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Liberalizing Trade in Agriculture

Developing Countries in Asia
and the Post-Doha Agenda

John S. Wilson

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Abstract

Wilson provides an overview and data relevant to the interests of developing countries as they engage in continuing agricultural trade negotiations set forth in the World Trade Organization Ministerial held in Doha, Qatar in November 2001. He examines country performance in agricultural trade, income levels, and population characteristics, with a focus on developing country members of the Asian Development Bank.

The author concludes that trends in agricultural trade in the past 10 years are quite heterogeneous across developing regions. Shares of agriculture in GDP are still high in the East Asia and Pacific and South Asia regions.

Moreover, data indicate that trade reform in export partners, particularly OECD countries, will affect a significant share of the population in these developing countries, resulting in rural poverty alleviation. Trade liberalization is expected to benefit net exporter countries, particularly those that are highly open to trade. What is also important, but often neglected, is a country's pattern of specialization between domestic supply and exports. The impact of trade reform through the WTO negotiations, particularly reforms undertaken in exporting partners can therefore have important implications in the post-Doha development agenda.

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**Liberalizing Trade in Agriculture:
Developing Countries in Asia and the Post-Doha Agenda**

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Introduction

The developing countries, including those in Asia, have an important stake in the success of continued liberalization in agriculture. As the World Development Report in 2000 noted, between 40 and 60 percent of the poorest in the developing world live in rural areas (World Bank 2000). Expansion of agricultural trade has a direct relationship to poverty reduction and accelerated economic growth. A more integrated world economy in which existing trade barriers are reduced will provide increased opportunities for *all* countries to take advantage of gains that growth in trade can provide. Developing countries should seize this new opportunity to *actively participate* in the process of shaping a more integrated world economic environment. Developing countries played an influential role in World Trade Organization (WTO) negotiations at the WTO Ministerial in Qatar in November 2001. Developing countries now represent approximately two-thirds of the 134 WTO members, with 54 new members joining since January 1995.

As these countries move toward liberalization and implement domestic reforms necessary to meet international obligations, both opportunities and challenges will emerge from a development perspective. Initially, as with all trade liberalization, there will be winners and losers both among and within countries, and between consumers and producers. Trade policy discussions largely continue to focus, however, on developing countries as a single bloc with few distinctions made between them. In fact, the implications of reform and trade policy options that drive reform may be very different among developing countries. They are a heterogeneous group with a wide diversity in comparative advantages, industrial composition, resource endowments, and other characteristics (Valdés and McCalla 1999).

The basic rules and commitments of the WTO Committee on Agriculture that concluded in 1995 centers on the following areas: (1) use of domestic support programs and subsidies, including those that raise or guarantee prices and farmers' incomes; (2) export subsidies and other methods used to make exports artificially competitive; and (3) market access requirements and trade restrictions on imports. These issues largely remain on the WTO agenda in 2001 in provide the baseline for the negotiation framework agreed in Qatar at the WTO ministerial in November 2001. WTO members will continue to

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negotiate over domestic price support programs, export competition rules, and the wide range of issues related to sanitary and phytosanitary standards. Among the latter, debate over food safety rules and the use of genetically modified organisms have dominated public news reports and media coverage of trade in many developed and developing countries during the past year.

The objective of the paper is to provide background information and data relevant to developing country interests, as they engage in agricultural trade negotiations at the WTO as reassessed in the trade ministerial in Doha in November 2001. The material presented here builds on and extends the analysis in Valdés and McCalla (1999) by addressing tariff rates of protection as part of an analysis of 5 developing country trade profiles in Asia. The paper first briefly reviews world trends in agricultural trade, with a specific focus on developing country members of the Asian Development Bank (ADB). The paper then investigates the performance in agricultural trade, income levels, and population characteristics of ADB developing country members. Following this outline of trends, selected issues and positions taken in Geneva in the agriculture talks underway are reviewed. The conclusions outline recommendations, priorities, and positions for moving forward from a developing country perspective.

World Trends in Agricultural Trade and Protection: A Developing Country Focus

In contrast to gains made by developing countries in penetration of developed country markets in goods, the share of developing country exports in global agricultural trade increased only slightly over the period from 1990 through 1999, from 40.5 percent to 43 percent (WTO 2001). Trade barriers in both goods and agricultural markets confronted by developing countries in other developing country markets remain significantly higher than those in the industrialized nations (World Bank 2000). Average agricultural tariff rates faced by developing country exporters in other developing country markets is 18.3 percent vs. 15.3 percent in high-income markets (Hertel and Martin 2000). This is particularly important as shares of south-south trade in 1999 totaled approximately 40 percent.

Based on data from the Organization for Economic Cooperation and Development (OECD 2000), from the mid-1980s to the mid-1990s, agricultural producer support has declined as a share of gross farm receipts.¹ As prices have declined, however, subsidies have increased. The largest level of subsidy is provided by the European Union. The average annual value of subsidies is approximately 60 percent of total world trade in agriculture and about double the value of exports from developing countries (World Bank 2000).

The Uruguay Round made progress in restraining tariff escalation overall. In areas of particular concern to the least developed nations, however, a number of serious barriers remain. This includes tariffs on processed foods. Imports of processed foods from

¹ Based on calculations in the Producer Support Estimate (PSE) database of the OECD. PSE is defined as the annual monetary value of gross transfers from consumers and taxpayers to producers for all policy measures. A description of PSE valuation is available on page 68 of the OECD report: Agriculture Policies in Emerging and Transition: Special Focus on Non-Tariff Measures, OECD Paris, 2001.

developing countries as a percent of apparent consumption has fallen in the United States, Canada, and European Union, for example, over the period 1985-1995. Tariffs on fully processed foods are subject to high rates of protection, including 65 percent rates in Japan, for example. Evidence suggests that if protection via tariffs and subsidies were lowered, even the poorest countries would expand exports. Successful exporters of fruits, vegetables, and cut flowers in developing countries over the past decade support this assumption.

What are the estimates of the benefits of reducing traditional trade barriers through tariffs and quantitative restrictions in agriculture? Ianchovichina, Mattoo, and Olarreaga (2000) estimate, for example, that if the Quad countries of Japan, the U.S., European Union, and Canada provided duty free access to low-income countries in Africa, net agricultural exports would rise by 6 percent.

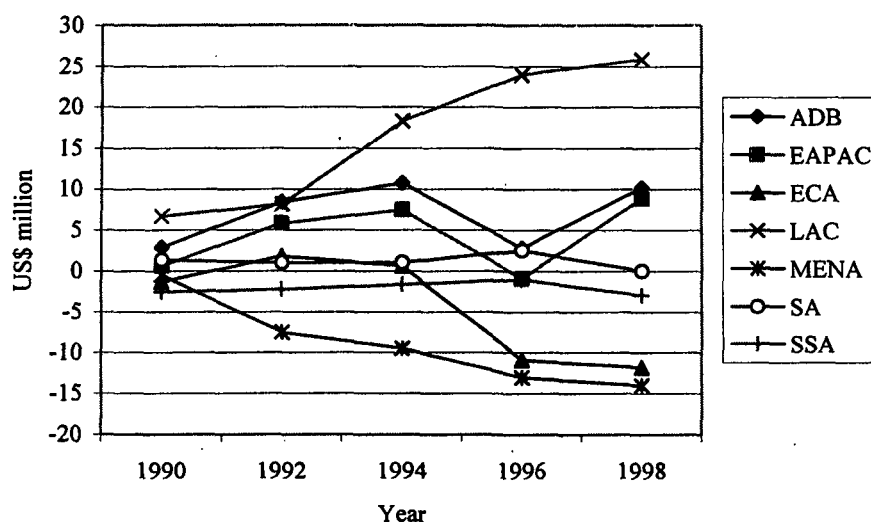
The agricultural commodities included in this analysis follow the definitions outlined in the WTO Agriculture Agreement. According to the World Bank classification of world regions, developing countries can be divided into six regions:

1. EAPAC: East-Asia and Pacific
2. SA: South Asia
3. LAC: Latin America and Caribbean
4. MENA: Middle-East and North Africa
5. ECA: East-Europe and Central Asia
6. SSA: Sub-Saharan Africa

The EAPAC region is a net agricultural exporter in most of the period examined. The region's trade position after the WTO was created, however, has been fluctuating. The region became a net importer in 1996 followed by rapid growth in net exports in 1998. SA is also a net agricultural exporter throughout this period. This reflects the fact that trade flows from India and Sri Lanka, both net agricultural exporters, dominates that in other South Asia countries, which are net agricultural importers. The ECA region was net agricultural importer during most of this period, with imports rising dramatically after conclusion of the Uruguay Round.

The trend of EAPAC countries dominates in the trend of agricultural trade in the ADB developing member countries as their trade flows outweigh those in other developing member countries in SA and ECA. The LAC region exhibits quite different trends than the other developing regions. These countries were net agricultural exporters in 1990 and agricultural exports have increased rapidly during the period 1990-1998. The MENA region and SSA were net agricultural importers throughout the period. MENA has rapidly increased net imports during the period, whereas net agricultural imports have generally remained unchanged.

Figure 1. Trends in Net Agricultural Export in the Developing Regions



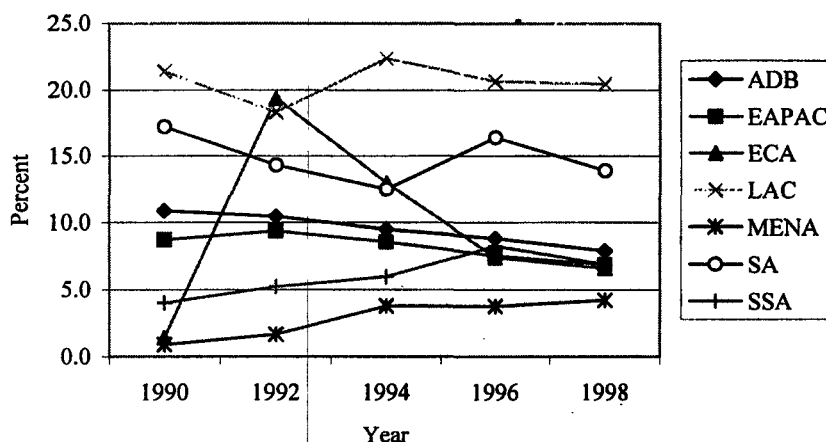
Source: Author calculations based on UN COMTRADE database.

The Importance of Agriculture in Region's Trade

Trends in the share of agriculture in total trade are not homogeneous across the developing regions. The share of agriculture in EAPAC has been 7 to 10 percent and has declined slightly during the period 1990-1998. This trend can also be seen in ADB developing member countries' trade profiles. The SA region exhibits a higher importance of agriculture, though not as much as LAC. This indicates that agriculture is still an important component of trade in SA.

The ECA region shows a great fluctuation in the share of agriculture in trade, varying from the low of 1.5 percent in 1990, to the high of 19.5 percent in 1992. This trend has stabilized around 7 percent after 1996. The share of agriculture was low in MENA in 1990, but has increased during the period 1990-1998 to nearly 5 percent. As indicated previously, its net agricultural import has increased. This suggests that agricultural export actually did increase, but the growth in agricultural import was greater in MENA. This trend can also be seen in SSA, but not as strong. Finally, agriculture is highly important in LAC.

Figure 2. Share of Agriculture in Region's Total Export



Source: Author calculations based on UN COMTRADE database, World Bank Development Indicators.

Taxonomy of ADB Member Developing Countries

Overall: ADB Developing Members

Developing countries are indeed diverse in income levels and trade position (Valdés and McCalla, 1999). The impact of trade liberalization, therefore, should be analyzed considering this heterogeneity.

Table 1 indicates a great diversification of ADB developing country members in terms of GDP, population, GDP per capita, agricultural GDP, and agricultural and rural population. 1998 GDP per capita ranges from US\$ 220 in Nepal, to US\$ 11,000 in Korea. The regional average of GDP per capita is US\$ 1820 and US\$ 580 in EAPAC and South Asia in 1998, respectively, indicating three times difference. GDP per capita grew for most of the members from 1994 to 1998, indicating a greater growth in GDP than population. South Asia had the highest growth at 14 percent.

The share of agriculture in GDP is generally high for countries with low GDP per capita. The highest GDP share for agriculture is found in Laos at 52 percent in 1998, whereas the lowest share is 6 percent in Korea. GDP share of agriculture slightly declined on average in all regions from 1994 to 1998. While the shares of rural populations have a high correlation with GDP shares of agriculture, they are quite high in most of the countries, ranging from 23 percent in Korea, to 94 percent in Bhutan. The difference in these shares appears to be accounted for by a high degree of non-farm agricultural production, such as textiles. These facts imply that domestic agricultural policies and a changing agricultural trade environment will have an effect on low-income countries, particularly those with large rural populations.

Valdés and McCalla (1999) examine relationships between income levels and country characteristics such as self-sufficiency of food supply, and trade position for 148 developing countries in the world. They group countries in three income levels: Low Income Country (LIC), Lower-middle Income Country (LMIC), and Upper-middle

Income Country (UMIC), using the World Bank classification. Their findings are summarized as follows:

1. 58 of the 63 LICs are also Low Income Food Deficit Countries (LIFDCs)²:
2. A significant majority of Transition Economy (TRANS) and Small Island Developing Economy (SIDCs) are in the middle-income category:
3. While two-thirds (105) of the 148 developing countries are net food importers (NFIMs), two-fifths (63) are net agricultural exporters (NAEXs) including 33 low-income countries.

These findings lead to their conclusion that many more developing countries are net agricultural exporters than commonly thought.

The same framework is employed here for ADB developing country members, and is presented in Table 2:

1. 17 of 19 LIC countries are also LIFDC.
2. Unlike the case of all developing countries, the majority of TRANS are LIC, while the majority of SIDC are in the middle-income group.
3. More than half of 34 ADB developing country members are NAEX including 10 LICs. This rate is greater than that for the entire group. But NFIM is still two-thirds (22), and NFEX is only one third of the 34 ADB developing countries. This implies that the ADB developing countries have a comparative advantage in non-food agricultural export.

Openness to Trade and Capacity to Finance Food Imports

Valdés and McCalla introduce indicators used to rank countries according to openness to trade in agriculture and to food import capacity. The Agricultural Tradability (AT) index, which is a ratio of total agricultural import and export and agricultural GDP, measures how open or vulnerable a country is to changes in trade patterns. Food import capacity (FIC), which is a ratio of value of food imports to that of total non-food exports, measures the capacity of a country to have foreign exchange to finance food imports.

Table 3 shows AT and FIC scores for ADB developing country members. On average, EAPAC and ECA are much more open to South Asia regarding agricultural trade. Malaysia and the Fiji Islands are the most open (1.00). The least open are Laos and India (0.09). This range is quite high, and hence the vulnerability to trade is highly heterogeneous among ADB developing countries.

² The definition follows the UN definition.

Table 1. Agricultural Sector Indicators for ADB Developing Members

Name	GDP (\$ billion)			GDP per capita (\$ 1,000)		Agricultural GDP (\$ billion)			Agricultural GDP (as % of total)		Agricultural labor force (as % of total)		Population (million)		Rural Population Size (as % of total)	
	1994	1998	Change (%)	1994	1998	1994	1998	Change (%)	1994	1998	1994	1998	1994	1998	1994	1998
East Asia and Pacific																
Cambodia	2.7	3.2	17	0.26	0.28	1.4	1.6	11	53	50	68	66	10.4	11.5	86	85
China	634.0	900.0	42	0.53	0.73	137.0	162.0	18	22	18	71	69	1190	1238	71	69
Fiji Islands	1.9	1.9	-1	2.52	2.42	0.4	0.3	-22	21	16	42	41	0.8	0.8	55	52
Indonesia	187.0	198.0	6	0.98	0.97	33.3	36.5	10	18	18	53	50	190.9	203.7	65	61
Kiribati	0.04	0.1	20	0.55	0.60	0.01	0.01	0	17	14			0.1	0.1	64	62
Korea, Republic of	449.0	512.0	14	10.10	11.03	28.4	30.6	8	6	6	14	11	44.5	46.4	23	20
Laos	1.7	2.1	27	0.37	0.42	0.9	1.1	18	56	52			4.5	5.0	80	78
Malaysia	79.8	94.3	18	3.97	4.25	11.0	10.9	-1	14	12	24	20	20.1	22.2	47	44
Mongolia	0.9	1.1	17	0.37	0.41	0.3	0.4	24	36	38	29	26	2.4	2.6	40	38
Myanmar											76	76	42.4	44.5	74	73
Papua New Guinea	5.1	5.0	-2	1.22	1.08	1.3	1.3	-3	25	25	77	75	4.2	4.6	84	83
Philippines	70.8	82.1	16	1.03	1.09	15.9	16.0	1	22	19	42	39	68.7	75.2	47	43
Samoa	0.1	0.2	19	0.86	1.00								0.2	0.2	79	79
Solomon Islands	0.3	0.3	2	0.83	0.75						76	74	0.4	0.4	83	81
Thailand	154.0	157.0	2	2.62	2.57	18.3	19.3	5	12	12	60	57	58.7	61.2	80	79
Tonga	0.2	0.2	-3	1.65	1.57	0.04	0.04	-6	27	26			0.1	0.1	65	63
Tuvalu																
Vanuatu	0.2	0.3	13	1.39	1.40	0.1			23				0.2	0.2	81	80
Vietnam	18.5	25.3	37	0.26	0.33	5.5	6.5	18	30	26	71	70	71.7	76.5	81	80
Regional average	94.5	116.6	14	1.74	1.82	16.9	20.5	6	25	24	54	52	95.1	99.7	67	63
South Asia																
Afghanistan											60	56	20.7	25.1	80	79
Bangladesh	35.6	43.7	23	0.30	0.35	9.4	10.5	12	26	24	61	58	117.9	125.6	79	77
Bhutan	0.3	0.4	30	0.43	0.49	0.1	0.1	18	40	36			0.7	0.8	94	93
India	337.0	435.0	29	0.37	0.44	93.3	109.0	17	28	25	63	60	913.6	979.7	73	72
Maldives	0.3	0.3	29	1.07	1.22	0.1	0.1	8	20	16			0.2	0.3	74	75
Nepal	4.2	5.0	17	0.20	0.22	1.7	1.9	9	41	38	95	95	20.8	22.9	90	89
Pakistan	58.2	67.2	15	0.49	0.51	13.3	16.5	24	23	25	56	54	119.4	131.6	66	64
Sri Lanka	12.4	15.1	22	0.69	0.80	2.6	2.7	4	21	18	47	45	17.9	18.8	78	77
Regional average	64.0	81.0	24	0.51	0.58	17.2	20.1	13	28	26	64	62	151.4	163.1	79	78
East Europe and Central Asia																
Azerbaijan	3.3	3.4	4	0.43	0.43	0.8	0.8	-5	24	22	29	27	7.6	7.9	45	43
Kazakhstan	21.7	20.0	-8	1.33	1.28	3.3	1.9	-42	15	9	21	20	16.3	15.6	43	44
Kyrgyzstan	3.5	4.0	13	0.79	0.85	1.4	1.8	28	39	44	30	26	4.5	4.7	65	66
Tajikistan	1.9	1.8	-7	0.33	0.29	0.4			18		37	35	5.8	6.1	72	73
Turkey	158.0	201.0	27	2.65	3.17	24.9	27.6	11	16	14	51	48	59.7	63.4	32	27
Turkmenistan	6.3	5.1	-19	1.44	1.08						32	31	4.4	4.7	55	55
Uzbekistan	16.4	17.7	8	0.73	0.74	4.5	4.6	3	27	26	32	28	22.4	24.1	61	62
Regional average	30.2	36.1	3	1.10	1.12	5.9	7.3	-1	23	23	33	31	17.2	18.1	53	53

Source: World Bank Development Indicators

Table 2. Income Taxonomy for ADB Developing Members¹ (WB by UN)

		19 LIC	12 LMIC	3 UMIC
25	LIFDC	17	8	0
6	TRANS	4	2	0
7	SIDC	1	6	0
22	NFIM	13	8	1
12	NFEX	6	4	2
15	NAIM	9	5	1
19	NAEX	10	7	2

¹ See Valdés and McCalla (1999) for definitions for LIFDC.

Table 4 indicates FIC scores for the country group. A higher score implies a lower capacity to finance food imports. On average, EAPAC has the lowest capacity (0.47) and ECA has the highest capacity (0.22). Among the members, Thailand has the highest capacity (0.02) and Samoa has the lowest capacity (2.31). They are both in EAPAC, which indicates a great heterogeneity of EAPAC members regarding capacity to finance food imports.

The Case of Thailand, Philippines, Vietnam, Bangladesh, and Sri Lanka

This section examines five ADB developing country members that are also WTO members as of 2000. The five differ in income levels, net trade positions, rural population, and agricultural labor composition. Thailand and the Philippines are LMICs; the former is a net agricultural and food exporter, while the latter is a net agricultural and food importer. Vietnam and Bangladesh are LICs; the former is a net agricultural and food exporter, while the latter is a net agricultural and food importer. Sri Lanka is LMIC, which is NAEX but NFIM.

The shares of agriculture in GDP and population and shares of rural population are compared between these five countries in Figure 3. While Thailand is the largest agricultural exporter, the shares of agriculture in GDP are the lowest among the five. This appears to be the case due to the fact that a large share of agricultural production in Thailand is devoted to exports. This is supported by the country's high value of agricultural exports per agricultural labor as seen in Table 4.

In contrast, the Philippines has a higher GDP share of agriculture than Thailand, but its value of agricultural exports per agricultural labor is much smaller. In addition, the deviation between agricultural labor shares and shares of rural population in Thailand implies a significant degree of non-farm agricultural production. Part of this can be accounted for by processing firms that intend to export their products.

Table 3. Agricultural Tradability (AT) Index and Food Import (FIC) Bill Index

Name	AT score	FIC score
East Asia and Pacific		
Cambodia	0.18	0.65
China	0.20	0.04
Fiji Islands	1.00	0.16
Indonesia	0.30	0.07
Kiribati	.	2.12
Korea, Republic of	0.41	0.04
Laos	0.09	0.07
Malaysia	1.00	0.04
Mongolia	.	0.13
Myanmar	.	0.16
Papua New Guinea	0.49	0.08
Philippines	0.27	0.10
Samoa	.	2.31
Solomon Islands	.	0.63
Thailand	0.57	0.02
Tonga	0.59	1.34
Tuvalu	.	.
Vanuatu	0.80	0.39
Vietnam	0.42	0.07
Mean	0.49	0.47
Min	0.09	0.02
Max	1.00	2.31
South Asia		
Afghanistan	.	0.71
Bangladesh	0.14	0.27
Bhutan	0.27	0.17
India	0.09	0.05
Maldives	.	0.74
Nepal	0.14	0.32
Pakistan	0.22	0.19
Sri Lanka	0.57	0.14
Mean	0.24	0.32
Min	0.09	0.05
Max	0.57	0.74
East Europe and Central Asia		
Azerbaijan	0.69	0.62
Kazakhstan	0.50	0.04
Kyrgyzstan	0.32	0.24
Tajikistan	.	0.23
Turkey	0.33	0.09
Turkmenistan	.	0.15
Uzbekistan	0.43	0.19
Mean	0.45	0.22
Min	0.32	0.04
Max	0.69	0.62

Source: Calculations based on UN COMTRADE database, World Bank Development Indicators

Vietnam and Bangladesh appear to have similar characteristics in terms of the role of agriculture, but their positions in trade are different. Vietnam is active in agricultural exports and outward oriented according to its high AT value. The value of agricultural exports per agricultural labor is much lower in Bangladesh (US\$ 2) than in Vietnam (US\$ 40). Vietnam's share of agricultural labor and rural population are similar, which implies that unlike Thailand, food products constitute a significant part of Vietnam's agricultural exports.

The divergence of the shares of agricultural labor and rural population in Sri Lanka resembles that of Thailand. The country is significantly export-oriented. A greater specialization in non-farm agricultural products makes it both NAEX and NFIM.

As Table 4 shows, the value of agricultural exports per agricultural labor are also indicative of a country that specializes in agricultural exports relative to the domestic production of agricultural products. Thailand has the highest score, while its share of agriculture in GDP is low. *This implies that agricultural production in Thailand is highly export-oriented.* Thailand has a clear competitive advantage in agricultural exports and relatively skilled labor force deployed in agriculture. The extent to which barriers are removed through WTO negotiations to producers such as Thailand is of significant importance. Thailand could also benefit more directly than others in the region from further unilateral and bilateral moves to liberalize. Vietnam and Sri Lanka are NAEX, but the values of exports per agricultural labor are not as high as that of Thailand. This implies that their agricultural production is more diverse between domestic supply and exports. Thailand, consequently, is more sensitive to change in trade reform.

The destination of agricultural exports and import partners for these countries are also highly diverse. Table 5 and Table 6 indicate the shares of import and export value, and imports to a countries' own region, and to developed countries, respectively. The top three partner countries are shown in Table 7. Trade flow is computed as an average of annual trade flow between 1996 and 1998. These tables indicate the concentration of the direction of trade, particularly with regard to exports. They also show a high dependency of these countries' exports to developed country markets. This is particularly true for EAPAC countries.

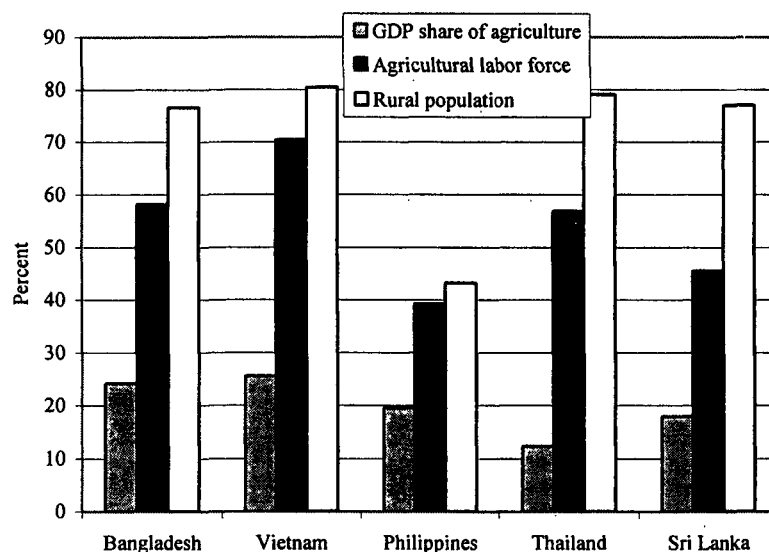
While developing countries in EAPAC are Vietnam's major export partners, Japan and the US are the major market for both Thailand and Philippines exports. These latter countries are more capable of accessing distant markets. South Asian countries export more to the Middle East and Transition Economies than to their own regions and developed countries. India is a major import partner for both countries. Since Thailand is NAEX, it is most interested in domestic policy reform in developed countries. On the other hand, domestic policy reform in the Philippines is of interest to the US and Australia.

The WTO Agenda and Potential Impact of Trade Liberalization on ADB Member Developing Countries

Nineteen of the 34 ADB developing countries were WTO members in 2001. Nine countries held observer status. This suggests a growing participation of ADB developing countries in the WTO. As discussed earlier, the shares of agriculture in their exports and

GDP is still significant, and hence they are expected to pursue their trade interests through WTO negotiations and other regional FTA such as the APEC. They very often submit their proposals in a coalition of countries with common interests, such as ASEAN, Cairns Group, Caricom, Mercosur, etc.

Figure 3. Share of Agriculture in GDP and Population



Source: Author calculations based on World Bank Development Indicators

Table 4. Agricultural and Food Trade Indicators

	Exports (\$ million)	Growth 1994-1998 (%)	Exports per unit agricultural labor (\$)	Net agricultural trade position	Net food trade position	Income level	Food Deficit	AT	FIC
Thailand	7951	10.7	380	Exporter	Exporter	LMIC		0.57	0.02
Philippines	1832	-6.1	147	Importer	Importer	LMIC	LIFDC	0.27	0.10
Vietnam	1089	71.4	40	Exporter	Exporter	LIC		0.42	0.07
Bangladesh	84	17.3	2	Importer	Importer	LIC	LIFDC	0.14	0.27
Sri Lanka	708	11.1	193	Exporter	Importer	LMIC	LIFDC	0.57	0.14

Source: Calculations based on UN COMTRADE database, World Bank Development Indicators

Table 5. Share of Regional Exports and Exports to Developed Countries

Country	Export partner region	Value of regional export (\$ million)	Market share (%)	Export value to developed countries (\$million)	Market share (%)
Thailand	EAPAC ¹	2861	33	5475	64
Philippines	EAPAC	348	18	1595	85

Vietnam	EAPAC	523	48	762	70
Bangladesh	SA	13	24	14	26
Sri Lanka	SA	64	7	383	43

¹ All East Asia and Pacific except Japan.

Source: Calculations based on UN COMTRADE database, World Bank Development Indicators

Table 6. Share of Regional Imports and Imports from Developed Countries

Country	Import partner region	Value of regional import (\$ million)	Market share (%)	Import value from developed countries (\$million)	Market share (%)
Thailand	EAPAC	311	10	1649	55
Philippines	EAPAC	821	28	1850	62
Vietnam	EAPAC	245	65	241	64
Bangladesh	SA	288	21	499	37
Sri Lanka	SA	173	21	440	54

Source: Calculations based on UN COMTRADE database

Table 7. Agricultural Export and Import Partners

Country	Export partner	Export value (\$million)	Market share	Import partner	Import value (\$million)	Market share
Thailand	Japan	1606	19	USA	656	22
Thailand	USA	1175	14	Australia	374	13
Thailand	Indonesia	600	7	India	143	5
Philippines	USA	618	33	USA	840	28
Philippines	Netherlands	286	15	Australia	399	13
Philippines	Japan	280	15	China	249	8
Vietnam	Singapore	196	18	Singapore	72	19
Vietnam	Japan	240	22	Korea	64	17
Vietnam	Korea, Rep.	87	8	Japan	41	11
Vietnam				Taiwan	41	11
Bangladesh	Poland	13	23	India	259	19
Bangladesh	Pakistan	6	12	Australia	136	10
Bangladesh	Afghanistan	6	12	USA	128	10
Sri Lanka	Armenia	107	12	India	119	15
Sri Lanka	Russia	87	10	USA	75	9
Sri Lanka	Turkey	58	6	Australia	71	9

Source: Calculations based on UN COMTRADE database

The Agreement on Agriculture of the WTO was established to ensure continued reform toward more open trade in agriculture and competitive markets. LDC members were given special treatment through lengthened implementation timetables for tariff reductions and reduction of subsidies. There were 44 proposals submitted by 90 countries to the WTO for various topics in the negotiations as of March 21, 2001. These proposals are summarized in Table 8. The issues of the most concern for food exporting

developing countries (for example, the Cairns group³) include market access, subsidy and domestic support, and sanitary and phytosanitary standards as a new agenda item.

The elimination of protection and price supports should result in gains for net exporters and losses for net importers. The effect of elimination of protections and supports depends upon which countries initiate these reforms, and on the extent to which these measures affect importing or exporting sectors. Table 10 summarizes potential impacts of trade policy reform in industrial countries, and in their own countries, where liberalization involves elimination of protection and support.

Market Access

The WTO Agreement on Agriculture limits the scope of 'market access' to tariffs alone. Quotas and other non-tariff measures should be converted to tariff equivalents. Targets for tariff cuts were set on food and non-food agricultural products among WTO members. Tariff rates in agricultural imports are still high, but are being reduced as scheduled in the WTO member countries.

Table 9 indicates weighted averages of applied tariff rates for developing and developed countries and selected ADB member countries. Developing countries, except LDCs, should reduce tariffs on farm products by 24 percent in the period 1995-2004. Minimum cuts per product should be 10 percent. The base level for tariff cuts was the bound rate before January 1, 1995, and for unbounded tariffs, the actual rate charged in September 1986 when the Uruguay Round began. Quotas on textiles are scheduled to be reduced to zero over a 10-year period.

The impact of tariff reductions is predicted for the selected five countries. Thailand is NAEX and NFEX, but has high tariff rates on agricultural products. It maintains, as noted in Table 9 tariff rates of 32.1%. This is a weighted average of all tariffs and even though productivity is high relative to other producers in the region, it continues to maintain tariff protection. Since it is NAEX, this implies that proportional tariff reduction will increase its exports, if export partners reduce tariffs and increase imports in their home countries. The former change can be larger since it's AT score, which measures openness, is high. In the latter case, it is still unlikely to change its trade position to NAIM, because its exports, which are supported by high agricultural labor productivity, significantly outweigh its imports. Its impact on domestic food bills will be small, since its FIC score is quite low. In sum, a competitive producer such as Thailand has much to gain from unilateral reduction in tariff rates through the process of WTO negotiations.

The Philippines is NAIM and NFIM, and hence tariff reduction in export partners tends to deepen its net trade position. If this increases relative to the world price of imports, then the country can suffer from an increase in agricultural import prices. If its domestic tariffs are cut, imports can increase. There are factors to offset the impact of domestic tariff reduction. It has an average tariff rate much lower than Thailand. This implies that proportional tariff reduction in the Philippines will have less impact on its agricultural imports. It also has a lower AT score than Thailand, which also mitigates impacts on the

³ The Cairns Group was established in 1986 by a group of medium-sized agricultural exporting countries to pursue common agricultural trade objectives in the Uruguay Round.

imports. Consumers tend to gain from tariff reduction. Because it is LIFDC—it has to import food—lower prices for imported products will reduce food bills. Imports are restrained, however, by their low total export revenue (a higher FIC score than in Thailand).

Vietnam has the lowest agricultural tariff rate among the 5 selected countries. Since it is NAEX and NFEX with a high AT score, tariff reduction is anticipated to have a large effect on agricultural imports and exports in the same direction as it would on those in Thailand. But the impact of domestic tariff reduction is likely to be smaller if tariffs are reduced proportionally. Furthermore, growth in agricultural exports in Vietnam is about 70 percent. Continuous high growth in agricultural exports is anticipated.

Table 8. Selected Proposals Received f in WTO Agricultural Negotiations

	Proposals	Discussion papers /submissions
Comprehensive	US, EU, Japan, Switzerland, Mauritius, small island developing states, Rep of Korea, Mali, Norway, India, Poland, Morocco, Turkey, Egypt, Nigeria, Congo (Dem Rep), Kenya, Senegal, Mexico	
Export competition	Cairns Group, EU	Mercosur+
<ul style="list-style-type: none"> • Export restrictions, taxes • Export credits 	<ul style="list-style-type: none"> • Cairns Group • Mercosur, Bolivia, Chile, Costa Rica, Guatemala, India and Malaysia 	
Domestic support	Cairns Group, US	
<ul style="list-style-type: none"> • Blue box • Green box • Transition issues 	<ul style="list-style-type: none"> • EU • Developing countries group (2) • Transition economies 	
Market access	Canada, Cairns Group, developing countries group (3), transition group, Caricom	
<ul style="list-style-type: none"> • food quality • tariff-rate quotas • and S&D for small developing countries 	<ul style="list-style-type: none"> • EU • US • Swaziland 	
Non-trade concerns		38 countries, Argentina

- animal welfare
 - EU
- Development, S&D** Developing countries group (1),
ASEAN
- Other:**
- state trading enterprises
 - Mercosur+

Source: Based on World Trade Organization (2001) documents.

In contrast, Bangladesh will increase exports to its partners, if tariff rates in the destination market are reduced with the possibility of increases in import prices. If domestic tariff rates are reduced, it will deepen its position as NAIM and NFIM. Since its average tariff rate is higher than that of Vietnam, a proportional tariff reduction at home will result in a greater increase in agricultural imports. A lower import price is expected to benefit domestic consumers, but its capacity to finance food imports will limit this benefit from accruing to an extent greater than in the case of the Philippines, as its FIC score is higher.

Bangladesh and Sri Lanka have moderate levels of tariff protection. But the effect of tariff reduction can be different as both countries are different in agricultural trade positions. Since Bangladesh is NAIM and NFIM, tariff reduction at home will increase agricultural imports in general. On the other hand, tariff reduction at home will increase food imports, but may not affect non-food agricultural products in Sri Lanka, since it is NAEX and NFIM. Whether tariff reduction in the export partners will benefit Sri Lanka will also depend on product sectors.

Table 9. Applied Rates of Tariff on Agricultural Products (Weighted Average), 1996-1999

	%
Developing countries (90)	18.1
Industrialized countries (23)	6.4
East Asia (13)	16.8
South Asia (6)	24.0
Transition Europe (15)	16.2
ADB (19)	21.8
Thailand	32.1
Philippines	18.9
Vietnam	14.3
Bangladesh	21.4
Sri Lanka	23.8

Source: Calculated based on World Bank data

Export Subsidies and Domestic Support

As the Uruguay Round recognizes, all developing countries except LDCs are obligated to reduce the value of subsidies and subsidized quantities of exports by 24 and 14 percent for the base period 1986-1990, respectively. The Agreement on Agriculture further requires members to notify the WTO of their intent to use export subsidies (WTO 2000a).

As of February 2001, 25 member countries are now allowed to use the subsidy. They are mainly middle to high-income countries, and Indonesia is the only one that was on the list. This is partly because many developing countries are incapable of financing export subsidies.

Domestic supports such as production subsidies are more common among developing countries and are often market distorting. Due to their variety and complexity, it is difficult to establish common measures for support. Aggregate measurements of support (AMS) were used in the Uruguay Round (2000b). AMS should be reduced by 13 percent for the base period of 1986-1988. The Agreement on Agriculture classifies countries into four groups: (1) those with AMS in an acceptable range (Green Box), (2) those who have high AMS but have agreed to reduce (Amber Box), (3) those with AMS beyond the range of (2) (Red Box)-forbidden, and (4) those who are exempt from the general rule, but with payment associated with acreage or animal numbers.

Like the case of tariff reduction, implication of elimination of subsidy and support is derived and presented in Table 10.

In general, elimination of export subsidies and domestic support of export partners can increase relative competitiveness of exporting countries, likely resulting in an increase of exports of a country. This kind of reform tends to benefit net agricultural exporters more than net importers. It can however increase world price of previously supported products. This change is unfavorable for net agricultural importers, since it tends to result in greater import prices for these products. Elimination of export subsidies and domestic support in the home country can reduce their exports. More significant losses will occur to net exporters. Furthermore, elimination of domestic support can adversely affect domestic producers that have also been supported by the policy (e.g., production subsidies).

Sanitary and Phytosanitary Standards and New Agenda Items

Debate over sanitary and phytosanitary standards, although not directly part of the negotiations on agriculture, provides part of the subtext for discussion on liberalization in the sector overall. There are a number of key issues for developing countries, as expressed in proposals submitted to the WTO as part of the agriculture negotiations through March 2001. The emphasis on developing country concerns at the WTO is also reflected in the involvement of the General Council in the debate over implementation of the SPS and TBT Agreements for developing countries starting in early 2001 "WTO General Council, Implementation-Related Issues and Concerns."

It is important to note that the majority of submissions to the WTO have centered on developing countries and the SPS, although it is clear that there is not a unified position being taken by all middle income or least developed countries. A number of proposals under discussion reference equivalence and harmonization of standards and Article 4 of

the SPS Agreement. From developing country perspectives, concerns about harmonization center largely on problems in access to information and lack of participation in international standard-setting activities (World Bank 2000b). Standards developed by CODEX, the International Plant Protection Convention (IPPC), and International Office of Epizootics (OIE) can facilitate harmonization, however, limited resources in developing countries precludes their access and active engagement in their development.

The proposal submitted by the Small Island Developing States (G/AG/NG/W97) to the WTO, along with several others, suggests access to the appropriate technology to meet SPS standards and assistance to participate in international standards setting. These are first steps necessary before concrete progress can be made toward harmonization.

It is difficult for most developing countries to have their standards accepted as "equivalent" by developed countries. Mutual Recognition Agreements (MRAs) are not feasible given the lack of modern facilities to test and certify in many countries. Even under conditions of technological parity between trading partners, such as the U.S., Europe, and Japan, there is little evidence that MRAs will facilitate trade. . Submissions by Cuba and other members in the Western Hemisphere, Asia, and Africa (G/AG/W37) suggest that "failure to recognize equivalence of measures" is a major problem confronting developing countries.

The SPS Committee did agree, however, in October 2001 on guidelines on recognizing the equivalence of differing SPS measures. The decision clarifies the type of information importing and exporting countries should provide and factors that importing countries need to consider, such as historical trade patterns and avoiding obstacles to trade. The decision also references importance of technical assistance and emphasizes methods to facilitate transparent regulatory measures.

The requirements on the application of science and risk assessment in decision-making have also been addressed in proposals by developing countries to the agriculture negotiations. The SPS Agreement (Articles 2 and 5) includes obligations that SPS measures be based on principles of international science and risk assessments of harm in order to minimize trade distortions. A central problem in the SPS framework concerns the lack of balanced considerations of dynamic benefits to economic development and trade under conditions in which acceptable risk is not set at zero tolerance levels. When combined with the lack of progress on harmonization of standards and escape clauses for setting regulation to meet national needs, developing country exporters are at a clear disadvantage.

As noted in the case of aflatoxin standards set in Europe, setting regulations at differing levels within a range of risk tolerance levels can have a significant impact on trade. Several proposals reflect concern over balancing science and risk in the SPS Agreement. India (G/AG/NG/W102) argues that overly strict SPS measures have denied market access opportunities for developing countries. The Small Island Developing States (G/AG/NG/W97) suggest that developing countries should not be subject to risk

assessment requirements when bans are imposed to protect bio-diversity and environmental balance.⁴

Discussions regarding the precautionary principle and food safety are important areas of focus for developing countries. The SPS Agreement in Article 5.7 does provide flexibility for provisional or temporary measures to regulate for safety reasons under conditions in which scientific evidence is "insufficient." The EU proposal, however, is counter to the implicit movement toward objective risk assessments based on international consensus science embedded in the SPS Agreement. Broadening escape clauses in the SPS Agreement, even framed within general principles reflected in other sections of the Agreement (transparency, non-discrimination) to provide a check against the use of new technology in agriculture, is likely not consistent with needs to improve productivity in the developing world. Several net food-importing members, however, have noted the importance that food safety standards are met by exporters (Mauritius, among others). Kenya has raised the need to ensure that imports meet international food safety standards so that exporters cannot divert lower quality exports to overseas markets (G/AG/WNG/136).

Special and differential (S&D) treatment for developing countries is referenced in Article 10 of the SPS Agreement. Some WTO members have suggested that S&D treatment should include mandatory provision of technical assistance, or that longer phase-in periods be allowed for developing countries to implement obligations under the SPS Agreement. It is doubtful, however, that a focus on the expansion of S&D treatment is in the long-term interests of developing countries, especially the least developed in Asia and Africa. Integration into the WTO system requires a focus on the tools to implement commitments and exercise rights, not a process of S&D treatment that provides an easy way to postpone necessary action on technical assistance.

Finally, the debate over genetically modified organisms (GMO) in agriculture is also of particular relevance to developing countries in the current negotiations. The adaptation of technology to expand agricultural production should be of central concern to both net food importers, as well as exporters. The benefits of adoption of GMO techniques based

⁴ Developing countries also have a stake in the outcome of debate over the proposed recognition of the "multi-functionality" of agricultural production. The European Union (EC Comprehensive Negotiating Proposal, G/AG/NG/W/90) has suggested that non-trade concerns should be addressed in WTO agreements, including the SPS Agreement, in order to address environmental, consumer, and other needs. Poland and other Eastern European countries have expressed general support for inclusion of these topics in the negotiations. Animal welfare considerations, along with the role of agriculture in cultural heritage and preservation of rural lifestyles, biological diversity, among other issues are generally referenced in the debate over multi-functionality or non-trade concerns. To the extent recognition of non-trade concerns provides additional channels through which trade is restricted in agricultural commodities, net exporters from the least developed nations will be disadvantaged. At a minimum, detailed debate and negotiating resources devoted to issues that are not central to the basic functioning of the SPS agreement in regard to notification, risk assessment and management techniques, use of international standards, will only delay progress in building on the foundations of the Agreement. India's submission (G/AG/NG/W114) includes reference to similar notes of caution in this area.

on experience and technology in use in the U.S., Canada, Europe, and other developed countries is clear. The problems in today's international trading system include a lack of consensus on the basic elements of a regulatory approach, and a system suited to GM crops and byproducts, the costs and benefits of labeling programs, and whether WTO disciplines in the TBT and SPS Agreements are suited to this type of technology. Moreover, the relationship between the Biosecurity Protocol and WTO disciplines remains uncertain. Proposals in the agriculture negotiations have addressed GMO and related labeling protocols, including submissions by Korea, Japan, Europe and other WTO members. Egypt has banned imports of tuna canned in oil based on perceptions of risk related to GM modified soybeans. Thailand has registered complains arguing that the tuna is not prepared with GM soybeans. A certification program may provide a means to settle the dispute. Whether consensus on labeling, harmonized conformity assessment mechanisms, or the need for regulation in this area at all can be achieved within the context of WTO negotiations is not certain.

Table 10. Developing Country Perspectives on the Major Agricultural Trade Issues

	A. Partner Country Reforms	Country to gain	B. Own Domestic Trade Policy Effect	Country to gain
1. Market Access	Net Exporters [+] ¹ Net Importers [-] AT score [mag]	1 Thailand 2 Vietnam 3 Sri Lanka	Net Importers [+] AT score [mag] FIC ⁻¹ [+] LIFDC [+]	1 Philippines 2 Bangladesh
2. (Elimination of) Export Subsidies	Net Exporters [+] Net Importers [-] AT score [mag]	1 Thailand 2 Vietnam 3 Sri Lanka	Net Exporters [-] AT score [mag] FIC ⁻¹ [+] LIFDC [+]	
3. (Elimination of) Domestic Support	Net Exporters [+] Net Importers [-] AT score [mag]	1 Thailand 2 Vietnam 3 Sri Lanka	Net Exporters [-] Net Importers [+] AT score [mag] FIC ⁻¹ [+] LIFDC [+]	1 Philippines 2 Bangladesh
4. (Elimination of) SPS measures	Net Exporters [+ if protective] ² [- if trade-promoting] ³ AT score [mag]	1 Thailand 2 Vietnam	Net Exporters [- if trade-promoting] Net Importers [+ if protective] ⁴ AT score [mag] FIC ⁻¹ [+] LIFDC [+]	1 Philippines 2 Bangladesh

Notes:

1. The nature of the impact is denoted by [+] beneficial and [-] adverse.

[mag] denotes 'magnifying' the impact.

2. Gain in market access due to less restrictive regulation.

3. Loss in market access due to lower SPS standards.

4. The effect of reform on domestic food safety is not considered.

Source: Adopted from Valdés and McCalla (1999) and modified by authors.

Concluding Remarks: Doha and Beyond

Trends in agricultural trade in past 10 years are quite heterogeneous across developing regions. Though slowly declining for past 10 years, shares of agriculture in GDP are still high in East Asia and Pacific and South Asia. Shares of rural population are still high among ADB developing country members. Trade reform in their export partners, particularly, the OECD countries, will affect a significant share of population in these countries, resulting in rural poverty alleviation.

The East Asia and Pacific region includes a significant number of net agricultural exporters. India and Sri Lanka among South Asian countries also are net agricultural exporters that have had a dominant role in the regions' exports.

Trade liberalization is expected to benefit these net exporter countries, particularly those that are highly open to trade. It is anticipated they will support the liberalization. India's agricultural exports have penetrated the South Asian market, and hence domestic policies in its regional partners will be an issue of priority. Seven out of nine WTO observers among the ADB developing countries are net agricultural importing countries. They are expected to be more cautious about trade reforms whose benefits and costs are mixed.

What is also important, but often neglected, is a country's pattern of specialization between domestic supply and export. Our analysis of allocation of production resources such as labor indicates a great divergence among the ADB developing countries. For example, Thailand is highly specialized in export, and hence impact of trade reform, particularly reforms in exporting partners, can have an important implication for its export. Countries whose production is directed mainly to domestic production tend to be more sensitive to change in domestic support. Therefore, positions toward the WTO negotiations can be different even among net exporters.

References

- Bale, M. (1999). East Asia: Economic Recovery and Agricultural Trade Reform. Paper presented at The Conference on Agriculture and New Trade Agenda in the WTO 2000 Negotiations, October 1-2, 1999, Geneva, Switzerland.
- Blarel, B., G. Pursell, and A. Valdés, eds. (1996). Implications of the Uruguay Round Agreement for south Asia: The Case of Agriculture. Washington, D.C. and Rome, Italy: The World Bank/Food and Agriculture Organization.
- Fukase, E. and W. Martin (1999). "A Quantitative Evaluation of Vietnam's Accession to the ASEAN Free Trade Area." Policy Research Working Paper #2220. Washington, D.C.: The World Bank.
- Hertel, T. and W. Martin (2000). "Liberalizing Agriculture and Manufactures in a Millennium Round: Implications for Developing Countries." *World Economy*, 23 (4): 455-469.
- Valdés, A. and A. F. McCalla (1999). Issues, Interests and Options of Developing Countries. Paper presented at The Conference on Agriculture and New Trade Agenda in the WTO 2000 Negotiations, October 1-2, 1999, Geneva, Switzerland.
- World Bank (2000a). Average Tariff Rates by sector and FDI Inflows for all countries in recent years. http://www1.worldbank.org/wbiep/trade/TR_Data.html.
- . (2000b). *World Development Report 2000/2001: Attacking Poverty*. Washington, D.C.: The World Bank.
- World Trade Organization (WTO) (2000a). Export Subsidy. Document G/AG/NG/S/5, May 11, 2000. Geneva: WTO.
- . (2000b). Domestic Support. WTO document G/AG/NG/S/1, April 13, 2000. Geneva: WTO.
- . (2001c). Agriculture Negotiations Background: the Issues, and Where We Are Now. http://www.wto.org/english/tratop_e/agric_e/negoti_e.htm. March 21, 2001. Geneva: WTO.

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