negotiations should be coordinated with those on the Cotonou Agreement (successor to the Lomé convention) and cover issues of reciprocity, special and differential treatment, and the European Union's proposal to create economic partnership arrangements. A related issue is the compatibility between economic partnership arrangements and GATT article XXIV or GATS article V on regional groupings. Special attention should also be given to preferential treatment of EU commodity protocols. The European Union's Common Agricultural Policy, and the potential importation of subsidized European products that could affect domestic production of food crops, should also be considered.

Trade liberalization and market access alone may not be enough to improve trade and economic performance. A new trade agreement should include the "missing links" of production and supply capacities, human resource development, physical infrastructure, trade-related technical standards, and support for regional integration as an instrument for enhancing competitiveness and easing integration into the global economy.

Agricultural development in Cameroon needs to properly integrate short- and long-term dimensions, to prevent short-term solutions from impeding increased productivity in the long term. And that means distinguishing food import capacity and agricultural tradability.

Food import capacity (the ratio of food import expenditures to total export revenue) is an indicator of the demand for foreign exchange to finance food imports. It shows that in the post-Uruguay Round period (1995-97) Cameroon, the Republic of Congo, Equatorial Guinea, and Gabon are the only CEMAC countries with acceptable levels of food security. Agricultural tradability (the ratio of the value of agricultural trade—the sum of import costs and export revenues—to GDP) captures the extent to which the agricultural sector is directly affected by developments in world markets for agricultural products. Together, these indictors shed light on a country's interests in agricultural negotiations. African net exporters would be helped by improved market access in developed countries, combined with a reduction in export subsidies and domestic support, whereas African net importers are likely to have contrary interests.

Like the Uruguay Round, the Doha Round has as its long-term objective establishing a fair and market-oriented agricultural trading system that provides for substantial, progressive reductions in agricultural support and protection to correct and prevent distortions in world agricultural markets. This should also be Cameroon's objective, and that of other countries at the same level of agricultural development, as long as their specific conditions and needs are properly factored into the agreements.

The main elements of Cameroon's negotiating position will focus on preference erosion, tariff escalation and tariff peaks, tariff rate quotas, export subsidies, domestic subsidies, capacity building, state trading, special and differential treatment, and consideration of multi-functional character of agriculture, especially as it relates to food security. The negotiations could provide an opportunity to examine key issues with important implications for developing countries.

Market access: Contrary to expectations, implementation of the Uruguay Round Agreement on Agriculture provisions on market access did not benefit developing countries. Exports of both primary and processed agricultural products from the developed countries to developing countries increased, while the share of developing countries in world agricultural exports was almost the same in 1997 as in the early 1970s. Upcoming negotiations need to correct this imbalance.

Several factors led to the imbalances and interfered with the achievement of simplified and transparent tariff protection reductions in developed countries. The 36 percent tariff reduction by developed countries had far less impact than intended because the base tariff was often higher than applied levels and sensitive products were differentiated from nonsensitive products. Non-ad valorem tariffs have been introduced and are being increasingly used. Up to 42% of EU tariff lines are expressed in non-ad valorem form (WTO/37, 2000). The discipline on the use of tariff rate quotas by developed countries also has not worked as intended. In converting nontariff barriers to tariffs, developed countries often converted to levels higher than the nontariff equivalents, especially on temperate-zone food products. Several tariff peaks are also found, especially on major agricultural staples and other exports of interest to Cameroon and other developing countries, such as sugar, tobacco, cotton, and fruits and vegetables. Furthermore, tariffs for several key agricultural commodities rise along the processing chain, limiting prospects for production and trade diversification by developing countries that would

allow them to shift to trade in high value-added products with their more stable terms of trade. Variable tariffs used by developed countries such as price band schemes, as well as seasonal tariffs, should be eliminated. Variable tariffs should be allowed only under the provisions for special and differential treatment for developing countries.

Special safeguards also need to be simplified and made more nondiscriminatory. Market access commitments were based on the average price level in 1986-88. Members are allowed to introduce import control measures when prices are higher than the average. Complicated guidelines for calculating the reference price are subject to abuse. Safeguards should either be broadened in scope to make them available to all markets or abolished altogether.

Agreements such as the Sanitary and Phytosanitary Agreement that constrain exports of agricultural commodities need to be revised to ensure that they are not used as an indirect means of protection. Developing countries often lack the human, technological, and financial resources to comply with the more stringent sanitary and phytosanitary requirements. A negotiation objective, therefore, is to ensure that requirements are revised so that only the most necessary standards are applied and that a binding technical assistance program be established for developing countries.

Cameroon's competitive position could be significantly eroded by the continued reduction in tariffs within the multilateral framework, including the outcome of ACP-EU negotiations and the generalized system of preferences (GSP). Cameroon's agricultural products will be pitted against competitors with better cost structures. Market access negotiations therefore need to properly account for the preferential access enjoyed by Cameroon and other African countries in their traditional export markets, where agriculture is highly protected.

In sum, to improve market access for Cameroon's agricultural products, negotiations should strive to remove remaining nontariff barriers and reduce tariff peaks and tariff escalation in developed country markets. The reduction formula should avoid differentiated treatment of sensitive and nonsensitive products and should link tariff levels on primary commodities to those on processed forms of the commodity.

Cameroon should offer to reduce the level of its agricultural tariff binding and set it closer to the current applied tariff level by locking in at the current level of commitment within CEMAC. Further liberalization of nonagricultural tariffs could reduce the bias against agricultural exports.

This would improve policy predictability and encourage investment and associated spillover effects on efficiency and market access.

Domestic support: Overall, implementation of the agreement on domestic support to agriculture increased imbalances in the legitimate use of these trade- and incentive-distorting measures. The agreement legalized the use of these measures by developed countries while developing countries were curtailing their use, and it failed to properly define the nontrade concerns that should be taken into account in implementing them (Shirotori, 2000). Green box measures have resulted in higher overall domestic support levels in developed countries, meet the nontrade interests of developed countries only, create loopholes that developed countries can more readily take advantage of, and impose administrative burdens that are especially heavy for developing countries.

Cameroon should request reform of each of these dimensions, so that there are new incentives for deeper liberalization in input sectors and for enhanced reliance on market mechanisms to promote crop development.

Export subsidies: The Uruguay Round Agreement on Agriculture required that export subsidies be reduced (20 percent in quantity and 36 percent in budgetary outlays) by the end of the six year implementation period and that no new subsidies be introduced. Cameroon, largely for fiscal reasons, phased out its agricultural input subsidies, resulting in reduced agricultural productivity.

Negotiations on agricultural subsidies need to provide for market-based mechanisms for raising productivity, including adequate support to agricultural research and extension activities. Some export support mechanisms that are not currently available in Cameroon should have been included among the special and differential treatment measures. Cameroon should negotiate to have the option of using export support measures that can enhance the competitiveness of its agricultural products. Developing countries should be allowed greater flexibility on export subsidies and taxation. In the long run, however, these instruments should be banned.

Cameroon and other African countries eliminated subsidies as part of their unilateral structural adjustment program-driven liberalization. It makes sense for these countries to receive credit for these undertakings. The credits could be in the form of assistance in completing agricultural reforms in the least painful manner.

Food security: Although Cameroon is not on the list of net food importers, analysis points to a deteriorating food situation, giving Cameroon an interest in negotiations on this issue. Cameroon's concerns relate to the capacity to meet food consumption requirements through domestic production and imports at prevailing income levels and prices.

Multilateral liberalization could reduce the availability of adequate supplies and result in short-term difficulties in financing imports of basic foodstuffs at commercial prices. The Marrakech Decision on Measures Concerning the Possible Negative Effects of the Reform Programme on Least-Developed and Net-Food Importing Developing Countries was meant to cushion these negative effects. Its key elements include support for domestic production rather than trade, technical and financial assistance to improve productivity and infrastructure, and food aid commitments.

Implementation has been poor, however, largely because of design weaknesses. There is a need to ensure that the framework contains binding and feasible commitments that can assist—or at least not impede—agricultural development and food security. In negotiations, Cameroon could request that key elements of the Marrakech Decision, especially on food aid, compensatory financing, and technical and financial assistance, be revised and put in legally binding terms; that agricultural support measures that impede domestic food production be eliminated or substantially reduced; that low-income countries be allowed the flexibility to pursue their food security objectives primarily through increased domestic production; and that all low-income African countries be allowed greater flexibility in domestic support measures under special and differential treatment.

Cameroon could ask to be allowed to introduce measures to increase export diversification. These measures could include the cost of searching new markets in view of the likely underinvestment by the private sector. It could also ask for specific assistance in building local capacity, providing a discussion forum on trade-related issues, maintaining trade-related databases and information, undertaking high-quality analyses, providing technical assistance on norms and standards and dispute settlement, advocating better market access in industrial countries, and helping developing countries to build coalitions and reach common positions in multilateral trade negotiations.

Cameroon should also join with its partners in CEMAC, for whom food security is a greater concern. Solidarity with other CEMAC members

could contribute to enhanced productivity of the country's agriculture and could win CEMAC members' support for some agricultural export crops that are of interest only to Cameroon.

Taking into account lingering supply and capacity constraints needs to be a pre-condition for new negotiations. Commitments by developed countries to help developing countries to overcome these constraints should be in binding terms and with a focus on the needed structural transformation of production and distribution that is required by the liberalized international markets.

Most agricultural exports are currently under zero or relatively low tariff. It is important to have these tariff preferences "bound" in the current round.

3.7 Conclusion

Cameroon's agricultural sector appears to be constrained more by its lack of capacity to respond to emerging opportunities offered by Uruguay Round than by lack of market access. Supply-side constraints as well as institutional and human capacity have limited competitiveness. Consequently, the country's ability to meet its WTO commitments is limited because of inefficient administration and low levels of human and financial resources. The WTO negotiations provide an opportunity for examining key issues with potentially important implications for Cameroon and other developing countries. These countries need to participate more actively and commit themselves to go beyond their current unilateral efforts at trade liberalization.

End-Notes

1. See Njinkeu (1997), Kamgnia (1997) and Bamou (1997 and 1999a) for more developments on that fiscal reform.
2 . The output-based NRP is used for calculating the ERP. The following formulas are thus used for the calculations:

$$ERP_i = \frac{NRP_i + \sum_j a_{ij} NRP_i}{1 - \sum_j a_{ij}} - 1 \qquad (1)$$

with,

$$NRP_i = \frac{(1+t) \cdot (1+tm_i)}{(1+td_i)} - 1 \qquad (2)$$

Where t, tm_i, td_i, a_{ij}, NRP_i, NRP_j are ad-valorem total imports tariff rate, sub-sector imported products tariff rate, domestic sub-sector products tax rate, input/output coefficients and nominal rate of protection on output and input respectively.

The Balassa calculation approach of the ERP is preferred to Corden's. Data used are from the recent input-output tables published by MINEFI/DSCN (1999).

3.   The structure of the model and the list of variables and parameters are given in the annex.

4.   The Communaté Economique et Monetaire d'Afrique Centrale, begun in 1994, replaced UDEAC in 1999. Members include Cameroon, Central African Republic, Chad, Congo, Equatorial Guinea, and Gabon.

5.   The database of the earlier models for Cameroon is dated 1984/85 and 1989/90. See Njinkeu (1997) for developments on the advantages of using a recent database in the CGE model analysis.

6.   See Bamou (1997), Njinkeu and Bamou (2000) and Dissou and Decaluwé (1994) for alternative closures of the labor market in CGE models.

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Appendix 3A.1 Model structure, variables, and parameters

The specificity of our model rests on a deeper decomposition of the agricultural sector and the specification of the external market. The agricultural sector is divided into five main sub-sectors:

♦ subsistence agriculture (SAG) whose products are supposed to be tax exempted on the CEMAC market,

♦ perennial agriculture (PAG), whose products are at present subjected to rising tariff in spite of the liberalization option,

♦ hunting and breeding (HUB) that assume importance for food security,

♦ forestry (FOR) with increasing importance especially of timber in agricultural exports and

♦ fishing (FIS) which is important for food policy and is in line with our food security analysis objective, the food industries sector (FIN) is distinguished from other industries (OIN). The oil sector (OIL) is also distinguished because of its importance in the economy. This sector desegregation also constitutes one of the special features of our model in addition to using a database (1995/96) that incorporates the adjustment of the structure of the economy after the 1994 national currency devaluation[5].

To take into account the regional trade in the CEMAC market is distinct from the rest of the world (ROW) market. This market distinction is also done with a view to analyze the opportunity offered by the WTO agreements to the developing countries to reinforce their trade and/or economic unions.

The model is made up of five main blocks (production, income/savings, demand, price and equilibrium). In the production block, the sectors produce by combining primary factors (labor and capital) and intermediate inputs (CI) in a two-level procedure. Products sold on markets are then distinguished from sectoral production.

In the demand block, the distinguishing feature of the CEMAC market as a second external market for local economic operators gives rise to a special modeling of demand of domestically produced and composite products. A two-level constant elasticity transformation (CET) function, following the Njinkeu and Bamou (2000) approach, allows distinction of products produced and sold locally (DC) from those exported to the CEMAC zone (EXUC) and the rest of the world (EXRC).

In the income/savings block, households receive salaries while the capital revenue is distributed among local agents (households, companies

and government) who are owners of the capital invested in production activities. These agents save after paying taxes, consuming and making transfers. The sum of savings is used to finance the global country investment. Price specifications are standard. Nevertheless, Krueger et al. (1991)'s suggestion of taking into account the relative agricultural sector distortions due to export and import-substitute tariffs is considered. On the international market, prices are determined according to the origin and destination of the products.

On the labor market, salaries are rigid in the short term. In practice, this rigidity is conveyed by a personnel reduction during periods of economic recession and massive recruitment in case of revival (this is what happened in the public service, the country's main employer). This short-term rigidity of salaries is expressed in the model by unemployment equilibrium where a variation in the labor demand is conveyed by a modification of the unemployment rate (tch). The total labor supply (LS) and the salary rates are thus fixed and the endogenous rate of unemployment plays the role of labor market equilibrium factor[6].

One of the major implications of the foreign market segmentation is its impact on the trade balance, which becomes the sum of trade balances with other CEMAC member states (BCU) and with the rest of the world (BCR). The government cannot borrow indefinitely to finance the country's development. To avoid the financing of investment through increased foreign indebtedness, we have chosen to set the country's global trade balance at its initial level. To this end, regional trade balances (with CEMAC and the ROW) adjust themselves to equilibrate the foreign market. This approach is appropriate as welfare analysis is among our concerns. With such a closure, the welfare depicted in the model is specific to the generation under analysis; there is no intergenerational borrowing.

Public expenditure is exogenous and government savings are endogenous so as to allow for an adjustment in budget expenditure on government revenue as recommended by the restrictive policies prescribed in the SAPs in place.

With a view to analyze the effects of future WTO negotiations on resource allocations and the food security population, a welfare variation model is added to the CGE model constructed. This model is inspired by the compensating variation (CV) and equivalent variation (EV). The indirect utility function associated with the Cobb-Douglas demand function type deriving from the household consumption function in the CGE model is used in the specification of that welfare variation model.

Complete specification of the CGE model

Sets definition

i	$\in$	I = {SAG, PAG, HUB, FOR, FIS, FIN, OIL, AIN, NTS} Production sectors;
j	$\in$	J = Alias I in terms of products;
mc	$\in$	ECH= {SAG, PAG, HUB, FOR, FIS, FIN, OIL, AIN} Tradable products;
mr	$\in$	MR = {SAG, PAG, FIN, OIL, AIN} Imported products from the ROW;
mcr	$\in$	MCR = {SAG, PAG, FIN, AIN} Imported products from CEMAC and ROW;
msc	$\in$	MSC = { HUB, FOR, FIS } Imported products only from CEMAC;
xc	$\in$	XC = {SAG, HUB, FIS, FIN, AIN} CEMAC' exported products;
xr	$\in$	XR = {SAG, PAG, HUB, FOR, FIS, FIN, OIL, AIN} ROW' exported products;
xsr	$\in$	XSR = { PAG, HUB, OIL } Products exported only to the ROW;
al	$\in$	AL = {PAG, HUB, FIS, FIN} Pure food products;
snm	$\in$	SNM = { SNM} Non tradable services;
oil	$\in$	OIL = {OIL} Oil products.

Production block   *Number of equations*

(1)	$VA_i = A_i \cdot L_i^{D\alpha i} \cdot K_i^{(1-\alpha i)}$	9
(2)	$CI_i = io_i \cdot VA_i / v_i$	9
(3)	$XS_i = CI_i / io_i$	9
(4)	$CIJ_{ij} = a_{ij} \cdot CI_i$	81
(5)	$L^D_i = \alpha_i \cdot PVA_i \cdot VA_i / w$	9

Revenue/savings block

(6) $YM = w. \lambda^M_L \cdot \sum_i L^D_i + \lambda^M_k \cdot \sum_i RK_i + TGM \cdot Pindex$ 1

(7) $DIM = tdi \cdot (YS - TAXRKS - TSR)$ 1

(8) $TAXRKS = trks. \lambda^s_k \cdot \sum_i RK_i$ 1

(9) $YDM = (1 - tym) . YM - (TMS.PINDEX + THR$ 1

(10) $SM = pms.YDM$ 1

(11) $YD = tym.YM +[1- (\lambda^M_K + \lambda^S_K)] . \sum_i RK +e.TRG + \sum_i TAXD_i$

$+ \sum_{mr} TAXMR_{mr} + \sum_{mc} TAXMU_{mc} + \sum_{sr} TAXEU_{sr} + \sum_{sc} TAXEU_{xc}$ 1

(12) $TAXD_j = td_j . PD_j . D_i$ 9

(13) $TAXMR_{mr} = tmr_{mr}.e. PWM_{mr} .RM_{mr}$ 5

(14) $TAXMU_{mc} = tmu_{mc} . PWM_{mc} . UM_{mc}$ 7

(15) $TAXEU_{SR} = \dfrac{e.PWE_{sr} . EXR_{sr}}{(1 + ter_{sr})}$ 8

(16) $TAXEU_{xc} = \dfrac{PWE_{sc} . EXU_{xc}}{(1 + teu_{xc})}$ 5

(17) $SG = YG-(CG + (TGM + TGS).Pindex + TGR)$ 1

(18) $YS = \lambda^S_K . \sum_i KR_i + (TMS + TGS) . Pindex + e. TRS$ 1

(19) $SS = YS - (DIM + TAXRKS + TSR)$ 1

(20) $RK_i = PVA_i.VA_i - w.L^D_i$ 9

Demand block

(21) $Q_{ech} = B^M_{ech} . [\delta_{ech}.M^{Pech}_{ech} + (1- \delta_{ech}). D^{Pech}_{ech}]^{(1/Pech)}$ 8

(22) $Q_{snm} = D_{snm}. (1 + td_{snm})$ 1

(23) $\dfrac{M_{ech}}{D_{ech}} = [\dfrac{PD_{ech}}{PM_{ech}} .\dfrac{\delta_{ech}}{1-\delta_{ech}}]^{\sigma^M_{ech}} ; \ \sigma^M_{ech} = \dfrac{1}{1 -p_{mcr}}$ 8

(24) $M_{msc} = UM_{msc}$ 3

(25) $M_{oil} = RM_{oil}$ 1

(26) $M_{mcr} = B^{IM}_{mcr} . [\delta^1_{mcr}. RM^{P^1_{mcr}}_{mcr} + (1- \delta^1_{mcr}). UM^{P^1_{mcr}}_{mcr}]^{1/P^1_{mcr}}$ 4

(27) $\dfrac{RM_{mcr}}{UM_{mcr}} = [\dfrac{PMU_{mcr}}{PMR_{mcr}} \dfrac{\delta^1_{mcr}}{1 - \delta^1_{mcr}}]^{\sigma^{IM}_{mcr}} ; \ \sigma^{IM}_{mcr} = \dfrac{1}{1 -p_{mcr}}$ 4

(28) $XS_{snm} = B^X_{ech} [\gamma_{ech} .EX^{\psi_{ech}}_{ech} + (1- \gamma_{ech}). D^{\psi_{ech}}_{ech}]^{(1/\psi_{ech})}$ 8

$$(29) \quad XS_{snm} = D_{snm} \qquad \qquad 1$$

$$(30) \quad \frac{EX_{ech}}{D_{ech}} = [\frac{PE_{ech}}{PD_{ech}} \cdot \frac{1-\gamma_{ech}}{\gamma_{ech}}]^{\sigma^{IM}_{mcr}} \quad ; \quad \sigma^{E}_{ech} = \frac{1}{\gamma_{ech} - D} \qquad 8$$

$$(31) \quad EX_{xc} = B^{IX}_{sc} \cdot [\gamma^{I}_{xc} \, EXR^{\psi_{scr}}_{sc} + (1-\gamma^{I}_{sc}) \cdot EXU^{\psi_{scr}}_{sc}]^{(1/\psi \, sc)} \qquad 5$$

$$(32) \quad \frac{EXR_{xc}}{EXU_{xc}} = [\frac{PEU_{xc}}{PER_{xc}} \cdot \frac{1-\gamma^{I}_{sc}}{\gamma_{sc}}]^{\sigma^{IE}_{sc}} \quad ; \quad \sigma^{IE}_{sc} = \frac{1}{\gamma^{I}_{xc} - 1} \qquad 5$$

$$(33) \quad EX_{xsr} = EXR_{xsr} \qquad \qquad 3$$

$$(34) \quad CM = YDM - SM \qquad \qquad 1$$

$$(35) \quad PC_i \cdot C_i = \beta^c_i \cdot CM + \beta^G_i \cdot CG \qquad \qquad 9$$

$$(36) \quad PC_i \cdot INV_i = \beta^I_i \cdot IT \qquad \qquad 9$$

$$(37) \quad DINT_i = \sum_i a_{ij} \cdot CI_i \qquad \qquad 9$$

Prices block

$$(38) \quad PVA_i = \frac{(P_i \cdot XS_i - \sum_j PC_j \cdot CIJ_{ij})}{VA_i} \qquad \qquad 9$$

$$(39) \quad P_{ech} = \frac{(PD_{ech} \cdot D_{ech} + PE_{ech} \cdot EX_{ech})}{XS_{ech}} \qquad \qquad 8$$

$$(40) \quad P_{snm} = PD_{snm} \qquad \qquad 1$$

$$(41) \quad PMU_{mc} = PWM_{mc} \cdot (1 + tmu_{mc}) \qquad \qquad 7$$

$$(42) \quad PMR_{mr} = e \cdot PWM_{mr} \cdot (1 + tmr_{mr}) \qquad \qquad 5$$

$$(43) \quad PDM_j = PD_j \cdot (1 + td) \qquad \qquad 9$$

$$(44) \quad PC_{ech} = \frac{PD_{ech} \cdot D_{ech} + PM_{ech} \cdot Mech_{ech}}{Q_{ech}} \qquad \qquad 8$$

$$(45) \quad PC_{snm} = \frac{PDM_{snm} \cdot D_{snm}}{Q_{snm}} \qquad \qquad 1$$

$$(46) \quad PM_{mcr} \cdot M_{mcr} = PMU_{mcr} \cdot UM_{mcr} + PMR_{mcr} \cdot RM_{mcr} \qquad \qquad 4$$

(47) $\quad PM_{msc} . M_{msc} = PMR_{msc} . UM_{msc}$ $\qquad$ 3

(48) $\quad PM_{oil} . M_{oil} = PMR_{oil} . RM_{oil}$ $\qquad$ 1

(49) $\quad PE_{xc} . EX_{xc} = PEU_{xc} . EXU_{xc} + PER_{xc} . EXR_{xc}$ $\qquad$ 5

(50) $\quad PEU_{xc} = \dfrac{PWE_{xc}}{1 + teu_{xc}}$ $\qquad$ 5

(51) $\quad PER_{xr} = \dfrac{e . PWE_{xr}}{1 + ter_{xr}}$ $\qquad$ 8

(52) $\quad PR_{xsr} = PER_{xsr}$ $\qquad$ 3

(53) $\quad Pindex = \sum_i \beta^c{}_i \, PC_i$ $\qquad$ 1

Equilibrium bloc

(54) $\quad IT = SS + SM + SG + e . BC$ $\qquad$ 1

(55) $\quad BCU = \sum_i PWM_{mc} . UM_{mc} - \sum_i PWE_{xc} . EXU_{xc}$ $\qquad$ 1

(56) $\quad BCR = (1 - \lambda^M_L) \; w . \sum_i + \sum_i PWM_{mr} . RM_{mr} + \dfrac{1}{e} . (TGR + TSR + TMR)$

$\qquad - \left(\sum_i PWE_{xr} . EXR_{xr} + TRG + TRM + TRS \right)$ $\qquad$ 1

(57) $\quad LCon = Q_{snm} - C_{snm} - DINT_{snm} - INV_{snm}$ $\qquad$ 1

(58) $\quad Q_{ech} = C_{ech} + DINT_{ech} + INV_{ech}$ $\qquad$ 8

(59) $\quad (1 - tch) . L^S = \sum_i L^D{}_i$ $\qquad$ 1

(60) $\quad BC = e . BCU + BCR$ $\qquad$ 1

Household welfare variation model

(b1) $\quad CV = [(U - UO) / U] . YM$ $\qquad$ 1

(b2) $\quad EV = [(U - UO) / UO] . YMO$ $\qquad$ 1

(b3) $\quad U = \sum_i \left(\dfrac{\beta_{ar} . CM}{PC_{al}} \right)^{\beta_{al}}$ $\qquad$ 1

(b4) $\quad H^* = \dfrac{1}{2} . (CV + EV)$ $\qquad$ 1

Total $\qquad$ *352*

List of variables and parameters of the CGE model

Endogenous variables

BCR	Current account with the ROW	1
BCU	Current account with other CEMAC countries	1
C_i	Final consumption of goods	9
CI_i	Total sector's intermediate consumption	9
CIJ_{ij}	Sector's intermediate consumption	81
CM	Households' total consumption	1
CV	Compensating variation	1
D_j	Domestic sales	9
DIM	Dividends received by household	1
$DINT_i$	Intermediate demand of goods	9
EV	Equivalent variation	1
EX_{ech}	Total composite exports	8
EXU_{xc}	Exports to CEMAC	5
EXR_{xr}	Exports to the ROW	8
H	Household average welfare variation	1
INV_i	Investment in goods	9
IT	Total investment	1
L_i^D	Sector's employment	9
Leon	Equilibrium checking variable	1
M_{ech}	Total imports	8
P_i	Sector's production cost	9
PC_i	Composite good prices	9
PD_j	Domestic producer prices	9
PDM_j	Domestic market prices all taxes comprised	9
PE_{ech}	Domestic price of total composite exports	8
PEU_{xc}	Domestic price of total composite exports to the CEMAC zone	5
PER_{xr}	Domestic price of total composite exports to the ROW zone	8
Pindex	General consumer price index	1
PM_{ech}	Domestic price of total imports	8
PMU_{mc}	Domestic price of imports from CEMAC	7
PMR_{mr}	Domestic price of imports from the ROW	5
PVA_i	Sector's value added prices	9
Q_i	Composite good supply	9

RK_i	Sector' capital remuneration	9
SG	Government saving	1
SM	Household saving	1
SS	Firms saving	1
TAXRKS	Firm' capital remuneration tax revenue	1
$TAXD_j$	Indirect tax on local product revenue	9
$TAXER_{xr}$	ROW' export tax revenue	8
$TAXEU_{xc}$	CEMAC' export tax revenue	5
$TAXMR_{mr}$	ROW' import custom duties revenue	5
$TAXMU_{mr}$	CEMAC' import custom duties revenue	7
tch	Unemployment rate	1
U	Household food products consumption utility	1
UM_{mc}	CEMAC imports	7
RM_{mr}	ROW' imports	5
VA_i	Sector's value added	9
XS_i	Sector's domestic output	9
YDM	Household disposable revenue	1
YG	Government revenue	1
YM	Households' total revenue	1
YS	Firms revenue	1
	Total	**352**

Exogenous variables

BC	Global current account	1
e	Nominal exchange rate with the ROW	1
K_i	Sector's stock of capital	9
L^s	Total labor supply	1
PWE_{ech}	Exports world prices	8
PWM_{mr}	Imports world prices	8
CG	Government consumption	1
TMS	Household transfers to firms	1
TGM	Government transfers to households	1
TGR	Government transfers to the ROW	1
TRG	ROW' transfers to the government	1
TSR	Firms transfers to the ROW	1
TMR	Household transfers to the ROW	1
TGS	Government transfers to firms	1
TRM	ROW' transfers to households	1

TRS	ROW' transfers to firms	1
UO	Initial household food products consumption utility	1
YMO	Households' initial revenue	1
w	Average wages rate	1
	Total	**41**

Parameters

a_{ij}	Input-output coefficients
A_i	Cobb-Douglas shift parameter
$á_i$	Labor share parameter in value added function
$ë_L{}^M$	Share of salary received by household
$ë_K{}^M$	Capital remuneration share own by household
$ë_K{}^S$	Capital remuneration share own by firms
pms	Household average rate of saving
tdi	Dividends share received by household
tym	Household direct tax rates
trks	Firms profits tax rate
td_j	Indirect tax rates on local products
tpd_i	Production tax rate on local products
tmr_{mr}	Average ROW imports custom duty rates
tmu_{mc}	Average CEMAC imports custom duty rates
teu_{xc}	CEMAC exports tax rates
ter_{xr}	ROW exports tax rates
$â_i^C$	Share of good in household consumption
$â_i^G$	Share of good in public expenditure
$â_i^I$	Share of good total investment
io_i	Technology coefficients
v_i	Idem
$B_{ech}{}^M$	Armington shift parameters
$B_{mcr}{}^{IM}$	Idem
$ä_{ech}$	Armington exponents
$äl_{mcr}$	idem
$ñ_{ech}$	Substitution parameters in the CES functions
$ñl_{mcr}$	idem
$ó_{ech}{}^M$	Substitution elasticity of imports
$ó_{mcr}{}^{IM}$	idem
$ó_{ech}{}^E$	Transformation elasticity of exports
$ó_{xc}{}^{IE}$	idem

$B_{ech}^{\ x}$	CET shift parameters
$B_{xc}^{\ 1x}$	Idem
$\tilde{a}_{ech}$	CET functions exponents
$\bar{a}1_{xcn}$	idem
öech	idem
ölxcn	idem

4 Kenya's Agricultural Trade Reform in the Framework of the World Trade Organization

Hezron Omare Nyangito

Kenya became a member of the newly created World Trade Organization (WTO) in 1995, having been a member of its predecessor body, the General Agreement on Tariffs and Trade (GATT). It is subject to all WTO agreements, including the Uruguay Round Agreement on Agriculture (URAA). The Agreement on Agriculture brought radical changes in the global environment for agriculture, both in institutional setting and in the rules governing broad agricultural production policies and agricultural trade relations among countries. While negotiations will continue on reducing protection and distortionary trade policies in the WTO's current Doha Development Round, for most developing countries the URAA has not yet yielded tangible benefits. This study examines the main elements of the Agreement—market access, domestic support, and export subsidies—to see how they have affected performance of the agricultural sector in Kenya and to determine how the country can benefit from the Agreement and the current negotiations.

4.1 Kenya's Trade Policy

Kenya has been moving toward a more open trade regime, seeking increased access to overseas markets, especially for processed goods, and greater integration with the world economy (Kenya 1989). These policy objectives have been pursued through unilateral liberalization and regional and bilateral trade negotiations, as well as through participation

in the multilateral trading system. As a result, Kenya is a member of many trading groupings, including the East African Community (EAC), which envisions creating a customs union for Kenya, Tanzania, and Uganda; the Common Market for Eastern and Southern Africa (COMESA), which plans to establish a free trade area for the 20 countries in Eastern and Southern Africa; the Africa, Caribbean, and Pacific–European Union (ACP–EU) group, in which the ACP countries receive preferential trade treatment from the European Union; and the WTO, which is the umbrella body for the multilateral trade system. Kenya also benefits from preferential tariff treatment provided by developed countries such as Canada, Japan, Norway, Switzerland, the United States, and the European Union under the Generalized System of Preferences (GSP) for tea, coffee, pyrethrum, horticultural products and other products.

Because multilateral trade rules have both benefits and costs for developing countries, there is a need to analyze agricultural trade reforms under the WTO framework to identify the opportunities for Kenya and the constraints that need to be eased during the new round of negotiations. Like most developing countries, Kenya will gain from the multilateral trading system if strong rules are put in place to protect developing countries against pressures from more powerful countries and if the rules help to improve domestic trade policies. Several recent trade negotiations have improved developing countries access to the markets of developed countries by reducing import restrictions. At the same time rules on domestic support measures allowing countries to subsidize agricultural production, can hurt Kenya and other developing countries.

4.2   Recent Policy Changes in Agriculture in Kenya

Kenya has implemented many policy reforms under structural adjustment programs and the Agreement on Agriculture, but a wide chasm still remains between policy pronouncements and policy implementation. While placing markets at the center of the economy is the goal of the policy reforms, not enough has been done to empower the private sector to play its enabling role in these reforms. Stakeholders have not always been involved in the design and implementation of policy changes, so policies with potentially significant long-run economic benefits but negative short-run impacts have met with resistance. The negative effects are exacerbated by the extreme poverty in Kenya.[1]

While the policy reforms have helped to bring about macroeconomic changes, they have been less successful in stimulating growth in the

agricultural sector. Complementary policy components and proper sequencing of the reforms are often missing in reform measures. For example, there is no institutional framework for the efficient operation of markets, the country lacks a strong nationalistic mindset seen in many western democracies, and liberalization was not accompanied by transition measures. As a result, development of new management methods, increased financial capacity, and improved physical infrastructure were not accomplished during liberalization.

4.2.1 Market Reforms related to Structural Adjustment Programs

In the early 1980s the key concern in trade policy reforms under structural adjustment programs was to liberalize markets, which were dominated by government controls. In agriculture, the focus was on removing the government monopoly in the marketing of agricultural commodities, lifting associated price controls, and ending government controls on the importing, pricing, and distribution of farm inputs. Implementation of reforms in the early period was reported to have been accompanied by considerable official ambiguity and covert and overt resistance (Ikiara and others, 1993), but reforms began to be implemented with greater commitment in 1993 (Nyangito, 1999). Major trade and agricultural policy reforms are shown in table 4.1.

Deregulation of markets, decontrol of prices, and trade liberalization were aimed at encouraging private sector activity in producing, marketing, and processing agricultural commodities. Cotton, sugar, beef, dairy, and maize markets were deregulated (Table 4.2). Pricing and trade of export crops, mainly coffee and tea, have been substantially decontrolled, though the markets are not yet fully deregulated.

Macroeconomic policy reforms such as removal of restrictions on the exchange rate, foreign exchange retention, and remittances and liberalization of interest rates, improved price incentives for agricultural producers. Government spending has been reduced through retrenchments in the civil service. Coupled with reduced government borrowing, this is expected to reduce inflationary pressures in the economy, increasing real earnings for agricultural producers.

Table 4.1: Agricultural and trade-related policy reforms, 1993–98

Policy	Policy Action	Date of Implementation	Implementation Status
Agricultural	Reform agricultural state enterprises	1995	Ongoing
	Review laws for commodity state enterprises and cooperatives	1996	Ongoing
	Establish modalities for maintenance of strategic maize reserve and for stock and market interventions	March 1996	Ongoing
Trade	Abolish specific duties on cereal imports	December 1996	Done
	Present to Parliament anti-dumping legislation consistent with WTO rules and impose anti-dumping duties on cereal imports in accordance with the law	December 1996	Done in June 1997
	Reduce tariffs toward the lowest prevailing in the Common Market of East and Southern Africa	1997	Ongoing
	Reduce nontariff barriers to trade, and harmonize investment regulations under the auspices of the East African Community	1997	Ongoing
	Work with East African Community partners toward a sub regional common external tariff with a maximum rate of 25 percent and one other non-zero rate	1997	Ongoing
	Lower maximum tariff to 30 percent, with and no more than 3 non-zero rates, and lower trade-weighted average tariff	June 1997	Ongoing

Table 4.2 Specific policy changes for various agricultural commodities

Commodity	Policy before change	Policy after change	Date of change in policy	Implementation Status
Coffee and tea	Auctioning marketing and no retention of foreign currency pro-ceeds by exporters	Auctioning using foreign currency and retention proceeds by exporters	November 1992	Completed in 1995
Sugar	Producer prices controlled Control of imports	Minimum prices established Variable duties used to protect local producers	1994 1994	Done Done
Maize	NCPB only importer & control of producer and consumer prices NCPB maintained strategic reserves	Private sector can import but variable duty imposed and minimum (floor) prices based on NCPB prices Foreign exchange reserve of $60 million established	1992 1994	Done Varies annually
Wheat	Producer prices controlled and NCPB only importer	Minimum (floor) prices based on long-term import parity pricesand imports controlled using variable duties	1994	Done
Milk and dairy products	Price controls and Kenya Co-operative Creameries monopoly in processing and marketing Kenya Dairy Board a monopoly for imports	Prices decontrolled and private sector participation in processing and marketing Liberalized imports but duties to control imports	1992 1992	Done Done
Cotton	Domestic marketing, trade, and prices controlled	Complete deregula-tion of domestic marketing and pricing	1992	Done

NCPB is the National Cereals and Produce Board.

The major objective of the policy reforms for the agricultural sector was to provide incentives to farmers for increased production. Problems with implementing the policies, however, dampened the supply response, and agricultural production and food production have been on the decline (Nyangito, 1999). And while the liberalized policies were accepted in principle, the legal framework to support them has not been put in place. Thus enforcement of the laws that govern the sector is weak, hampering efficient development of the institutions that serve the sector. Among the major implementation problems were:

♦ Illogical sequencing, which disrupted market operations.
♦ Improper timing, which kept the policies out of step with available institutional capacity.
♦ Instability in policies, which reduced investor confidence.
♦ Lack of coordination in implementing the policies.

4.2.2 Reforms related to the Agreements on Agriculture

Kenya became a signatory to the Uruguay Round Agreement on Agriculture in 1995 while it was still implementing the structural adjustment programs (SAPs) begun in the early 1980s. Thus by the time of the Agreement on Agriculture, Kenya was already liberalizing its markets and eliminating subsidies on agricultural production. But even before the SAP, subsidies had been minimal. In fact, the government had overtaxed producers rather than subsidizing them (Swamy, 1994). Thus implementation of the Agreement on Agriculture may have been easier because of the close relationship between SAP reforms and the Agreement on Agriculture.

4.2.3 Expected consequences of the Agreement on Agriculture

Trade and agriculture reforms are important for developing countries because agriculture remains an important economic sector for most of them. In Kenya agriculture directly contributes about 25 percent of gross domestic product (GDP), employs about 75 percent of the labor force, is the major foreign exchange earner, and meets most of the country's food requirements (Kenya, 1998a). While trade patterns diversify with development, developing countries like Kenya will continue to need agricultural markets as exporters and importers of agricultural products.

The main thrust of the Uruguay Round Agreement on Agriculture is to reform production and trade distorting practices and to facilitate a fair

and market-oriented agricultural trading system. Prior to the Uruguay Round agricultural products enjoyed a "special status" under multilateral trade rules. Agricultural products could be subsidized at any level, and rules for export subsidies were much weaker than those for industrial goods. While the intention was to regulate agricultural trade using ordinary tariffs, an exemption permitted quantitative restrictions if these were necessary for certain types of domestic market management. In practice however, nontariff barriers became endemic, and ordinary duties could be raised to any level since most tariff lines were not bound.

The Uruguay Round addressed these distortions by banning some of these practices and developed new rules for other practices, such as reducing domestic support measures and reducing the use of export subsidies. However, world agricultural markets remain significantly distorted by a wide range of domestic policies and border protection through tariffs, particularly in developed countries. These practices have hampered export performance in developing countries and reduced world market prices for commodities such as coffee and tea, which Kenya depends on.

Market access: As a commitment to the WTO requirements, the government of Kenya bound tariffs at a ceiling of 100 percent for all agricultural commodities. Tariffs have generally been lower than 35 percent, though recent evidence suggests that this may not provide adequate domestic market protection, particularly for cereals and sugar. The government often raises tariffs when there is need to protect domestic production. However, tariffs rates have never reached 100 percent in the last five years (Table 4.3).

Table 4.3 Import tariffs (percent) on selected agricultural commodities into Kenya

Commodity	1996/97	1997/98	1998/99	1999/2000
Agricultural food stuffs[a]	15	15	25	30
Processed fruits and vegetables	15	15	30	35
Sugar	35	15	25	35
Textiles	15	15	25	30

a. Includes most cereals (maize, wheat and rice).
Source: Kenya Gazette, Financial Bills, 1996, 1997, 1998 and 1999.

Kenya has done away with nontariff barriers as required by the Agreement on Agriculture. The concern is with the use by developed countries of technical barriers to trade and sanitary and phytosanitary standards. While some developed countries are using the Sanitary and Phytosanitary Measures Agreement to limit access to commodities, Kenya and most developing countries find it difficult to implement the Agreement because of numerous problems with its implementation and lack of technical capacity. Issues relating to trade and labor, trade and environment, trade and competition, and trade and investment are seen as ways for developed countries to create barriers to trade for commodities from all countries, but particularly developing countries.

Domestic support: Kenya has presented to the WTO a detailed schedule on domestic support measures under the different categories of support, namely, the Green Box but not under Amber and Blue Boxes. Kenya had already reduced its support to agriculture through such programs. as extension, research, and delivery of services to farmers (such as animal health, mechanization, and subsidized credit) under the SAPs. Except for the subsidies on services, most of these support measures are permitted under the Green Box of the Agreement on Agriculture.

Kenya's spending on agriculture dropped from about 10 percent of the budget in the 1980s to about 5 percent in the 1990s (Nyangito, 1999; and Table 4.4). Recurrent expenditure, mainly salaries accounts for about 60 percent of this amount, and agricultural development (research and market information, animal health services, crop protection, seed inspection, mechanization services and farm planning services) for only about 40 percent. It is this 40 percent that falls under domestic support measures.

Table 4.4. Government expenditures for all sectors, 1982/1983-1999/2000
(millions of Kenyan pounds)

Year	Agriculture			Total public expenditure	Agriculture's share of total (percent)
	Recurrent	Development	Total		
1982/83	52.4	44.3	96.7	1190.7	8.1
1983/84	58.3	14.7	72.9	1242.4	5.8
1984/85	90.4	39.0	129.4	1521.7	8.5
1985/86	62.2	77.6	139.8	1628.4	8.5
1986/87	122.7	99.7	222.4	2063.1	10.7
1987/88	168.1	67.7	135.8	2198.9	6.1
1988/89	310.0	91.6	401.6	3101.9	12.9
1989/90	82.7	71.1	153.8	3156.0	4.8
1990/91	38.6	40.2	78.8	2815.7	2.8
1991/92	13.3	4.9	18.2	4926.7	0.4
1992/93	117.0	177.2	294.2	6064.7	4.8
1993/94	160.6	302.9	463.5	9007.7	5.1
1994/95	184.4	192.2	376.6	9205.6	4.1
1995/96	216.1	170.5	386.6	9170.4	4.2
1996/97	229.5	331.8	561.3	10147.8	5.5
1997/98	213.4	174.4	387.8	1213.5	3.2
1998/99	243.4	229.9	473.3	1364.6	3.4
1999/2000	221.1	265.8	486.9	1917.4	2.5

Note: One Kenyan pound is equal to 20 Kenyan shillings and US$1 was equal to about 78 Kshs in June 2002.

Source: Kenya, *Statistical Abstracts* (Various Years)

The government has increased its funding of such support services as research, market information, and seed inspection in nominal terms since 1990 relative to such direct production support measures as artificial insemination, tractor hire, aerial spraying, veterinary services, and farm planning (Table 4.5), raising the costs of these services to farmers. Yet such direct support services are permitted for developing countries under the special and differential clause for developmental activities.

Table 4.5 Expenditure on agricultural production services, 1980-98
(millions of Kenyan pounds)

Year	Market and research	Artificial insemination	Aerial spraying	Tractor services	Veterinary services	Seed inspection service	Farm planning
1980	2,624	17	120	2,363	31	46	1
1981	2,703	17	124	2,435	32	47	1
1982	2,919	18	130	2,523	32	48	1
1983	3,066	19	135	2,611	35	48	2
1984	3,126	19	137	2,676	38	48	2
1985	3,281	20	139	2,944	50	82	2
1986	3,081	15	141	1,052	174	113	4
1988	3,174	18	140	2,073	112	104	6
1989	3,139	17	144	1,783	143	111	6
1990	9,315	18	141	2,027	122	110	6
1991	9,789	17	144	2,030	125	110	6
1992	9,559	17	144	1,843	141	117	5
1993	10,700	16	145	1,800	146	119	4
1994	9,815	15	140	1,805	148	121	5
1995	10,450	16	149	1,924	158	129	5
1996	11,240	17	160	2,071	170	139	5
1997	11,688	18	166	2,152	177	144	5
1998	12,621	19	179	2,324	191	156	5

Source: Kenya, *Statistical Abstracts* (various years).

Export subsidies: Developing country members of the WTO made commitments to reduce export subsidies by 24 percent in value over eight years. Developing countries may exempt existing subsidies that reduce costs associated with export marketing and internal transportation, although they cannot introduce new ones. Importing countries can undertake countervailing measures if export subsidies by other countries cause serious injury to their domestic industries.

For Kenya and many other developing countries the key issue in export subsidies is underuse (Oyejide, 1997). In most cases subsidies are much smaller than allowed. Since few developing countries provided export subsidies at the time of the Agreement on Agriculture, the disciplining of this practice has no direct consequence for them. The indirect effects of export subsidies can be substantial, however. For net food exporters export subsidies by competitors can cut into their market share and earnings, while net food importers may face higher import bills once subsidies are withdrawn.

Other Issues: The Agreement on Agriculture also contains three other elements that are important to Kenya. First, it contains new rules on sanitary and phytosanitary measures. Although intended only to protect food safety and animal and plant health, application of the rules can constitute unfair technical barriers to trade when used indiscriminately. Provision is also made for possible technical assistance for developing countries to help them comply with standards imposed by importing countries.

Second, the Agreement recognizes special and differential treatment for developing countries and least developed countries, granting them 10 years to implement their reduction commitments (least developed countries are not required to make reduction commitments in any of the three areas of market access, domestic support, and export subsidies).

Third, while the Marrakech Declaration noted the special difficulties of least developed countries and net food importing developing countries, which may suffer sharply increased food import bills following reductions in food export subsidies by developed countries, no operational mechanisms have been developed for implementing this decision to assist these countries.

4.3   Impacts of the Agreement on Agriculture on Kenya

This section analyses the impact of the Agreement on Agriculture on agricultural production and on adjustments in prices, tariffs, and trade in agricultural commodities.

4.3.1 Agricultural production

The agricultural sector is dominated by production of a few export commodities (tea, coffee, and horticulture), food crops (maize, wheat, and rice), industrial crops (sugar, pyrethrum, cotton, and sisal) and livestock products (milk and beef). Performance of the sector in the 1990s was dismal. Annual growth in agricultural GDP averaged 2 percent, down from 4 percent in the 1980s. Trends were mixed for most commodities (Figures 4.1 and 4.2). The worst declines in production occurred in maize, milk, coffee, and sisal.

Contributing to the decline were climate, price, market, and technological factors, but the major contributors were more likely policy related, particularly market reforms. For example, the shift from government controls on pricing and marketing to liberalized market

Figure 4.1. Production levels of selected food commodities 1990 - 1998
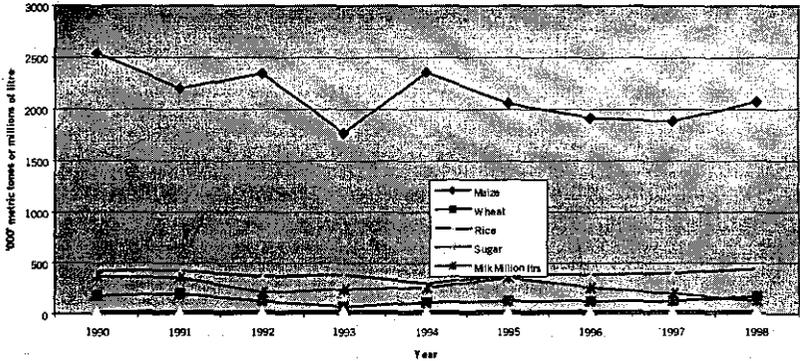
Figure 4.2. Production levels of selected cash crop 1986 - 1998
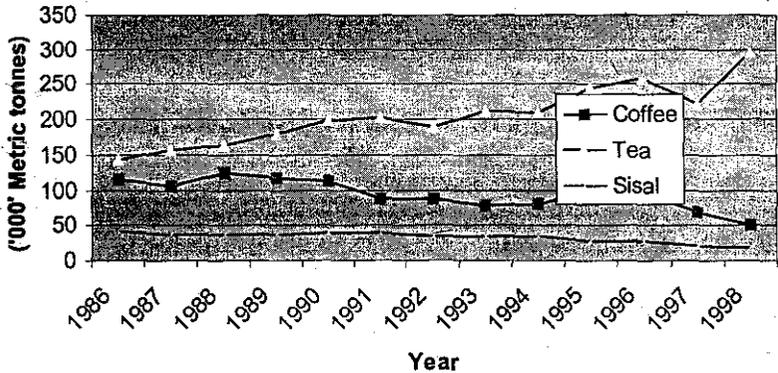
policies caused fluctuations in commodity markets as supply and demand adjusted to the changes. The resultant price instability affected incentives for farmers. The observed instability in production between 1995 and 2000 cannot be attributed to market changes associated with implementation of the Agreement on Agriculture, however, because there is no significant difference in annual variability in production of commodities before and after implementation of the Agreement (Table 4.6).

Table 4.6: Coefficients of variation for production of major commodities in Kenya before and after the Agreement on Agriculture (1995)

Commodity	Before the Agreement	After the Agreement
Maize	0.17	0.06
Wheat	0.13	0.18
Rice	0.07	0.12
Sugar cane	0.05	0.05
Milk	0.23	0.29
Coffee	0.11	0.27
Tea	0.09	0.11
Cotton	0.21	0.02
Sisal	0.12	0.15

Source: Author's calculations

Price stability: The impacts of the Agreement on Agriculture on price stability are mirrored in the price trends for agricultural commodities. However, since Kenya was already liberalizing its markets under SAPs before becoming a WTO signatory in 1995, the observed trends cannot be wholly attributed to the Agreement. Analysis indicates a general increase in real prices in Kenyan shillings terms after the Agreement but a decline in dollar terms. Depreciation of the Kenyan shilling against the dollar may account for some of the difference,[2] but there are variations in real prices in the periods both before and after the Agreement Coefficients of variation in real Kenyan shilling terms are higher in the period before the Agreement. They range from 0.15 for maize to 0.50 for rice before the Agreement and 0.07 for maize to 0.10 for wheat in the period after the Agreement. In real dollar terms the coefficients of variation are higher, ranging from 0.3 for maize to 0.53 for rice before the agreement and 0.13 for rice and 0.21 for wheat after the Agreement. The higher variation in dollar terms would be due to the volatility of the exchange rate of the dollar to the Kenya shilling (Table 4.7).

Table 4.7: Real prices per tonne of food crops 1990 to 2000

	Maize		Wheat		Rice	
Year	KSh	US$	KSh	US$	KSh	US$
1990	1537	63.77	2642	109.62	1427	59.21
1991	1463	52.06	2393	85.16	766	27.25
1992	1619	44.72	1911	52.79	399	11.02
1993	2017	29.57	1407	20.63	1307	19.16
1994	2065	46.09	2609	58.23	1976	44.11
1995	1626	29.08	2643	47.28	2086	37.32
1996	1966	35.74	2913	52.96	2988	54.33
1997	2351	37.55	3030	48.40	2735	43.69
1998	2043	33.05	2688	43.49	3354	54.27
1999	2064	28.31	2703	37.07	3292	45.16
2000	2022	25.98	2305	29.62	3251	41.79
Coefficient of variation before the Agreement on Agriculture	0.15	0.30	0.22	0.50	0.50	0.53
Coefficient of variation after the Agreement on Agriculture	0.07	0.15	0.10	0.21	0.08	0.13

Source: Kenya, *Statistical Abstracts* (1995 to 2001) and author's calculation

Industrial crop prices show mixed trends in real Kenyan shillings. Pyrethrum and sisal prices show a general increase while cotton and sugar cane show a declining price trend. In dollars, prices for all commodities show a general decline. Price instability is much higher than for food crops. The coefficients of variation in real Kenyan shillings terms ranges from 0.23 for cotton to 0.35 for pyrethrum in the period before the agreement and 0.04 for sugar cane to 0.36 for pyrethrum and sisal in the period after. The coefficients of variation in dollar terms are also higher, ranging from 0.46 for sugarcane to 0.70 for pyrethrum in the period before the agreement and from 0.17 for sugarcane to 0.29 for cotton after the agreement. In all cases, the coefficients of variation are

higher before than after the agreement, indicating that price variability was higher after the agreement (Table 4.8). This may be because the prices of industrial crops are determined by derived demand for the processed products. With implementation of WTO, Kenya's market for these products was liberalized, and the domestic market faced stiff competition from outside. The fluctuating supply of imports of agro-processed products from industrial crops (such as textiles and sugar) affects demand for Kenyan processed products and therefore the price fluctuations for the commodities according to the supply and demand of imports.

Table 4.8. Real prices per tonne of industrial crops 1990 to 2000

Year	Cotton		Pyrethrum extract		Sisal		Sugarcane	
	KSh	US$	KSh	US$	KSh	US$	KSh	US$
1990	5760	239.00	1056958	43857.18	5392	223.73	263	10.91
1991	4777	170.00	861656	30663.91	4519	160.82	249	8.86
1992	3377	93.28	527626	14575.30	3342	92.32	136	3.75
1993	3294	48.29	448096	6570.32	2462	36.09	206	3.02
1994	4160	92.85	472826	10554.15	2391	53.37	338	7.54
1995	3497	62.55	731856	13092.24	3893	69.64	316	5.65
1996	3981	72.38	671016	12200.29	3569	64.89	289	5.25
1997	3423	54.68	606227	9684.13	6660	106.38	266	4.24
1998	3333	53.93	826972	13381.42	6320	102.26	275	4.44
1999	2979	40.86	774501	10624.16	5943	81.52	258	3.53
2000	2666	34.26	1372262	17638.33	5273	67.77	281	3.61
Coefficient of variation before the Agreement on Agriculture	0.23	0.62	0.35	0 70	0.32	0.68	0.29	0.46
Coefficient of variation after the Agreement on Agriculture	0.15	0.29	0.36	0.24	0.36	0.23	0.04	0.17

Source: Kenya, *Statistical Abstracts* (1990 to 2001) and author's calculations.

Trends in prices for export crops are mixed, although the prices were much higher in the early 1990s and much lower in the late 1990s (Table 4.9). The coefficients of variation calculated in real Kenya shillings terms are 0.27 for tea and 0.28 for coffee in the period before the Agreement

and 0.14 for tea and 0.35 for coffee after the Agreement. Prices in dollar values show a declining trend and tend to be unstable. Coefficients of variation are 0.52 for tea and 0.35 for coffee in the period before the agreement and 0.12 and 0.45 in the period after. The mixed trends may be attributable to the instability in world market prices for these crops. These crops are produced for the export market, and domestic prices are dependent on world market conditions.

Table 4.9. Real prices per tonne of export crops 1990 to 2000

Year	Tea		Coffee	
	KSh	US$	KSh	US$
1990	20675	857.88	21351	885.93
1991	18420	655.52	22279	792.85
1992	9975	275.55	14141	390.63
1993	23007	337.35	24610	360.85
1994	19016	424.46	31365	700.12
1995	13797	246.82	32458	580.64
1996	14740	268.01	25934	471.53
1997	18281	292.03	43050	687.70
1998	21151	342.25	40900	661.81
1999	18618	255.39	23283	319.38
2000	21240	273.01	16058	206.41
Coefficient of variation before the Agreement on Agriculture	0.27	0.52	0.28	0.35
Coefficient of variation after the Agreement on Agriculture	0.14	0.12	0.39	0.45

Source: Kenya, *Statistical Abstracts* (1990 to 2001) and author's calculations.

Overall, the analysis shows a general decline in prices in dollar terms for all periods. Prices fluctuate in real Kenyan shilling terms, with greater price instability for food and industrial crops in the period before the Agreement than in the period after. Instability was greater for prices in dollar values, perhaps because of the instability of the exchange rate. Export crops exhibited the greatest instability, reflecting variations in world market prices. Thus the price instability for agricultural commodities in Kenya seems to be attributable to factors such as domestic

policies (monetary policies that affect the exchange rate) and world market prices rather than the Agreement on Agriculture. Analysis of world market price trends indicates that world prices, particularly for export crops, have been unstable (Figure 4.3).

Figure 4.3. Commodity world market prices 1993 - 2000
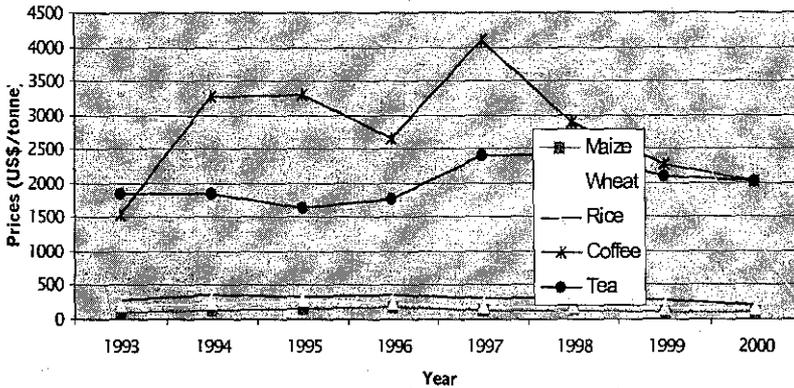
Input prices increased dramatically following reforms, and this trend has continued (Table 4.10). The rapid increase is attributable partly to inflation and partly to the weakening of the Kenyan shilling. Input prices are sensitive to exchange rate policies because most inputs are imported or have large import components. The level of input use has remained fairly constant since the mid-1980s. For example, fertilizer use has stagnated at about 200,000 metric tonnes since1986, while the potential is about 600,000 tonnes (Nyangito, 2000).

Table 4.10: Price indices for agricultural inputs for Kenya 1994-99

Input	1994	1995	1996	1997	1998	1999
Fertilizers	227.2	218.6	232.8	389.7	446.9	528.4
Fuel and power	576.4	641.7	730.6	804.4	851.5	932.8
Bags	294.9	283.6	301.6	296.1	337.4	296.1
Manufactured feeds	578.3	540.6	621.7	886.6	946.5	740.3
Purchased seeds	848.5	830.6	937.4	1,166.8	1,679.7	1,865.5
Other input materials	313.9	350.0	378.9	386.2	408.8	340.0
Total material input	460.4	435.5	489.9	585.6	656.7	647.2

Source: Kenya, *Economic Survey* (1999).

In summary, domestic producer prices for the major agricultural commodities in Kenya show mixed trends in real Kenyan shillings (a general increase for cereals but a general decline for cash crops) but a general decline when prices are expressed in dollar terms. Thus agricultural producers have faced declining domestic commodity prices in real terms in the late 1990s compared with the early 1990s (before the Agreement on Agriculture). World prices of cash crops show wide fluctuations, probably explaining the wide variation in domestic prices for export crops. The price level for inputs has shown a general increase during the period 1990-2000. The decline in producer prices and price risk as a result of price fluctuations may be responsible for the fluctuations in production of agricultural commodities in Kenya. Thus, a mechanism within the Agreement on Agriculture for dealing with price risk would benefit Kenyan farmers.

Price incentives: The impact of price changes on incentives to farmers is better illustrated using the nominal protection coefficients for major agricultural commodities (Table 11). Incentives have been most favorable for wheat, whose coefficients have been more than 1 since 1994, meaning that the domestic price is higher than the world import price. The nominal coefficient for maize has fluctuated between 1 and 0.8 since 1994. Domestic wheat and maize (Kenya's main imports) prices are sometimes higher than the import prices because of government efforts to encourage production through involvement of the National Cereals Produce Board in the marketing of these commodities and use of import tariffs to keep domestic producer prices high.

The nominal coefficients for tea and coffee, the main exports, have averaged about 0.9 since 1994 indicating that the price received by farmers are slightly lower than the export prices. This is because of tax charges and deduction of marketing charges by marketing agencies on these commodities. Similarly, the nominal coefficients for industrial crops (sugar and pyrethrum) have been lower than 1 since 1994, indicating that farmers receive less than the export price. Poor marketing arrangements and high charges for services rendered to farmers reduce the price farmers receive.

The analysis shows that import tariffs are important for providing incentives for cereals production, while domestic marketing costs play a major role in affecting the incentives for production of export and industrial crops. The government boosts tariffs on food imports to restrict imports when domestic supplies are high and lowers the tariffs to encourage imports when there is a deficit in domestic supplies. However, the government takes no steps to cushion producers of export crops against price fluctuations in the world market.

Table 4.11: Nominal protection coefficients for major agricultural
commodities in Kenya, 1990-99

Year	Wheat	Maize	Rice	Coffee	Tea	Pyrethrum	Sugar
1990	1.09	0.75	0.64	0.94	0.93	0.92	0.53
1991	1.22	0.76	0.55	0.87	0.88	0.81	0.34
1992	0.86	0.78	0.92	0.79	0.51	0.51	0.37
1993	0.48	0.69	0.67	0.79	0.93	0.33	0.58
1994	2.08	1.11	0.94	0.88	0.91	0.34	0.37
1995	1.27	0.89	0.51	0.98	0.82	0.71	0.49
1996	1.07	0.98	0.50	0.98	0.91	0.63	0.61
1997	1.55	1.14	0.97	1.01	0.88	0.57	0.64
1998	1.43	0.84	0.93	1.01	1.06	0.83	0.78

Source: Author calculations using data from *Kenya Statistical Abstracts* (1990 to 2000).

4.3.2 Domestic adjustments under the Agreement on Agriculture: Changes in applied protection (tariffs)

Kenya began trade reforms in the 1980s, accelerating them after 1993 under the SAPs. These reforms have been consistent with requirements under the Agreement on Agriculture. In 1981 tariffs were reduced on some 21 items used mainly by export-oriented industries. The tariff reductions were gradually extended in the 1980s and 1990s. Tariff categories were reduced from 25 to 11 and then to 5, and the maximum tariff rate was reduced from 170 percent to 70 percent to 35 percent (Mwega, 2000; see also Appendix 1). The average unweighted tariff rate declined from 41.3 percent in 1989/90 to 34 percent in 1992/93 (UNDP/ World Bank, 1993). The only element of tariff protection remaining by the end of 1995 was the provision for imposing countervailing duties to curb unfair competition from subsidized exports from other countries. On becoming a WTO member, Kenya bound its tariffs at 100 percent for all agricultural products and 62 percent for fish. The country also reduced all nontariff barriers on agricultural imports. Kenya reduced its tariff levels from 40-60 percent for most commodities to below 30 percent. Only cereals (maize, wheat, and rice) and cereal-related products and sugar had tariffs higher than 60 percent in 1999.

Value and patterns of trade: The value of Kenya's exports rose from K£4.2 billion prior to joining the WTO to K£5.7 billion in 1998, while the value of imports rose from K£5.7 billion to K£9.9 billion. Agricultural commodities dominate exports, while manufactured goods dominate

imports. Agriculture's share of export earnings has averaged 55 percent for the past 10 years.

Exports: The major destinations of Kenyan exports in 1994-99 were the East African Community (EAC), the European Union (EU), and the Common Market for Eastern and Southern Africa (COMESA) (Table 4.12). In 1994 the EU was the dominant market for Kenyan exports, but by 1997 that position was held by the EAC.[3] Kenya's trade with COMESA has also been increasing. The share of exports to the rest of Africa has grown by about 9 percent since 1994 and to the rest of the world (excluding the EU) by about 3 percent. This marginal increase in trade with the rest of the world has not made up for the significant decline (about 9 percent) in trade with the EU since 1990. Thus market access for Kenyan products other than in African countries has not been favorable in the period since the Agreement on Agriculture.

Table 4.12: Destination of Kenya's exports to major markets,
1994-99 (percent of total exports)

Year	EAC	COMESA, excluding EAC countries	Rest of Africa	European Union	United States	Japan	Rest of world
1994	22.6	13.5	7	36.1	3.3	0.8	16.7
1995	28.5	10.1	9.9	32.2	2.7	0.7	15.8
1996	29.2	9.0	8.9	32.4	2.7	0.8	16.9
1997	29.2	8.9	8.6	31.6	2.9	0.8	18.1
1998	29.7	7.5	10.6	29.1	2.6	0.8	19.7
1999	30.5	2.3	16.9	27.4	2.3	0.9	19.6

Source: Kenya, *Economic Surveys.*

There has been no marked change in the composition of Kenya's exports since the country became a WTO member (Table 4.13). Trade in food and beverages continues to dominate (Appendix 4A.4), averaging 53 percent of exports over the period 1994-98. Traditional exports (products accounting for more than 3 percent of total exports in the base year, 1980; Blackhurst and Lyakurwa, cited in Mwega 2000) include industrial supplies, coffee, tea, and crude vegetable materials. Nontraditional exports include most horticultural products including flowers.

Table 4.13: Composition of Kenya's exports, 1994-98 (percent)

Type of commodity	1994	1995	1996	1997	1998
Food and beverages	51.50	51.10	52.90	53.90	57.40
Industrial supplies	29.40	26.90	26.10	22.40	18.30
Fuel and lubricants	6.50	5.30	6.60	9.00	9.10
Machinery and capital equipment	0.90	1.40	0.90	0.60	0.90
Transport equipment	1.10	0.50	0.50	0.40	0.60
Consumer goods	13.60	14.80	13.10	13.90	13.70

Source: Kenya, *Economic Survey* (1998).

The value of agricultural exports has risen from K£2.5 million in 1994 to K£3.8 billion in 1998 (Appendix 4A.5). Except for tea and crude vegetable materials, traditional exports performed poorly in the 1980s and 1990s. Growth averaged 7.4 percent for traditional exports compared with 20 percent for nontraditional exports (Mwega, 2000). The share in exports of industrial supplies alone fell from 24.2 percent in 1994 (pre-Agreement period) to 17.9 percent in 1999. Nontraditional exports benefited from the removal of restrictive trade practices by importing countries, particularly by the European Union under the Lome Convention, and from the "removal of bureaucratic bottlenecks and availability of foreign exchange" (Kenya, *Economic Survey*, 1996).

Imports: Industrial supplies dominate imports at 36 percent, followed by machinery and capital equipment at about 15 percent (Table 4.14). Agricultural products (food and beverages) account for an average of 8 percent. Imports are less dispersed than exports (Table 4.15). The European Union accounted for about 33 percent of Kenya's imports in 1999, down from 36 percent in 1994, while rest of Africa accounted for about 10 percent and rest of the world for 41 percent. Imports from the United States and Japan also remained relatively unchanged from 1996 to 1999. Manufactured goods dominate imports from the European Union, United States, and Japan. From Africa the main imports are processed agricultural products and maize from South Africa and maize and beans from Tanzania and Uganda. Wheat imports come primarily from Australia, Argentina, the United States, and Canada.

Table 4.14: Composition of Kenya imports, 1994-98 (percent)

Type of commodity	1994	1995	1996	1997	1998
Food and beverages	10.04	4.53	7.69	6.62	8.60
Industrial supplies	39.37	39.22	36.60	39.75	33.83
Fuel and lubricants	16.15	12.98	16.09	15.50	16.13
Machinery and capital equipment	15.35	19.25	18.16	16.91	17.63
Transport equipment	12.27	17.00	14.42	14.43	15.67
Consumer goods	6.82	7.03	7.04	6.79	8.14

Source: Kenya, *Economic Survey* 1998.

Agricultural imports are dominated by food items, particularly cereals and dairy products. Food imports increased in the period after the Agreement on Agriculture (Table 4.16). The greatest volume of food imports comes from developed countries (Europe, United States, and Australia), which by heavily subsidizing food production threaten domestic production in Kenya.

Table 4.15 Origin of imports as a share of total imports, 1994-99(percent)

Year	EAC	COMESA, excluding EAC	Rest of Africa	European Union	United States	Japan	Rest of World
1994	1.1	1.1	11.3	36.8	6.5	8.4	34.8
1995	0.5	0.2	8.8	38.6	4.4	11.5	36.0
1996	0.6	0.7	8.3	38.0	5.2	7.4	40.1
1997	0.7	0.1	14.4	31.8	7.4	7.6	38.0
1998	0.3	0.2	8.0	32.7	8.3	7.9	42.5
1999	0.4	0.3	10.5	33.2	6.8	7.8	41.0

Source: Kenya, *Economic Surveys.*

Conclusion: Trade liberalization and implementation of the Agreement on Agriculture has resulted in mixed effects on Kenya's trade. Exports to developed countries are declining, while imports, particularly of cereals, from developed countries are increasing. Liberalization and the Agreement on Agriculture appear to have had little effect on Kenya's trading patterns or partners. Kenya's major trading partners for agricultural commodities remain the European Union for coffee, horticulture, and tea; Asian countries for tea and coffee; and COMESA countries for tea and processed food products. Exports to the European Union have declined overall in

recent years, however, despite special trading preferences under the Lome Convention. Trade to African countries, particularly the EAC and COMESA countries, has increased, possibly because of preferential trade arrangements among members.

Table 4.16: Imports of major food commodities, 1980-98 (thousands of tons)

Year	Maize	Wheat	Rice	Sugar	Dry milk
1980	323	48.5	1.2	3.1	12,888
1981	77.3	49.2	4.6	2.1	11,210
1982	89	139.3	11.9	2.2	4,210
1983	0	81.9	44.8	2.4	4,532
1984	405.4	149.9	0.5	1.7	11,108
1985	125.5	14.8	0.6	39.1	6,677
1986	0.7	115.3	61.7	126.3	1,508
1987	0	217.9	39.2	49.1	545
1988	0	75.6	10	42	82
1989	0	123.5	30	80	15
1990	0	322.6	28	64	48
1991	0	242.6	61.2	59.7	65
1992	414.9	100.8	58.9	153.8	829
1993	12.9	314.4	37.2	184.8	747
1994	650.4	353.1	93.5	256.1	2,319
1995	12	364	30.7	244	679
1996	10.8	486.9	47.9	65.8	na
1997	1,101.1	388.1	62.4	52.4	na
1998	774	478.9	62.8	186.5	na

n.a. = not available.
Source: Kenya Statistical Abstracts (various years)

4.3.3 Effects on Market Access

Analysis of market access conditions for Kenyan exports indicates that the major traditional exports (tea and coffee) have no problem accessing markets in developed countries (Mwega, 2000). Most of Kenya's agricultural exports (73.2 percent) go to the European Union, where applied tariff and nontariff barriers are low because of preferential treatment under the ACP-EU Lome Conventions and the successor

Cotonou Agreement. The EU's tariff and nontariff barriers in 1996 were higher for food and live animals and alcoholic beverages than for crude vegetable materials, animal and vegetable oils, and manufactures. Reductions in tariffs and the tariffication of nontariff barriers are therefore likely to benefit Kenya, which has a comparative advantage in food, livestock, and beverages. However, the benefits of preferences provided for least developing countries (Kenya is considered a developing country) under the Generalized System of Preferences schemes will be eroded with further reductions in tariffs and this development is likely to hurt the country's exports.

Market access has also been affected by the EU's banning of Kenyan fish exports in 1999 to 2000 because of Kenya's inability to meet the EU's hazard analysis critical control points (HACCP) requirement under application of sanitary and phytosanitary standards. Although the ban was later lifted, application of sanitary and phytosanitary standards creates barriers to agricultural trade. The minimum residual pesticide standard applied by EU countries on horticultural produce also poses barriers to trade for Kenyan exports. Developed countries to block entry of agricultural products from developing countries use food standards extensively. For example, meat and dairy exports from Kenya are restricted to USA, EU and Japan markets on health grounds while fruits and vegetables are also restricted into the USA and Japan markets because of concerns about weaknesses in pest risk analysis in the country. Developing countries consider the standards set by developed countries to be nontransparent. Furthermore, implementation of sanitary and phytosanitary standards requires both financial and technical resources, which developing countries lack.

Kenya has benefited little from domestic support measures because it had reduced spending on agricultural development before the commitments of the Agreement on Agriculture as part of its efforts to reduce fiscal deficits under the SAPs. For example, the remaining domestic support measures about which Kenya notified the WTO, most of which fall within the Green Box, are far less extensive than allowed for in the Agreement on Agriculture. Kenya does not apply many measures to which it would be entitled under special and differential treatment, such as marketing promotion services, direct payments, producer resource retirement schemes, and investment aids. Given the importance of agriculture to the economic development of many developing countries, the Agreement on Agriculture should include a clause allowing developing

countries to provide greater support to the agricultural sector through a proposed Development Box.

The level of Kenya's food imports has been substantial since liberalization of the economy and implementation of the Agreement on Agriculture and may explain some of the decline in food production. While elimination of export subsidies by developed countries will hurt net food importing developing countries, as prices for agricultural commodities are likely to increase, Kenya might gain in the long run from their elimination if it encourages the country to improve incentives for domestic food production.

4.3.4 Food Security Issues

While Kenya has imported wheat and rice for many years, there has been a large increase in imports of foodstuffs, including maize, rice, wheat, sugar, and dairy products in recent years in response to lower prices for agricultural imports from the United States and the European Union, which subsidize agricultural production. Cheap food imports reduce the market for domestic agricultural products and leave many farmers and workers in agriculture-related industries without a source of income unless they are able to switch to more profitable production. That means that even if low-cost food supplies are plentiful, many people will be unable to purchase them.

The policy options to reduce the adverse consequences of liberalization and subsidized food exports from developed countries are to restrict imports or to use domestic support programs. Kenya has often used tariffs (although it has never used the 100 percent ceiling level on cereal grains) to restrict food imports and thus to raise the domestic producer price and provide an incentive to producers. This use is limited, however, to the short to medium term because the Agreement on Agriculture requires that tariffs be gradually reduced to eventually achieve free trade among member countries.

Use of Green Box domestic support measures is another option for increasing domestic food production. To do this the government would have to increase funding for these services. And although the services are essential to food production, they do not offer direct incentives to producers. The other policy option is to subsidize agricultural investments and inputs, as allowed under special and differential treatment. These measures, too, can only be used for a short period and are not sustainable in the long run.

Given these options, the best approach for Kenya would seem to be to focus on the Green Box measures by intensifying extension services, enhancing research into high-yielding crop varieties and livestock breeds, improving infrastructure to increase the efficiency of input and output markets, and improving access to credit.

4.3.5 Agreement on Agriculture and Marrakech Decision

The Marrakech Decision on Net Food Importing Developing Countries contains mechanisms to ensure that implementation of the Agreement on Agriculture does not interfere with the availability of food aid at a level adequate to assist developing countries in meeting their food needs. Kenya faces food import bills that average 20 percent higher than before the Agreement on Agriculture, yet food aid levels have fallen significantly. Low export earnings on primary commodities, a fragile and deteriorating balance of trade, the high cost of debt servicing, and declining development assistance flows have further undermined the ability of the country to import food.

What the Marrakech Decision means for the effects of food export subsidies by developed countries is ambiguous. While reduced subsidies will lead to increased import bills, the subsequent rise in domestic food prices will create incentives for local producers to increase production. And the extent to which removal of export subsidies raises international market prices is an empirical one and has yet to be estimated, but the effect is assumed to be slight.

The impact of reduced food export subsidies on Kenya is also ambiguous. On the one hand reduced export subsidies could increase the import bill, but on the other hand reduced subsidies could increase domestic incentives for food production. This is likely to benefit both producers and consumers in the long run.

4.3.6 Experiences with implementation of the Agreement on Agriculture

Converting all nontariff barriers into binding custom duties and reducing tariffs under the Agreement on Agriculture have improved access to markets and expanded trade opportunities, but differences persist in the level of market access committed to by various WTO members. Average tariffs are more than 8 times higher on agricultural products than on industrial products (FAO, 1999). Furthermore, there are high tariff peaks and tariff escalation (exceeding 300 percent) especially on processed

agricultural products. Protection of markets by developed countries has been estimated to cause an annual welfare loss of US$19.8 billion for developing countries. Such protection includes differences in border protection levels, discrepancies between applied and bound rates and between trade-weighted and simple average tariffs, tariff peaks, tariffication, high seasonal tariffs, application of tariff quotas, and scope of special safeguards.

Most developed countries managed to package substantial previous support commitments into the Blue and Green Box categories, enabling them to provide support to farmers of as much as 80 percent of the value of agricultural production. Developing countries with little or no trade distorting subsidies were subject to a ceiling of 10 percent. Furthermore, reductions in support in developed countries have been sector wide rather than product specific, providing greater flexibility in shifting support across products. During the Uruguay Round negotiations, developing countries were less adept at using opportunities for exemptions from requirements for reducing support. Furthermore, many developing countries underestimated the method of calculating support, namely the importance of aggregate measurement of support, and excluded measures that should have been included either in Green Box submissions or as part of the *de minimis* exemption.

4.4 Kenya's Position on enhancing World Agricultural Trade under the Agreement on Agriculture

Kenya's concerns with respect to the new rules cover the three main areas for reform: market access, domestic support, and export subsidies.

Market access: The major concern in market access for Kenya is to establish rules and disciplines that are fair for both food-importing and food-exporting countries and for developing and developed countries. The objective of new negotiations should be to maximize improvements in market access opportunities and to make the structure of tariff bindings for WTO members more uniform. Especially important are:

- Immediately eliminating tariff peaks and escalation on products of export interest to developing countries.
- Establishing rules and disciplines to improve quota administration, providing greater transparency and predictability and eliminating discrimination.

- Using special safeguard measures to restrict market access in place of antidumping and countervailing duties by developed countries.
- Simplifying complex tariff regimes.
- Granting developing countries special and differential treatment in the application of safeguard measures to allow them improved market access .

Domestic support: The main issues for future negotiation on domestic support measures for Kenya are:

- Establishing a development box or increasing flexibility within the Green Box to apply measures to encourage food production for domestic consumption.
- Increasing transparency by developed countries on what is included in the Green Box, and clearly defining the requirement that Green Box measures be "non trade distorting."
- Establishing tight rules and disciplines for Green Box measures used by developed countries to limit their distorting effect on agricultural trade.
- Granting developing countries special and differential treatment in reporting their base total aggregate measurement of support.
- Granting special and differential treatment for net food importing developing countries to raise the *de minimis* level of domestic support from 10 percent to 20 percent.
- Receiving further commitments by developed countries to reduce aggregate measurement of support ceilings for each product or product groups.
- Eliminating Amber Box support measures, because they distort trade and development and affect developing countries most.

Export subsidies: Kenya is concerned about the small number of countries that are permitted to use export subsidies and about the use of those subsidies for a narrow range of products. The main issues for Kenya are:

- Eliminating all export subsidies within the first year of implementation of the Agreement on Agriculture.
- Postponing further liberalization commitments by developing countries until these subsidies have been completely eliminated
- Formulating disciplines on export credit and integrating them into the Agreement on Agriculture, taking into account the special conditions and needs of net food importing developing countries.
- Subjecting all publicly financed export credits to a common set of

disciplines (on, for example, payment periods for pre-shipment and post shipment financing, minimum interest rates, interest payments, minimum down payment, risk cost-sharing, minimum interest rates, and penalties for violation of the disciplines).

- Establishing disciplines to avoid the negative effects of export restrictions on agricultural trade and on net food importing developing countries.
- Providing six months' notice for any intended export restriction.

Nontariff barriers: Kenya's exports to developed countries markets have been barred by seemingly arbitrary imposition of sanitary and phytosanitary measures, especially for horticulture and fisheries products. And there have also been cases in which substandard commodities that do not meet sanitary and phytosanitary standards have been dumped in Kenya. Kenya's position is for transparency in implementation of sanitary and phytosanitary measures by developed countries and provision of technical support to enable Kenya to undertake risk analysis and participate in international standards setting meetings.

4.5 Conclusions

Kenya found it easy to implement the Agreement on Agriculture because it conformed so well to the policy reforms it had already made. But in many cases Kenya cut itself off from measures that it could have legitimately taken to advance its own development. The use of variable duties on food imports is now constrained by bound tariff limits. Because Kenya reported only a few domestic support measures and was unable to give schedules for Aggregate Measurement of Support, further support is constrained to the 10 percent of the aggregate value of a specific product in any year, which is allowed for developing countries under the domestic support component. Support above this level can only be possible if the country is allowed to revise it schedules but this will require revision of the domestic support measures elements when the Agreement on Agriculture (AoA) is renegotiated. The government had eliminated subsidies in previous structural adjustment reform periods and therefore is unlikely to benefit from the provisions provided for by the Agreement on Agriculture. Despite these shortcomings, the WTO policies have pushed the country in the right direction toward market liberalization. However, there are concerns that Kenya does not have similar market access to its trading partners, both developing and developed countries. Thus the upcoming review of disciplines covering

domestic support measures, market access conditions, and use of subsidies for developing countries will be most effective in providing support for domestic reforms in Kenya.

Agriculture, the mainstay of Kenya's economy, has shown mixed performance since Kenya began to liberalize its economy. The ending of agricultural monopolies for most commodities has lowered marketing costs and raised prices for some producers, though by no means all. In some cases uncontrolled imports have depressed incentives for domestic production, greatly reducing incomes and job opportunities in these industries. Under liberalization programs the government reduced expenditures on agricultural development and encouraged cost sharing in the provision of services such as animal health and research. Input prices have risen as a result, and performance in the sector has suffered.

Domestic prices of agricultural commodities have fluctuated, providing mixed signals to producers. In real terms prices have declined since 1990, partly because of domestic factors such as high marketing costs, taxation, and levies charged on cereals and industrial crops and partly because of unstable world market prices for Kenya's export crops. Some mechanism is needed within the Agreement on Agriculture to deal with the decline in producer prices and the rise in price risk from world market fluctuations.

The slowdown in growth of the agriculture sector has had considerable impact on the other sectors (manufacturing and services) of the economy, which lack adequate supplies of raw materials. A major concern is to ensure a speedy recovery to an average annual agricultural growth rate of at least 4 percent (Kenya, 1997). This will require adequate incentives for farmers through increased attention to the rapid increases in agricultural imports; the strengthening of private input supply systems, government extension services, and institutional credit; and improved animal health services and marketing infrastructure, to improve livestock productivity. And rural infrastructure, particularly roads, water supply, electric power, and communication, should receive higher priority.

Because of the importance of the agricultural sector in Kenya, the WTO rules will play an important role in its development. High tariffs on commodities such as food, livestock products, and processed beverages limit Kenya's access to markets in developed countries. Sanitary and phytosanitary measures and technical barriers to trade have also affected Kenya's access to markets for commodities such as fish and horticulture. The benefits from domestic support measures have been limited because

of the structural reforms the country has implemented under the SAPs. The impact of subsidies in developed countries has also affected domestic production of commodities such as cereals. These experiences necessitate the need for Kenya to review the Agreement on Agriculture to take into account Kenya's concerns. Thus Kenya's focus in the new Doha Round will be on improved market access for its products, increased domestic support for agricultural production, and reduced export subsidies by developed countries.

End-Notes

1. The number of people estimated to be living below the poverty line (earning one dollar or less per day) by 2000 was 52 percent of the total population.
2. The exchange rate of a dollar to Kenya shillings has been increasing and was Kshs. 24.10 in 1990, 55.90 in 1995 and 77.8 in 2000.
3. The three East African countries formed the East African Cooperation in 1996, which was transformed into the East African Community in 2001. The target is to establish an East African Customs Union.

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Appendixes

Appendix 4A.1 Table 4A.1.1 Applied tariffs for imports of agricultural commodities and related products into Kenya 1994 to 1999

Commodities	1994	1995	1996	1997	1998	1999
Live animals	0.88	0.47	1.13	9.43	2.86	2.59
Meat of bovine animals, fresh	0.02	N/A	N/A	N/A	15.00	14.82
Other meat and edible offal, fresh	30.61	29.77	34.87	15.00	14.50	21.97
Meat and edible offal chilled	11.95	11.78	15.00	15.00	1.41	15.00
Meat and edible meat offal, preparations	61.66	22.10	12.76	12.39	14.07	20.96
Milk and creams	8.46	33.97	22.20	22.77	26.39	29.28
Butter and other fats and oils	46.47	27.58	16.01	24.97	24.70	25.00
Cheese or curd	44.37	19.42	14.10	13.79	15.33	20.73
Eggs, birds, and egg yolks, fresh	61.54	17.59	14.10	14.70	14.95	19.90
Fish, fresh, chilled, frozen	43.81	18.65	13.96	15.13	14.60	11.23
Fish, dried, salted or in brine smoke	49.04	20.45	14.19	11.02	15.00	15.00
Crustaceans, molluscs and others	62.00	29.74	15.01	15.00	15.00	15.00
Fish, crustaceans, other aquatics	43.72	23.77	14.68	14.97	15.03	14.97
Wheat (including spelt)	0.00	25.35	7.29	15.00	35.23	40.85
Rice	0.01	37.28	36.45	34.05	49.33	70.01
Barley unmilled	N/A	N/A	14.99	15.00	30.00	39.74
Maize not including sweet	0.00	15.00	24.99	18.75	43.66	70.68
Cereals, unmilled	7.32	15.12	14.57	15.00	15.00	17.49
Meals and flours of wheat	30.83	16.87	0.04	14.83	29.06	94.16
Other cereal meal and unmilled	20.12	18.94	15.00	1.54	14.70	17.68
Cereal, preparations of starch	58.44	34.00	21.08	20.17	15.66	23.06
Vegetable, fresh, chilled, frozen	26.65	16.95	16.67	14.62	7.49	19.76
Vegetables of roots and tubers	29.66	18.55	13.47	15.10	22.12	38.04
Fruits and nuts fresh, dried	41.77	17.95	18.10	19.08	18.12	22.40
Fruits, preserved and preparations	44.81	30.13	19.76	18.61	21.64	33.32
Fruits juices and vegetable juices	26.21	20.33	23.14	22.55	20.27	35.29
Sugar, molasses and honey	12.61	27.44	27.51	22.70	24.28	24.59
Sugar confectionary	51.63	41.54	34.01	30.47	29.81	29.46
Coffee and coffee substitutes	42.55	21.68	14.82	15.00	14.74	13.34
Cocoa	24.63	16.25	15.00	14.17	11.03	14.80

Chocolate and others	49.45	42.49	37.09	27.18	26.64	24.11
Tea and mates	36.69	24.45	13.74	15.85	15.00	14.98
Spices	31.85	16.36	14.47	15.78	14.57	15.00
Feeding stuff for animals	11.56	9.91	8.37	5.84	6.79	10.06
Margarine and shortening	45.09	40.01	30.52	19.35	30.46	36.46
Edible products	37.14	21.94	20.03	16.17	13.78	15.33
Non-alcoholic beverages	48.06	41.33	33.16	27.95	25.01	24.36
Alcohol beverages	49.37	42.74	37.53	40.61	0.00	41.05
Tobacco unmanufactured	60.00	24.00	N/A	27.28	N/A	22.79
Tobacco Manufactured	33.65	28.32	33.57	24.18	31.71	29.74
Hide and skins	10.02	19.43	N/A	7.31	5.02	5.00
Furskins, raw	18.00	N/A	N/A	15.00	15.00	15.00
Oil seeds	30.82	19.40	2.92	5.29	5.00	5.15
Oil seeds and oleginous fruits	33.09	22.20	14.67	6.49	10.68	7.04
Natural rubber	27.19	1.02	5.11	4.88	5.00	5.01
Synthetic rubber	24.55	13.86	7.23	5.50	4.94	5.03
Cork, natural, raw	N/A	18.18	15.00	N/A	N/A	N/A
Fuel wood and wood charcoal	20.00	15.00	13.92	15.00	15.00	15.29
Wood in chips	31.00	19.99	15.00	15.00	N/A	N/A
Wood in rouph	N/A	15.00	N/A	15.00	15.00	N/A
Wood simply worked	29.56	24.93	24.92	21.53	21.31	20.26
Pulp and waste paper	13.87	12.55	7.22	4.99	9.33	5.49
Silk	N/A	N/A	N/A	N/A	0.00	N/A
Cotton	20.06	10.00	15.00	5.01	N/A	13.56
Jut and other textile bast fibres	N/A	N/A	9.12	N/A	14.93	15.00
Vegetables textile fibres	31.00	19.06	N/A	14.92	15.00	N/A
Synthetic fibres	25.51	15.92	8.12	4.93	4.91	5.00
Other man-made fibres	25.01	16.45	8.88	6.39	3.74	5.38
Wool and other animal hair	31.00	15.00	N/A	15.00	N/A	15.00
Worm clothing	35.64	26.58	32.90	27.25	24.70	25.47
Fertilizer, crude	5.67	0.77	1.88	3.42	0.81	5.00
Crude animals materials	18.61	14.83	12.35	12.76	13.98	20.51
Crude vegetable material	19.14	13.31	12.20	10.87	11.43	10.21
Animals oils and fats	23.45	17.83	14.93	14.92	15.06	11.39
Fixed vegetable fats, oils	41.00	42.65	34.41	25.15	25.40	18.95
Fixed vegetable fats, crude	28.24	7.09	28.00	32.10	22.22	33.37
Animal or vegetable fats or oils	37.58	17.22	15.28	19.05	26.21	29.33

Veneer, plywood, particle board	40.38	28.34	25.34	30.14	24.92	25.05
Wood manufactured	48.44	38.72	30.43	24.13	22.74	24.45
Paper and paperboard	30.33	23.95	23.30	22.16	23.44	31.34
Paper and paperboard	42.93	33.54	29.50	29.04	29.48	35.16
Textile yarns	38.80	26.18	24.30	24.18	21.97	28.26
Cotton fabrics, woven	46.10	41.18	33.95	29.59	22.52	27.29
Fabrics, woven of man-made	48.21	36.54	29.30	29.77	25.99	27.44
Other textile fabrics woven	54.49	41.83	32.72	30.07	25.00	26.04
Knitted or crocheted fabrics	53.68	43.53	39.42	31.65	64.73	35.70
Tulles, laces, embroidery, ribbon	59.58	38.95	98.37	29.95	26.02	24.58
Special yarns, textile fabrics	33.17	21.11	15.51	17.81	16.83	16.85
Agriculture machinery and parts	11.46	3.63	1.72	1.57	7.04	2.38
Tractor	0.03	0.20	0.73	0.11	0.00	0.12

Source: Kenya, Ministry of Finance, Financial Bills (Various years)

5 Agriculture and the WTO: Economic Interests and Options for Nigeria

E. Olawale Ogunkola

Nigeria's aim in the Uruguay Round of multilateral trade negotiations, (1986-1994) like that of most Sub-Saharan African countries, was to protect the special and differential treatment that was part of multilateral trade system prior to the Round. While Nigeria made some commitments in the Uruguay Round Agreement on Agriculture (URAA), its participation was modest (Ogunkola and Agah 1998). Capacity to negotiate and the absence at the negotiations of those who would be expected to implement the Agreement were limiting factors. Because the ministry responsible for trade[1] lacked the power and capacity to coordinate consultations, Nigeria was represented in the negotiations by the foreign affairs ministry. As a consequence, foreign policy issues took precedence over economic considerations.

Given the difficulty associated with the agricultural negotiations, provisions were made for review of implementation (Article 18) and for continuation of the liberalization process (Article 20). Experience with implementation of the agreement was to serve as a guide to future liberalization of agriculture. Thus Nigeria and other developing countries have another opportunity to negotiate their positions in the World Trade Organization's (WTO) current round of trade negotiations, known as the Doha Development Round and its Agenda (the Doha Development Agenda).

Toward this end, this chapter examines the impact on Nigeria's agricultural production of changes in domestic and external policies and

explores policy options for the current round. It also looks at implementation of the Agreement on Agriculture by Nigeria's major agricultural trading partners.

5.1   Overview of Nigeria's Agricultural and Food Sector

Nigeria's abundant agricultural resources are underutilized. Farmlands are fragmented, and tools and equipment are inefficient. Agricultural production has increased only marginally from its low level in the period before the structural adjustment programs that began in 1986. And as food imports have continued to increase, the gap between agricultural exports and imports has grown. Improvements in agricultural productivity are needed for poverty alleviation, rural development, sustainable and balanced development, and efficient use of resources.

5.1.1 Nigeria's Agricultural Resources and Practices

Nigeria is an agrarian economy despite oil's dominance of exports and foreign exchange earnings. Agriculture's backward and forward linkages with other sectors of the economy are much greater than those of the oil sector. It also employs between 65 and 70 percent of the labor force and contributes 30-40 percent to gross domestic product (Figure 5.1).

Figure 5.1. Share of Agriculture in Gross Domestic Product, %, 1960 to 1998
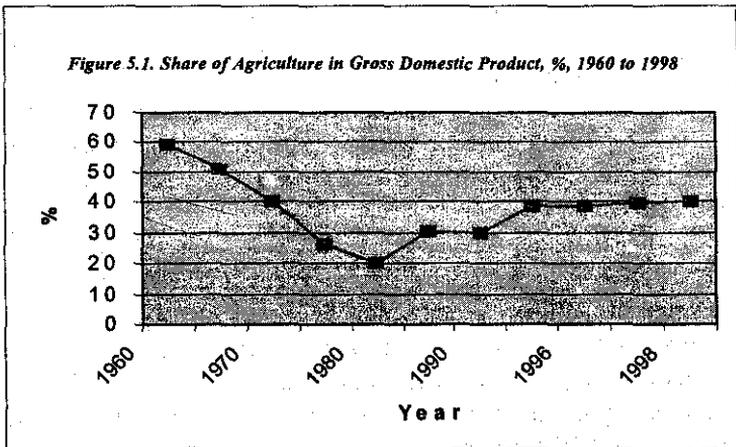
Source: Based on figures from http://www.fao.org

With a population of about 120 million growing at an annual rate of 2.83 percent, Nigeria is the most populous country in Sub-Saharan Africa and one of the fastest growing countries in the world. Nigeria is also abundantly endowed with natural resources. Arable land and pasture

account for about 60 percent of total area. Rivers, lakes, and reservoirs account for about 14 percent, and forests and woodland occupy about 12 percent. Because of the poor quality of the soil (only 5 percent is classified as of good productivity, while more than 60 percent is classified as of low productivity), extensive application of fertilizer is required to enhance productivity. Mild winters in some parts of the country make cultivation of some winter crops possible (FGN and Vision 2010 Committee 1997).

Farm holdings fall into three broad categories. Smallholders, with 0.1 to 5.99 hectares, account for about 81 percent of farm holdings. Medium-size landholders, with 6 to 9.99 hectares, account for 14 percent of farm holdings, and large landholders, with 10 or more hectares, for 5 percent.

Smallholders, who produce 95 percent of output, are family-based, labor-intensive, with limited access to institutional credit. Most farmers practice traditional rotational fallow and rain-fed agriculture. Most are poor and illiterate, making adoption of irrigation and mechanization difficult. Net migration from rural to urban areas has resulted in an aging population in rural areas, compounding problems of agricultural development.

Farm resources are underutilized, reflecting underemployment of resources (less than half of agricultural resources are under cultivation[2]) and low productivity stemming from technological, investment, marketing, and infrastructure constraints, among others. Thus output in the sector depends largely on favorable weather conditions and government interventions aimed at minimizing constraints to agricultural development. Post-harvest losses are substantial, estimated at 40 percent of farmgate output (FGN and Vision 2010 Committee 1997).

### 5.1.2 Trends in Production, Exports, and Imports of Agricultural Commodities

Agricultural growth averaged 5 percent a year in the 1960s and then plunged to less than 1 percent in the 1970s, reflecting such economic distortions as an overvalued exchange rate and government marketing controls, price setting, and restrictive trade policies (figure 5.2). Production recovered in the first half of the 1980s, and by the second half production reached a new peak, responding to economic reforms under the structural adjustment program. Domestic prices of agricultural commodities rose substantially.

Figure 5.2. Growth Rate of Agricultural Production in Nigeria, 1961-2000
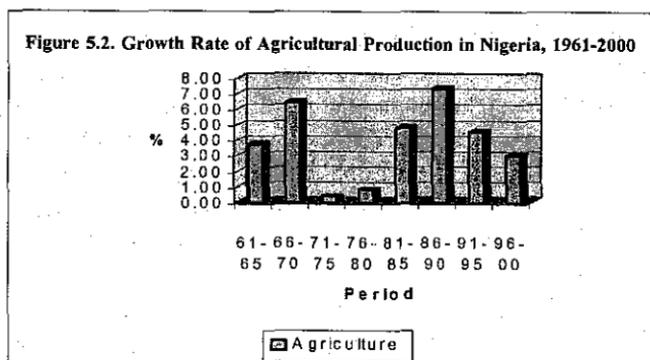
Source: Based on figures from http://www.fao.org

Performance was not sustained, however, and agricultural growth has been declining since then, a victim of policy reversals, budgetary constraints, and unfavorable weather conditions. In addition, the policy reforms did not affect fundamental agricultural practices or the structure of landholdings. The area under cultivation has remained virtually unchanged. Improvements in production stemmed mainly from intensive use of land, favorable weather conditions, and increasing use of fertilizer. Agricultural production remains below its potential, given the abundant agricultural resources.

During the 1990s Nigeria's exports of agricultural commodities were consistently below its imports (figure 5.3). Imports rose from a little over $1.0 billion before 1994 to about $1.5 billion in 1998. Exports rose marginally and stabilized at about $0.5 billion after 1995. Declining agricultural commodity prices were a significant factor. For example, the price of cocoa, a major agricultural product of Nigeria, declined from about 168 cents a kilogram in 1998 to about 91 cents in 2000.

Figure 5.3. Nigeria's Agricultural Trade, $ billion, 1990-1998
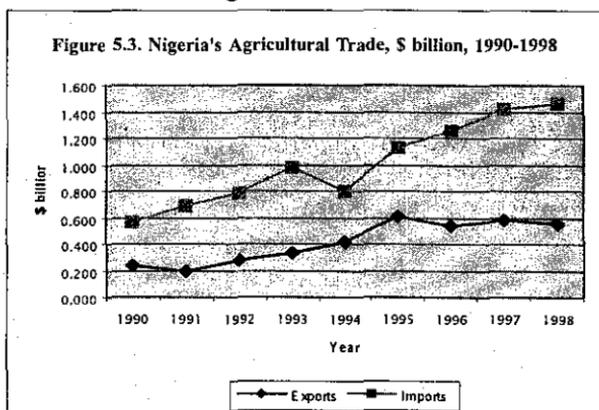
Source: WTO (1998)

5.1.3 The Food Situation

Recent trends in food exports and imports raise concerns about the implementation of the food aid and safeguard measures contained in the Agreement on Agriculture. Nigeria is a net food importer. The share of agricultural food in total exports has been declining since 1985 (Table 5.1). The food import bill was $0.53 billion in 1995 and $0.66 billion in 1996, second only to manufactures, while the value of food exports was about $0.34 billion in 1995 and about $0.39 billion in 1996. The government has focused on reversing this trend as part of an effort to increase food security and improve the nutritional status of Nigerians. Instability in food production (measured as grain equivalents of maize, millet, sorghum, rice, wheat, yam and cassava) is pronounced, ranging from an average annual growth rate of – 4.41 percent in the second half of the 1970s to 14.55 percent in the second half of the 1980s.

The food import-export gap, which had declined in the late 1980s following the reforms under the structural adjustment program, began to widen again after 1990 as market liberalization led to a big jump in food imports. The current food situation is worrisome, and efforts are being directed at minimizing post-harvest losses and bringing food prices within the reach of most Nigerians (food accounts for more than 70 percent of average consumption expenditure).

Table 5.1: Structure of Nigeria's import and exports, 1980–96

	Exports					Imports				
	1980	1985	1990	1995	1996	1980	1985	1990	1995	1996
Share (percent)										
Food	2.2	1.7	1.7	2.7	2.5	15.1	15.1	8.3	11.0	12.7
Agricultural raw material	0.2	0.3	1.1	2.4	1.8	0.4	1.2	0.8	0.9	0.4
Mining	95.6	96.0	92.9	86.8	92.0	1.7	1.7	1.5	1.0	0.7
Manufactures	1.8	1.9	4.2	8.0	3.7	82.6	80.2	88.5	85.5	85.2
Value ($ billion)										
Total	26.1	15.6	13.5	12.7	15.5	14.3	6.19	5.18	4.82	5.20
Food	0.57	0.27	0.23	0.34	0.39	2.16	0.93	0.43	0.53	0.66

Source: Computed from WTO (1998).

The government favors meeting the demand for food through domestic production rather than imports. Local production is in line with the government's policy of affordable food prices and has other important

benefits such as employment and income for the large rural population. The forward linkage between agriculture and the manufacturing sector is another advantage of local food production, and local production provides a market for manufactures.

5.1.4 Agricultural Development Policies

Ensuring national food security, providing raw materials for agro-industrial activities, generating employment, and establishing markets for locally manufactured goods are the main objectives of agricultural development in Nigeria. While some of these objectives were met in the period before the oil boom, they were not sustained. The current policy focus is on returning agricultural exports to their former position with an emphasis on increasing the value added of agricultural exports.

Government involvement in the agricultural sector has gone from direct intervention and taxation to liberalization. However, liberalization may have gone too far and or too fast in some areas. Farmers are now exposed to sharp price fluctuations in international markets. Although further price reform is desirable, there are constraining factors that must be addressed, from the impact of liberalization on the food sector to developments in external markets that affect Nigeria, especially those related to other countries' commitments under the Agreement on Agriculture.

5.2   Evolution of Nigeria's Agricultural Trade Policies

Trade policy is an important tool in ensuring that agriculture attains its potential. Agricultural trade is crucial for enhancing technological innovation. If demand by agro-industries for local raw materials rises, farmers will be encouraged to meet that demand by adopting modern farming methods, implements, storage, and distribution facilities to enhance productivity. And that in turn will help to alleviate poverty in rural areas.

Nigeria began to liberalize the agricultural sector before the Uruguay Round, under structural adjustment program inspired largely by budget constraints and problems in the sector. The effects of these policies have been positive but slight. The agricultural sector was liberalized without adequate attention to the supports necessary to account for market failure and the need to address social problems such as food supply, rural development, and environmental sustainability. Among the domestic barriers limiting full realization of the benefits of trade

liberalization are the dominance of peasant farmers, inefficient technology, fragmented farmlands, ceiling tariff bindings, nontariff measures, and frequent changes in policies.

5.2.1 Agricultural Policy Environment before the Structural Adjustment Program of 1986

Before the structural adjustment program in 1986, the government was heavily involved in the marketing of agricultural commodities. While private traders handled domestic trade in food, the government set the official guaranteed minimum prices at which government commodity boards would act as a buyer of last resort. But the guaranteed prices were too low to encourage production. Export producers were required to sell their crops at officially determined prices to commodity boards, which were the only legal exporters of specified crops (Oyejide 1986).

Commodity and marketing boards were established to stabilize both prices and the incomes of farmers. State trading enterprises were responsible for marketing 15 major crops: the Nigerian Cocoa Board for cocoa and coffee; the Nigerian Cotton Board for cotton (seed cotton, cotton lint, and cottonseed); the Nigerian Groundnut Board for groundnuts, sheanuts, soyabeans, benniseed, and ginger; the Nigerian Grains Board for maize, rice (paddy), wheat, sorghum, and millet; the Nigerian Palm Produce Board for palm (palm kernel, palm kernel oil, palm kernel pellets, and palm kernel cake); and the Nigerian Rubber Board for natural rubber.

Stabilization funds were established for protection from short-term world price fluctuations. The boards also funded research into plant breeding and improved husbandry and pest control and supplied inputs such as fertilizer and insecticide and credit against crop deliveries. They graded produce, offering higher prices for higher grades, to induce farmers to improve the quality of their produce; conducted campaigns against plant disease; and provided storage facilities, transport, and processing services.

These functions were perverted over time, however, and stabilization funds became a convenient way of taxing the sector. Farmers were paid well below world market prices. For example, coffee, cocoa, rubber, and ginger farmers were paid less than 70 percent of world market prices (Table 5. 2). Such low producer prices discouraged production and encouraged smuggling. Cocoa smuggling into Benin was so rampant that Benin exported more cocoa than it produced.

Table 5.2: Ratio of producer prices to world market prices, percent, 1970-85

Commodity	1970-75	1976-80	1981-85	1970-85
Cocoa	61.2	53.4	67.0	60.5
Coffee	32.2	39.9	68.1	46.7
Rubber	65.4	36.7	50.4	50.8
Ginger	41.1	47.1	68.5	52.2

Source: CBN/NISER (1992).

5.2.2 Agricultural Policy since 1986

Reforms under Structural Adjustment Program (SAP) and commitments under the Uruguay Round have dominated the policy environment in agriculture since 1986. Under SAP, commodity boards were abolished and prices were liberalized. Farmers' remuneration received a further boost from the depreciation of the naira. Following these reforms, farmers were receiving close to world market prices, and without the delays common during the commodity board era.

Other components of the SAP had indirect effects on the sector (Table 5.3). The exchange rate reform addressed the problem of overvalued currency.[3] While import costs rose, the net effect of exchange rate policy reform was positive because agricultural producers (especially small-scale farmers) were less dependent on foreign inputs than were producers in other sectors. In addition government subsidies on fertilizer, improved seeds, herbicides, pesticides, and machinery provided significant incentives (CBN/NISER 1992). These supports were to be reduced gradually, in favor of free market forces. Other measures for increasing agricultural production included monetary and credit policies and public expenditure and investment policies. Banks were directed to grant credit to the agricultural sector at preferred interest rates.

Table 5.3: Evolution of agricultural macroeconomic policies in Nigeria, 1970-1999

Policies	1970-1985: Pre-SAP	1986-1994: SAP	1995-1999
Fiscal policies			
Government budgetary measures	Reduction in capital expenditure on agriculture as a percent of total capital expenditure from about 6.2 in 1973 to about 4.0 in 1985.		
Tax measures	Accelerated depreciation allowances on agricultural capital: Increase in applicable depreciation rate from 10 percent in 1969 to 25 percent in 1970-194 and 20 percent in 1985.		Review of government fertilizer programme: Private individuals are now free to trade in fertilizers since 1997.
Monetary policies			
Establishment of specialized institutions for the sector	Restructuring of commodity/ marketing boards Establishment of Nigerian Agricultural and Cooperative Bank (NACB), 1973; Establishment of Agricultural Credit Guarantee Scheme, 1977.	Abolition of marketing boards for cocoa, cotton groundnuts, oil palm, rubber and grains in 1986 Abolition of price controls on these commodities.	Introduction of a comprehensive system of sanitary and phytosanitary inspection. Introduction of pre-shipment inspection in 1996.
	Designation of the sector as a preferred sector: 6 and 12 per cent of merchant and commercial bank loans are reserved for the sector.	Deregulation of interest rates	
	Introduction of rural banking scheme in 1977		
Trade and exchange rate policies			
	Abolition of export duties on export crops in 1973.	Further reduction in export duties, removal of export prohibitions, and easing export licensing on most agricultural products except food grains.	Reduction in items under import prohibition list
	Reduction or abolition of import duties on food, agricultural inputs, agricultural raw materials and agricultural machinery and equipment	Reduction in the list of banned import commodities (ban on rice, maize, wheat and their products)Abolition of import licensing requirements for many imports (except fertilizer)	Reduction in the list of banned import commodities

		Comprehensive tariff review in 1988	Reduction in average applied import duties on raw agricultural products (except on some products that compete with domestic production, for heath reasons, as a process of tariffication). Free duty on most agricultural equipment and chemicals. Increase in tariff escalation.
	Appreciation of real exchange rate of the naira by about 61 percent between 1973 and 1980.	Depreciation of real exchange rate of naira by about 80 percent between 1986 and 1992. Administered foreign exchange allocation in 1993. Free market transaction of foreign exchange was abolished.	Further depreciation of naira and simplification of foreign exchange transactions since 1995.

Source: Compiled by the author from government publications.

The unilateral reforms under the SAP were not coordinated with Nigeria's positions in the multilateral trade negotiations under the Uruguay Round. Credits for unilateral liberalization were neither sought nor given, even on domestic supports and export subsidies.

Analysis of the structure of tariffs and other measures affecting Nigeria's positions in the agricultural trade reveals the use of two main policy instruments: tariffs and quantitative restrictions, mainly prohibitions.[4]

Tariffs: All tariffs *are ad valorem.* With the preferential treatment agreement among the countries of the Economic Community of West African States (ECOWAS) inactive, all imports enter Nigeria on a most-favored-nation basis. However, under the Global System of Trade Preference among Developing Countries (GSTP), Nigeria grants rebates to all GSTP countries. No agricultural product is included in the rebate.

Before the Uruguay Round, Nigeria had only one bound tariff (on stockfish). By the conclusion of the Round, Nigeria had undertaken tariff bindings for agricultural products at a ceiling of 150 percent, with a maximum of 80 percent for other duties and charges.[5] For most products the bound rates are considerably higher than applied custom

duties. These bindings provide the country with a substantial degree of freedom. Although Nigeria is expected to reduce its tariffs, the country and some other developing countries did not commit themselves to reducing tariffs from the bound ceiling rates.

Despite the high level of tariff bindings, market access for agricultural imports to Nigeria seems to have eased as applied tariffs declined by about 25 percent, from about 30.5 percent in 1990 to 23 percent in 1998 (Table 5.4). The highest reduction (75.6 percent) was in fisheries, followed by forestry (37 percent). Applied tariffs on crops and livestock remained virtually unchanged.

The wide gap between applied and bound tariff rates creates uncertainty and introduces greater risk to the sector, discouraging investors, particularly foreign investors. That gap should be reduced, and other instruments such as safeguard measures can be used, if needed, to raise tariffs beyond the bound level. In addition, uniform binding for all agricultural products does not reflect their relative importance. In the upcoming round of negotiations the government should consider binding at current applied rates, which seem to reflect the relative importance of individual commodities.

Table 5.4. Nigeria's import duties in agriculture, forestry and fisheries, 1990 and 1998

SITC	Product/activity group	Applied import duties		Share of bound tariff lines (percent)
		Average 1990	Average 1998	
111	Agricultural and livestock production	26.5	27	100
121	Forestry and logging	14	9	0
130	Fisheries	59.5	14.5	24
100	Agriculture, forestry, and fisheries	30.5	23	

Source: WTO (1998).

In 1998 import levies included a customs duty based on the published custom or excise tariff (Consolidation Decree 1995, and as amended),[6] a rebate where applicable,[7] a port development tax of 5 percent, a raw materials and development council surcharge of 1 percent, and a shippers council surcharge of 1 percent. A 5 percent specific levy (on the c.i.f. value) was applied to sugar imports, and a 2 percent national automobile council tax to the c.i.f. value of imported vehicles and parts. A 5 percent value-added tax (VAT) was calculated on the duty-paid c.i.f. value of

imports. Imports that compete with domestic production were charged a landing fee equivalent to the excise duty on the domestically produced goods.

These duties were abolished in 1999, except for the landing fees, thereby enhancing the rate of protection for these goods. In addition, tariffs on agricultural raw materials were reduced except for those that compete with domestic production such as millet, sorghum, maize, and live poultry. For a few products recently removed from the import prohibition list, tariff rates are close to the ceiling rates. Antidumping actions were last taken in 1991, reflecting not an absence of dumping since then but rather a lack of capacity to meet stringent requirements of proof (Ogunkola 1999). The Customs Duties (Dumped and Subsidized Goods) Act of 1958 has been under review since 1991, to ensure conformity with WTO rules. Until the review is completed and the WTO notified, antidumping measures cannot be taken.

On the input side, tariffs on agricultural equipment and chemicals are very low. In 1997, the government liberalized imports of fertilizer, removing it from government control. Private individuals can now import fertilizers, subject to receipt of an import certificate from National Agency for Food, Drugs Administration, and Control.

Quantitative restrictions

Quantitative restrictions, especially import prohibitions (see Annex 5A.2), are still in use, especially for safeguarding domestic production and for balance of payments reasons. The list of import prohibitions has been reduced, however, and most of the items removed from the list have been tariffied at close to the bound rate. The continued use of import prohibitions as safeguards has prompted criticism from some WTO members since Nigeria lacks formal legislation on safeguard actions and so cannot legitimately apply such measures under the WTO. WTO members have also queried the continued use of some quantitative measures for balance of payment reasons, noting that measures to protect balance of payment are supposed to be temporary. The government is asking for an extension on application of these measures, pending major port reforms.

Other trade control measures applicable to agriculture include a list of prohibited exports, sanitary and phytosanitary inspection and certification requirements for exports of fresh plants and plant products, and

mandatory certificate of origin and declaration of value for exports. (WTO, 1998).

While Nigeria did not commit in the Uruguay Round agricultural negotiations to reducing domestic support for agricultural production, most of its support measures are WTO compatible. The Agreement on Agriculture excluded from reduction commitments domestic assistance that has minimal impact on trade, such as government assistance for inputs, export transport and marketing, research, disease control, infrastructure, and food security, as well as direct payments in the framework of environmental or regional assistance programs (Ohiorhenuan 1998; Ingco and Townsend 1998).

Because of budget constraints, however, the government has not provided even these permissible types of support and has officially notified the WTO that agriculture is not being subsidized. And although Nigeria has not committed to reducing export subsidies, import protection and export incentives are being reformed in line with WTO obligations and for domestic reasons, namely, for ease of administration. (Previous incentive schemes are shown in Annex 5A.1 Table 5A.1.1) In place of these scrapped incentives, the government introduced a Negotiable Duty Credit Certificate, to be used in settling future import duties or charges. The scheme allows manufacturers access to raw materials and other intermediate products for the production of exportable goods. A performance bond by a recognized bank or insurance company is required, however. (Remaining incentives are shown in Annex 5A.1 Table 5A.1.2).

Nigeria has made very few commitments under the Agreement on Agriculture, and hence implementation has been limited to notification of changes in the existing policy environment. Lack of capacity seems to be the primary reason.

Other related Uruguay Round agreements

Both the Agreement on Technical Barriers to Trade, first negotiated in the 1979 Tokyo Round, and the 1994 Agreement on Application of Sanitary and Phytosanitary Measures attempt to ensure that regulations, standards, testing, and certification procedures do not create unnecessary obstacles to trade. The Agreements recognize the rights of WTO members to adopt the standards they consider appropriate for human, animal, or plant health, for protection of the environment, or for other purposes of consumer interest. Members are encouraged to use international standards

where appropriate, and the agreements set out a code of good practice for the preparation, adoption, and application of standards. All members are required to establish national enquiry points to ensure that information on the latest standards is conveniently available.

In Nigeria, the National Agency for Food and Drug Administration and Control (NAFDAC) and the Standard Organization of Nigeria are the official enquiry points for standards and technical regulations. Notices of technical regulations, standards, and certification systems adopted by the government are published in the Official Gazette.

The manufacture, import, export, sale, distribution, and advertising of regulated products (processed food, beverages, tobacco, cosmetics, drugs, drug products, and chemicals, including both raw materials and finished products such as pesticides) are subject to registration with NAFDAC. Imports of nonregistered products are detained until registration is completed. Imports of live animals and birds and animal products require sanitary permits from veterinary authorities. Imports of fresh plants, plant products, soil, and fish require certificates from the authorities of exporting countries as well as a phytosanitary certificate issued by the National Plant Quarantine Service of Nigeria. The Federal Environmental Protection Agency (FEPA)administers a National Hazardous Chemical Tracking Program to prevent the importation of products whose domestic sale or use is banned or severely restricted in the country of origin.

Although Nigeria is a member of some international standard-setting organizations recognized by the WTO (the International Organization of Standardization and the Codex Alimentarius Commission), its effective participation is constrained by lack of resources. Thus, Nigeria has not been able to play a significant role in international standard setting even where its own interests are directly affected. New measures require advance notice of at least 60 days for comment from members, a period too short for meaningful impact analysis given Nigeria's resource constraints.

The need to be more involved in standard setting at the international level cannot be overemphasized. Nigeria should deal with its lack of capacity to implement WTO agreements (Ogunkola and Agah 1999; Ogunkola 1999; Blackhurst and others 1999) by seeking technical assistance and organizing small-scale farmers into cooperative groups for ensuring the quality of their products.

5.2.3 *Agricultural Support Institutions*

An important feature of the Nigerian agricultural development strategy has been the agricultural development institutions, which provide services ranging from credit financing and input subsidies to research and development. These institutions include the Agricultural Development Projects, National Fertilizer Corporation of Nigeria, the Federal Superphosphate Fertilizer Company, River Basin Development Authorities, and National Agricultural Land Development Authority. Overlapping mandates and lack of effective coordination have impeded the effective performance of these institutions. So has insufficient government funding. Federal government expenditures on agriculture, rural development, and water resources, small to begin with, have declined from an average of $128.7 million in 1986/88 to $94 million in 1995/98 (figures 5.4 and 5.5).
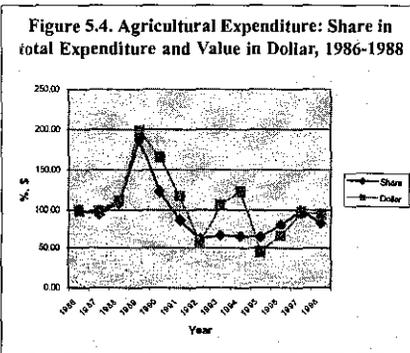
Figure 5.4. Agricultural Expenditure: Share in total Expenditure and Value in Dollar, 1986-1988

Source: Based on figures from CBN (various issues)

Figure 5.5. Nigeria: Average Expenditure on Agriculture, 1986-88 and 1995-98
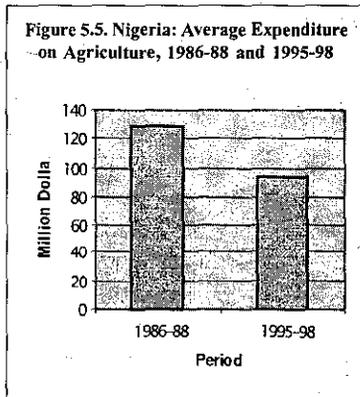
Source: Based on figures from CBN (various issues)

The Agricultural Development Projects were involved in the provision of rural roads, farm inputs, extension and training services, and agricultural production. Their activities have declined in recent times as funding has dwindled. The River Basin Development Authorities, which focus on land development (mainly preparation and irrigation), extension services, and provision of infrastructure facilities (dams, boreholes, and roads), have also cut back services considerably over the years. The two state-owned fertilizer companies, established to supply affordable fertilizer to farmers, have similarly suffered from inadequate funding and the inability to import the inputs necessary for maintenance of plant and machinery.

While the government is considering privatization of the two companies, trading in fertilizers has been liberalized. The government is still involved in the importation, distribution, and marketing of fertilizers, however.

The Nigerian Agricultural and Cooperative Bank was established to raise the income and quality of life of farmers and other rural inhabitants by providing financial support for agricultural production and rural development. This is vital to the growth and development of the Nigerian economy, but the Bank's level of self-sustainability is low, and its heavy dependence on government subsidies has severely reduced its activities since 1994 (CBN 1997).

Various agricultural research institutes and universities were also established to support agriculture. Like the others, these institutions are inadequately funded and are not properly linked to those who could benefit from their services. Thus most research findings are never commercialized.

5.3   Effective Rate of Protection for Nigerian Agriculture

The effective rate of protection gives a better sense of the actual protection tariffs provide to local production than do nominal tariff rates. The effective rate of protection measures overall protection by taking into account protection on both inputs and final products. Rates were computed for 1990 and 1998 using the 1989 input-output table for Nigeria. (For details on computation of effective rates of protection, see Annex 5A.3.).

Agriculture enjoyed higher protection in 1990 than other sectors (Table 5.5), which were taxed by the tariff structure despite positive and comparable nominal tariff rates. The tariff reforms of 1998 reduced the effective rate of protection in non-crop agriculture and left effective rates of protection for both crop and non-crop agriculture only slightly higher than nominal rates.

Table 5.5: Effective tariff protection, aggregate model

Sector	Nominal tariff rate		Effective rate of protection	
	1990	1998	1990	1998
Crops	26.5	27.0	32.67	34.82
Other agriculture	36.8	23.8	135.46	43.06
Mining and quarrying	29.0	15.0	-52.22	87.62
Manufactures	36.0	24.0	-6.08	-6.57

Source: Computed by the author.

Within agriculture effective rates of tariff protection were higher than nominal rates for most commodities, but not much higher. Exceptions were sorghum, whose effective rates of protection were very high in both 1990 and 1998, and cocoa and palm products, which had negative rates of effective protection, indicating that they were being taxed by the tariff structure (table 5.6). Relative ranking were also similar. For 1990 the correlation coefficient between nominal and effective rates is 0.91, and the null hypothesis that the two sets of rates are unrelated is rejected at the 1 percent level of significance. Considering the input-structure of the sector, the weak inter-sectoral linkages probably account for this high correlation.

Again with the exception of sorghum (nominal rate increase of 21 percent but an effective rate increase of almost 650 percent), effective rates of protection closely tracked nominal rates in 1998 as well. The correlation coefficient remained high at 0.77 and significant at 1 percent. Relative rankings of the nominal and effective rates remained almost unaltered.

Table 5.6: Effective rates of protection for Nigerian agriculture, 1990 and 1998

Agriculture	Nominal tariff rate		Effective rate of protection	
	1990	**1998**	**1990**	**1998**
Annual crops				
Maize	20.0	24.0	20.9	25.4
Wheat	20.0	8.0	21.0	7.8
Rice	20.0	40.0	20.3	42.4
Millet	20.0	48.0	21.9	70.6
Sorghum	100.0	120.5	900.8	14605.3
Grain legume	40.0	36.0	54.2	44.8
Oilseed	16.5	26.0	16.6	26.7
Cassava	45.4	36.0	45.5	36.1
Other tuber	45.4	36.0	46.2	36.3
Vegetables	45.4	36.0	46.3	36.3
Other annual crops	26.0	35.0	34.5	50.9

Agriculture	Nominal tariff rate		Effective rate of protection	
	1990	1998	1990	1998
Perennial crops				
Plantain	40.0	36.0	43.1	38.5
Fruits	40.0	36.0	80.7	65.4
Rubber	10.0	12.0	11.0	14.2
Palm produce	40.0	36.0	-15.8	-16.7
Cocoa	60.0	20.0	-14.9	-62.1
Other perennial crops	26.0	35.0	35.1	56.6
Livestock				
Large livestock	28.0	48.5	-4.4	-4.2
Small livestock	26.0	100.5	33.6	-389.8
Forestry				
Timber	24.0	20.5	38.2	29.9
Fisheries				
Fish	50.0	40.0	-7.9	-8.0
Mining and quarrying				
Crude petrol	10.0	12.0	22.6	35.3
Natural gas	20.0	20.0	-213.6	-209.9
Other mining quarrying	36.0	17.5	-42.1	169.1
Manufacturing				
Food processing	38.5	29.5	-5.8	-6.1
Beverages and tobacco	200.0	72.0	-7.5	-7.9
Textile	29.0	41.0	-3.7	-3.5
Leather	31.5	25.0	-19.8	-26.9
Wood product	29.5	22.5	108.3	45.4
Paper	29.5	12.0	-28.7	11.8
Refined petrol	20.0	20.0	55.9	42.1
Chemicals	6.5	7.5	-1387.7	-26.0
Rubber and plastics	39.0	26.0	-7.8	-8.9
Basic metal	41.0	15.0	0.2	0.3
Machinery and equipment	45.0	33.0	-8.7	-7.8
Miscellaneous manufacturing	54.0	28.5	-4.9	-5.3

Source: Computed by the author.

5.4 Developments in External Markets of Interest to Nigerian Agriculture

This section examines the barriers facing Nigerian exports in some of its major markets.

5.4.1 Major Markets for Nigerian Exports

While the United States and the European Union remain the most important markets for Nigeria's exports, the shares of African and Asian countries are rising. The joint U.S.-EU share declined from 88 percent in 1980 to 74 percent in 1995 (Table 5.7). But their share is still very high, indicating that the market for Nigerian agricultural products is not diversified. Changes in market access conditions, domestic support, and export subsidies in these markets and, to a lesser extent in Japan, are thus of special interest to Nigeria since they are bound to affect its exports.

Table 5.7. Destination of Nigerian exports, by value 1980-95

Region	1980	1985	1990	1995
Total exports (billions US dollars)	26.1	15.63	13.49	12.65
Shares in percentage				
America	47.9	37.5	53.4	49.8
United States	42.5	19.9	47.2	40.0
Other America	5.4	17.6	6.2	9.8
Europe	49.2	60.7	44.7	36.1
EU15	45.4	59.5	43.9	34.3
Other Europe	3.8	1.2	0.8	1.8
Asia	0.9	0.5	0.8	12.7
Africa	2.0	1.2	1.2	1.4
Other	0.0	0.1	0.0	0.0

Source: WTO (1998).

5.4.2 Market Access

In 8 of 10 countries of the Organization for Economic Co-operation and Development (OECD)examined, average border protection for agricultural products was higher in 1996 than in 1993 (FAO 1999). Post-Uruguay Round tariffs remain high on temperate-zone food products, with tariff peaks (rates above 20 percent) common for major staples, fruits and vegetables, and processed foods. In the aggregate 26 percent of tariff lines in agriculture (SITC 1 to 24) had duties above 20 percent in the EU (Table 5.8). More than half of tariff lines in certain product groups had duties of 20 percent and above. Examples include cereals (60 percent of tariff lines), dairy products (54 percent), and sugar (53 percent). For meat, live animals, prepared fruit and vegetables, and other food products more than a third of tariff lines show duties of 20 percent and above—some were more than 100 percent.

In Japan about a quarter of tariff lines in agricultural products had tariff peaks, about half in cereals, 84 percent in dairy products, and 64 percent in sugar and cocoa. The United States has fewer tariff peaks than the EU and Japan. Only about 10 percent of tariff lines in agriculture have tariff peaks, about 38 percent in dairy products, and about 20 percent in other food industries. All tariff lines in fish and crustaceans have tariffs below 20 percent in both Japanese and U.S. markets and about 12 percent of EU tariff lines do. Japanese and U.S. markets should thus be attractive to exporters of these products.

Tariff escalation is another problem. For products of interest to Nigeria there was no significant reduction in tariff escalation as a result of the Agreement on Agriculture (Figures 5.6 – 5.9). Tariff rate quotas have also created difficulties, including lack of transparency in administration, poor performance on quota fill rates, and a proliferation of bilateral trade arrangements. Administration of tariff quotas has shifted gradually from use of applied tariffs, an approximate most-favored nation principle, to licenses on demand or based on historical levels of import, and combinations of other methods.[8] (Table 5.9). Allocating quotas on the basis of historical imports discriminates against new entrants, and licenses on demand tend to lack transparency.

Figure 5.6. Tariff Escalation in Cotton in EU, Pre- and Post-UR
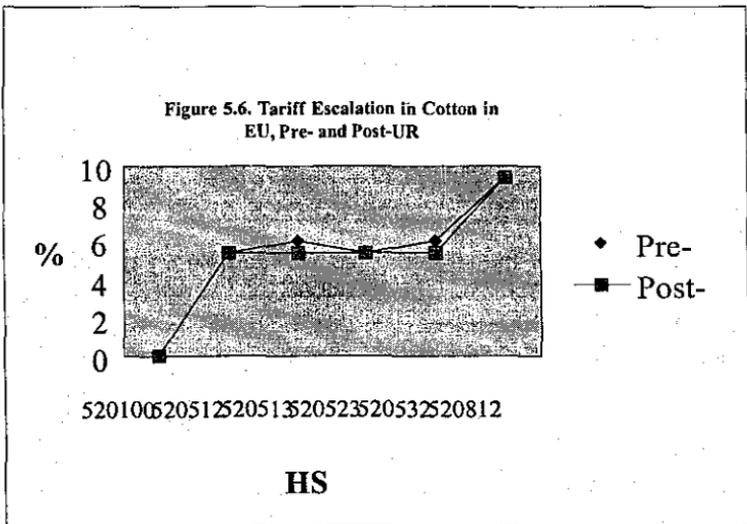
Source: UNCTAD TRAINS (1997)

Figure 5.7. Tariff Escalation in Cocoa:
Pre- and Post- UR
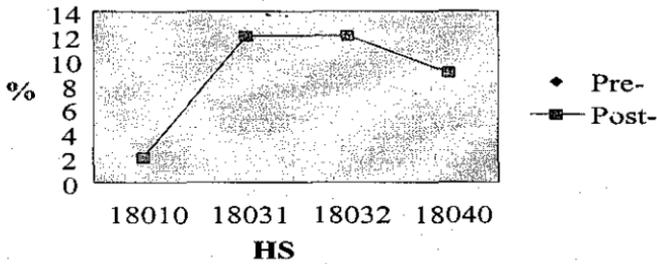
Source: UNCTAD TRAINS (1997)

Figure 5.8. Tariff Escalation in Hides and Skin,
Pre- and Post- UR
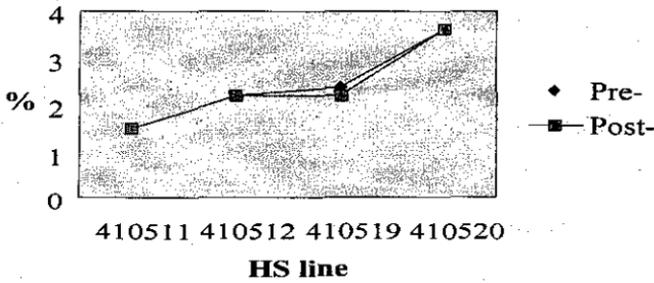
Source: UNCTAD TRAINS (1997)

Figure 5.9. Tariff Escalation in Wood Product:
Pre- and Post- UR
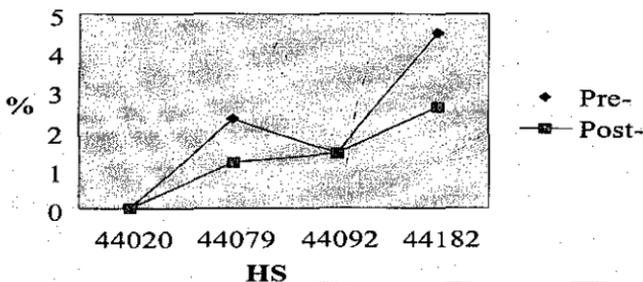
Source: UNCTAD TRAINS (1997)

Products under tariff rate quotas allowed under the Agreement on Agriculture has prevented the opening up of markets in some sub-product categories within broad product categories (FAO 1999). The European Union's placement of fruits and vegetables in different categories, for example, circumvents minimum access commitments. And quota fill rates are inflated by counting existing preferential treatment and allocations to non-WTO members as part of quotas.

Sixteen developed countries and 32 developing and transition economies reserved the right to apply the special agricultural safeguards provision, allowing them to increase tariffs above bound rates in response to a surge in imports or a decline in import prices. Developed countries have also invoked special safeguards more frequently than have developing countries (WTO 2000). Japan, the European Union, and the United States dominated safeguards actions between 1995 and 1998, jointly accounting for 80 percent of price-based actions and 98 percent of volume-based actions (Table 5.10). Among developing and transition economies, only the Republic of Korea, Poland, and Slovak Republic undertook safeguards measures. Price-based actions affected mainly sugar and confectionary, cereals, food preparation, coffee, tea, mate, and cocoa; volume-based actions affected mainly fruit and vegetables, animal and animal products, and agricultural fibers (Table 5.11). Dairy products attracted both price- and volume-based actions.

5.4.3 Domestic Support: Dirty Implementation?

There was a substantial increase in notifications to the WTO Committee on Agriculture on exempted domestic support categories that have minimal impact on production and fall within the Green Box category of measures. For the European Union and the United States base year expenditures on Green Box measures almost doubled in 1995 (Annex 5A.4 Table 5A.4.1).

While government expenditures on most nonexempt categories were substantially reduced from their base, total domestic support (exempt plus nonexempt categories) has been increasing. Totals were higher than in the base year (1986-88) in both the European Union and the United States, meaning that reductions in domestic support were at best a change in the categorization of expenditures. Thus the ratio of expenditures on nonexempt categories to the aggregate measurement of support commitment level is a misleading indicator of reductions in domestic support. A realistic assessment needs to be based on total (exempt and nonexempt) domestic support.

5.4.4 Export Subsidies

Expenditures on export subsidies are to be reduced by 36 percent in industrial countries by 2000 and by 24 percent in developing countries by 2004, and the quantity of subsidized exports is to be reduced by 21 percent in industrial countries by 2000 and by 14 percent in developing countries by 2004. The lower commitment and longer time for developing countries reflect neither the structural and institutional constraints of developing countries as a group nor individual countries' capability but in accord with the special and differential treatment provision for developing countries. Implementation of export subsidy commitments by Nigeria's main trading partners, the European Union and the United States, is summarized in Annex 5A.4 Tables 5A.4.2 and 5A.4.3. Japan has no commitment on export subsidies because it is not an agricultural exporting country.

Table 5.8. Tariff peaks in the European Union, Japan, and the United States on agricultural products of interest to Nigeria

Country, product group (SITC)	Total	Number of tariff lines within a tariff range			Number of peaks	Share in total (percent)
		20-29 percent	30-99 percent	>100 percent		
European Union						
Fish and crustaceans (3)	373	45	0	0	45	12
Dairy products (4)	197	21	77	9	107	54
Fruit and vegetables (7-8)	407	10	5	1	16	4
Cereals, flours etc. (10-11)	174	29	75	0	104	60
Veg. Oils, fats, oilseeds (12,15)	211	0	8	2	10	5
Canned and prep.meat, fish (16)	105	17	8	0	25	24
Sugar, cocoa and prep. (17,18)	75	34	6	0	40	53
All agri., fishery products (1-24)	2,726	343	334	33	701	26
Japan						
Fish and crustaceans (3)	189	0	0	0	0	0
Dairy products (4)	146	45	57	22	122	84
Fruit and vegetables (7-8)	209	1	2	7	10	5
Cereals, flours etc. (10-11)	132	37	24	10	71	54
Veg. oils, fats, oilseeds (12,15)	161	1	1	3	5	3
Canned and prep. meat, fish (16)	101	21	3	3	27	27
Sugar, cocoa and prep. (17,18)	80	26	19	6	51	64
All agri., fishery products (1-24)	1,890	307	132	75	514	27

Table 5.8 continues

Country, product group (SITC)	Total	Number of tariff lines within a tariff range				
		20-29 percent	30-99 percent	>100 percent	Number of peaks	Share in total (percent)
United States						
Fish and crustaceans (3)	114	0	0	0	0	0
Dairy products (4)	251	29	58	9	96	38
Fruit and vegetables (7-8)	269	13	0	0	13	5
Cereals, flours etc. (10-11)	59	0	0	0	0	0
Veg. oils, fats, oilseeds (12,15)	124	0	2	2	4	3
Canned and prep. meat, fish (16)	90	1	1	0	2	2
Sugar, cocoa and prep. (17,18)	144	6	13	2	21	15
All agri., fishery products (1-24)	1,779	70	99	26	195	11

Note: Tariff peaks are defined as tariff rates of 20 percent or more. All are most-favored nation rates. Source: FAO (1999), Table 5.4

Table 5.9. Principal administration methods for tariff rate quotas, 1995-99 (number of tariff quotas)

Principal Administration Method	1995	1996	1997	1998	1999
Applied tariff	49	36	38	26	20
First-come, first-served	1	3	1	1	-
Licenses on demand	13	22	25	25	32
Auctioning	2	-	8	10	10
Historical Importers	6	20	25	35	35
State Trading	3	3	1	-	1
Producer groups	2	2	1	1	1
Other	5	6	-	-	-
Mixed methods	4	6	9	10	9
Non-specified	23	10	-	-	-
Total sample	108	108	108	108	108

Source: WTO (2000), Committee on Agriculture Special Session, Changes in Tariff Quota Administration and Fill Rate, G/AG/NG/S/20, 08 November.

Table 5.10. Potential application and action of special agricultural safeguards, by WTO members

Member	Potential application of safeguards		Safeguard action by member and number of tariff items, 1995-98	
	Number of tariff items	Number of product groups (HS 4-digit headings)	Price-based action	Volume-based action
Developed countries:	3856	967	64	128
European Union	539	72	26 a/	47 a/
Japan	121	27	4 b/	73 b/
United States	189	26	24 a/	6 a/
Developing countries:	2216	728	8	0
Korea	111	34	8 c/	
Total	6,072	1,695	74	128

Source: FAO (1999), Table 5.5 a/ HS 8-digit items. b/ HS- 9-digit items. c/ HS 6-digit items.

Table 5.11. Potential application and action of special agricultural safeguards, by product category

Product category	Potential application of safeguards		Safeguard action by member and number of tariff items, 1995-98	
	Number of tariff items	Percentage of total number of tarriff items	Price-based action	Volume-based action
Cereals	1,087	17.9	7	2
Oil seeds, fats and oils and products	706	11.6	5	
Sugar and confectionary	291	4.8	23	
Dairy products	715	11.8	15	20
Animal and product thereof	1327	21.9	5	47
Eggs	74	1.2	1	
Beverages and spirits	329	5.4	1	
Fruit and vegetables	809	13.3	1	48
Tobacco	73	1.2		
Agricultural fibers	13	0.2		5

	Potential application of safeguards		Safeguard action by member and number of tariff items, 1995-98	
Product category	Number of tariff items	Percentage of total number of tarriff items	Price-based action	Volume-based action
Coffee, tea, mate, cocoa and preparations; spices and other food preparations	277	4.6	6	1
Other agricultural products	371	6.1	8	
All commodity categories	6,072	100.0	72	123

Source: FAO (1999), Table 5.6

The total EU export subsidy on agricultural products, though within its commitment level, is on an upward trend, rising from ECU 6.9 billion in 1995 to ECU 7.3 billion in 1998. Rice, sugar, milk products, beef, alcohol, and "incorporated products" were highly subsidized, with some subsidies higher than the committed level. The Agreement on Agriculture allows for export subsidies on a given product to exceed the annual commitment level under certain conditions. One condition is that budgetary outlays not be greater than 64 percent of the 1986-90 based period by the end of the implementation period. Available data suggest that substantial reductions will be required in certain groups of products if these conditions are to be met. For example, export subsidies on sugar have not only been greater than commitment levels since 1995 but budgetary outlays have more than doubled, from ECU 379 million in 1995 to ECU 795 million in 1998. Similar trends are observable for "other milk products."

U.S. export subsidy commitments on about a dozen food products or product groups were to decrease from $1.17 billion in 1995 to $0.71 billion in 1999 (Annex 5A.4 Annex Table 5A.4.3). Actual subsidies were provided only on butter and milk products, however. Budgetary outlays on subsidies are on an upward trend, increasing from $26 million in 1995 to $147 million in 1998. While expenditures on most items increased over the year, they were within product commitment levels until 1998, when export subsidies on skimmed milk and other milk products were about 130 percent above commitment levels. Substantial reductions in

these subsidies will be required if the United States is to meet its overall commitment by the end of the implementation period.

5.5 Regional, Bilateral, and Preferential Trade Agreements

Nigeria is a member of the African Economic Community (AEC). Established in 1991 with the aim of becoming a pan-African economic and monetary union over a 34-year period, the AEC has yet to fully take off. Thus Nigeria has not taken any specific measures under the AEC treaty. Nigeria is a founding member of the Economic Community of West African States (ECOWAS), which has provisions for trade and investment liberalization commitments. However, the ECOWAS Trade Liberalization Scheme has remained ineffective as a result of a preponderance of informal trading activities. Nigeria has also signed bilateral trade agreements with Benin, Bulgaria, Equatorial Guinea, Jamaica, Niger, Romania, Turkey, Uganda, and Zimbabwe, to facilitate trade and provide for joint committees to monitor and advise on measures for improving the volume and balance of trade among parties. It has signed investment promotion and protection agreements with China, France, the People's Democratic Republic of Korea, the Netherlands, Turkey, and the United Kingdom. In addition, Nigeria is a signatory to the UNCTAD agreement on the Global System of Trade Preferences among Developing Countries (GSTP). Under the GSTP Nigeria offers lower tariffs for imports from other participating countries on a limited number of products, including pharmaceuticals and certain machinery.

Nigeria is also a signatory to several preferential trade agreements with developed countries. The Cotonou Agreement (the former Lomé Convention) between the European Union and developing countries of Africa, the Caribbean, and the Pacific (ACP) grants Nigeria and other signatories duty-free access to the EU market for exports of all industrial and agricultural products not subject to provisions under the EU's Common Agricultural Policy. With exports of ECU 4.9 billion, or 22 percent of total EU-ACP imports in 1996, Nigeria is the largest exporter to the EU. Crude oil accounts for most of these exports.

Preferential trade relationships such as the ACP-EU Cotonou Agreement and Generalized System of Preferences (GSP) offered by some developed countries to developing countries are based on complementary rather than competitive aspects of trade (Olofin 1977; Ogunkola and Oyejide 2001), making them of limited usefulness for long-term development. In a study of preferences under the GSP and

the ACP-EU Wang and Winters (1998) found that the margin of preference is usually very small and encumbered by other requirements such as strict rules of origin and tariff rate quotas. They concluded that there is little future in trade preferences, which will continue to erode with future multilateral trade liberalization.

Trade relationships among developing countries, for their part, are beset by constraints. ECOWAS, expected to be a building block of the AEC, has been more involved with peacekeeping operations than with trade issues. It has not served as an effective restraint on members' trade policy. Trade infrastructure facilities such as effective payments system, telecommunications, and transport are still underdeveloped. Since the ultimate goal is integration with the world economy, ECOWAS should focus on aligning policies with those of the WTO and on assisting members in developing the capacity for effective participation in multilateral negotiations.

5.6   Nigeria's Interests and Options for the New Round of Negotiations

The Doha Development Round is an important opportunity for addressing some of the remaining domestic and trade policy issues impeding developing countries' realization of the full benefits of trade liberalization. To make the round a true pro-development round, Nigeria should tariffy its remaining nontariff barriers and shift from ceiling to floor binding and from uniform binding to binding that reflects comparative advantage in the agricultural sector. It should call for the establishment of a development box with strict rules on eligibility of use. Nigeria should also seek more effective implementation of Uruguay Round provisions and ministerial decisions, especially those relating to technical and financial assistance to developing countries for capacity building in trade-related issues. Especially important are improved market access conditions for its exports, stricter application of the rules on the use of domestic supports by developed countries, and elimination of export subsidies by developed countries.

5.6.1 Market Access Issues

On the domestic side Nigeria should convert its remaining nontariff barriers to tariffs, relying on special safeguard measures for addressing balance of payment problems resulting from a surge in imports. Nigeria should bind tariffs on agricultural products at floor rather than ceiling

rates as a means of locking in unilateral trade liberalization, ensuring transparency, attracting foreign direct investment, and ensuring policy stability. Uniform agricultural tariffs should give way to rates that reflect comparative advantage, development priorities, and intersectoral linkages. Tariffs on agricultural inputs and raw materials should incorporate the priority accorded to the sector, which is a necessary step for making nominal rates effective.

To improve market access for its major agricultural products, Nigeria needs to push for reduced tariff peaks and tariff escalation in its major markets.

Also important is the negotiation modality for reductions in tariffs. Lack of technical capacity make the "request and offer" approach to tariff reductions currently proposed for multilateral trade negotiations inappropriate for meeting Nigeria's needs. Nigeria should request a formula-based approach for reducing high tariffs, such as the Swiss formula used in the Tokyo Round or the setting of limits on the ratio of the maximum most-favored-nation tariff rate to the average rate.

On special safeguards Nigeria has two concerns. One is to secure its right to use special safeguard measures as an alternative to nontariff barriers, and the other is to seek a review of the rules on application of safeguards to ensure that they do not constitute a trade barrier.

Nigeria should seek clearer rules on tariff rate quotas to ensure transparency and to prevent their use for circumventing the objective of greater market access. Efforts should be geared toward expanding and disaggregating the tariff rate quotas to create conditions for fair market access.

5.6.2 Domestic Support

Nigeria should argue for product-specific reductions in domestic support in place of calculations based on averages, which leave too much room for manipulation at the product level. Total support (exempted and nonexempted expenditures) has been on an upward trend (OECD 2000), made possible by the absence of a cap on exempted expenditures or on total support. Nigeria should seek caps on total support and exempted expenditure. In addition, *de minimis* allowances for countries with high Aggregate Measurement of Support levels should be reviewed. Items on the list of exempted expenditures should be rationalized and some should be reserved for developing countries.

On the domestic front the need to develop domestic capacity for agricultural production includes, among others, improvement in production technology, distribution and processing. While Nigeria favors market-based incentives, market failures in the agriculture sector and the need to ensure food security may require government intervention. Nigeria should seek greater latitude in the forthcoming negotiations, within the confines of the Agreement on Agriculture to apply domestic support measures that address rural development (roads, water, housing, drainage, sewerage, and other infrastructure), rural poverty, environmental problems, and food security.

Securing the right to provide such domestic support does not mean that the country will do so. Some of these previously-used support measures were dropped because of budget constraints. One possibility is to set aside revenue from agricultural tariffs for developing the sector. External sources of finance would also be important, whether as grants or as foreign direct investment.

5.6.3 Export Subsidies

Export subsidies depress world prices and thus distort true comparative advantage. While removing subsidies will increase the food bill of net food importing developing countries such as Nigeria in the short run, the country should still press for abolition of export subsidies, which will improve incentives over the long run. Assistance may be required in the short run to meet food demand, and it should be directed at stimulating domestic production of food to meet basic food requirements locally. Nigeria should argue for effective implementation of the WTO Ministerial Decision on the possible negative effects of subsidy reform on the least developed countries and net food-importing developing countries. Nigeria should also seek to be officially categorized as a net food-importing developing country.[9]

5.7   Conclusion

Trade policy reforms under the1986 Structural Adjustment Programs did not have a sustainable impact on development of the agricultural sector since little or nothing was done to address the fundamental problems of agricultural production. While Nigeria has gone a long way in reducing trade barriers, development of the agricultural sector remains constrained by nontrade factors, especially agricultural production

infrastructure. Developing these should be a priority. Further liberalization of the sector without addressing the infrastructure bottleneck could aggravate rather than improve the trade situation. To ensure that the benefits of reform reach peasant farmers, who make up most of the sector, farmers need to be protected while efforts are directed at land reform and other measures to encourage large-scale farming.

Agricultural sector reform in Nigeria is far ahead of that of reform in its major trading partners. The country should take advantage of the next round of multilateral trade negotiations not only to seek greater latitude in the use of support measures but also to push for reform of the Agreement on Agriculture and its effective implementation by developed countries. Nigeria should also use the new round to bind its agricultural products at floor levels and possibly to liberalize nonstrategic subsectors.

Annex 5A.1. Summaries of Nigeria's export incentive schemes

Annex Table 5A.1.1 Summary of export incentive schemes abolished, in 1999 (August)

Incentive scheme	Operating agent	Objective and remark
Duty Drawback Scheme	Customs Department; Standard Organization of Nigeria, Nigeria Export Promotion Council (NEPC), Commercial and Merchant Banks and CBN	To reimburse customs duty paid by exporters on imported input used for export production. This has not been widely utilized by exporters due to the cumbersome procedural requirements involved, although the fund has been increased to $50 million (US 42.5 million)
Export Expansion Grant	NEPC	To encourage companies to engage in export business rather than domestic business, especially exporters who have exported N50,000 worth of semi-manufactured or manufactured products.
Export Development Fund	NEPC	To assist exporters in partly paying the costs of participation in trade fairs, foreign market research, etc.
Manufacturing in Bond Scheme	Federal Ministry of Commerce and Tourism	To assist potential exporters of manufactured products to import free of duty, raw materials for production of exportable products.

Source: Ministry of Finance, Abuja, Nigeria

Annex Table 5A.1.2   Summary of export incentive schemes currently in operation in Nigeria, as at August 1999

Incentive scheme	Operating agent	Objective and remark
Refinancing and rediscounting facility (RRF) and foreign input facility (FIF).	Central Bank of Nigeria(CBN) Nigeria Exports and Import Bank (NEXIM).	To provide liquidity to banks in support of their export finance business, directed on exports promotions and development.
Currency Retention Scheme	CBN, Commercial and Merchant Banks	To enable exporters to hold export proceeds in foreign currency in their banks.
Tax relief earned by banks on export credit	Banks and Federal Board of Inland Revenue	To encourage banks to finance exports by reducing their tax burden.
Export Credit Guarantee and Insurance Scheme	CBN and NEXIM	Assists banks to bear the risks in export business and thereby facilitating export financing and export volumes.
Export Price Adjustment	NEPC	This is a form of export subsidy designed to compensate exporters of products whose foreign prices become relatively unattractive, due to factor beyond the exporters control.
Subsidy Scheme for use of local raw materials in export production	NEPC	To encourage exporters to use local raw materials in export production
Abolition of export licensing	Federal Ministry of Commerce and Tourism	To remove administrative obstacles from the export sector as much as possible.
Supplementary allowance in favor of pioneer companies	Federal Ministry of Commerce and Tourism	To extend supplementary incentive to pioneer companies that exports their products.
Accelerated depre-ciation and capital allowance	Federal Ministry of Commerce and Tourism	To extend supplementary incentive to industrial organizations for export of their products.
Export Liberalization Measures Buyback Arrangement	Federal Ministry of Commerce and Tourism	To liberalize and promote export trade.
Export Processing Zone	Federal Ministry of Commerce and Tourism	Opened in mid - 1996 in Calabar, to facilitate and enhance exports.

Source: Ministry of Commerce and Tourism, Abuja, Nigeria

Annex 5A.2   Nigeria's import and export prohibition lists

Appendix Table 5A.2.1   Changes in Nigeria's import prohibition list (trade), 1995 to 1998

	Date removed	Old applied Rate, 1995 percent	New, applied rate, 1998 percent	Reason
Live or dead poultry (i.e. fowls, ducks, geese, turkeys, and guinea fowls) excluding day old chicks, grand parent and foundation stocks for research and multiplication purpose (H.S. 0105.1200-0105.9990 and 0207. 1100-0207.3600); Eggs in the shell, including those for hatching (0407.0000)	1998	25-35	150	
Maize (1005.1000-1005.9000)		30	30	BOP
Sorghum (1007.0000)		150	150	SDP
Millet (1008.2000)		150	150	SDP
Wheat flour (1101.0000)		60	60	SDP
Vegetable oils, excluding licensed and castor oils used as industrial raw material (1515.1100.1515.1900 and 1515.3000)		15-45	15-45	BOP
Beer and stout (2203.0000, Barley (1003.0000) Malt (1107.1000-1107.2000) Evian and similar waters (2201.1000-2202.9000)	1998	80 15 40 65	100 20 20 100	
Baryes and Bentonite (2511.1100-2511. 2000.2508.1100)	1996	5-20	5-20	
Gypsum (2520.1000)		150	150	BOP
Mosquito Repellant coils (3808.1110)		55	55	SAF
Domestic articles and wares made of plastic materials excluding babies' feeding bottle (3922.1000-3922.9000.3924. 1000-3924-9000)		30-40	30-40	BOP
Retreated/used tyres (4012.1000-4012.9000)		50	50	BOP,SAF
Textile fabrics of all types and articles thereof, Chapters 50-63, but excluding: (a) Nylon tyre cord (5902.100-5902.9000) (b) Multifilament Nylon chaffer fabric and tracing cloth (5111.2000.5112.2000 and 5901.9000) (c) Mattress tickings (5901.1000-5903.9000) (d) Narrow fabrics (5806.1000-5806.4000) (e) Made-up fishing nets (5608.1100) and mosquito netting materials (5608.1900 and 5608.9000)	1997	10-55	10-75	

	Date removed	Old applied Rate, 1995 percent	New, applied rate, 1998 percent	Reason
(f) Gloves for industrial use (6116.1000-6116.9900) (g) Canvas fabric for the manufacture of fan belt (5907.0000 and 5908.0000) (h) Moulding cups and lacra (6212.90000 Elastic bands (5604.9000) Motifs (5810.1000 - 5810.9000) (i) Textile products and articles for technical use (5911.1000-5911.9000) (j) Transmission or Conveyor belt or belting of textile material (5910.0000) (k) Polypropylene primary backing material (5512.1100-5512.9000) (l) Fibre rope (5607.1000-5607.9000) (m) Mutilated rags (6310.1100) (n) Sacks and bags (6305.1000 and 6305.2000)				
Motor Vehicles and motor cycles above eight (8) years from the date of manufacture (8702.1100-8702.9900, 8703.1000-8703.9000, 8704.1000-8704 .9900, 8711.1000-8711.9000)	1998	5-40	5-40	
Furniture and furniture products (9401.1000-9401.9000, 9403.1000 to 9406.0000)	1996	30-50	45-65	
Gaming machines (9504 1000-9504.3000)		5 5	5 5	PMO

Key for reason: BOP = Balance of Payment; SDP = Safeguarding domestic production; SAF = Safety; PMO = Public morals

Source: Based on the information from the Federal Ministry of Finance, Abuja, Nigeria

Annex 5A.2   Nigeria's import and export prohibition lists

Appendix Table 5A.2.2   Import and Export Prohibition Lists 1991 to 1998

Conditional import prohibition list, 1991

1   Live or dead poultry, that is, fowls, ducks, geese, turkeys, fowls excluding grand-parent and foundation stocks for research and multiplication purpose, eggs in the shell, including those for hatching.

2   Vegetable, including tomato puree and paste, roots and tubers, fresh or dried, whole or sliced, cut or powdered and sago pith.

3   Processed wood excluding wood in the rough, squared or half squared but not further manufactured and particle board; furniture and furniture products; wooden cabinets for radio and television sets. Fruits fresh or preserved and fruit juices.

4   Mosquito repellant coils (HS Code 3808.111).

5   Textile fabrics of all types and articles thereof excluding:

    (a)   Nylon tire cord;

    (b)   Multifilament nylon chafer fabric and tracing cloth;

    (c)   Mattress ticking;

    (d)   Narrow fabric, trimmings and linings;

    (e)   Made-up fishing nets, mosquito netting materials;

    (f)   Gloves for industrial use;

    (g)   Canvas fabric for the manufacture of fan belt;

    (h)   Molding cups and lycra, elastic bands and motifs;

    (i)   Textile products and articles for technical uses;

    (j)   Transmission or conveyor belt or betting of textile material;

    (k)   Polypropylene Primary backing material;

    (l)   Fiber rope product (HS Code 56.07).

6   Domestic articles and wares made of plastic material including babies feeding bottles.

7   Evian and similar waters, soft drinks and beverages, beer and stout, malt and barley.

8   Maize and maize products.

9   Wheat and wheat products.

10   All sparkling wines including champagne.

11   Vegetable oils excluding linseed and castor oils used as industrial raw materials.

12   Aluminum sulfate including alum.

13   Retreaded sulfate including alum.

14   Branched alkyl benzene, bentonite and baryes.

Import prohibition list, 1995

1.   Live or dead poultry (i.e. fowls, ducks, geese, turkeys; and guinea fowls) excluding day old chicks, grand parent and foundation stocks

for research and multiplication purpose (H.S. 0105.1200-0105.9990 and 0207.1100-0207.3600); Eggs in the shell, including those for hatching (0407.0000)

2. Maize (1005.1000-1005.9000)

3. Sorghum (1007.0000)

4. Millet (1008.2000)

5. Wheat flour (1101.0000)

6. Vegetable oils, excluding licensed and castor oils used as industrial raw material 1507-1517 (excluding 1515.1100.1515.1900 and 1515.3000)

7. Beer and stout (2203.0000, Barley and Malt (1003.0000 and 1107.1000-1107.2000 evian and similar waters (2201.1000-2202.9000)

8. Barytes and Bentonite (2511.1100-2511.2000.2508.1100)

9. Gypsum (2520.1000)

10. Mosquito Repellant coils (3808.1110)

11. Domestic articles and wares made of plastic materials excluding babies' feeding bottle (3922.1000-3922.9000.3924.1000-3924-9000)

12. Retread/used tyres (4012.1000-4012.9000)

13. Textile fabrics of all types and articles thereof, Chapters 50-63, but excluding:

    (a) Nylon tyre cord (5902.100-5902.9000)

    (b) Multifilament Nylon chaffer fabric and tracing cloth (5111.2000.5112.2000 and 5901.9000)

    (c) Mattress ticking (5901.1000-5903.9000)

    (d) Narrow fabrics (5806.1000-5806.4000)

    (e) Made-up fishing nets (5608.1100) and mosquito netting materials (5608.1900 and 5608.9000)

    (f) Gloves for industrial use (6116.1000-6116.9900)

    (g) Canvas fabric for the manufacture of fan belt (5907.0000 and 5908.0000)

    (h) Molding cups and lycra (6212.90000 Elastic bands (5604.9000) Motifs (5810.1000 - 5810.9000)

(i) Textile products and articles for technical use (5911.1000-5911.9000)

(j) Transmission or Conveyor belt or belting of textile material (5910.0000)

(k) Polypropylene primary backing material (5512.1100-5512.9000)

(l) Fiber rope (5607.1000-5607.9000)

(m) Mutilated rags (6310.1100)

(n) Sacks and bags (6305.1000 and 6305.2000)

14. Motor Vehicles and motor cycles above eight (8) years from the date of manufacture (8702.1100-8702.9900, 8703.1000-8703.9000, 8704.1000-8704.9900, 8711.1000-8711.9000)

15. Furniture and furniture products (9401.1000—9401.9000, 9403.1000 to 9406.0000)

16. Gaming machines (9504.1000-9504.3000)

Import prohibition list, 1999

1. Maize (1005.1000-1005.9000)

2. Sorghum (1007.0000)

3. Millet (1008.2000)

4. Wheat flour (1101.0000)

5. Barytes and Bentonite (2511.1100-2511.2000.2508.1100)

6. Gypsum (2520.1000)

7. Mosquito Repellant coils (3808.1110)

8. Retread/used tires (4012.1000-4012.9000)

9. Gaming machines (9504.1000-9504.3000)

Export prohibition list, 1995

1. Beans

2. Rice

3. Cassava

4. Maize

5. Yam

6.   Timber, rough or sawn

7.   Raw hides and skin

8.   Scrap metals

9.   Unprocessed rubber latex and rubber lumps

Export prohibition list, 1995

1.   Timber, rough or sawn

2.   Raw hides and skin

3.   Scrap metals

4.   Unprocessed rubber latex and rubber lumps

Source: Based on the information from the Federal Ministry of Finance,
Abuja, Nigeria

Annex 5A.3 Computation of effective rate of protection

The effective rate of protection is the percentage increase in value-added per unit of economic activity made possible by the tariff structure relative to the situation in the absence of tariffs, given the same exchange rate. Two levels of aggregation were involved in calculating the effective rate of protection. The first consisted of the 36 tradable sectors (21 in agriculture—crops, livestock, forestry and fishery; 3 in mining and quarrying; and 12 in manufacturing). The analysis at this level is used for inter-sectoral comparisons in the agricultural sector at commodity level. The second level of analysis involved highly aggregated sectors: crops, other agriculture, mining and manufacturing.

The effective protective rate for industry j (T_j) is defined as the difference between industry's value added under protection (VAP_j) and the value added under free market condition (V_j) expressed in percentage of free market value-added. That is

$$ERP_j = T_j = (VAP_j - V_j)/V_j = (VAP_j/V_j) - 1 \qquad (1)$$

It should be noted that value-added can be expressed as sales value of industry j's product net the sum of intermediate inputs. Using this definition for free market value-added, equation 1 becomes

$$T_j = [VAP_j/(S_j - \Sigma M_{ij})] - 1 \qquad (2)$$

where S_j is the sales value of industry j in domestic market prices and $\Sigma``M_{ij}$ is the sum of intermediate inputs valued in domestic market prices. Defining t_i and t_j as nominal tariffs on inputs and final output respectively and deflating the new expression for value added under free market by these rates, equation 2 becomes

$$T_j = [VAP_j/(\{S_j/1+t_j\}-\{\Sigma \ M_{ij}/1+t_i\})]-1 \qquad (3)$$

Equation 3 is used for calculating the effective rate of protection.[10]

Annex 5A.4 Domestic support and export subsidies in major markets for Nigeria's agricultural exports

Annex 5A.4 Table 5A.4.1 Trends in domestic support measures in the European Union, Japan, and the United States, 1995-97

USA (million $)	Base	1995	1996	1997
Green Box measures	24098.0	46041.0	51825.0	51249.0
Development program measures	0.0	0.0		
Direct payment under production-limiting		7030.0		
Non-exempt categories *I*	25470.0	7696.9	7052.8	7042.7
Non-exempt categories *II*		6213.9	5897.7	6238.4
TOTAL SUPPORT	49568.0	60767.9	58877.8	58291.7
Total aggregate measurement of support commitment level		23083.1	22287.2	21491.2
Japan (billion yen)	**Base**	**1995**	**1996**	**1997**
Green Box measures	2204.6	3169.0	2818.0	2652.0
Development program measures				
Direct payment under production-limiting				
Non-exempt categories I	4959.0	3544.7	3367.0	3207.1
Non-exempt categories II		3507.5	3329.7	3170.8
TOTAL SUPPORT	7163.6	6713.7	6185.0	5859.1
Total aggregate measurement of support commitment level		4800.6	4635.0	4469.5
European Union (million ECU)	**Base**	**1995**	**1996**	
Green Box Measures	9233.4	18779.2	22138	
Development Program Measures	0.0	0.0	0.0	
Direct Payment Under production-limiting		20845.5	21520.8	

European Union (million ECU)	Base	1995	1996
Non-exempt categories *I*	73644.9	50600.1	51478.0
Non-exempt categories *II*		50030.0	51000.00
TOTAL SUPPORT	82878.3	90224.8	95137.4

Total aggregate measurement of support
commitment level   78670.0   76370.0

Note: The figures in row for non-exempt categories I were calculated from product by product notification of expenditure. This did not distinguished from whether de minimis clause was satisfied or not. On the hand, the figures in row for non-exempt categories II only included expenditure within the de minimis level (see paragraph of Article 6 Domestic Support Commitments of the URAA). Thus, all the sampled countries violated the de minimis clause. The rate of violation was more pronounced in the United States.

Source: Based on (1) WTO (2000), Committee on Agriculture, Special Session, Domestic Support, GA/G/NG/S/1 (2) WTO (2000), Committee on Agriculture, Special Session, Green Box Measures, GA/G/NG/S/2

End-Notes

1. At various periods the Ministry of Trade and Tourism, Ministry of Commerce and Industry, and currently Ministry of Commerce.

2. According to WTO (1998), the area under cultivation was about 34 million hectares. This translates to about 37 percent of total arable landmass.

3. The overvalued currency altered the competitiveness and profitability of agricultural practice and hence dampened agricultural production. SAP had reversed the trend in such a way that exports of cash crops were encouraged.

4. The analysis is based on the United Nations Conference on Trade and Development (UNCTAD) coding system of trade control measures. The system is arranged into nine broad categories: tariff measures (1000), para-tariff measures (2000), price control measures (3000), finance measures (4000), automatic licensing measures (5000), quantity control measures (6000), monopolistic measures (7000), technical measures (8000), and miscellaneous measures (9000). Within these categories the measures are further subdivided according to their nature or objective. An example of classification by nature is prohibitions (total prohibition, seasonal prohibition, and suspension of issuance of license) under the broad category of quantity control measures. In sub-categorization by objectives, measures for sensitive products, be it internal taxes or charges levied on imports or technical measures, are further classified according to objectives of protecting animal health and life, plant life, environment, wildlife, control drug abuse, ensure human safety, ensure national security, and the like.

5. Customs duties on 333 six-digit HS tariff lines were also bound at between 40 and 80 percent.

6. Although customs duties for a period of seven years are published, changes are usually made during the annual budget presentation. For example, in 1998, the import duty rate applicable to textile fabrics in HS Chapters 50 to 60 was 65 percent instead of the published rate of 45 percent. Similarly, several items were removed from the import prohibition list and assigned high duty rates.

7 In the 1999 budget, all rebates were cancelled.

8 Under licenses on demand importers' shares are generally allocated,

or licenses issued, in relation to quantities demanded and often prior to the commencement of the period in which imports are to take place. This includes methods involving licenses issued on a first-come, first-served basis and those in which license requests are reduced to pro-rata where they exceed available quantities.

9   The current list of net food-importing developing countries includes: Barbados, Botswana, Côte d'Ivoire, Dominican Republic, Egypt, Honduras, Jamaica, Kenya, Mauritius, Morocco, Pakistan, Peru, Saint Lucia, Senegal, Sri Lanka, Trinidad and Tobago, Tunisia, and Venezuela.

10   It should be noted that the equation recognizes tariff as the only trade distortion in the Nigerian economy. This assumption is particularly so because of lack of data on other forms of trade distortion. To a reasonable extent the assumption holds noting that ad valorem tariff dominates Nigeria's trade control measures. However, the formula can be extended to take into consideration other non-tariff trade control measures. Another important point is that ERP model has been criticized on many grounds especially on the basis of input-output assumptions.

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6 Agriculture and the New Trade Agenda in the WTO: Interests and Options for Tanzania

Flora Mndeme Musonda

6.1 Tanzania's Economy and Trade

Tanzania has liberalized its economy since 1986 under World Bank and International Monetary Fund structural adjustment programs. However, despite extensive sectoral and trade reforms, the country still faces major challenges in reducing poverty, improving food security and nutrition, and protecting the environment. With agriculture the dominant sector in the economy and the major foreign exchange earner, these challenges cannot be met without raising agricultural productivity. Doing so will require switching from traditional and subsistence farming methods to modern and commercial methods, especially by smallholder farmers, who make up most of the agricultural sector. It will also require making the right policy responses to the 1994 Uruguay Round Agreement on Agriculture, (URAA) and in the new multilateral trade negotiations of the World Trade Organization (WTO) known as the Doha Development Round.

6.1.1 The Economy Today

Agriculture (including fisheries and forestry) dominates Tanzania's economy, from employment to exports. It is the major source of raw material for industry, the main purchaser of simple tools and services, and the main consumer of locally produced consumer goods. Gross domestic product (GDP) has historically moved in tandem with

agriculture. In 2000, agriculture contributed 48 percent of GDP and accounted for about 80 percent of employment for Tanzania's population of 34 million. Coffee and cotton alone have accounted for as much as a third of exports, but have recently been surpassed by cashews. Other important agricultural exports are tea, tobacco, and sisal. As a group, agricultural commodities comprised over half of Tanzania's merchandise exports in 1998.

The manufacturing sector is small, accounting for 8 percent of GDP in 1998. For years the sector was dominated by state enterprises and enjoyed a high level of protection. The resulting anti-export bias (compounded by an overvalued exchange rate) discouraged production for export. Manufactures averaged just 13.8 percent of exports between 1995 and 1998.

Tanzania's dependence on primary commodities means that variability in world commodity prices and vulnerability to weather conditions constrains its export performance, in addition to many other development related factors. Government efforts to diversify exports achieved some success, especially following trade liberalization in the 1980s. Nontraditional exports increased in value, but the promising performance was not sustained. As the country has liberalized, the highly sheltered industries could not compete with cheaper imports.

6.1.2 Trade Structure

Traditional export crops such as coffee, cotton, tea, cashew nuts, tobacco, sisal, and pyrethrum that had contributed more than 66 percent of export earnings in 1990 were contributing 52 percent in 1999. Nontraditional exports include processed manufactured goods, minerals, and services, with tourism at the top of the list.

Exports of cash crops during the past decade have been uneven, reflecting unreliable rainfall and surges in international commodity prices. During the 1990s the value of coffee exports increased until 1995 and then declined (Table 6.1). Prices nearly doubled in 1994, but volumes declined considerably, falling from 64,000 tons to 37,000 tons. Supply was slow to respond to the price increase, in part because export prices were not fully translated into producer prices, but mainly because coffee crops take years to mature. By 1996, production and exports had increased, but by then prices were falling. Tea values fluctuated as well. Price increases led to production increases, but again with a lag. When prices dropped sharply in 1995, value was sustained by the increase in

volume. Cotton values peaked in 1996 and then dropped. Sisal, an important export crop in the 1960s, has decreased in importance, although there are signs of an upswing. Tobacco export values peaked in 1996, nearly doubling as a result of increase in volume. Prices, which fell in 1994, recovered in 1997, but failed to regain their 1991 high. The value of cashew nut exports has soared from $5.6 million in 1990 to $112 million in 1998, thanks mainly to production increases in response to liberalization and greater private sector participation.

Tanzania's semi-autonomous region of Zanzibar exports cloves which are Zanzibar's most important agricultural export, accounting for more than 90 percent of the value of exports, and a source of income for many rural people, have fallen dramatically in value since the mid-1980s, with producer prices falling more than the world market prices in real terms. Yields are low, because many trees are old, and husbandry practices are generally poor.

Table 6.1: Tanzania's Exports by Type of Commodity

Commodity	January-December								
	1990	1991	1992	1993	1994	1995	1996	1997	1998
Coffee									
Value	85.0	77.3	59.5	96	115.4	142.6	137.8	117.4	114.9
Volume	62.7	52.5	51.0	58.6	37.0	48.0	64.0	46.6	53.6
Unit price	1,355.6	1,472.3	1,166.7	1,639.8	3,117.8	2,972.7	2,152.7	2,518.9	2,143.6
Cotton									
Value	74.6	63.3	97.6	78.4	105.1	120.2	137.8	116.5	54.1
Volume	46.3	38.7	72.8	61.2	60.0	70.9	64.0	77.3	37.3
Unit price	1,611.2	1,635.7	1,340.7	1,281.6	1752	1,695.6	1,535.1	1,518.9	1,450.1
Sisal									
Value	4.0	2.2	1.3	3.3	5.1	6.3	4.8	8.5	6.8
Volume	7.7	4.5	4.9	4.9	7.2	11.3	7.6	13.7	10.9
Unit price	519.5	488.9	317.0	672.7	711.1	556.4	631.6	623.8	619.3
Tea									
Value	21.5	21.7	22.4	38	39.5	23.4	26.3	30.1	32.2
Volume	14.8	17.5	20.4	19.7	21.7	21.6	24.7	20.4	22.7
Unit price	1,452.7	1,240.0	1,098.0	1,925.6	1,823.7	1,081.5	1,065.6	1,473.2	1,421.0
Tobacco									
Value	10.6	16.7	27.2	17.0	20.6	27.1	47.0	12.9	25.5
Volume	5.8	8.0	12.7	10.6	15.4	17.0	24.0	6.3	12.7
Unit price	1,827.6	2,087.5	2,141.7	1,607.3	1,335.0	1,588.4	1957	2,065.3	2,012.3
Cashewnuts									
Value	5.6	16.7	23.5	23.3	51.2	64.0	93.8	75.1	112.0
Volume	7.4	19.0	29.3	32.2	65.0	75.6	121.2	103.3	140.0
Unit price	756.8	878.9	802.0	724.8	787.0	847.0	774.0	727.0	798.3

* Provisional data

Note: Volume in '000' Tons; value in millions of US $; and unit price in US $/ton.

Source: Bank of Tanzania, International Economics Department.

Producer prices did not decline in real terms for copra and chilies, Zanzibar's other main exports, between the early 1980s and mid 1990, though prices were volatile (World Bank, 2000). When prices have been good, producers have responded by increasing production. The new agricultural policy intends to encourage the production of preferred varieties of chilies and to help improve yields through extension services.

Nontraditional exports have grown in importance since liberalization. Several fish species and seaweed have shown great potential, but oligopolistic private buyers reportedly pay only 10 percent of the export price of seaweed to producers. The government is exploring ways to facilitate a more competitive environment so that producers can receive a higher return. Other nontraditional export crops in Zanzibar include citrus fruits, rambutan, mango, sugarcane, ginger, turmeric, black pepper, and cinnamon.

Tanzania depends heavily on imports, especially of machines (capital goods constituted 42.3 percent of imports in 1998) and other intermediate inputs (27.2 percent in 1998), but also of consumer goods (30.5 percent in 1998). Low exports and high imports translate into persistent trade deficits, which requires borrowing.

Despite its vast arable land, Tanzania must often import food to meet its needs. With agriculture entirely dependent on rainfall, food production drops drastically during periods of drought. A joint assessment by the World Food Program (WFP) and the Food and Agriculture Organization (FAO) projects grain deficits of 560,000 tons through the mid-2000. An earlier government evaluation estimated a deficit of about 600,000 tons. Fertilizers, pesticides and herbicides, and other farm inputs and equipment are also imported, which severely diminishes the positive trade balance effects of agricultural exports.

6.1.3 Regional Trade Blocs

Tanzania is actively pursuing a regional integration strategy. Regional protocols will deepen the ongoing processes of economic integration and development in the region, improving competitiveness and promoting integration into the global economy. Regional integration is important for expanding Tanzania's markets and increasing its capacity for participation in the multinational trading system, including more effective negotiations in the WTO. Tanzania expects to maximize its influence in the negotiating process by coordinating on preparations with other similar countries and through the use of common negotiating positions.

Liberalization of regional agricultural trade requires that regional group members harmonize government policies, including tariffs, special safeguard measures, technical barriers, and sanitary and phytosanitary measures. Agricultural policies in many developing countries are already drawing closer, and the commitments provided under the Agreement on Agriculture will serve as the basis for even greater coherence in trade policy through tariffication and tariff reduction.

Tanzania is a member of the Southern African Development Community (SADC) and has been strengthening the East African Cooperation (EAC) agreement with neighboring Kenya and Uganda. These regional efforts are intended to harmonize economic policy and facilitate trade. Expected benefits from regional cooperation include increased trade, rural employment, and income generation; reduced informal trade; improved food security; lower marketing costs; and effective resource allocation in a long-run process of technology change and transfer. For net food importing countries like Tanzania, regional groups also offer the promise of increasing productivity in agriculture through joint regional efforts in research and development.

Under the Lomé Convention and its successor, the Cotonou Agreement, Tanzania received the full range of aid made available to African Caribbean, and Pacific countries by the European Union (EU). Under Lomé IV, many Tanzanian exports to the EU enjoyed nonreciprocal preferential treatment in the form of exemption from import duties. Tanzania's goods also enjoyed nonreciprocal preferential access to the markets of other developed countries through the Generalized System of Preferences. Because of Tanzania's limited export capacity, however, the benefits Tanzania reaped from these preferential arrangements have been minimal.

6.1.4 The Pre-reform Years

In the first six years of independence (in 1961 Tanganikyka became independent and in 1964 united with Zanzibar to form one nation of Tanzania), economic policy aimed at faster income growth, with import substitution-based industrialization and wide room for private and foreign investment. Private enterprise responded enthusiastically to government promises of tariff protection and guarantees against nationalization. In 1967, however, policies shifted toward socialism, emphasizing inward orientation and a strong, direct role in the economy for the public sector. The result was policies that not only discriminated against agricultural exports and but also dampened prospects for manufactured exports.

After growing rapidly until the late 1970s, the economy faltered from 1979 to 1985. Inflation shot up to 36 percent in 1984. Accommodation of public sector deficits added to inflationary pressures. Weak export performance meant that there was inadequate foreign exchange for imports of vital inputs needed to sustain domestic productive capacity, so manufactured goods were in short supply.

Efforts were made to encourage diversification of export markets, and an export promotion department was established at the Bank of Tanzania in 1972. In response to the emerging foreign exchange crisis of the late 1970s, a new export drive became a cornerstone of the early 1980's adjustment efforts. Export promotion schemes, from duty drawbacks to foreign exchange retention schemes, failed to yield the intended results because of operational problems and an unfavorable macroeconomic environment, especially an overvalued real exchange rate.

6.2   Agriculture and Food Sector Performance

Over the last two decades, food production in Tanzania (Table 6.2) has failed to keep pace with population growth, remaining one percentage point below the population growth rate. That means that Tanzania is dependent on food imports and food aid to help meet its food needs. Because of heavy protection of agriculture in many developed countries, surplus production is exported at artificially low prices, depressing world market prices, so that Tanzania's food prices and food import bill are determined by events outside Tanzania, mainly in developed countries.

Table 6.2: Food crop production in selected regions of Tanzania (thousands of tons)

Crop	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98 (estimated)
Maize	2,219.7	2267	2,188.1	2,874.4	2,648.2	1,831.2	2,750.0
Sorghum	587.1	719.1	473.0	838.8	872.4	498.5	673.2
Millet	451.8	424.1	435.3	342.0	585.0	347.0	195.0
Paddy	393.1	640.9	654.5	622.6	806.8	549.7	811.5
Wheat	65.8	83.5	59.7	75.3	83.6	78.5	110.5
Sweet potatoes	256.9	258.8	283.5	448.8	418.1	477.7	394.4
Pulses	311.6	397.5	279.3	374.2	467.3	368.7	447.6
Banana	793.7	798.2	733.4	650.9	640.9	604.1	949.4
Cassava	1,777.7	1,708.2	1,802.3	1,492.2	1,498.4	1426.0	1,528.5
Sub-total	6,857.4	7,297.3	6,909.1	7,719.2	8,020.7	6,181.4	7,860.1

Source: Ministry of Agriculture and Cooperatives, 1998

6.2.1 Food Crop Production

Tanzania has enormous agricultural potential in terms of land resources and range of climatic conditions, but agricultural performance is poor for both cash and food crops. Cereal yields are far below those of the other states in East Africa (Table 6.3). During 1991-95, when the agricultural growth rate averaged 2.6 percent a year in Uganda and 3.2 percent in Kenya, it averaged –2.4 percent in Tanzania.

Agriculture is the main source of domestic food supply, raw materials for domestic industry, investible capital, and demand in other sectors. Food crops dominate production, accounting for 55 percent of agricultural GDP at current prices. Much of agriculture is subsistence production (an estimated 44 percent) and never enters the internal or external trading system (Table 6.4).

Nearly all production is rain-fed. In addition to drought, late onset of rains, and pest infestations, weak agricultural performance is attributed to inadequate investment and maintenance of the economic infrastructure, weak institutional structures, poor management, and inadequate technical capacity. Poor transport infrastructure, for example, costs the economy nearly US$200 million a year, almost half the country's total export earnings (World Bank 1989).

Table 6.3: Cereal yields and average annual growth rate of agricultural food production in East Africa, selected periods

Country	Cereal yields		Average annual growth rate of food production	
	Kilograms per hectare		Percent	
	1979-81	1994-96	1986-90	1991-95
Tanzania	1,063	1,310	0.9	-2.4
Kenya	1,364	1,822	0.9	3.2
Uganda	1,555	1,552	4.1	2.6
Average	1,327	1,561	2.0	1.0
Tanzania, percentage below average	-19.9	-16.1	-54.2	-311.8

Source: Maro 1999.

Table 6.4: Agriculture as share of total GDP at factor costs in constant 1992 prices, mainland Tanzania (per cent)

Economic Activity	1992	1993	1994	1995	1996	1997	1998	1999	2000
Monetary									
Agriculture	26.6	27.3	27.5	28.3	28.4	27.9	27.4	27.3	26.9
Crops	18.3	18.8	18.9	19.8	19.9	19.4	19.1	19.1	18.7
Livestock	4.5	4.6	4.6	4.6	4.5	4.5	4.4	4.4	4.3
Forestry and hunting	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.2
Fishing	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.7
Total monetary GDP	73.3	72.6	72.4	72.2	72.4	72.4	72.4	73.1	73.4
Nonmonetary									
Agriculture	21.4	22.0	22.1	22.4	22.2	22.2	21.7	21.6	21.2
Crops	17.0	17.5	17.6	17.9	17.7	17.8	17.4	17.3	17.0
Livestock	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1
Forestry and hunting	1.9	2.0	2.0	2	2	1.9	1.9	1.9	1.8
Fishing	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Total nonmonetary GDP	26.7	27.4	27.6	27.8	27.6	27.6	27.6	26.9	26.6
Total monetary and nonmonetary	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Bureau of Statistics.

During the 1980s price controls kept real producer prices low. Prices rose following the reforms of the late 1980s, reaching 50–165 percent of previous levels. Prices fell again between 1993 and 1999 (wheat and paddy fell the most but maize and millet as well as world prices for cereals and traditional commodity exports trended downward (Table 6.5).

Table 6.5: Real producer prices for food crops, 1981-99 (constant 1998-99 Tshs/kg)

Year	Price index[a]	Maize	Paddy	Wheat	Millet	Beans	Cassava
Official procurement prices							
1981-85	1.4	140	232	195	117	334	na
1986-90	5.6	149	250	170	109	369	na
Market Prices							
1990-91	12.3	106	212	473	279	471	na
1991-92	14.7	279	370	495	289	508	73
1992-93	18.6	298	491	525	365	533	91
1993-94	25.2	256	424	497	376	712	84
1994-95	32.7	181	254	452	484	797	76
1995-96	43.3	165	216	423	538	571	75
1996-97	58.3	138	245	362	245	475	67
1997-98	77.3	117	195	272	175	431	61
1998-99b	100	118	151	228	175	317	53

a. National Consumer Price Index where 1998-99 = 100
b. To April 1999.
Source: World Bank, 2000a

A key impediment to more rapid agricultural sector growth is the legal and regulatory framework. Among priority measures for improving the regulatory framework are reform of the business licensing system, implementation of the Land Act and the Fair Trade Practices Act, and coordination of industrial, environmental, privatization, and investment policies with export development initiatives. But Tanzania lacks the resources to put regulations and institutions in place to operationalize the laws.

Sensitivity analysis on various food and cash crops in Tanzania indicates that lowering prices and taxes has different impacts on these crops. Input subsidies may not be the best way to promote better cotton management, for example (World Bank, 2000). Local market taxes and levies seem to account for a substantial share of total crop income. If all cashew taxes were eliminated, for example, farmers' profits would rise by 19-30 percent.

Calculations of private and social domestic resource costs for selected crops using average technology levels show that these crops are internationally competitive (Table 6.6). The only exceptions are tea and maize.

Table 6.6: Private and social domestic resource costs for selected Tanzanian crops

Commodity	Private DRC			Social DRC		
	Average	Improved	Potential	Average	Improved	Potential
Maize (Iringa)	0.89	0.71	0.61	0.93	0.72	0.61
Maize (Tabora)	0.79	0.84	0.77	0.78	0.80	0.72
Maize (Dodoma	1.02	1.23	2.26	0.66	0.71	0.96
Rice(rainfed, upland)	0.58			0.82		
Rice (rainfed, lowland)	0.37	0.47		0.60	0.78	
Rice Irrigated, Morogoro)	0.32	0.34	0.31	0.63	0.72	0.66
Sesame (Mtwara)	0.62	0.44		0.50	0.31	
Cotton (Shinyanga)	0.59	0.66	0.74	0.43	0.50	0.53
Tobacco ((flue cured)	0.77	0.70	0.59	0.62	0.56	0.47
Tobacco (fire cured)	0.76	0.77	0.60	0.56	0.56	0.44
Cashew (Mtwara)	0.35	0.48	0.41	0.27	0.26	0.22
Cashew (Tanga)	0.69	2.57	2.51	0.50	0.90	0.81
Coffee (arabica)	0.50	0.35	0.28	0.39	0.27	0.22
Coffee (robusta)	0.66	0.65	0.58	0.59	0.56	0.49
Tea (smallholder) Iringa	1.40	1.48		0.97	0.92	
Tea (estate) Iringa		1.30	1.01		0.55	0.43
Sugarcane Morogoro	0.68	0.65		0.80	0.77	

Average means average of the sector, improved is improved technology, potential is what can be achieved with changes in technology. DRC is Domestic Resource Cost.

Source: World Bank. 2000b. "Tanzania, Agriculture: Performance and Strategies for Sustainable Growth." Washington D.C. Ministry of Planning Tanzania for Methodology.

6.2.2 Poverty Reduction and Food Security

Progress in reducing poverty and malnutrition and in increasing food security in Tanzania is highly dependent on performance in the agricultural sector. The incidence and severity of poverty are twice as high in rural areas as in urban areas, and rural households lag behind urban households in almost every quality of life indicator. And with about 80 percent of the workforce involved in agricultural production, no development strategy could improve the lives of the majority of the population without significant investment in agriculture (WTO, 2000).

Unstable agricultural production coupled with fluctuations in commodity prices has adversely affected food security. Food aid serves as a mechanism for lessening the tension of structural deficits and a weakening economy. The World Food Program (WFP) and Food and Agriculture Organization (FAO) estimated a national food deficit of 560,000 tons for the period through mid-2000, and an earlier evaluation by the government estimated a deficit of about 600,000 tons. That means that the country continues to need food aid.

However, food aid does not always reach the most vulnerable groups, and it can act as a disincentive to local food production. Subsidization of food imports can accelerate substitution of imports for domestic production. Local coarse grains, owing to discriminatory domestic pricing policies, tend to lose in the competition with imported grains.

Although aggregate data on food crop production indicate a surplus, food insecurity (defined by the FAO to encompass food supply, access to food, and stability of flows over time) is common in some parts in the country (Table 6.7). The reason lies mainly in the difficulty of moving the surplus from one area to another due to problems associated with internal trading and marketing (Maro, 1999). Limiting factors include inadequate production and supply of food by households, reliance on subsistence farming, high population growth rate, poor infrastructure, and trade restrictions and market-related policies, including regulations that impede interregional trade.

Table 6.7: Food balance, 1985/86 –1997/98 (tons)

Years	Deficit Regions	Surplus Regions	Total Production	Surplus/Deficits percent Production	
1985/86	1,622.82	2,241.62	3,864.44	618.80	16.01
86/87	1,511.46	2,247.42	3,758.88	735.96	19.58
87/88	892.45	2,711.95	3,604.40	1,819.50	50.48
88/89	1,141.83	3,083.05	4,224.88	1,941.22	45.95
89/90	1,014.02	2,903.70	3,917.72	1,889.68	48.23
90/91	972.93	2,471.60	3,444.53	1,498.67	43.51
91/92	1,190.37	2,513.60	3,703.97	1,323.23	35.72
92/93	1,194.20	2,857.30	4,051.50	1,663.10	41.05
93/94	1,011.00	2,768.20	3,779.20	1,757.20	46.50
94/95	1,333.00	3,345.00	4,678.00	2,012.00	43.01
95/96	1,546.40	3,345.00	4,891.40	1,798.60	36.77
96/97	838.60	2,427.50	3,266.10	1,588.90	48.65
97/98	1,692.90	2,799.40	4,482.30	1,106.50	24.63
Average	1,227.84	2,747.33	3,975.18	1,519.49	38.47

Source:Based on Mjema 1999.

6.3   Liberalization before the Uruguay Round

Tanzania began trade liberalization and other economic reforms in the mid-1980s under World Bank- and IMF-sponsored adjustment programs, well before WTO agreements came into force in 1995. In June 1986 the government launched the Economic Recovery Program (1986-89) to continue and intensify earlier adjustment initiatives. Macroeconomic and sectoral measures were designed to increase the output of food and

export crops, channel investment resources into rehabilitation of physical infrastructure and productive activities, boost capacity utilization in industry, restore internal and external balance, and increase foreign exchange earnings. Measures included devaluation, tight fiscal and monetary policy, and a schedule for dismantling controls over prices and distribution.

In 1988 an open general license scheme was implemented, which allowed a more market-oriented allocation of foreign exchange. The Foreign Exchange Act of 1992 made it legal for citizens to possess and sell foreign exchange through foreign exchange bureaus, which became another window for financing imports.

The Second Economic Recovery Program (1989-92) focused on strengthening social services delivery by increasing efficiency, accountability, and community support and accelerating employment creation and income generating activities in small-scale manufacturing and services.

Starting with the First Economic Recovery Program in 1986, trade policy has increasingly relied on market incentives and less on controls. Trade and exchange rate liberalization and macroeconomic reforms were the hallmarks of outward-oriented policies. Tariff rates were lowered and compressed, and quantitative restrictions were reduced. In 1992, the Tax Commission proposed further measures to simplify customs duties, reduce exemptions, increase efficiency in revenue collection, and reduce import duties on raw material inputs for exporting firms (CREDIT, 1998).

Tanzania has steadily liberalized its tariff regime. Tariff rates were reduced from the high level of 120 percent prevailing in the 1980s to 40 percent in 1995. Nontariff barriers, including quantitative restrictions, discretionary licensing, and variable levies, have largely disappeared. In 1980-86, nontariff barriers covered more than 50 percent of imports. By 1993/94 nontariff barriers covered 15 percent of goods. Remaining nontariff barriers are restrictions on petroleum imports, which mainly reflect limitations in physical capacity at the port and storage capacity.

6.3.1 Reforms in Agriculture

Liberalization of food crops started as early as 1981/82, but not until 1988/89 was the marketing of all food crops decontrolled at the level of cooperative unions and a year later at the level of primary societies (Ministry of Agriculture, 2000). Marketing boards were made the agents of cooperative unions, and cooperatives became private institutions, with minimal government intervention. Crop boards took on regulatory functions on behalf of the Ministry of Agriculture and Cooperatives.

Most nontariff barriers have been removed. Tariff barriers are lower for agricultural commodities than for manufactured imports. Nuisance taxes on cash crops have also been removed, and the national government has tried to harmonize local and national taxation to avoid double taxation of exportable crops.

Private traders began to operate legally in the coffee and cotton sector in 1994-95 and in the tobacco sector the following year. Private traders were allowed to buy, process, and export these crops. The Pyrethrum Board's factory was closed in 1997 due to financial problems and privatized in 1998. Private tea estates already account for 70 percent of production, and the remaining estates and processing plants of the Tanzania Tea Authority are being privatized.

The government replaced fixed producer prices for food crops with indicative prices, dropping even those in 1993/94. Over time, as they lost their monopoly power, cooperative unions diminished in influence, as did the National Milling Corporation, which once enjoyed a monopoly of domestic food crop marketing for domestic and imported food.

Table 6.8: Major destination countries for Tanzania's agricultural commodity exports before the Uruguay Round (millions of Tsh)

Country	EXPORTS-1986						
	0	1	2	3	4	Total	Grand Total
Exports-1987							
France	2,579	19	21		1	2,620	2,678
United Kingdom	564	258	32		1	855	1,367
Finland	933		1			934	934
Netherlands	577	96	46			719	774
Italy	389	0	127			516	540
India	465		9			474	503
Exports-1990							
India	11,589		1,610			13,199	13,527
France	6,548	123	309		1	6,981	7,422
United Kingdom	2,925	820	701		33	4,479	6,267
Taiwan			3,322			3,322	3,329
Netherlands	2,340	312	120		6	2,778	2,993
Singapore	1,610		946	1		2,557	2,565

Note: 0 is food and live animals; 1 is beverage and tobacco; 2 is crude materials except fuels; 3 is mineral fuels; 4 is animal and vegetable oils. Total is total of subgroup 0,1,2,3,and 4 while grand total is total for all groups for that country.
Source: Tanzania Foreign Trade; Bureau of Statistic, several issues.

Before the conclusion of Uruguay Round in 1994, industrial countries in Europe, including France, United Kingdom, Netherlands, Finland, and Italy, were the major markets for Tanzania's agricultural commodity exports (Table 6.8). Other important markets included India, Taiwan (China), and Singapore. Agricultural imports also came mainly from European markets, reflecting historical ties (Table 6.9). Other important partners were Japan, the United Arab Emirates, Iran, and Kenya.

Table 6.9. Major sources of Tanzania's imports of agricultural commodities before the Uruguay Round (millions of Tsh)

Country	IMPORTS-1986						Grand total
	0	1	2	3	4	Total	
United Kingdom	200	20	75	24	34	353	3,613
Japan	76	0	44	7	1	128	3,471
France	154	6	44	86	86	376	3,203
Italy	18	4	105	340	3	470	2,011
United Arab Emirates	3	0	3	1,451	17	1,474	1,653
Kenya	17	3	3	416	2	441	1,256
IMPORTS-1987							
United Kingdom	118	24	143	32	20	337	8,987
France	285	5	244	50	29	613	7,689
Japan	34	0	128	11	5	178	6,955
Italy	20	25	141	295	10	491	5,749
Netherlands	173	6	257	108	143	687	3,136
Denmark	5	2	293	3	258	561	2,884
IMPORTS-1990							
United Kingdom	194	128	1,120	466	34	1,942	34,104
France	591	23	225	93	261	1,193	20,059
Japan	7	0	23	11	33	74	15,426
United Arab Emirates	97	7	286	2,955	79	3,424	8,861
Netherlands	700	21	285	79	62	1,147	8,719
Iran	6		8,561			8,567	8,608

Note: 0 is food and live animals; 1 is beverage and tobacco; 2 is crude materials except fuels; 3 is mineral fuels; 4 is animal and vegetable oils. Total is total of subgroup 0,1,2,3,and 4 while grand total is total for all groups for that country.

Source: Tanzania Foreign Trade; Bureau of Statistic, several issues.

6.3.2 Impact of Policy and Macroeconomic Reforms in Agriculture

Overall, the reforms moved Tanzania from a planned to a market-based economy (see Box 6.1). Inputs, production, processing, marketing, and international trade functions are in private sector hands. Though marketing boards are still in place for most of Tanzania's major export crops (Coffee

Marketing Board, Cotton and Lint Marketing Board, Pyrethrum Marketing Board, Tea Marketing Board, Tobacco Marketing Board, Cashew Marketing Board, and Sisal Marketing Board), the boards no longer set prices for export crops or buy crops, as they did in the 1970s and 1980s. Today, the boards regulate marketing and exporting, advise the government on matters relating to production and marketing, set quality standards and inspect products before marketing and exporting, issue licenses and permits for purchasing and marketing products, provide extension services, collect data and disseminate information to producers and buyers, conduct and finance research, and solicit funds for crop development.

Farmers are free to sell their crops to cooperatives or private traders. Greater efficiency in marketing systems for some crops has enabled farmers to market their crops more quickly. Farmers are no longer confined to a single source for fertilizers, agro-chemicals, seeds, farm implements, and veterinary drugs. For some crops, however, liberalization has meant hardship for farmers whose marketing systems have been disrupted and not yet replaced by new ones.

Box 6.1. The trade regime in agriculture 1961-1994

1961/64
The three-year plan spells out the industrial development strategy.

1964/69
The first five-year plan expects private and foreign capital to play a lead role in industrialization.
The policy shift toward socialism results in significant new changes emphasizing inward-orientation and public sector dominance.
Bank of Tanzania establishes an Export Promotion Department.

1982/83
Liberalization of food crops begins.

1984/85
Tanzanians with foreign exchange are allowed to import goods to close the demand gap for common goods in short supply.
Import scheme allows exporters to use part of their foreign exchange earnings for selected imports.

Currency is devalued, import facilities are improved, and the prices paid to agricultural producers are adjusted to make them closer to world prices.

1988/89
Marketing of food crops at cooperative union level is decontrolled.

1989/90
Marketing of food crops at cooperative union level is further decontrolled.

1993/94
Government stopped announcing indicative prices for food crops.
Tariffs on food vary from 0 percent to 25 percent.
Suspended duties used to protect local industries.
Suspended duties on selected agricultural commodities levied at 20 percent.
Other agricultural inputs charged import duties between 0 and 5 percent.

Economic reforms have included removal or reduction of government subsidies on basic commodities, which had become unsustainable. However, the fiscal savings from eliminating fertilizer subsidies and the loss-making activities of the National Milling Corporation and other state enterprises have not been reallocated to investments in agricultural research, extension, and market development activities. And in Zanzibar, despite the policy reforms, the share of the development budget going to subsidies for agriculture has increased from 4 percent in 1994 to more than 6 percent, even though development budget resources have been dwindling rapidly. Agricultural subsidies tend to be somewhat sticky in nominal terms, falling less than overall expenditure (World Bank, 2000).

Internal trade has not been a strong engine of economic growth for several reasons:

- Weak marketing infrastructure has delayed full integration of the economy. Most of the country is not easily accessible by road, rail, sea, or air. Telephones, telex, and telefax facilities are poorly developed, greatly slowing commercial transactions from one part of the country to another and adding to their cost.
- Low productivity, particularly in peasant agriculture, has further slowed integration. Low productivity means low income earning capacity and so low effective demand and weak incentives for trade to act as an engine of growth.

- Low levels of education lead to weak managerial capabilities and low efficiency. Human resources development is essential for raising productivity across the economy (ERB, 1994).

6.4 Trade Policy Regime and Agricultural Sector after the 1994 Uruguay Round Agreement on Agriculture

When in 1994 Tanzania signed the Final Act of the Uruguay Round and the Marrakech Agreement establishing the WTO, all WTO agreements became binding on Tanzania. While Tanzania has attempted to comply with certain requirements, such as establishing a National Inquiry Point and Acceptance of Code of Good Practice on Voluntary Standards under the Sanitary and Phytosanitary Agreement, effective implementation of most WTO commitments is hampered by a lack of adequate information and financial, institutional, and technical capacities. Tanzania would need to rely on technical cooperation from the WTO and other development agencies to strengthen its capability to implement WTO agreements and negotiate effectively in further WTO multilateral trade negotiations.

As a member of the WTO, Tanzania has bound certain of its tariffs (mainly on goods that are not produced locally). As a least developed country, Tanzania has a longer period for implementing many of the WTO agreements. But while the WTO allows least developed countries to reduce subsidies on a longer schedule, Tanzania cannot take advantage of that flexibility because of commitments to the World Bank and IMF.

Tanzania's export policies have generally taken the form of export restraints (taxes, quotas, and prohibitions) rather than subsidies. However, Tanzania and other developing countries will be affected by developed countries' commitment to remove or reduce export subsidies and domestic support measures, which may reduce the supply of developed country exports and increase import demand in developed countries. While the reduction in export subsidies and market access commitments by developed countries (through tariff quotas) should increase opportunities for developing countries, Tanzania's access to developed country markets has frequently been provided under bilateral and preferential terms under the Lomé Convention/Cotonou Agreement and the bilateral Generalized System of Preferences schemes provided by developed countries. These trade preferences are being eroded in the liberalized global trading environment as developed countries further reduce their tariffs.

For implementation of the WTO Agreement on Agriculture, food security is an extremely important issue for Tanzania and other least

developed countries that are net food importers. Tanzania should take advantage of provisions for special and differential treatment to ensure its food security. Another concern is standards and technical barriers, which present problems of market access for Tanzania's agricultural commodities. Tanzania will need technical assistance to achieve required standards. Regional cooperation can also assist Tanzania in reaching agreed standards thereby ensuring that their products can be traded globally.

The government has emphasized the importance of opening markets abroad to expand exports, but the country's severely limited export capacity has hindered any significant export-led growth. Tanzania, like most African countries, does not subsidize agriculture or agricultural exports but rather taxes them either implicitly through protection of industry or explicitly through taxation of exports or government controls to keep domestic prices below world prices. Thus Tanzania and other African countries are not taking advantage of the provisions of the Agreement on Agriculture allowing developing countries greater leeway in subsidizing agriculture.

The real value of budget allocations to the Ministry of Agriculture and Cooperatives has declined since the 1990/91 budget (World Bank, 2000). In 1997/98, for example, it was about a third the annual average for 1991/92 to 1993/94 (Table 6.10). The declining share of research and development is especially worrisome for future productivity growth in agriculture, falling from 25-30 percent in the early years to an estimated 12 percent in the 1999/2000 budget.

Tanzania's export promotion activities have included tariff rebates (although implementation has been difficult), local-content requirements, and for some products, higher tariffs. Export controls have been imposed on certain products for a variety of reasons, including conservation concerns in the case of timber. Subsidies on agricultural inputs and equipment, long viewed as fundamental for increasing agricultural productivity, have been removed.

Although trade policy is generally similar for mainland Tanzania and for Zanzibar, there are some differences in practice. The establishment of the Zanzibar Freeport Authority in 1992 was an important incentive for external trade. The authority controls and manages the free port zones, promotes trade in goods including transshipment, and provides facilities, including infrastructure and storage, for licensees in freeport zones.

Table 6.10: Real budget allocation to agriculture, 1990/91 to 1999/2000

Budget item	1990/91 [a]	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998 Approved	1992/2000 Estimates	1991/92 to 1991/98 Total
Total amount (million 1998 - 99	57,293	64,432	71,001	62,696	63,252	40,161	26,420	21,829	37,047	44,421	386,839
Share (percent) Administration	33	10	10	10	5	4	9	13	29	32	13
Crop development	4	47	39	44	47	55	49	48	34	36	s42
Research and development	29	25	34	22	30	18	10	15	15	12	20
Cooperative development	0	6	5	6	3	4	5	9	4	4	5
Food security and strategic grain reserve	0	0	0	7	5	6	12	11	3	3	5
Livestock develop	33	12	12	12	9	13	16	4	15	13	13
Total	100	100	100	100	100	100	100	100	100	100	100

a. 1990/91 distribution by sector includes only recurrent expenditure because development expenditure figures are not allocated by sector.

Note: Total amount includes recurrent and development expenditure. "Administration" includes policy and planning. "Crop development" includes input trust funds. Totals may differ by 1 percent from 100 due to rounding error.

Source: Quoted from World Bank, Agriculture in Tanzania since 1986, *Follower or Leader of Growth?*, 2000, p14.

6.4.1 Tariffs and Nontariff Barriers

The government's trade policy objective is to open up the economy and provide incentives for investment in priority sectors such as agriculture, tourism, mining, and transport. Tanzania has been making a concerted effort to create an environment conducive to domestic and foreign investment. The Tanzania Investment Centre offers incentives for setting up projects, including incentives for imports of capital goods. Import duties have been eliminated on all farm inputs and equipment to support development of the agricultural sector. Reforms undertaken since 1985 have resulted in a trade policy framework based largely on tariffs. Most nontariff barriers have been dismantled. Export restrictions and foreign exchange controls have been eliminated.

In 1996/97 tariffs were widely dispersed, from 0 to 40 percent (5, 10, 20, 25, 30, 40). Recent reform has resulted in a simplified five-tier structure: 0, 5 percent, 10 percent, 20 percent, and 25 percent, depending on the degree of processing (Table 6.11). The maximum rate fell from 40 percent to 25 percent in 1999. The trade-weighted tariff fell from 25 percent in 1993/94 to 20 percent in 1997/98 (URT, 1999). The zero rate is maintained for strategic and lead investment sectors, including agricultural inputs and infrastructure.

Import duties for agricultural inputs are fairly low, with most between 0 and 5 percent. Effective rates of protection rise along the processing chain, providing greater protection to higher-level processing activities, causing resource misallocation and increasing costs for Tanzanian consumers. The government still relies heavily on tariff revenues, creating pressure to maintain revenues through high tariff levels.

Table 6.11. Changes in import tariffs, 1996/97–1998/99

Fiscal year	Tariff bands and percentage
1996/97	5, 10, 20, 25, 30, 40
1997/98	5,10,20,30
1998/99	0,5,10,20,25

6.4.2 Safeguards

The Agreement on Agriculture permits developing countries to apply emergency protection measures to safeguard domestic producers from an unforeseen surge in imports that could result following removal of quantitative restrictions. Tanzania has suspended duties of 20 percent on selected commodities (dairy products, edible oil, sugar, eggs, hatching and tomato products) originating from COMESA member states to protect local industries (Ministry of Agriculture, 2000). The suspended duties are used as safeguard measure in the manner that if Tanzania believes that its domestic industries or economy is affected by lower COMESA member imports due to liberalization program, it can use the suspended duties up to 20% on those imports. This has been used in for example imports from Kenya causing disputes between the two countries.[1] Some imports are also charged a 20 percent value-added tax (VAT). These

tariffs are prohibitive to trade and need to be harmonized with those of Tanzania's trading partners.

6.4.3 Sanitary and Phytosanitary Standards

The Agreement on the Application of Sanitary and Phytosanitary Measures (SPS) deals with border control measures necessary to protect human, animal, or plant life or health. The agreement took effect on 1 January 1995 for all WTO member countries except the least developed countries, including Tanzania, which have a longer timeframe for compliance. Although Tanzania is a member of International Office of Epizootic Diseases and Codex Alimentarius Commission (but not of the International Plant Protection Convention,(IPPC), like many developing countries it still finds it difficult to adhere to even minimum international standards for food safety, including Good Agriculture Practice, Good Practice in the Use of Veterinary Drugs (GPVD), and Good Manufacturing Practice (GMP) in food processing and many of its laws governing sanitary and phytosanitary measures are outdated and ineffective. Among the reasons are poor technology for processing and inspection and inadequate skills and knowledge of laws and standards. The fish industry is a case in point. Fish from Lake Victoria was banned by the European Union in 1998 and 1999 for failing to adhere to EU standards. While Tanzania has more than 20 phytosanitary inspectorate service posts, they lack adequate infrastructure and resources.

6.4.4 Special and Differential Treatment

Under the WTO principle of special and differential treatment, phased introduction or longer timeframes for compliance may be granted for products of interest to developing country members, taking into account their financial, trade, and development needs. Given its limited technical capabilities in this area, Tanzania needs to take advantage of the provision in the Decision on Measures in Favour of Least Developed Countries (URAA Article 16) on "substantially increased technical assistance" related to production and exports.

In addition, food security concerns for the least developed countries are addressed in the Decision on Measures Concerning the Possible Negative Effects of the Reform Programme on Least-Developed and New Food Importing-Developing Countries (URAA Article 16) by reviewing levels of food aid and providing increasing amounts of food aid on grant terms. There is also provision for short-term assistance

from international financial institutions in financing normal imports. These measures are aimed at alleviating the burden on the food import bill and balance of payments situation and enhancing the ability of developing countries to increase their agricultural production capacity and reduce their high dependence on imports.

6.5 Tanzania's Interests and Options for the New WTO Round of Negotiations

Agriculture has been one of the most politicized and protected sectors in international trade. Heavy government subsidies in developed countries with their negative impact on markets and prices are turning Africa from a food surplus to a food deficit continent. Implementation of the Agreement on Agriculture on tariffs will erode the tariff preferences of African countries by an estimated average of 30 percent. Exports of some tropical products from the Africa, Caribbean, and Pacific countries will suffer losses of as much as 51 percent due to loss of tariff preferences (OECD, 1994).

The Agreement on Agriculture is designed mainly to reform domestic policies in many developed countries, which tend to subsidize agricultural production, rather than developing countries, which tend to tax agriculture. Policies important to Tanzania include policies aimed at providing food aid to vulnerable segments of the population, including public food stocks held for food security purposes. Other important policies include *de minimis* provisions (subsidies under 10 percent of the value of production for specific products or the total value of agricultural production for non-product-specific measures) and Blue Box policies (production payments with area limitations, which are exceptions to the rule that subsidies linked to production must be reduced or kept within defined minimal levels). These policies among others are important for Tanzania as experience has shown that many producers have failed to use some inputs and pesticides that are important for production. Private sector has not been able to assist Tanzanian producers so a form of government support is still needed to make agriculture competitive.

6.5.1 *Market Access and Constraints to Trade from OECD Policies*

Since the late 1980s Tanzania's exports have been concentrated in six major traditional crops and a few countries of destination, particularly the United Kingdom, Italy, Germany, Netherlands, India, and Japan. Regional trading has not expanded as expected. The success of measures

to stimulate trade will depend on the extent of product and market diversification. And for diversification to work, issues of market access are crucial.

African countries including Tanzania tend to be importers of food, particularly wheat, rice, and dairy products. URAA provisions requiring cuts of 20 percent in domestic support and 36 percent in export subsidies by developed countries would raise Tanzania's food import costs by US$808 million and result in net income losses of US$1.1 billion (UNCTAD/WIDER, 1990). Reductions in export subsidies may also lead to trade creation as the value of agricultural exports will rise. But economic gains will be reduced or eliminated by the reduction of tariff preferences into developed country markets. For Tanzania, the overall impact of trade liberalization on trade creation may be negative and import bills high. To overcome this, policies to increase food production and promote export commodity diversification are necessary.

The magnitudes of tariff preference margins in OECD countries are thus very important. The FAO (1995) estimates that Africa's food import bill will grow from US$6.0 billion in 1987/89 to US$10.5 billion in 2000, with US$0.5 billion of it due to the effects of the Uruguay Round. Thus taking advantage of special and differential treatment provisions to meet its food security needs will continue to be important for Tanzania, given its level of development and lack of adequate infrastructure.

Under the Uruguay Round, developed countries have lowered their most-favored nation (MFN) tariffs on industrial products by an average of 2 percentage points, from 6 percent to 4 percent. Changes have been greater for some of the most protected products. The "Analysis of the Draft Final Act of the Uruguay Round, with Special Attention to Aspects of Interest to Developing Countries" of 1993 found smaller tariff cuts on goods of export interest to developing countries than on goods of export interest to developed countries. For example, tariff reductions for industrial goods averaged 38 percent for imports from all origins but only 34 percent for imports from developing countries. Peak tariffs (exceeding 12 percent and going as high as 300 percent in some cases) resulting from the tariffication of nontariff measures affect many agricultural items. Tariff escalation remains high on several product groups of export interest to developing countries, particularly leather, coffee, tea, jute, fabrics, cocoa products, and tropical fruits, limiting the scope for expansion of production into value-added and higher priced products such as coffee. This problem is likely to be compounded by

Africa's low level of competitiveness. In addition, the preferential treatment on tariffs for exports to major markets that Tanzania and other developing countries have received under the Generalized System of Preferences and other arrangements such as the Lomé Convention and Cotonou Agreement are being eroded by reductions in the MFN tariff rates, reducing their effective level of preference as well as by improving the market access of more competitive developing countries.

Other factors may be even greater barriers to trade than tariffs for many developing countries. These include rules of origin, quality standards, sanitary and phytosanitary requirements, environmental requirements, and labeling requirements. The impact of agricultural liberalization on rural employment is another serious concern. All these issues require priority attention by Tanzania in multilateral trade negotiations given the centrality of agriculture to the economy. Tanzania needs to analyze the impact of tarrification, tariff reduction, and other liberalization measures on market access with a view to identifying strategies to take advantage of the Agreement on Agriculture. Effective use of the technical assistance provision provided in the WTO agreement will be critical for reducing these barriers to increased access.

6.5.2 What Tanzania Needs to Do

A key priority for Tanzania is product diversification into nontraditional food products for export. Achieving this depends on developing a strategy and understanding the issues involved. For example, Tanzania has a comparative advantage and high export potential in the production of tropical fruits and fresh produce. But production of value-added products is affected by the Agreements on Technical Barriers to Trade and Sanitary and Phytosanitary Measures, which affect such issues as health standards, packaging, and labeling requirements. For example, market access for Tanzanian horticultural products into Japan and Europe has become increasingly difficult because of packaging requirements, shelf lifetime requirements, allowable levels of additives, and disease-free-area requirements. Constraints such as these can be partly tackled through requests for technical assistance provided under the WTO framework.

By committing to eliminate subsidies, Tanzania has lost one of its most important instruments for pursuing an export-led growth, while other constraints severely constrain its ability to impose quantitative restrictions for balance of payment purposes. Progressive liberalization of agriculture under the Uruguay Round will inevitably favor countries

with high levels of productivity and competitiveness over those like Tanzania that still have a long way to go. Agricultural exports depend on efficiency and on management effectiveness is such areas as product quality and adherence to product specifications and delivery schedules, among many others.

6.6. Modeling the Effects of Liberalizing Trade on the Agricultural Sector

This section models the effects of trade liberalization on agriculture compared with other sectors in Tanzania.[8]

6.6.1 Model Description

The simulation uses 1992 data from the social accounting matrix (SAM) in a static computable general equilibrium (CGE) model for Tanzania. The SAM covers eight activities, seven production factors, four households, and other institutions. The activities are agricultural exports, food, other agricultural, mining, food processing, nonagricultural light manufacturing, nonagricultural heavy industry, and nonagricultural service. The factors are urban professional labor, urban white collar labor, urban blue collar labor, urban unskilled labor, rural labor, land, and capital. The four households are enterprises, urban farmers, urban nonfarmers, rural farmers, and rural nonfarmers, and the institutions are government, rest of the world, and the savings-investment account. The classification made for different farmers is not very accurate in Tanzania but was used because of the kind of standardization that was adopted as the model was developed for many countries in Southern Africa, countries belonging to SADC under MERISSA program of IFPRI. Nevertheless urban farmers in Tanzania are important especially in the area of poultry, pig rearing, cattle and vegetable growing.

The benchmark SAM for 1992 is the base solution for the Tanzania trade model used for policy changes in the model simulations. Trade reforms are defined as across-the-board tariff cuts, reductions in the trade balance using reductions in foreign savings (the current account deficit), and exchange rate depreciation. Different scenarios of trade reforms involving micro-and macro-closures are also explored.

The following simulations were performed:

- *Simulation 1a, tariff cut without capital mobility.* Tariff rate reduced by 50 percent in five successive moves of 10 percent each, with flexible government savings, activity-specific (fixed)

capital, and endogenized foreign exchange rate (fixed foreign exchange rate).

- *Simulation 1b, tariff cut with capital mobility.* Tariff rate reduced by 50 percent in five successive moves of 10 percent each, with flexible government savings, capital mobility, and endogenized foreign exchange rate (fixed foreign exchange rate).
- *Simulation 2a, increase in exchange rate (depreciation).* Exchange rate increased by 20 percent in five successive moves of 4 percent each, with flexible government savings, activity-specific (fixed) capital, and flexible foreign savings.
- *Simulation 2b, increase in exchange rate (depreciation).* Exchange rate increased by 20 percent in five successive moves of 4 percent each, with flexible government savings, capital mobility, and flexible foreign savings.

Table 6.12. CGE Model Simulation Results Based on Tariff Cut of 50 Per cent and Exchange Rate Change of 20 Per cent

	Simulation				
	Base	1a	1b	2a	2b
Real absorption	1937.7			-5.5	-13.9
Real investment	419.5				
Real government consumption	331.6				
Real household consumption	1186.6			-9	-22.8
Total real exports	165.7	2.1	2.5	41.6	123.4
Total real imports	576.8	0.6	0.8	-5.6	-6.6
Real exchange rate	100	0.9	0.8	15.2	16.8
Nominal exchange rate	100	1.1	1	20	20
Domestic price index	100	0.2	0.2	4.1	2.8
Tariff rate	5	2.5	2.5	5	4.9
	Percentage of nominal GDP				
Investment	27.1	-0.1	-0.1	3.5	3.2
Private savings	0.2			0.1	0.2
Foreign savings	10.2	0.2	0.1	-5.8	-16.4
Trade deficit	26.5	-0.4	-0.4	-3.2	-13.8
Government savings	-1.1	-0.7	-0.7	0.4	0.5
Tariff revenue	1.5	-0.7	-0.7	0.1	0.1
Direct tax revenue	5.3			0.3	0.1

6.6.2 Model Results

Simulation 1a: Total exports increase by 2.1 percent, and total imports increase marginally by 0.6 percent (Table 6.12). The real exchange rate depreciates by 0.9 percent. The trade deficit improves by 0.4 while prices increase by 0.2 percent. As a percentage of GDP government savings rise by 0.7 percent, tariff revenues decrease by 0.7 percent, and foreign savings increase by 0.2 percent.

Household consumption increases overall, but decreases among urban and rural farmers (Table 6.13). Factor income remains unchanged except for rural labor, which decreases marginally by 0.1 percent while capital gains by 0.1 percent. Light manufacturing increases by 0.3 percent and services by 0.1 percent. Agricultural export prices increase by 0.3 percent, Nonagricultural light industries and services prices rise by 0.6 percent each, while heavy manufacturing prices decrease by 0.2 percent.

Simulation 1b: All variables move in the same direction as in simulation 1a but the changes are smaller except for total exports and imports. The real exchange rate depreciates by 0.8 percent, while foreign savings increase marginally. Total household consumption increases, activity output and prices increase, while factor income changes marginally, perhaps because tradable sectors are more profitable after the tariff cut and so attract more investment.

Simulation 2a: Total exports increase by 41.6 percent, while total imports decrease by 5.6 percent. The real exchange rate depreciates by 15.2 percent. The trade deficit decreases by 3.2 percent. As a percentage of GDP, government savings decrease by 0.4 percent, tariff revenues increase by 0.1 percent, and foreign savings decrease by 5.8.

The effects on micro variables differ. Consumption decreases for urban and rural farmers and increases for urban and rural non-farmers. Rural labor decreases by 6.6 percent and land by 0.4 percent. Agricultural export prices increased by 5.3 percent, light manufacturing by 15.5 percent, services by 12.2 percent, and heavy manufacturing by 15.1 percent.

Simulation 2b: Absorption decreases by 13.9 percent and consumption by 22.8 percent compared with the case of fixed factors. Total real exports increase by 123.4 percent, imports decrease by 6.6 percent, while the real exchange rate depreciates by 16.8 percent. The trade deficit improves by 13.8 percent, while foreign savings decrease by 16.4 percent. Household consumption in different sectors changes much more. It decreases by 39.4 percent for urban farmers by 32.1 percent for rural

farmers, and by 10.1 percent for rural non-farmers and increases by 10.3 percent for urban non-farmers.

6.6.3 What the Model Results Suggest for Tanzania in the Next Round of Trade Negotiations

The simulation effects are more dramatic with factor mobility than when factors are fixed. This is important because it shows that when factors are not mobile, policy changes will not produce the expected effects. This is a problem for many developing countries such as Tanzania that have structural rigidities that prevent factors from moving freely. The simulations showed larger effects on trade variables than on macro variables such as GDP or government savings. The choice of closure has a large influence on results.

Table 6.13: Simulation results, micro and activity prices

		Simulation			
	Base	1a	1b	2a	2b
Disaggregated real household consumption					
Household urban farmers	165.3	-0.3	-0.2	-18	-39.4
Household nonurban farmers	260.6	0.5	0.5	11.4	10.3
Household rural farmers	705.1	-0.2	-0.1	-15.2	-32.1
Household rural nonfarmers	55.5	0.2	0.1	0.9	-10.1
Total household consumption	1186.6			-9	-22.8
Disaggregated Factor Income Distribution					
Urban professionals	8.1			1	0.9
Urban white color	4.3			0.5	0.5
Urban blue color	8.4			0.9	0.9
Urban unskilled	3.9			0.5	0.5
Rural labor	35.6	-0.1	-0.1	-6.6	-6.3
Land	2.8			-0.4	-0.2
Capital	36.9	0.1		4.1	3.7
Total factor income	100				
Disaggregated Activity Production Levels					
Agricultural exports	75.7	1.8	2.1	61.9	242.2
Agricultural food	338.4	-0.2	-0.3	-6.2	-21.3
Other agricultural	471.8			-2.9	-12.9
Mining	60	-0.4	-0.6	3.5	7.1
Nonagricultural food processing	401.2	-0.2	-0.2	-4.7	-18.5
Nonagricultural light manufacturing	227.7	0.3	0.7	3.9	17.3
Nonagricultural heavy industries	360	-0.4	-0.6	2	3.5
Nonagricultural services	1097.6	0.1	0.1	0.6	1.6
Total production	3032.4			0.6	1.7

Disaggregated activity prices					
Agricultural exports	100	0.3	0.1	5.3	-1.1
Agricultural food	100		0.2	-11.3	-9.4
Other agricultural	100	0.1	0.2	-8.1	-6.4
Mining	100	0.1	0.4	13.7	11.5
Nonagricultural food processing	100	0.1	0.2	-0.8	0.5
Nonagricultural light industries	100	0.6	0.1	15.5	9.5
Nonagricultural heavy industries	100	-0.2		15.1	12.5
Nonagricultural services	100	0.6	0.3	12.2	10.2

Note: Simulation 1a tariff cut with activity-specific capital; 1b tariff cut with mobile capital; 2a increase in exchange rate with activity-specific capital; 2b increase in exchange rate with mobile capital.

The model suggests that cutting tariffs will have a positive effect on agricultural exports, but a negative effect on agricultural food production. Household income will decline for rural farmers while rising for rural nonfarmers. Exchange rate devaluation has the same effects, but the levels of change are much more dramatic. Devaluing the Tanzanian shilling increases exports by 61.9 percent with no factor mobility and by 242.2 percent with factor mobility. Agricultural food production decreases by 6.2 percent with no factor mobility and by 21.3 percent with factor mobility. This indicates that Tanzania would not gain or lose very much in the agriculture sector by cutting tariffs. However, because exports increase with devaluation, other countries will have to open their markets in order for Tanzania to reap some of the benefits from liberalizing trade. And liberalization reduces food production.

Because the increased exports come at the expense of diminishing levels of agricultural food under the assumption that resources are fully employed, a kind of substitution in production must take place. Also, because factor mobility is limited, the positive benefits expected from greater movement of factors across sectors are limited. This points to the need to address supply constraints if more positive results are expected from the Uruguay Round Agreement on Agriculture.

6.7 Conclusions and Recommendations

The analysis presented in this report and the results of the CGE model simulations suggest several issues that need to be dealt with in the new round of negotiations.

For Tanzania, the Agreement on Agriculture will have significant impacts at various levels. The central challenge of the new negotiations is to ensure that issues of trade-related development activities are fully

addressed. With development in mind, agriculture, still the backbone of the Tanzanian economy, can be assisted to grow and contribute to sustained economic growth and poverty eradication. Achieving that will require a degree of flexibility to accommodate constraints faced by Tanzania and other least developed countries in the new multilateral trading system.

Tanzania faces many challenges in making its laws and regulations consistent with WTO commitments. Meeting them will require enhancing institutional and human resource capacities in trade-related information management, among other areas. That will require setting up new institutions and restructuring old ones, requirements that impose relatively heavy demands on Tanzania. Resources and technical assistance are needed to establish efficient information systems and to identify market access constraints in the area of finance and credit facilities, to facilitate market development and adaptation programs. Reforms should be taken to strengthen the supply response to any new markets that may open up as a result of developed country reductions in domestic support policies and export subsidies. Assistance is needed to rationalize and improve the efficiency of trade support service institutions and for human resource development. Needs related to policy formulation and implementation include enhancing the ability of ministerial departments to formulate, review, and implement trade policy. Also important is training public and exporters and institutions in small to medium-size enterprises to take advantage of the opportunities provided through trade liberalization by enhancing productivity, product development, and diversification through improved research and identifying ways of loosening supply capacity constraints.

The new round of negotiations must take into account the welfare of people in developing countries that are net food importers. Ensuring that freer trade in agriculture does not diminish food security is of utmost importance. Especially important are rising import bills and potential loss of market share as tariff preference margins erode in developed countries.

It would be prudent for Tanzania to formulate domestic policies that address these issues while complying in content and spirit with the Agreement on Agriculture. The new rules for international trade could benefit Tanzania and other developing countries more if they took full advantage of the special and differential treatment and capacity building options provided for in various WTO measures, applying whatever restrictions or exceptions are allowed under the WTO agreement to

protect Tanzania's interest. Policies are needed on a product-by-product basis, taking into account that the URAA provisions will have more impact on temperate products than tropical products. Also important are increasing public awareness of the WTO agreements and reviewing the regulatory system to align it with WTO rules.

Tanzania should take the initiative to ensure that the current WTO negotiations address the need for greater access to existing and new markets. And it should make adequate preparations to make a strong case for its positions, through research, consultation, and lobbying. Tanzania needs to ensure that standards and technical requirements do not remain or become barriers to trade. While technical assistance to help reach required standards is important, so is using safeguard measures. Technical cooperation will also be important for helping Tanzania participate fully and effectively in international meetings of key standardization bodies (Codex Alimentarius Commission, OIE, and IPPC) and in the WTO committee sessions on sanitary and phytosanitary measures. Regional cooperation can also assist Tanzania and other member countries to reach common agreed standards and reduced trade barriers can provide the impetus for increased regional and international trade.

Annex 6A.1: Details of the Computable General Equilibrium Model
The model follows the neoclassical specification of general equilibrium models[2]. Markets for goods and factors and foreign exchange are assumed to respond to changing demand and supply conditions, which in turn are affected by government policies, the external environment, and other exogenous influences. The model is Walrasian in that it determines only relative prices and other endogenous variables in the real economy (monetary factors are not considered). Sectoral product prices and factor prices are determined relative to the Consumer Price Index (CPI), the *numeraire*. There are four blocks of equations in the model, for price, production, institutions and system constraints.

The price block defines the domestic price of imports as the world price times the exchange rate adjusted for tariffs, and defines the export price as the world price times the exchange rate adjusted by subsidy/ export taxes. The prices of imports and exports are given in domestic currency. The absorption price for each commodity is expressed as the sum of spending on domestic output and imports, including an adjustment for sales taxes. The composite price is paid by domestic demanders (households, the government, producers, and investors). Domestic output

value at producer prices is divided between export value and domestic output sold domestically. This equation reflects a constant elasticity of transformation (CET) that is linearly homogeneous. The activity price is the sum of producer prices of different commodities and the yield of output of commodities per activity. The value added price is the price of activities times the input cost per activity unit.

In the production and commodity block, the production technology is presented by a set of constant elasticity of substitution (CES), constant elasticity of transformation (CET) and linear expenditure functions.

The activity production function is defined by CES technology. Factor demand is a CES function of wage distortion for factors—land, capital, and five types of labor (urban professional, urban white collar, urban blue collar, urban unskilled and rural labor). Intermediate demand is fixed as a share of level of activities. Output is a function of yield of activity times its level. The export to domestic commodities supply ratio is a CET function while the import to domestic demand ratio for commodities is a CES function. The Armington assumption is used for aggregating domestic demand and import demand. The model allows for product differentiation between import and domestically produced goods in demand and between exports and domestically consumed goods, and this permits two-way trade. This assumption is realistic in the case of Tanzania because imported and domestically produced goods are not perfect substitutes—horizontal as well as vertical differentiation exists. However, the differentiation varies from sector to sector, and different levels of elasticities of substitutions and transformation represent this across sectors.

The institution block determines transfers of income from factors to institutions, which are defined as the share to institutions' and factors and factor income and transfers from the rest of the world. Transfers are also determined as well as household demand and expenditure, investment demand, government revenue and expenditure, and government saving, which is the difference between government revenue and expenditure (fiscal balance). Household consumption demand is based on a LES utility function with constant expenditure shares. Household and enterprise savings are specified to be in fixed proportion to after-tax income.

The system constraint block specifies four macroeconomic balances: the external balance (current account), factor demand and supply balance, commodity supply and demand balance, and the neoclassical

macroeconomic closure that total investment is determined by total savings. In addition in the system block there is the price normalization equation (*numeraire*).

Based on the small-country assumption (price taker), domestic prices of imports and exports are expressed in terms of the exchange rate and their foreign prices, as well as the trade taxes on foreign transfers. The tariff rate on the import tax rate represents the import duty collected divided by total imports. The Tanzania data does not include a subsidy, although specification of the equations allows for policy experimentation.

Different macro and micro closures are used in the model. Savings-driven investment implies a flexible investment adjustment factor, fixed foreign savings and therefore a flexible exchange rate, and fixed direct tax rates for institutions and factors. All factors are fully employed, available in fixed supply, and mobile in each market so that the average wage rate is the clearing variable.

Producers maximize profits subject to specified production functions with primary factors as arguments, while households maximize utility subject to budget constraint.

The model recognizes that an exogenous change (in policy or from some other source, such as world markets) that has an impact on any part of the economy can have consequences throughout the system, direct and indirect effects. The model satisfies Walras's law in that the set of commodity market equilibrium conditions is functionally dependent. The equilibrium condition is dropped for one variable using the closure rules. The model is homogeneous of degree zero in prices to ensure that only one solution exists. A price normalization equation (consumer price index) has been added—equal number of endogenous variables and independent equations. Given the *numeraire*, all simulated price changes can be directly interpreted as changes relative to the CPI.

Because the model is static, it is difficult to see the effects of policy changes on some important variables such as growth. Another limitation is the level of disaggregation. For trade-based experiments, it would be helpful to observe the impact of policy changes on different categories of imports—capital, intermediate, and consumer imports—and to specific disaggregate data into different categories of exports, non-traditional and traditional and even important commodities such as coffee, tea, and cotton that face frequent price fluctuations.

Parameters of the model

ad_a	=	efficiency parameter in the C-D prod function
$adces_a$	=	efficiency parameter in the CES prod function
a_{fa}	=	share of value-added to factor f
aq_c	=	Armington function shift parameter
at_c	=	CET function shift parameter
β_{ch}	=	marginal share of household consumption spending
$cwts_c$	=	weight of commodity in the CPI
λa_{fa}	=	CES production function share parameter
λq_c	=	Armington function share parameter
λt_c	=	CET function share parameter
δ_{ch}	=	per-capita subsistence consumption
ica_{ca}	=	intermediate input per unit of activity
$pdwts_c$	=	weight of commodity in the PDI
pwe_c	=	export price(foreign currency)
pwm_c	=	import price(foreign currency)
$rhoa_a$	=	CES production function exponent
$rhoq_c$	=	Armington function exponent for commodity c
$rhot_c$	=	CET function exponent
$shrtr_{l,lp}$	=	household share in distributed enterprise income
$shry_{if}$	=	enterprise share in factor income
ta_a	=	enterprise rate
te_c	=	export tax rate
θ_{ac}	=	per unit enterprise output yield
qg_c	=	government commodity demand
$\overline{qinv}_c$	=	base-year investment demand
tm_c	=	import tariff rate
tq_c	=	rate of sales tax

Model Equations
Price block

1. $PM_c = (1 + tm_c) \cdot EXR \cdot pwm_c$
   import price

2. $PE_c = (1 - te_c) \cdot EXR \cdot pwe_c$
   export price

3. $PQ_c \cdot QQ_c = (PD_c \cdot QD + (PM_c \cdot QM)_c) \ (L + tq_c)$
   absorption for   commodity

4. $PX_c \cdot QX_c = PD_c \cdot QD_c + (PE_c \cdot QE_c)$
   output value for commodity

5. $PA_a = \sum_{c \varepsilon c} PX_c \cdot \theta_{ac}$
   price for activity

6. $PVA_a = PA_a \cdot (1 - ta_a) - \sum_{c \varepsilon c} PQ_c \cdot ica_{ca}$
   value-added price for activity a

Production and commodity block

7. $QA_c = adces_a \cdot \sum_{f \varepsilon F} (\lambda a_{fa} \cdot QF_{fa}^{-rhoa_a})^{\frac{-1}{rhoa_a}}$
   CES production function

8. $WF_f \cdot WFDIST_{fa} = PVA_a \cdot adces \cdot \sum_{fp \varepsilon F} (\lambda a_{fp,a} \cdot QF_{fa}^{-rhoa_a})^{\frac{-1}{rhoa^l}}$
   factor demand

9. $QINT_{ca} = ica_{ca} \cdot QA_a$
   intermediate demand

10. $QX_c = \sum_{a \varepsilon A} \theta_{ac} \cdot QA_a$
    output of commodity

Institution block

11. $QQ_c = aq_c \cdot \lambda qc \cdot QM_c^{-rhopc} + (1 - deltaq_c)(QD_c^{-rhoqc})^{\frac{-1}{rhoq_c}}$

composite supply (Armington) function

12. $\dfrac{QM_c}{QD_c} = \left(\dfrac{PD_c}{PM_c} \cdot \dfrac{\lambda q_c}{1 - \lambda q_c}\right)^{\frac{1}{1 + rhoq_c}}$

import-domestic demand ratio

13. $QQ_c = QD_c$

composite supply for non-imported commodities

14. $QX_c = at_c \cdot (\lambda t_c \cdot QE_c^{hot_c}(1 + \lambda tt_c) \cdot QD_c^{hot_c})^{\frac{1}{rhot_c}}$

output transformation (CET) function

15. $\dfrac{QE_c}{QD_c} \quad \left(\dfrac{PE_c}{PD_c} \cdot \dfrac{1 - \lambda t_c}{\lambda t_c}\right)^{\frac{1}{rhot_c - 1}}$

export-domestic supply ratio

16. $QX_c = QD_c$

output transformation for non-exported commodities

17. $YF_{id,f} = shry_{id,f} \cdot (1 - TY_f) \cdot \sum\limits_{a \in A} WF_f \cdot WFDIST_{fa} \cdot QF_{fa}$

$\quad - ERX \cdot trbar_{row,f}$

factor income

18. $TR_{id,idng} = shrtr_{id,idng} \cdot (1 - mps_{idng}) \cdot (1 - TY_{idng}) \cdot YI_{idng}$
$\quad - EXR \cdot trbar_{row,idng}$

transfer from domestic non-government institution to domestic institution

19. $Yl_i = \sum\limits_{f \varepsilon F} YF_{if} + \sum\limits_{idng \varepsilon I} TR_{i,idng} + trbar_{i,gov} + EXR. \ trbari_{i,row}$

income of domestic non-government institution

20. $EH_h = (1 - \sum\limits_{id \varepsilon I} shrtr_{id,H}) \cdot (1 - MPS) \cdot (1 - TY_h) \cdot Yl_h - EXR \cdot trbar_{row,H}$

consumption expenditures for household

21. $PQ_c.QH_{ch} = PQ_c \cdot \delta_{ch} + \beta_{ch} \cdot EH_h - \sum\limits_{cp \varepsilon C} PQ_{cp} \cdot \delta_{cp,h}$

LES consumption demand by household for commodity

22. $QINV_c = \overline{qinv}_c \cdot IADJ$ investment demand for commodity

23. $YG = \sum\limits_{f \varepsilon F} YF_{gov,f} + \sum\limits_{i \varepsilon I} TY_i \cdot Yl_i + \sum\limits_{f \varepsilon F} TY_f \cdot \sum\limits_{a \varepsilon A} WFf. \ WFDIST_{fa}$

$\cdot \ QF_{fa} - EXR.trbar_{row,i} + \sum\limits_{idng \varepsilon I} TR_{gov,i} + EXR.trbar_{gov,row}$

$+ \sum\limits_{c \varepsilon C} tq_c \cdot PD_c \cdot QD_c + PM_c \cdot QM_c$

$+ \sum\limits_{c \varepsilon C} tm_c.EXR.pwm_c.QM_c$

$+ \sum\limits_{c \varepsilon C} te_c \cdot EXR.pwe_c.QE_c$

$+ \sum\limits_{c \varepsilon C} ta_a \cdot PA_a \cdot QA_a$

government revenue

24. $EG = \sum\limits_{idng \varepsilon I} tr_{idng,row} + \sum\limits_{c \varepsilon C} PQ_c \cdot qg_c + EXR.trbar_{row,gov}$

government expenditures

25. $GSAV = YG - EG$
government savings

System constraint block

26. $\sum_{a\varepsilon A} QF_{fa} = QFS_f$

    factor markets

27. $QQ_c = \sum_{a\varepsilon A} QINT_{ca} + \sum_{h\varepsilon H} QH_{ch} + qg_c + QINV_c$

    composite commodity markets

28. $\sum_{c\varepsilon C\varepsilon} pwe_c \cdot QE_c + \sum_{i\varepsilon l} tr_{i,row} + FSAV = \sum_{c\varepsilon CM} pwm_c \cdot QM_c$

    $$+ \sum_{inf\,\varepsilon l} trbar_{row,inf.a}$$

    current account balance for RoW (in foreign currency)

29. $\sum_{c\varepsilon C} PQ_c \cdot QINV_c + WALRAS = \sum_{idng\,\varepsilon\,l} MPS_i \cdot (l - TY_i)$

    $$- EXR \cdot trbar_{row.i} + GSAV$$

    $$+ EXR \cdot FSAV$$

    saving-investment balance

30. $\sum_{c\varepsilon C} PQ_c \cdot cwts_c = CPI$

    price normalization

End-Notes

1. "Suspended duties" loosely refers to duties levied on some imported products, over and above taxes. Under the WTO provisions suspended duties constitute a NTB. Suspended duties are not expected to be a lasting feature, but are applied selectively to address a temporary problem. Because of this leeway, all the countries in the East African region have been said to levy some percentage of duty in addition to other taxes.

2. The model, using the general algebraic modeling system (GAMS) program (a la Sherman Robinson, Hans Lofgren, and Peter Wobst), was developed and estimated in the CGE course in Bunda, Malawi, offered by the International Food Research Institute (IFPRI). The

model is presented in the working paper on microcomputers in IFPRI Policy Research 4.

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Appendix Table 6A.1 Nominal and effective rates of protection in key products since the Uruguay Round Agreement on Agriculture

Chapter	Description	Total Nominal Protection (Addition of all Trade Taxes)				
		1995	1996	1997	1998	1999
00		0	0	0.63	0	0
01	Live animals	0.024	0.056	0.121	0.128	0.099
02	Meat & edible meat offal	0.0541	0.346	0.166	0.213	0.213
03	Fish & crustacean, molluscs & other aquatic invertebrate	0.105	0.382	0.407	0.329	0.080
04	Dairy prod; birds' eggs; natural honey	0.353	0.389	0.373	0.309	0.300
05	Products of animal origin, nes or included	0.4271	0.264	0.043	0.180	0.255
06	Live tree & other plant; bulb, root, cutflower	0.006	0.002	0.015	0.087	0.234
07	Edible vegetables and certain roots and tubers	0	0.004	0.027	0.008	0.008
08	Edible fruit and nuts; peel of citrus or melons	0.044	0.236	0.359	0.254	0.234
09	Coffee, tea, mate and spices	0.694	0.584	0.606	0.541	0.263
10	Cereals	0.062	0.081	0.181	0.140	0.102
11	Prod mill indust; starches; insulin; wheat gluten	0.191	0.332	0.254	0.143	0.081
12	Oil seed, oleagi fruits; miscell grain, seed, fruit	0.041	0.051	0.066	0.093	0.047
13	Lac; gums, resins and other vegetable saps and extras	0.048	0.255	0.213	0.298	0.225
14	Vegetable plaiting materials; vegetable products nes	0.019	0.113	0.390	0.101	0.434
15	Animal/veg fats& oil & their cleavage products	0.249	0.291	0.379	0.350	0.361
16	Prep of meat, fish or crustaceans, molluscs	0.524	0.068	0.177	0.172	0.092
17	Sugars and sugar confectionery	0.181	0.324	0.423	0.471	0.330
18	Cocoa and cocoa preparations	0.431	0.747	0.709	0.359	0.430
19	Prep of Cereal, flour, starch/milk; pastrycooks' prod	0.199	0.668	0.148	0.113	0.367
20	Prep of vegetable, fruit, nuts or other parts of plants	1.949	0.535	0.573	0.485	0.476
21	Miscellaneous edible preparations	0.335	0.434	0.444	0.353	0.340
23	Residuals & waste from the food industry; prep ani fodder	0.081	0.366	0.866	0.148	0.109

24	Tobacco and manufactured tobacco substitutes	0.043	1.473	0.158	0.282	0.482
31	Fertilizers	0.043	0.008	0.243	0.001	0.0003
33	Essential oils & resins; perf, cosmetic/toilet prep	0.010	0.660	0.019	0.542	0.545
41	Raw hides and skins (other than furskins) and leather	0.416	0.287	0.595	0.346	0.065
43	Furskins and artificial fur; manufactured thereof	0.046	0.398	0.201	0.592	0.467
44	Wood and articles of wood; wood charcoal	0.113	0.143	0.240	0.476	0.228
45	Cork and articles of cork	0.030	0.178	0.148	0.302	0.230
46	Manufactured of straw, esparto/other plaiting materials	0.124	0.276	0.060	0.353	0.277
47	Pulp of wood/of other fibrous cellulosic mat; waste	0.407	0.603	0.536	0.571	0.541
48	Paper & paperboard; art of paper pulp, paper/paperboard	0.124	0.395	0.368	0.300	0.328

Calculated using addition of import duty, sales tax (VAT) for imports and excise duty as a ratio of imports for home use.

Appendix Table 6A.2. Effective rates of protection

	1991/2	1994	1995	1996	1997	1998	1999	2000
Growing of maize	-39.0827	-6.62056	-2.95128	-6.9089	-6.40216	-3.30544	-4.17508	-6.79414
Growing of paddy	-40.9552	1.104364	-1.37231	0.051961	9.509134	9.555479	12.64837	12.4722
Growing of sorghum/millets	-38.9214	25.11837	17.01198	23.55883	23.12094	18.0229	14.44269	-4.9961
Growing of wheat	-54.8752	15.85421	-0.44627	14337190	3.103186	-0.26425	0.35731	0.254639
Growing of beans	-20.8471	-2.33795	-2.29279	-2.12038	-1.64032	2.976497	-2.42696	19.16102
Growing of cassava	-5.31854	-0.00036	38.96273	38.72783	28.63987	29.049	20.56572	24.20978
Growing of other cereals	-37.5053	-11.6476	-11.7105	-11.7918	-11.8004	15.82328	-11.7932	-11.7702
Growing of oil seeds	-21.2696	4.362968	-0.06994	18.17997	5.622226	25.03837	21.16852	22.72819
Growing of other roots and tubes	-10.5314	-0.00228	14.17373	-0.03975	-0.00603	28.24556	-0.00477	-0.00559
Growing of cotton	-100.107	-27.5391	-10.9743	-24.3335	5.882494	-8.43885	-26.6835	-22.9905
Growing of coffee	-64.4768	36.0378	-8.38571	-3.06317	6.230485	20.62096	-0.7932	-4.64085
Growing of tobacco	-79.0075	-7.05359	29.21745	-8.20324	-7.63223	10.73018	-7.22741	-7.22953
Growing of tea	-91.3677	10.11359	-3.69197	27.61014	23.71362	15.95283	9.00384	16.03413
Growing of cashewnuts	-30.1179	-0.06402	-1.03854	9.089111	28.9654	11.43048	25.92121	23.67743
Growing of sisal fibre	-72.3735	-2.48064	-2.95597	-2.93614	-3.28935	5.565117	-2.69795	-3.64677
Growing of coconuts	-4.44426	0.204847	11.70114	0.181006	1.843067	0.579302	0.38945	0.481553
Growing of sugar cane	-30.9993	-0.66336	36.40375	12.46345	21.64799	20.78789	10.23578	8.399107
Growing of bananas	-9.60964	4.312781	37.73684	21.90071	21.87379	13.74588	12.6069	16.53498
Growing of other fruits	-30.8676	4.824464	27.90954	20.56348	20.30008	13.28627	12.28624	15.8292
Growing of other vegetables	-15.0676	37.1305	-2.73197	23.16114	35.05503	27.51105	22.36229	22.78271
Growing of other oil seeds	0	4.75	3.0914	19.81	6.282	27.3	2.306	24.725
Growing of other crops	-13.447	-4.02861	-4.26855	0.517304	0.09092	2.744314	-0.96067	-1.62643

Operation of poultry	-7.40054	-0.07129	-0.15418	39.91413	32.582	29.7739	-0.11242	10.2344
Fishing and fish farms	-25.5025	-4.58646	10.83366	1.607082	-5.11609	-6.68347	24.91912	19.87783
Other farming of animals	-35.3446	2.963041	13.04053	17.48712	70.67054	14.52073	0.920404	2.389654
Hunting and game propagation	-14.9979	17.4136	9.81639	24.54634	36.87073	24.58492	8.080666	10.16206
Forestry and logging	-16.2482	-0.30967	17.65782	10.92169	15.85611	24.01836	3.972733	5.905244
Quarrying of stone, clay and sand	-22.9274	2.764292	17.79166	12.89579	11.63089	10.96909	4.070559	1.736985
Extraction of salt	-22.7613	3.578884	19.08544	13.866	12.28069	11.92497	4.824269	2.447689
Mining of gemstones	-7.38714	2.8662	-2.05014	13.45618	12.49935	11.56508	14.30133	1.907389
Other mining and quarrying	-25.9718	-1.72453	-1.86433	-1.87671	9.869167	10.46566	-1.80124	1.984051
Processing of meat and dairy products	-78.496	-3.49525	29.35002	31.85659	7.915712	22.47236	-2.95758	6.999526
Canning and pressing of fruits and vegetables	-115.161	-13.01	-22.0564	10.32839	7.183884	10.19781	7.899417	5.516765
Manufacture of oils and fats	-59.9795	-4.60249	-4.80394	13.54143	8.433465	-1.62904	-3.3002	2.781448
Grain milling	-82.659	-3.04916	1.699911	2.086514	6.564836	-5.32144	-8.50302	-4.34689
Manufacture of bakery products	-78.6945	4.342262	25.63798	21.10876	-7.44337	16.21256	14.32897	14.07567
Manufacture of sugar and confectionery	-76.9914	22.1941	-10.2759	20.15481	9.407054	-12.0824	6.240392	11.84925
Manufacture of other food products	-56.2722	-8.80882	-8.75912	-9.34438	-9.49038	-4.30584	-7.43344	-0.16725
Local brewing activities	-86.6037	39.0721	33.84685	0.552909	-53.6176	6.701662	12.38679	12.31333
Manufacture of beverages	-72.6821	-6.45531	13.76676	-0.63591	16.58761	12.47929	7.79588	-4.53634
Manufacture of tobacco products	-79.4084	-3.59201	35.76563	-3.91365	19.10518	12.5846	12.09035	14.41444
Spinning and finishing of textiles	-62.6064	-6.24102	-9.86009	2.85757	-3.95855	7.280447	7.446156	4.103221
Manufacture of made-up textiles	-48.6531	-3.50408	-2.25028	4.405356	8.580086	11.9559	6.938298	5.813176
Manufacture of cordage, rope and twine	-68.335	-2.59334	5.589611	3.067624	-3.12031	4.801092	-3.12618	-2.92722
Manufacture of wearing apparel	-64.0881	-29.7022	-13.4542	-19.0705	-18.9896	-19.5798	-21.9612	-22.7789
Manufacture of other textiles	-47.0648	-18.1677	11.24805	-19.1623	-21.279	-21.7091	-19.9086	-14.3731
Manufacture of leather products	-23.8515	-10.9718	-0.83268	-0.43474	-3.56168	-1.63673	-3.42459	-2.74325
Manufacture of footwear	-17.04	19.3559	26.8364	24.43616	18.42437	24.59671	23.11787	20.56016
Manufacture of wood and wood products	-64.264	-4.38041	-6.53318	-7.6033	-9.04383	-11.299	-5.60492	-6.16417
Manufacture of pulp and paper	-67.8993	-1.67313	-16.3406	44.54357	16.14412	-4.76614	-13.6708	-10.3217
Printing and publishing	-54.051	-12.3404	-24.7975	-23.1996	-16.4791	-18.1322	-20.864	-30.4855
Manufacture of basic and industrial chemicals	-35.3719	-49.6915	-47.4209	-42.9606	-9.44517	-47.7397	-50.7053	-53.3986
Manufacture of fertilizers and pesticide	-34.8688	-57.4469	-52.9422	-53.091	-59.6786	-57.4191	-57.3703	-57.407
Petroleum refineries	-17.3265	-34.0206	-32.1292	-31.553	-34.1997	-34.2423	-33.274	-31.685
Manufacture of rubber products	-60.1131	-27.7179	-29.8133	-28.6799	-23.3926	-22.0086	-26.8309	-28.821

Manufacture of plastic products	-68.6194	-22.9394	-18.77/8	-18.0184	-17.6459	-13.3775	-13.8075	-11.3243
Manufacture of glass and glass products	-84.4791	-14.5529	-14.4417	-23.4667	-17.7481	-19.8598	-18.1059	-4.08583
Manufacture of cement and clay	-75.563	-17.1858	-15.0089	-5.16739	9.074014	-13.0759	-9.68927	-7.63335
Processing of iron, steel and non-ferrous metals	-64.7713	-29.5353	-29.4094	-30.2358	-30.7879	-32.6619	-28.7434	-29.8944
Manufacture of metal products	-79.7057	-18.5362	-18.7308	-19.8236	-20.7585	-23.0134	-18.3684	-19.8861
Manufacture of machinery and equipment	-49.9928	-24.0491	-21.5378	-20.9143	-22.0558	-21.2363	-22.4268	-22.8255
Manufacture of electrical equipment	-32.5659	-38.4459	-36.4016	-34.8699	-33.9577	-35.4908	-35.4356	-35.837
Manufacture of transport equipment	-31.8713	-36.4312	-35.7502	-33.8179	-21.5407	-37.3079	-35.501	-32.9189
Manufacture of other goods	-36.1665	-24.3239	-31.3099	-30.179	-30.1533	-26.156	-28.3192	-22.6742

Calculated using data from Input output table 1992, and import data and using the formula ERP = tj − ☐ aijti/1 − ☐ aij where tj is duty for final good, ti duty for inputs and aij is the technical coefficient.

From the table we find that the agriculture sector is negatively protected (de-protected) and this trend has continued over the years although the actual extent is diminishing.

7 Agriculture and the New Trade Agenda in the WTO 2000 Negotiations: Economic Analyses of Interests and Options for Ghana

Abena D. Oduro

7.1 Introduction

The development of the agriculture sector is an integral part of Ghana's development and poverty reduction strategy. Although only a small fraction of total production in the agriculture sector is currently traded internationally, developments in the world market for agriculture products have ramifications for domestic production. Expansion in production to supply export markets is an objective of the current agriculture strategy. It is imperative for Ghana that market access is maintained and if possible improved. Maintaining market access conditions will involve maintaining tariff preference margins. This has unusual implications for the World Trade Organization's (WTO) current negotiations, known as the Doha Development Round, aimed at further trade liberalisation. This is because preference margins are eroded as tariff rates are reduced. However the real challenge for Ghana in its major export markets are not tariffs but non-tariff measures, particularly meeting sanitary and phytosanitary standards.

This chapter argues that Ghana's concerns in the current trade negotiations should be to press for a reduction in domestic support

measures and an increase in financial and technical assistance to be able to implement and meet the sanitary and phytosanitary and technical standards.

7.2 The Agriculture Sector in Ghana

Agriculture (as defined in the national accounts) comprises of five sub-sectors, i.e. cocoa, other crops, livestock, fisheries, and forestry and logging[1]. The agriculture sector currently contributes approximately 36% to GDP. Approximately 54% of the workforce aged between 15 and 64 are employed in agriculture. In the rural sector the proportion rises to about 70%. Small-holder farms dominate the sector accounting for about 80% of total agricultural production.

Productivity in the food crop sector is quite low. Estimates of achievable yields (i.e. yields that have been achieved in isolated cases due to more effective extension and other logistic support) show that there is a wide gap between actual yields and the potential.

The agriculture sector faces several constraints that impact negatively on increased production and productivity. The small-holder farms are dispersed and this makes the provision of support services expensive. Production is largely rain-fed. Less than 1% of the arable land is irrigated. The rainfall patterns can explain much of the wide fluctuation in the recorded agricultural growth rates. Fertiliser and insecticide use is not widespread amongst small-holders. A poor marketing and distribution network is a constraint on the expansion of production. Well-established marketing chains exist (for example in the cocoa industry) that transfer produce from the farm to the final consumer. However the extent of coverage of the marketing chains is limited. Many farmers are not part of these marketing chains and the cost of accessing them is high. Transport costs are a major constraint to the development of market chains for all commodities in many localities.

The growth of foreign exchange earnings from the sector in the 1990s has been quite variable. Initially export earnings declined but improved in 1994. The sector's contribution to merchandise exports declined in the 1990s. Cocoa beans and products continue to dominate agriculture exports. Most of the developments in agriculture export earnings are due mainly to developments in cocoa earnings. However the share of cocoa bean exports has been declining in the 1990s.

7.3. The Trade Regime in Agriculture Before the Uruguay Round

7.3.1. Border Protection–tariffs and non-tariff barriers

The government's economic reform package in April 1983 aimed at reversing the decline in the economy and began a process of liberalization that has pervaded all sectors of the economy.

Import Tariffs and other Import Restrictions

In 1990 there were five tariff lines, i.e. 0%, 10%, 15%, 20% and 25%. Sales taxes were imposed on imported items in addition to import duties. In 1990 there were four sales tax lines, i.e. 0%, 10%, 22.5% and 35%. A super sales tax ranging from 75%-500% on luxury goods was introduced in that year. The super sales tax of 500% was imposed on imports of edible fruits and nuts (Harmonized System (HS) code 8) and some fruit preparations (HS code 200819 to 200990). A rate of 200% was imposed on alcoholic drinks (HS code 2204-2208) and caviar. Vegetable preparations, i.e. HS code 2001-2007, some miscellaneous edible preparations under HS code 21, margarine, cheese and butter were subject to the 100% super sales tax.

The import tariff regime was restructured in 1994 to 0%, 10% and 25%. Items that had tariff rates of 20% had their rates increased to 25%. A zero tariff rate applied to imports of seeds, some inputs and baby food. Raw materials for domestic industry had a 10% tariff rate and the 25% tariff rate applied to agricultural consumer goods.

The import licensing system was dismantled in 1989. Except for a limited number of items on a negative list of imports, all items could be imported without prior approval.

7.3.2 Export Trade Regime

Export Taxes and Other Export Restrictions

With the exception of cocoa, there were no export taxes on agricultural products. The cocoa tax is what remains after farmers have received the producer price and the marketing costs of the Cocoa Board have been deducted.

Restrictions on the export of cotton and palm oil and on the import of palm oil were removed.

Export Promotion

A package of incentives was introduced in 1983 to encourage non-traditional exports[2]. The package included a customs duty drawback scheme, income tax rebate scheme and retention of foreign exchange earnings for non-traditional exports. Export subsidies were withdrawn in 1983.

7.3.3 Domestic Agricultural Policies

At the start of the reforms in 1983 the economy suffered two shocks. The first was the drought and bush fires that adversely impacted agriculture and the second was the return of approximately a million Ghanaian emigrants from Nigeria. The effect was to increase tremendously the demand for food. The focus of the agriculture policy in 1984-1986 was to increase the production of food crops through an increased supply of inputs.

The emphasis of the agriculture strategy during the period of reforms was on privatisation. It was considered that privatisation of the supply of inputs would increase their availability and the expected increase in competition would reduce the price to farmers. The liberalisation of the food marketing system was expected to result in higher prices being offered farmers compared to what Government could offer. Another reason given for the privatisation of the sector was that the shedding of some functions performed by staff of the Ministry of Agriculture would allow them to concentrate more on policy issues and monitoring. Finally the parastatals were a drain on state coffers.

In 1990 the guaranteed minimum price scheme for maize and rice was ended. Input subsidies were phased out and their sale was privatised. By 1990, except for cocoa beans, the farm gate prices of agricultural products were determined by market demand and supply conditions. The price of cotton is now based on negotiations between the producers and the commercial enterprises.

The monopsony of the Ghana Cotton Company in the buying of cotton and its monopoly in cotton ginning was broken. The Ghana Seed Company, responsible for the production and distribution of seeds to farmers, was abolished. The monopoly of the Produce Buying Company of the Cocoa Board in cocoa haulage was removed. The Livestock Marketing Board was closed down and the Ghana Food Distribution Corporation ceased to expand its storage facilities for price stabilisation

purposes and food distribution. Plantations of the Cocoa Board and 40 livestock farms were either closed down or divested.

Subsidised credit to agriculture ended in 1987. In 1990 the requirement that at least 25% of commercial bank loans go to the agriculture sector was removed.

There has been a definite movement in agricultural strategy away from the state's direct involvement in the production, distribution and marketing of output and inputs. There is also a clear movement away from directly intervening in the market through minimum prices and the provision of production and/or input subsidies.

7.4 The Uruguay Round Agreement on Agriculture (URAA) Commitments Made by Ghana

7.4.1 Export Subsidies

The URAA stipulates the types of export subsidies that are subject to reduction commitments (Article 9). Export subsidies were removed in 1983. Ghana therefore did not make any export subsidy reduction commitments.

7.4.2 Market Access.

By the time URAA had been concluded Ghana did not have any quantitative restrictions, so that the issue of tariffication (the conversion of non-tariff barriers such as quotas to tariffs) did not apply to it. Ghana chose to bind its tariffs and reduce them over a ten-year period. It bound its tariffs at rates much higher than actually applied (Table 7.1). Ghana's trade regime does not have non-tariff measures such as non-automatic licensing, tariff quotas, variable levies and import monitoring.

7.4.3 Domestic Support

Ghana had very little in the way of price or income support measures for its farmers. The URAA exempted investment subsidies and agricultural input subsidies provided to low-income or resource poor producers in developing countries from domestic support reduction commitments. In its Schedule of Commitments submitted to the WTO as part of the URAA, Ghana provided a schedule of its investment subsidies for extension services, research services, veterinary services and to encourage afforestation and control of post-harvest losses.

7.4.4 *The Agreement on Sanitary and Phytosanitary Measures (SPS)*

Ghana had until January 1, 2000 to implement its obligations under the SPS agreement. Unfortunately it was unprepared for the January 1 deadline. The set of regulations were not developed. It had been agreed that the Inter African Phytosanitary Council would provide the framework and guidelines within which national regulations would be developed. The expected guidelines from the Council had not been received and this held up the development of national guidelines. The Quarantine check-list was not completed. This meant that Ghana had no scientific basis on which to defend its ban on imports for example, maize seeds from the USA.

The FAO provided Ghana with assistance to develop its Plant Quarantine Legislation. This process was completed in 1997. However by 2000 very little progress was made in the process of ensuring that the instrument became law.

7.5   Changes Made to Meet URAA Commitments

By 1995, the beginning of implementation of the URAA, Ghana had liberalized much of its agricultural trade regime compared to those of its major trading partners. Applied tariffs have remained relatively constant since the start of the implementation period of the URAA. There has been very little in the way of reversal of its trade liberalization. The main challenges facing Ghana are compliance with the institutional requirements of the other agreements, for example the Agreement on Sanitary and Phytosanitary Measures, Technical Barriers to Trade, and Customs Evaluation.

There have been no significant changes made in applied import protection due to the URAA. The upper rate of 25% was lowered to 20% in 2000. The tariff schedule in 2001 was: 0%, 5%, 10% and 20%[3],[4]. Ghana's trade liberalisation has been driven largely by agreements made with the IMF and the World Bank rather than by what has occurred at the WTO.

In 1995, the sales tax schedule was revised to 0% and 17.5%. Products that were either classified as zero-rated or exempted under the import tax regime were subject to a sales tax of 0%. The excise tax of 17.5% was imposed on luxury items. By 1998, the sales tax rate of 17.5% was reduced to 15%, and the super sales tax was replaced by the special tax rate of 17.5%.

The sales tax of 15% was replaced by the value added tax (VAT) of 10% in December 1998. The VAT applies to imported agricultural products. The agricultural items exempt from the VAT are: live animals, livestock and poultry, imports of animals, livestock and poultry for breeding purposes, raw animal products produced in Ghana and agricultural and aquatic food products in their raw state produced in Ghana. Also exempt are seeds, bulb rootings and other forms of propagation.

There has been a decline in the tax rates for imported goods in the 1990s. The maximum tax rate for products not subject to the super sales tax was 60% in 1990 compared to a maximum tax rate of 35% in 1999.

Table 7.2 Evolution of the agriculture import trade regime

Year	Action Taken
1990	Import Tariffs: 0% 10% 15% 20% 25% Sales Tax: 0% 10% 22.5% 35% Introduction of super sales tax with rates ranging between 75% and 500%.
1994	Import tariffs rescheduled to 0% 10% 25%
1995	Sales Tax schedule revised to 0% and 17.5% Excise Tax of 17.5% on luxury items
1998	Sales tax schedule revised to 0% and 15% Sales tax replaced with 10% VAT in December. Super sales tax replaced with special tax of 17.5%
1999	Removal of special tax
2000	Import tariff rate reduced from 25% to 20% Special import tax of 20% introduced on selected items VAT increased to 12.5% in June.

7.6   Evolution of the Incentive Structure

Nominal Protection

Nominal tariff rates on agricultural products have not changed substantially in the period 1995-1999. However the nominal protection conferred by the exchange rate declined in the period between 1995 and 1999 due to the real appreciation of the exchange rate.

An assessment of the impact of sector and macroeconomic policies on agricultural price incentives can be made by decomposing real agricultural prices.[5] Nominal prices can be defined as:

$$P_{it} = P^* E_t (1 + \theta_{it})(T + T_{it}) \qquad \text{--------------------------- 1}$$

where P_{it} and P^* are respectively the nominal domestic price of commodity i and the nominal border price measured in foreign currency of good i at time t. E_t is the nominal exchange rate in period t. θ_{it} is a mark up that includes transactions costs and the profit margin and T_{it} is the nominal rate of protection. The nominal rate of protection incorporates the effect of trade taxes, non-tariff measures and other domestic policy measures that create a wedge between domestic and border prices.

The change in real prices of the commodity can be decomposed into three parts. These are the percentage change in the real international price, the percentage change in the real exchange rate and the percentage change in policy and other factors. This can be done by dividing both sides of equation 1 by a domestic price index and multiplying and dividing by an international inflation index, taking logs and differencing to yield the following:

$$\Delta \ln p_{it} = \Delta \ln p^*_{it} + \Delta \ln RER_t + \Delta \ln(1 + \theta_{it}) + \Delta \ln(1 + T_{it}) \text{-------2.}$$

p_{it} is the real domestic price
RER_t is the real exchange rate
p_{it}^* is the real international price

Developments in price incentives were estimated for cocoa beans (1990-1997), maize and rice (1995-1997). The choice of these crops is determined largely by the availability of data. The real exchange rate and terms of trade were estimated as indices using 1995 as the base year. The domestic price of cocoa used for the analysis is the producer price announced by government. The domestic price of maize and rice are the national average wholesale prices for these crops. The C.I.F. border prices of maize and rice are obtained by dividing the value of imports by the quantities imported. This data is obtained from the external trade statistics division of the Statistical Services. The foreign price used in the calculation of the terms of trade of the product is the USA consumer price index. In the empirical analysis θ_{it} and T_{it} are treated as a residual and described as changes in other policies (Table 7.3).

The cocoa sector was taxed the entire period. However in the late 1990s the farmer received an increasing percentage of the world price. The depreciation of the real exchange rate notwithstanding, the real producer price continued to decline between 1991/92 and 1993/94. The real producer price increased by 60 per cent in 1994/95 crop year (Table 7.3).The appreciation of the real exchange rate is largely responsible for the decline in real producer prices between 1994/95 and 1995/96. Domestic policy should have caused an increase in real producer prices in the following period but the appreciating exchange rate and the decline in world prices counteracted this. The change in real prices was positive between 1996/97 and 1997/98 because of the impact of domestic policy and the increase in real international prices.

Table 7.3. Decomposition of changes in real wholesale prices

Cocoa	change in real price	change in real exchange rate	change in real international prices	change in other policies
1990/91-1991/92	-0.05	-0.04	-0.07	0.06
1991/92-1992/93	-0.07	0.08	-0.09	-0.06
1992/93-1993/94	-0.05	0.19	0.18	-0.41
1993/94-1994/95	0.60	0.18	0.10	0.32
1994/95-1995/96	-0.28	-0.20	-0.01	-0.07
1995/96-1996/97	-0.01	-0.05	-0.07	0.12
1996/97-1997/98	0.14	-0.02	0.08	0.08
Maize				
1995-1996	-0.10	-0.05	-0.34	0.29
1996-1997	0.43	-0.02	1.20	-0.75
Rice				
1995-1996	-0.01	-0.05	0.72	-0.67
1996-1997	0.02	-0.02	-2.55	2.60

Movements in real maize prices have been influenced largely by changes in real international prices. The real prices of rice increased in 1997 due largely to trade policy that outweighed the effects of the appreciating real exchange rate and the decline in real international prices.

Effective Rates of Protection

The effective protection coefficient is the ratio of value added in private prices to value added at world prices. Values less than one imply that policies are not conferring any protection on the activity.

The effective protection coefficients of maize were greater than one in 1984/5 but were estimated to have declined to below one in 1992 and 1994/5. Unfortunately no estimates of the effective protection coefficient have been found for maize since 1994/95 so it is difficult to comment on what has happened since the coming into force of the WTO.

The effective protection coefficient for rain-fed rice registered a decline up until the mid 1990s (Table 7.4). It is estimated that in 1999 there was an increase in the effective protection conferred on rice.

The effective protection coefficient on cocoa production has also registered a similar increase in the period since 1994/95 (Table 7.4).

Table 7.4. Estimates of effective protection coefficients

Product	1986[a]	1992[a]	1994/95	1999
Maize	1.89-2.23	0.63 - 0.91	0.83	
Cocoa			0.77	1.05
Pineapple			0.82	
Cotton			0.67	
Rainfed rice	1.42-1.95	1.17 – 1.35	0.75	1.33

a.   The rate varies depending on the different types of production methods, i.e. traditional through to mechanised production methods.

Source: Asuming-Brimpong (1994), Seini, W. (2002) and Seini et. al (2000).

The evidence though patchy, suggests that the trade regime since 1994 has provided protection to some agriculture products.

Ghana's applied tariff rates on agriculture imports have not changed significantly in the period since the coming into force of the URAA. Compared to the tariff rates of the European Union its main export destination, Ghana's import tariff rates are high. However unlike the European Union, Ghana has virtually no non-tariff barriers on its agricultural imports. An important result of the URAA was the move

away from non-tariff measures to tariffs. Thus countries were required to go through a process of tariffication of the non-tariff measures. An assessment of the tariffication process by Ingco (1996) finds that "If the EU applied the maximum specific tariffs committed in the UR, the estimated post-UR *ad-valorem* tariff equivalents in 1995 and 2000 indicate significant increase in protection in major commodities relative to recent levels and relative to the average protection over the last fifteen years" (p. 436). It is estimated that tariff rates for sugar and meat in the EU in 2000 would stand at 152% and 76% respectively. These are significantly higher than Ghana's applied tariff rates.

7.7   Developments in Agriculture and Food Production

A wide range of food crops is produced in Ghana. The area under cultivation of many of these crops has increased in the 1990s. Both agriculture and food production increased in the 1990s. However, food production per capita hardly registered any changes between 1999 and 2001 (Table 7.5).

Table 7.5 Indices of agriculture and food production 1989-91=100

	Agriculture Production 1989-91 =100	Food Production 1989-91 =100	Agriculture Production Per Capita 1981-91 =100	Food Production Per Capita 1989-91 = = 100
1990	82.4	82.4	82.6	82.5
1991	118.5	118.3	115.4	115.3
1992	117.3	116.8	111.1	110.6
1993	126.2	125.3	116.4	115.5
1994	120.5	120.0	108.2	107.8
1995	138.2	137.8	121.1	120.8
1996	149.2	148.4	127.8	127.1
1997	145.1	144.2	121.6	120.8
1998	158.6	157.3	130.1	128.9
1999	165.8	164.9	133.1	132.3
2000	171.0	170.0	134.3	133.5
2001	175.2	174.0	134.5	133.7

Source: FAOSTAT

Note: Net Production = Production-Feed-Seed

Table 7.6. Production of selected food crops (000 metric tonnes)

	Maize	Rice	Millet	Cassava	Yam	Plantain
1990	553	81	75	2717	877	799
1991	931	151	113	5701.1	2632	1178
1992	730.6	131.5	133.3	5662	2331.4	1082
1993	960.9	157.4	198.1	5972.6	2720.3	1321.5
1994	939.9	162.3	167.8	6025	1700.1	1474.7
1995	1034.2	221.3	209	6611.4	2125.7	1637.5
1996	1008	216	193	7111.2	2275	1823
1997	1021	197	139	7150	2417	1878
1998	1015	281	162	7172	2703	1913
1999	1014	210	158	7845	3249	2046
2000	1013	249	169	8107	3363	1932

Source: Ministry of Food and Agriculture, Accra, Ghana.

Maize and millet production peaked in 1995 and a drop in production was recorded in subsequent years. Production of these two crops in 2000 had still not attained their 1995 levels (Table 7.6). Real maize prices increased continuously until 1996 when they suffered a decline. The domestic policies have not conferred maize with substantial protection as the discussion on the incentive structure showed.

Rice production rose continuously between 1990 and 1995 despite the decline in its real prices and effective rate of protection[6]. A drop in production was registered in 1996 and 1997. Production increased in 1998 but has remained below the 1998 levels (Table 7.6). Both the estimates of the effective rate of protection and the changes in relative prices suggest that incentive structure has provided some protection to the rice sector. Production of starchy staples has increased faster than have cereals (Table 7.6).

The cocoa sector has been continuously taxed. Real prices declined until 1993/94, and then declined until 1997/98. The supply of cocoa has tended to follow a pattern similar to that of real prices (Table 7.7). Seed cotton production has increased steadily with a quadrupling of production levels between 1990 and 1997. Oil palm production rose continuously between 1990 and 1993 and then declined to levels below the 1995 peak in subsequent years (Table 7.7).

Table 7.7 Production of industrial crops (Mt)

	Cocoa	Coffee	Seed Cotton	Tobacco	Oil Palm
1990	293352	4872	11160	1160	470430
1991	242817	2710	14250	1740	508780
1992	312122	370	17460	1725	544970
1993	254652	4116	23350	2230	572990
1994	309406	6330	26290	1700	418380
1995	403000	6330	34640	2000	478980
1996	322490	2880	40250	2020	481910
1997	409360	8370	45670	2390	523350

Source: Ministry of Agriculture (1999) Agriculture in Ghana. Facts and Figures, SRID, Accra.

7.8 Ghana's Agriculture Trade

Exports: Agriculture's share of total exports declined in the 1990s from approximately 43% of the total in 1990 to about 27% in 2001 (Table 7.8). The declining share of agriculture exports is due largely to the slow growth in cocoa export values. Export earnings from cocoa have declined since 1998. The fall in cocoa export values is due largely to falling world prices for cocoa. The trend in cocoa export volumes has been upward since 1995 (Table 7.9). Non-traditional agriculture exports earnings, for example fruits, vegetables and fish, have been rising in the 1990s. The export volumes of yam, bananas and plantains were higher in 1999 than in 1995. Pineapple export volumes have declined since 1996 although they remain higher than levels recorded in 1995 (Table 7.9). However since non-traditional agriculture exports are rising from a small base, they have not been able to compensate for the decline in cocoa export earnings.

Ghana's agricultural exports are still dominated by cocoa beans and products. Although their importance in agriculture exports is declining over time (Table 7.8). They made up approximately 85% of agricultural exports between 1990 and 1995. In 2001, the share of cocoa beans and products declined to approximately 76% (Table 7.8).

Table 7.8. Composition of agriculture trade 1990-2001.

	Cocoa Exports	Non-trad Agric	Total Agric Exports	Share of Agric Exports	Cocoa share of Agric Exports
1990	360.60	22.80	383.53	42.78	94.02
1991	349.00	19.10	368.20	36.91	94.78
1992	302.46	22.10	326.09	33.06	92.75
1993	285.87	26.10	313.71	29.49	91.13
1994	320.22	39.20	375.72	30.39	85.23
1995	389.48	27.40	458.40	32.03	84.97
1996	551.82	50.30	650.58	41.41	84.82
1997	470.03	57.40	579.25	38.88	81.14
1998	620.41	77.80	778.51	37.24	79.69
1999	552.30	84.50	705.10	35.16	78.33
2000	437.05	74.50	583.25	30.12	74.93
2001	382.6	66.9	504.70	26.79	75.81

Source: Estimated by the author using data from ISSER *The State of the Ghanaian Economy,* various issues.

Table 7.9 Trends in export volumes of selected agricultural products (metric tonnes)

	1995	1996	1997	1998	1999
Cocoa Beans	237.2	349.0	261.25	327.32	346.76
Cocoa Products	13.86	43.38	53.26	48.38	35.32
Pineapple	15.7	27.6	25.12	24.8	23.44
Yam	6.86	8.08	7.01	7.42	9.76
Plantain/Banana	1.85	3.29	4.00	2.90	3.38

Source: Ghana Export Promotion Council and Bank of Ghana.

The European Union is the major destination for most agricultural exports (Table 7.10). The share of agriculture exports going to the European Union has increased in the 1990s and is estimated at 75% in 1998. For some commodities the EU accounts for more than 90% of what is exported (Table 7.11). This suggests that for Ghana developments in the EU agriculture and trade policies are of critical importance.

Table 7.10 Market share for Ghana's major trading partners for selected agricultural exports.

Country	Percent		
	1992	1995	1998
European Union of which:	43.430	57.46	75.7
Belgium	2.051	9.23	4.91
France	1.088	5.74	7.85
Italy	1.076	3.53	4.40
Germany, F	13.025	11.78	9.37
Netherlands	8.393	10.73	22.60
Spain	0.986	5.74	2.65
United Kingdom	16.130	8.51	21.02
United States	5.480	5.76	4.18
Japan	5.333	5.16	8.44
Russia	1.180	5.01	2.59

Notes. This table provides data for 16 HS commodity codes at the 8 digit level. They account for about 80% of the total agricultural exports.

1. A major trading partner is a country that receives at least 3% of the total value of the selected exports.

Source: Ghana Statistical Services External Trade Statistics various issues, Accra

Table 7.11. EU share of selected agricultural exports 1995, 1997, 1998 (%).

HS code	Product name	1995	1997	1998
0714	Roots & Tubers with high starch	84	75	70
0803	Bananas – Plantain	99	99	85
0804	Pineapples, mangos...	64	87	78
0901	Coffee; coffee husks	89	68	79
1511	Palm oil & its fractions	46	87	98
1801	Cocoa beans	51	69	74
1802	Cocoa shells	100	94	97
1803	Cocoa paste	85	48	42
1804	Cocoa butter	93	88	88
1805	Cocoa powder	0	0.1	47
1806	Chocolate & other food	42	5	47
2006	Fruits, nuts & peel	100	0.0	76
2009	Fruit juices	2	75	94

Source: Calculated from Ghana Statistical Services data files.

Imports. The volume of agriculture and food imports is estimated to have increased in the first half of the 1990s (Table 7.12). Import volumes remained below the levels of the first half of the 1990s between 1995 and 1997. The appreciating real exchange rate, decline in world cereal prices and slow growth in domestic agriculture production within the context of fairly stable economic growth rate of about 4% per annum would have suggested otherwise. A substantial increase in imports was recorded in 1998. In 2000 they were about 50% of their 1990 levels (Table 7.12).

Table 7.12 Developments in agriculture and food imports (1989-91=100)

	Agriculture Import Quantity	Food Imports Quantity
1990	98	98
1991	124	126
1992	129	131
1993	120	122
1994	142	144
1995	98	96
1996	69	66
1997	88	89
1998	139	140
1999	132	132
2000	152	153

Source: FAOSTAT

There is a high degree of concentration in the structure of Ghana's agricultural imports. Rice, wheat and sugar account for about half the agricultural imports. They accounted for 55.9% of total imports in 1995. Their share rose to 62% of the imports in 1998 (Table 7.13). The value of rice imports has declined between 1995 and 1998 and rose quite substantially in 1999. The value of wheat imports on the other hand rose continuously between 1995 and 1998, declining in 1999. Unlike rice where there is some domestic production, there is no domestic production of wheat and sugar.

Table 7.13. Developments in the structure of agriculture imports 1995, 1998.

HS	Selected Imports	1995	1998
	Milk and Cream, not concentrated or sweetened	0.112	0.153
	Milk and cream concentrated or sweetened	2.662	7.869
	Maize	0.984	0.879
	Rice	16.501	14.404
	Wheat or meslin	21.250	28.935
	Soya bean oil and its fractions	0.738	0.921
	Palm oil and its fractions	0.329	3.308
	Cane or beet sugar and chemically pure sucrose	18.296	18.700
	Other sugars in solid form	0.161	0.295
	Cereal Grains otherwise worked	0.373	0.620
	Malt	3.88	4.332
	Margarine	1.620	2.787
	Malt extract	2.983	1.266
	Tomatoes prepared or preserved otherwise than	1.527	1.804
	Wine or fresh grapes(incl. Fortified wines)	1.146	1.331
	Ethyl alcohol undernaturated of	3.418	2.562
	Bread, pastry, cakes etc; communion wafers	1.438	3.090

Source: Estimated on the basis of data obtained from data files of Ghana Statistical Services

The European Union emerges as a major source of imports. However it does not dominate the direction of import trade as it does the direction of export trade. On the basis of selected imports that account for at least 80% of Ghana's agricultural imports in 1992, imports from the European Union account for about 17% (Table 7.14). The share of imports originating from the European Union is estimated at about a quarter in 1998. The USA and Canada are major sources of agricultural imports. This is largely because wheat imports are sourced from these countries. The East Asian countries also emerge as major agricultural exporters to Ghana. This again can be explained largely by the structure of imports. Rice imports made up about 15% of agricultural imports (Table 7.13).

Table 7.14 Source of Ghana's major agricultural imports

Country	1992	1995	1998
European Union of which:	16.892	25.92	24.6
Belgium	4.417	1.63	3.36
Germany, F.	2.501	2.11	2.30
Netherlands	3.298	5.23	7.12
France	4.224	5.34	2.61
United Kingdom	1.071	8.12	4.78
United States	22.320	21.50	22.77
Canada	3.741	9.03	15.87
Pakistan	9.908		
Thailand	10.906	13.08	1.53
Vietnam	10.320	3.97	4.23
China	7.829		

Notes This table provides data for 20 HS commodity codes at the 4 digit level. They account for about 80% of the total agricultural imports.

Source: Ghana Statistical Services External Trade Statistics various issues, Accra

7.9 Food Security Issues

The decline in the domestic production of cereals raises concerns about food security. This is because cereals comprise about 18% of the food budget and about 35-40% of food imports. Domestic demand for wheat is satisfied entirely from food aid and commercial imports because there is no domestic production. The volume of commercial imports has risen since 1995. Food aid import volumes fell in 1996, rose in 1997 and have tended to remain fairly constant since then (Table 7.15). This category of imports constitutes a smaller share of total domestic supply in 1999 than it did in 1995. International wheat prices have tended to follow a downward trend since 1995, with prices in 1999 approximately 27% below their 1995 level.

Domestic production dominates the supply of maize on the local market. Maize imports are quite small and have not exceeded 1% of total domestic supply over the period 1995-1999. The price of maize on the world market has declined since the signing of the URAA. Despite this it does not appear that imports have substituted domestic production. There is very little importation of millet. Virtually the entire domestic consumption of millet is met from domestic supplies.

The picture is quite different for rice. Domestic rice production has not been able to keep up with demand over the period 1995-1999. Rice imports constitute a significant share of the supply of rice on the local market. In 1995 commercial rice imports made up approximately 43% of the domestic supply. In 1998 it is estimated that commercial rice imports made up about 67% of domestic supply. Food aid import volumes dropped quite sharply after 1995 with volumes staying fairly stable thereafter.

In the case of rice therefore, developments in the world market will have implications for domestic food security. The price of rice on the world market has fallen since the signing of the URAA[7]. This means that if there is to be lower dependence on foreign production for the domestic supply of rice, measures have to be implemented to improve upon the rice farmer's ability to compete with imports

Table 7.15 Production and domestic supply of selected cereals

000 MT	Maize		Rice		Wheat	
	1995	1999	1995	1999	1995	1999
Net Production	723.94	710.15	104.45	109.12	0.00	0.00
Commercial Imports	0.89	0.20	104.26	227.78	29.18	181.64
Food Aid Imports	3.21	1.12	37.98	3.56	51.00	48.97
Exports	0.00	5.57	0.00	0.70	0.05	9.00
Total Domestic Supply	728.04	705.89	246.69	339.76	80.18	230.61

Ratio of Total Domestic Supply	Maize		Rice		Wheat	
	1995	1999	1995	1999	1995	1999
Net Production	0.99	1.01	0.42	0.32	0.00	0.00
Commercial Imports	0.00	0.00	0.42	0.67	0.36	0.79
Food Aid Import	0.00	0.00	0.15	0.01	0.64	0.21
Exports	0.00	0.01	0.00	0.00	0.00	0.04
Total Domestic Supply	1.00	1.00	1.00	1.00	1.00	1.00
World Price $/mt	104	87	270	240	149	108

Source: Production and Trade data obtained from CEPA (2000), Price data obtained from World Bank data files.

The food trade balance was positive but declining for most of the period since the signing of the URAA and a deficit, the first in more than twenty years was recorded in 2001 (Table 7.16). The slow down in food production in the midst of rising incomes and population growth can explain this trend. Another explanatory factor is the decline in cocoa prices on the international market that dampened the expansion of food export values. Although the food trade balance has tended to be in surplus, the cereals trade balance is consistently in deficit with imports exceeding exports by a large margin (Table 7.16). Food imports as a percentage of total imports declined in the 1990s. As a ratio of total exports food imports have declined, beginning from 1992.

Thus, Ghana is not a traditional net food importer, although it is a traditional net importer of cereals. The decline in world prices of most cereals in the late 1990s has not resulted in a significant increase in food imports as a share of total imports. The reverse seems to have occurred between 1995 and 1999 (Table 7.16). However there has been an increase in the dependence on imports as a source of supply for rice. For Ghana to remain food secure what is required is an increase in domestic food production and an increase in total export earnings to ensure that foreign exchange is available to meet critical food import needs if the situation should arise.

Table 7.16 Trends in national level food security indicators

	Food Trade Balance US$ '000	Food Imports as Per cent of Total Imports	Food imports as Per cent as Total Exports	Cerea; Imports US$m.	Cereal Export US$m.
1990	252266	12.725	17.101	68.200	
1991	159374	15.293	20.214	85.430	
1992	80006	15.751	23.260	90.080	
1993	127975	9.432	15.323	67.19	
1994	143835	11.961	15.284	92.765	
1995	193756	10.654	12.564	56.280	
1996	590424	8.538	10.527	67.577	5.974
1997	319991	8.371	11.957	54.587	1.167
1998	303503	8.724	12.086	81.650	2.695
1999	231723	8.490	13.665	76.676	2.366
2000	261092	9.298	13.164	98.654	0.443
2001	-52203		17.561	162.303	0.448

Source: FAOSTAT

7.10 Experience with the implementation of URAA Commitments

Article 14 of the URAA states that "Members agree to give effect to the Agreement on the application of Sanitary and Phytosanitary Measures". This Agreement dealing with human, animal and plant health issues, has direct implications for farming methods and agriculture trade. It is with the SPS Agreement rather than the URAA that Ghana faces severe problems of implementation. Exporters have experienced problems with quality and phytosanitary requirements. For example, cassava leaf exports were rejected in the UK market because of the presence of insects. Inspectors have been trained to identify the insects, so the problem was solved. In the US market there has been a problem with the import of yams which have to be fumigated before allowed entry[8]. This process of ensuring health standards creates costs for the yam exporters. The yam is not able to withstand the extreme changes in temperature that occur because of the fumigation process. It is a particular problem during winter when the yam is transferred from the heat of the tropics to the cold temperate weather and then is subject to the extreme heat of the fumigation chamber. The cells of the yam break down and it deteriorates. One exporter estimates that during winter between 20-30% of the yam is lost due to the fumigation process[9]. Refusal of entry of imports into the United States is for a large number of reasons ranging from filth found in the products to refusal because the item (in this case a drug) is not listed (Table 7.17)

Table 7.17. Reasons for refusal of entry into the United States of imports from Ghana in 2002.

Reason	Number of instances
Filth	5
Bacteria, Aflatoxins and Salmonella	35
Packed/Produced under Unsanitary Conditions	8
Unapproved Drug	15
Other reasons	10

Source: Estimated using information from the United States Food and Drug Administration website.

Article 2 of the SPS agreement outlines the rules and obligations in the application of SPS measures. However the Article does not provide measures to protect the importing country from practices that destroy the supplies of the importer in the process of testing for health standards. Article 2.2 states that measures be applied "only to the extent necessary to protect human, animal or plant life or health". Article 2 of the SPS Agreement needs to be more explicit in also protecting the interests of the suppliers as they work to satisfy market requirements.

A second weakness with the SPS Agreement is the failure to explicitly deal with the time frame within which new measures should be implemented. Annex B on Transparency of Sanitary and Phytosanitary Regulations states that "Except in urgent circumstances, Members shall allow a reasonable interval between the publication of sanitary and phytosanitary regulation and its entry into force in order to allow producers in exporting Members, and particularly in developing country Members, to adopt their products and methods of production to the requirements of the importing Member. A problem with this provision is with the definition of "reasonable interval". Who should decide on how long a reasonable interval should be? It appears that this is left to the discretion of the importing country. Ghana's experience so far has been that the importing country sets the requirements and the time period within which the measures should be implemented. A major concern is that the time period may not be long enough for the necessary adjustments to be introduced without losing a foothold in the market in the meantime. The experience of the fish industry (fish products are not covered by the Agreement on Agriculture) is quite revealing. The time frame within which the EU wanted its health related requirements to be implemented was not long enough for most operators in the industry to adjust. The result was a sharp decline in the number of exporters involved in fish exports in the first year that the directives were enforced.

Nevertheless giving the developing countries the opportunity when it is possible, to phase in the SPS requirements over a longer time period required of other suppliers may put the developing country suppliers at a disadvantage. This is because at a point in time the market will perceive that supplies from developing countries will not be of the same standards as that of other suppliers. Markets could be lost as a result. Developing countries are therefore in a difficult position.

Ghana is not ready to implement the SPS agreement. Ghana needs more time to be able to put in place the legal instruments, data base and institutional structures necessary for the implementation of the SPS. Farmers will also need to change production methods and probably incur costs in order to meet minimum international standards. At present the playing field is uneven as the mechanisms to enforce its SPS requirements are not in place and there is inadequate knowledge about the SPS requirements of trading partners. A study by Henson et al. (2000) on the impact of the SPS agreement on developing countries identified some of the problems faced by the fishing sector in Ghana. Some producers stated that government institutions were slow in taking the necessary steps to respond to the changes required by the EU. A second problem faced by producers was changing production methods to meet EU requirements. There were logistical problems such as lack of adequate cold storage and airfreight capacity. Access to information was also a problem. In some instances the EU requirements were considered to be too stringent.

7.11 Country's Interests and Options for the New WTO Round of Negotiations

Estimates of the revealed comparative advantage suggest that Ghana has a comparative advantage in most of the agricultural commodities it exports (Table 7.18). It appears that except for cocoa products, Ghana's comparative advantage currently lies in the production of primary products.

Some commodities have been selected for intensive production and promotion. They are cashew nuts, cocoa butter, plants and parts of plants, black pepper, papaya, fresh cut, flowers, coffee not roasted, yams, ginger and pineapples. Other products that have been earmarked are palm oil, beans and peppers[10].

Table 7.18 Estimates of revealed comparative advantage 1995-1998

HS code	Heading Description	1995	1996	1997	1998
0106	Other Live Animals	0.99	0.78	0.70	0.99
0402	Milk and Cream Concentrated or Sweetened	-0.99	0.46	-0.60	-0.99
0702	Tomatoes (fresh or chilled)	0.49	0.99	0.92	1.00
0708	Leguminous Vegetables (fresh or chilled)	0.43	0.97	0.92	0.99
0709	Other Vegetables (fresh or chilled)	0.99	0.99	0.99	0.97
0714	Roots & Tubers with high starch content	0.99	0.99	0.99	0.99
0801	Coconuts, Cashews, Brazil nuts ...	0.85	0.99	0.99	0.99
0803	Bananas, Plantain	0.99	0.99	0.99	0.99
0804	Pineapples, Mangoes, Avocados	0.99	0.99	0.99	0.99
0805	Citrus Fruit	0.86	0.99	0.95	0.91
0807	Melons, including Watermelon & Papaya	1.00	1.00	0.99	0.99
0901	Coffee; Coffee husks and skins	0.96	0.94	0.96	0.98
0904	Pepper of the Genus Piper	0.81	0.94	0.91	0.93
0910	Ginger, Saffron, Turmeric	-0.91	0.52	-0.08	-0.92
1005	Maize	-0.99	0.97	0.81	0.53
1006	Rice	-0.99	-0.75	-0.99	-0.99
1201	Soya beans	1.00	-0.31	0.97	-1.00
1202	Groundnuts	0.94	1.00	1.00	0.09
1511	Palm oil and its fractions	-066	0.94	1.00	0.47
1513	Coconut, palm kernel oil and their fractions	0.93	0.62	0.97	-0.43
1801	Cocoa Beans	1.00	1.00	1.00	0.99
1802	Cocoa Shells	1.00	1.00	1.00	1.00
1803	Cocoa Paste	0.99	0.99	0.99	1.00
1804	Cocoa Butter	0.99	?	0.99	0.99
1805	Cocoa Powder	0.99	1.00	0.76	0.99
1806	Chocolate and other food preparations ..	0.95	0.97	0.34	0.18
2002	Tomatoes prepared or preserved...	-1.00	-0.87	-0.86	-0.99
2006	Fruits, nuts, fruit peel and other parts of plant	0.60	0.95	0.13	0.02
2009	Fruit juices (incl. Grape must) and veg...	0.86	0.80	-0.25	-0.57
2104	Soups and broths and preparations thereof	0.46	0.58	0.67	0.26
2106	Food preparations not elsewhere specified	-0.95	-0.97	-0.74	-0.90
2203	Beer made from malt	-0.15	-0.31	-0.13	-0.70
2401	Unmanufactured tobacco; tobacco refuse	-0.11	0.89	0.009	-0.17
2402	Cigarettes, cigars and cheroots	0.96	0.99	0.30	0.91

Notes:

The Revealed Comparative is calculated as $(Xi - Mi)/(Xi + Mi)$, where Xi is the exports of commodity "i" and Mi is imports of commodity "i".

Source:

The long-term objective is to move into processing of primary products. The selection of the products whose production is to be encouraged is based on the identified market demand, the country's geographical position and the agricultural traditions of the country. It is recognised that Ghana is closer to the European Union market for the supply of fresh fruit and vegetables than are Asian countries. It therefore wants to maximize the opportunity that this geographical advantage provides.

Ghana's major interest in URAA negotiations is to improve upon provisions on market access for its agricultural products. This is particularly important for Ghana because a major plank of its current agricultural strategy is the expansion of exports. In the policy document outlining the accelerated agricultural growth strategy it is stated that Ghana is going to be proactive rather than reactive in developing improved market access to traditional and new markets. This it intends to do by improving access to information on import regulations in the importing countries.

7.11.1 Market Access

Tariff Rates and Preference Margins

In discussions with officials of the Ministry of Trade and Industry, the Ghana Export Promotion Council and exporters, the consensus is that given the current trade regime, tariffs are not a constraint on market access in the industrialised countries. Tariffs are a problem however in gaining access to the ECOWAS market. Tariffs do not constitute a problem in industrialised country markets, particularly the EU, because of preferential trade arrangements. With a few exceptions, for example bananas, Ghana's agricultural exports can enter the EU market duty-free.

The EU market is the major destination of Ghana's agricultural exports. The US emerges as a significant destination in a narrower range of agricultural commodities, i.e. palm oil, cocoa beans and fruit juices. Thus the discussion on preference margins will concentrate on the EU market. Under the Lome Convention and its successor the Cotonou Agreement, Ghana benefits from duty-free access to the EU market for many of its agricultural exports. The reduction in MFN tariff rates resulting from the Uruguay Round results in the erosion of Ghana's trade preferences. However the extent of the erosion varies considerably. The MFN duty rates on cocoa beans, yams, cassava and coffee are very

low conferring extremely limited advantages (Table 7.19). The tariff preference margins for cocoa products and pineapples exceed 5%. Several tariff peaks still remain. The margins for processed fruits, fruit juices and bananas are still high despite the tariff reductions that have occurred (Table 7.19). Although nominal tariff rates on many of the products have been cut, tariff escalation still remains as tariffs on fresh or raw products are considerably lower than tariffs on processed products (Table 7.19). A further reduction in EU MFN tariffs on items of export interest to Ghana could ironically put Ghana at a disadvantage since further MFN

Table 7.19. Tariffs and trade control measures in the EU market 1994, 1996, 1998.

HS code	Item	Year	MFN range	NFN average	NTM incidence %
0714	Roots & Tubers with high	1994	3	3	
		1996	3	3	
		1998		3	100
0803	Banana & Plantain	1994	20-20	20	0
		1996	19-19	19	0
		1998	17.3	17.3	100
0804	Pineapples, mangos..	1994	9	9	0
		1996	8	8	0
		1998	6.9	6.9	0
0901	Coffee; coffee husks &...	1994	4	4	
		1996	3	3	
		1998	1.7	1.7	100
1511	Palm oil & its fractions	1994	4-6	5.0	0
		1996	3-5	4.0	0
		1998	1.3-4.5	2.9	0
1801	Cocoa Beans	1994	3	3	0
		1996	2	2	0
		1998	1	1	0
1803	Cocoa Paste	1994	12	12	0
		1996	12	12	0
		1998	11.4	11.4	0
1804	Cocoa Butter	1996	9	9	0
		1998	9	9	0
1805	Cocoa Powder	1994	12	12	0
		1996	12	12	0
		1998	10.7	10.7	
2006	Fruits, nuts, fruit peel	1994	0-25	18	
		1996	0-23	17.6	100
		1998	0-21.7	15.4	10
2009	Fruit juices	1994	19-42	30.5	
		1996	17-39	28	100
200919	Orange juice	1998	14.5-36.4	25.5	100
200940	Pineapple juice	1998	16.5-36.7	21.7	16

Source: UNCTAD TRAINS.

tariff reductions will erode the advantage it has against non-preference receiving countries. Since Ghana is unlikely to be able to stop the process of tariff liberalisation it should negotiate for a reduction in any domestic support measures that may discriminate against foreign goods but tend to favour domestic producers. A second reason for Ghana to support any proposals for the reduction in domestic support measures is that the domestic support provided by other countries to products Ghana exports, gives these countries an undue advantage in third countries.

The trade regime of the Lome Convention was not consistent with the WTO rules. The issue of compatibility with the WTO was addressed in the Cotonou Agreement of 2000. It was agreed that negotiations for Economic Partnership Agreements should take place between September 2002 and January 2008. Under the Economic Partnership Agreements obstacles to trade between the EU and the ACP countries will be removed, i.e. there will be a shift to reciprocal preferences in contrast to the current non reciprocal arrangement. This changed arrangement has significant implications extending beyond Ghana's agriculture sector. With this ahead, discussions on reducing domestic support measures in the current trade negotiations become even more crucial as under the Economic Partnership Agreements, imports from the EU will have an undue advantage if domestic support measures are not reduced substantially at the same time that Ghana removes duties on imports from the EU.

Non-Tariff measures

Except for bananas, tomatoes, coffee, cassava processed fruit, fish and fish products, Ghana's agricultural exports are not subject to non-tariff measures in the EU (Table 7.19). From the discussions with staff of the Ghana Export Promotion Council and the Ministry of Trade and Industry non-tariff barriers are the main barriers to entry into the major markets. One concern is with the costs that these barriers, in particular the SPS measures impose on exporters. There is the fear that increasingly health and quality standards will become trade control measures and not merely measures to protect the life and health of plants, animals and people.

The Perspective of Exporters: A limited survey was conducted of producers/exporters of agricultural products. The export items covered by the survey were pineapples, papaya, assorted vegetables, yam, cashew nuts and pineapple juice. Except for the yam and cashew nut exports

that were sent to the US market, the exporters of fruit and vegetables were concentrated in the EU market.

Some of the exporters to the EU market commented that quality considerations had become increasingly important in the mid-1990s. In the case of pineapples for example buyers were becoming more particular about the minimum residual level of pesticides in the fruit. UK buyers of papaya regularly inspected the facilities and conditions under which the workforce operates in order to ensure that work and production conditions meet their specifications. The exporters attributed the growing concerns about quality to the rising competition in the fruit market and the need for buyers to maintain their share of the domestic market. They did not all perceive the quality requirements to be a problem.[11] One producer/exporter was installing a new factory to ensure that quality requirements were met. All exports require a phytosanitary certificate issued by the Ministry of Food and Agriculture and for exporters to the EU, a form had to be completed which would allow them to benefit from duty-free entry.

7.11.2   Import Policy

Taxes on international trade are the only significant source of indirect price support received by the agriculture sector. The WTO rules allow countries to provide domestic support without any limit if this support does not distort trade and falls into the Green Box category of support such as extension services. In Ghana, government support is limited. Tariffs are a subsidy to the producer and a tax on consumers. A further decline in import tariffs would reduce the indirect subsidy received by agriculture. Some crop and livestock producers would find it difficult to compete against imports (often subsidized), and this could increase the reliance on imports Further, liberalisation may not be an optimal strategy to pursue from a food-security perspective.

Trade taxes are not the best way to achieve an increase in production. However in the absence of production and input subsidies and other measures to support production, trade taxes may be considered a second-best alternative. If further trade liberalisation is to be implemented, it is imperative that other support measures be introduced to enable domestic producers compete with imports coming from countries that provide their farmers with substantial support[12]. An alternative argument is that the US and EU are unlikely to reduce significantly their support to agriculture. If the effect of the actions of these countries is to reduce

world prices, the low world prices of food imports would benefit consumers. On the other hand, allowing cheap food imports into the country could increase rural poverty (whilst proving beneficial to net food purchasers) especially if alternative forms of rural employment are not immediately found.

In government consultations with stakeholders in agriculture conducted in 1995, it was recommended that subsidies be provided the agriculture sector in order to increase production. A portion of the cocoa revenue could be allocated to provide a 20% fertiliser subsidy over a 5 year period. It was estimated that the subsidy would cost approximately US$5 million per annum. The advantages of such a measure would be the increase in agriculture production, reduced feed costs to the livestock and fish industry as prices fell and the resulting increase in the production of these sectors. These benefits would have to be weighed against the loss of part of the cocoa revenue to government.

The degrees of freedom available to Government on the issue of subsidies are not dictated by WTO rules but largely by the requirements of the IMF and World Bank agreements and budgetary considerations. Its obligations with these institutions make it difficult for Ghana to take advantage of some of the provisions in the URAA.

7.11.3   *Export Policy*

The possible option for further liberalisation within the cocoa sector is the increase in the share of the world price received by farmers. In 1998 farmers received approximately 59% of the f.o.b price. This is more than the target of 55% that was recommended in a consultation with stakeholders in the agriculture sector. In deciding to liberalise the cocoa sector with an increase in the farmer's share of the world price, it is necessary to consider possible repercussions on world prices and the national budget. An increase in the farmer's share of the world price, if it is accompanied by an increase in the real producer price of cocoa, will generate an increase in supply and could encourage the planting of new trees. Ghana is no longer the world's largest exporter of cocoa beans and comes a distant second to Cote d'Ivoire in the EU market supplying not more than 20% of that market. The impact on world prices of an increase in cocoa bean exports from Ghana may therefore not be very large, but could still put some downward pressure on prices. Cocoa tax revenue does not account for more than 20% of total central government revenues. A decline in government's share of the world price may not

dent revenues to any large extent especially if alternative sources of revenue generation are tapped. Thus the possibility of liberalising the cocoa trade regime exists but the benefits of increased real incomes to farmers in the short run need to be weighed against the possible downward pressure on world prices and impact on the budget.

The producers/exporters interviewed were not overly concerned about export taxes. Their preference is for non-price assistance to deal with the problems such as freight charges for the shipment of pineapples from Ghana being higher than in Cote d'Ivoire. The larger export volumes from Cote d'Ivoire, making it possible to take advantage of scale economies, and higher port charges in Ghana were cited as the causes of this. The potential to increase production and export of fruits exists, however some entrepreneurs mentioned that there is a lack of labour with skills to manage the production of horticultural products. There is inadequate scientific support to analyse and advice on plant disease. In some years production and export is low because the crop has become diseased and producers claim that there is inadequate support from research laboratories to help them deal with these problems. Inadequate storage facilities at the ports and poor road infrastructure contribute to undermining the quality of the product before it gets to its final destination.

7.11.4 The New Issues

Investment Policy

Ghana would like the WTO to set rules that are explicit about the obligations of the recipient countries and investors. The rules, however, should not infringe on a host country's capacity to decide where investment flows should go. Discussions on the rules regarding investment policy should be guided by the links between development and investment. Within Ghana, further work needs to be done on the analysis of the implications of negotiations on an investment policy in WTO. Thus at the international level, the negotiations should not be rushed in order for there to be a full appreciation of what is being agreed upon.

Competition Policy

Ghana is in the process of putting together a restrictive business practices law. Its concern with discussions on competition policy in the WTO is the fear that the OECD multilateral agreement on investment will not be a negotiating framework, but may be imposed on countries. Its view is

that the WTO negotiations should focus on introducing rules that will allow countries to monitor the activities of transnational corporations. This is to reduce the incidence of restrictive business practices amongst these entities, such as collective bidding.

Environment Issues

A major concern for Ghana is the costs accompanying the introduction of environmental measures and how the burden of costs is to be distributed. The fear is that the costs of implementing environmental measures may result in some of Ghana's products becoming uncompetitive. Resources will have to be provided to assist in the development in environment friendly technologies.

Intellectual Property

Ghana had until December 1999 to meet its obligations and commitments under the TRIPs agreement. The copyright law has been updated to conform to the rules of the TRIPs. A problem with attempts to monitor the infringement of copyright laws is the lack of basic infrastructure, such as computers and vehicles. It would be in Ghana's interest as well as in the interest of other developing countries to lobby for firmer commitments from the industrialised countries that have been championing the cause of TRIPs to provide resources to developing countries to enable them meet their obligations.

7.11.5 *Policy Lessons and Recommendations for the Current WTO Round*

Ghana has made more headway (albeit within the context of the structural adjustment programmes) in liberalising the agriculture sector than have many other developing and industrialised countries. The experience of Ghana's agricultural liberalisation is pertinent for other countries even though it was not implemented as part of its URAA commitments. The main lesson from Ghana is that as government withdraws from certain activities, it must ensure that the private sector is in a position to effectively fill in the gap left by government. For developing countries in particular, this suggests that the liberalisation process should not be rushed. It is important that the process is sustained so as not to create time consistency and credibility problems. The private sector's capacities must be assessed and analysed and the information obtained used to design the liberalisation strategy.

The agenda of the current negotiations must include sessions on assistance to developing countries that need to invest substantial resources in order to implement the Uruguay Round Agreements. If the objective of a development round is to be achieved then commitments need to be made by developed countries to support countries such as Ghana in tackling the problems associated with implementing and complying with the SPS and TBT Agreements. Agriculture still constitutes a significant share of exports and employs a majority of the population. These arrangements now appear critical to ensuring that Ghanaian agriculture remains competitive. In addition, the proposed expansion in the production and export of agro-processed products will be handicapped if Ghanaian producers are not able to meet minimum international standards of production, packaging and labelling.

In the new round of trade negotiations Ghana's interests lie in improving market access conditions for its exports of interest. A two-pronged attack needs to be adopted. This would require agreeing to limited reductions in tariff rates in order to reduce the erosion of preferential tariffs. Deep cuts in tariffs would hurt Ghana for two reasons. The tariff cuts would erode its preference margins. Second, tariffs are the only significant price support (although indirect) that Ghana's farmers have. Reducing tariffs, given the constraints to increasing other forms of support because of budgetary considerations could hurt farmers and have adverse implications for food security and rural employment.

The second prong of the attack is to support coalitions that press for reductions in domestic support measures. These discussions are important for Ghana not only in the WTO but also in the current negotiations with respect to the Economic Partnership Agreements with the EU.

Ghana needs more time to be able to analyse the short to long run implications of any proposed rules. Since Ghana has made much more progress in liberalising the agriculture sector than have many other countries, its concerns should be on how it can improve upon agriculture yields and productivity. If indeed the WTO negotiations are to provide benefits for developing countries the emphasis should not be only on the establishment of rules but also in assisting the developing countries adjust to the new rules and increase their production and incomes.

There are several domestic constraints that make participation in the talks and implementation of the various agreements difficult. A great deal of effort needs to be made for staff of the ministries, departments and agencies to be informed about the WTO agreements. There does not appear to be enough co-ordination between the Ministry of Trade,

responsible for the WTO and the other ministries and departments that have to institute the changes that the Agreements require.

The second constraint is the relationship with the Bretton Woods institutions (the IMF and the World Bank). The conditionalities of the agreements made with these institutions can act as a constraint on the ability to negotiate within the WTO and take advantage of provisions in the WTO agreements.

The third constraint is the limited number of personnel in Geneva to actually participate in the discussion of issues pertinent to Ghana. Implementation of the agreements' requirements will be enhanced if personnel in the implementing institutions are able to participate in the negotiations. The Ministry of Trade personnel may not have the necessary competencies to negotiate on issues related to technical barriers to trade and sanitary and phytosanitary measures. If however there is qualified personnel from the relevant section of the Ministry of Agriculture also participating in the negotiations, the negotiating strength of the Ghana team will be improved and the concern about the flow of information will be addressed. Limited resources are a major reason why there is only Ministry of Trade personnel participating in the multilateral trade negotiations. The WTO agenda should therefore also include a session on the funding of developing country participation as a means of avoiding their marginalisation in the discussions.

End-Notes
1. Forestry and logging includes activities such as timber felling, planting and replanting of trees, transportation of logs up to permanent transportation links, gathering of uncultivated materials and charcoal burning in the forest.
2. Traditional exports are exports of cocoa beans, timber, minerals and electricity. Non-traditional exports are all others.
3. A special import tax of 20% was introduced in April 2000 and is applicable to about 7% of tariff lines. This tax was imposed in the aftermath of a decline in the terms of trade in an attempt to stem the demand for foreign exchange.
4. Unprocessed goods from within ECOWAS with an ECOWAS Certificate of Origin are expected to enter duty free.
5. This section depends heavily on discussion provided in Helfand and de Rezende (2001.
6. Rice, maize and millet are produced for own consumption and for sale. The response to changing incentive structures is likely to be

determined by the extent to which farmers produce for the market and the extent to which they utilise marketed inputs.

7. It was anticipated that liberalisation of agriculture under the URAA would cause international food prices to decline. This did not happen to the extent anticipated. In retrospect this is not surprising since the extent of liberalisation was lower than anticipated (Diakosavvas, 2001; Ingco, 1996)..

8. The US claim is that Ghana has an insect that it does not want to enter its territories. The insect feeds internally in the yam, hence the need for fumigation.

9. In 2002 there were 74 refusals of imports of food and drugs into the United States.

10. The first set of products was obtained from the Ministry of Trade and Industry. The additional products were obtained from the Ghana Export Promotion Council.

11. There is a sample selection bias here. Those exporters who cannot meet the quality standards will probably drop out of the market.

12. This is not a feasible scenario since there is an urgent need to increase revenues.

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This book is a compendium of key findings of analytic work on important issues facing selected Sub-Sahara African countries in the context of the new World Trade Organization (WTO) round of trade negotiations in agriculture. It differs from previous studies in the sense that it focuses on country-specific issues in Cameroon, Ghana, Kenya, Nigeria and Tanzania with the intention of carrying out well-informed country-specific evaluation of alternative options for further trade and agricultural policy reform. Borne out of the collaborative efforts of the World Bank and the African Economic Research Consortium (AERC), the authors are experts residing in the respective countries so as to facilitate ownership of findings and to build local analytical capacity for expansion of local expertise base. The study undertaken for each case studies answers general systemic and thematic questions and evaluates biases in agricultural policy regimes during implementation periods.

In particular each of the studies focuses on:
* Key issues for the country;
* Country's policy stand relative to development objectives and WTO commitment;
* Achievement at country level and its implications for new WTO negotiations;
* Lessons and experiences from implementation of commitment;
* Impacts of URAA implementation;
* Market access options in agriculture and other key sectors;
* Domestic policy agenda in agriculture; and
* Impact of macro-trade and sector specific policies on domestic incentive regimes.

By bringing together studies which will serve as resource to detail how countries in the Sub-Sahara regions of Africa have experienced the implementation of trade liberalization reforms, it is hoped that it will be of immense help to policy makers in formulating negotiating positions and also assist other countries in identifying more clearly their own interest in trade negotiations.