HANS BINSWANGER AND ERNST LUTZ*

Agricultural Trade Barriers, Trade Negotiations and the Interests of Developing Countries

INTRODUCTION

More than two-thirds of the poor in the developing world live in rural areas. The poverty there is not only wider spread, it is deeper, as measured by income and by nutritional status. Ironically, hunger prevails in areas that grow food.

A poverty reduction strategy, in taking advantage of opportunities for rural–urban migration, needs to address directly how to improve and sustain the livelihoods of rural people – where they live. Rural growth is necessary for rural poverty reduction. It is not enough, however, as Brazil dramatically shows.[1] Growth must generate employment on farms and in the rural non-farm sector and be widely shared. This outcome is more likely where family farms dominate, rather than large, capital-intensive commercial farms.

This paper focuses on the demand-side conditions required to fuel the engine of rural growth – the agricultural sector – rather than achieving widely shared rural growth, which is a matter investigated elsewhere (Stewart, 2000). It is true that, with economic development, the share of agriculture in the rural economy declines in favour of rural non-farm activities. But those activities can only rarely be the driving force for rural growth. The reason? Most non-farm activities in villages and rural towns are linked to agriculture through forward, backward and consumer-demand linkages. The demand to fuel their growth must thus come from agricultural growth.

Of particular importance in this are the consumer-demand linkages. Higher agricultural profits and labour incomes stimulate the local production of labour-intensive consumer goods, services and construction activities. So, under most circumstances, agricultural demand growth is a necessary condition for rural non-farm growth and for rural growth in general.[2] But we all know that

*Hans Binswanger and Ernst Lutz, Rural Development and Environment Department for Africa, World Bank, Washington, DC, USA. The views expressed are their own and do not necessarily reflect those of the World Bank. The authors are grateful for assistance from members of the Rural Sector Board, and also from Kym Anderson, Malcolm Bale, David Cieslikovski, Gershon Feder, Bernard Hoekman, Don Larson, Will Martin, Milla McLachlan, Constantine Michalopoulos, Don Mitchell, Frank Plessmann, William Prince, Sudhir Shetty, Anna Strutt, Bob Thompson, Alberto Valdés and Patrick Verissimo. An earlier version was presented at the UNCTAD X Round Table in Bangkok in February 2000. Klaus Deininger (World Bank) presented the conference paper in the unavoidable absence of both authors.

the demand for basic staple food is inelastic with respect to income and to prices. That is why rural regions cannot generate sustained growth rates in agricultural demand unless they trade with cities, neighbouring countries and the rest of the world.

Two facts: world trade in agricultural and agri-industrial products has grown more slowly than general trade, and developing countries have not been able to capture as large a share of trade growth in agriculture as in industry. This has constrained agricultural growth and diversification in the developing world. The slower growth of agricultural trade, and the difficulties of developing countries in conquering a share of that growth, are not surprising. Both developed and developing countries have erected massive barriers to agricultural trade over the course of this century. Their joint negative impact on agricultural growth rates in the developing world is a major reason for the slow progress in rural development and rural poverty reduction over the last half-century. That is why the World Bank's rural development strategy states:

> Without improved demand for developing countries' agricultural products, the agricultural growth needed to generate employment and reduce poverty in rural areas will not come about. Therefore, the World Bank Group will actively promote greater access to OECD country markets for the agricultural and agro-industrial products of its client countries, and support actions in the WTO to achieve this objective. (World Bank, 1997, p.61)

Over the past 15 years or so, developing countries have significantly reduced the anti-agricultural barriers of their policy regimes. But the developed countries' agricultural policy reforms and the last round of the GATT negotiation made only a very modest start in dismantling barriers to agricultural and agro-industrial trade. That is why the constraints on agricultural trade continue to inflict enormous welfare losses on the developing world – losses that exceed those from restrictions in the textile trade. (They also continue to inflict equally large welfare losses on the developed countries.)

A key question is whether the agricultural growth rate in developing countries can rise fast enough for agriculture to be a major engine of rural development and poverty reduction. Can the barriers to international trade for agriculture and agro-industrial products be reduced far enough and fast enough for a poverty reduction strategy for rural areas of the developing world to be based primarily on agricultural growth and rural non-farm activities rather than social programmes and safety nets?

In looking at policy constraints on agricultural demand growth, much has been said about the counterproductive interventions and barriers put in place by developing countries themselves. A lot of progress has been made in dismantling these interventions. Many interventions remain, however, and second-generation agricultural policy reforms are needed. But the main focus here is on the constraints that developed countries impose on agricultural trade, and on the prospects of reducing them in the current round of WTO negotiations.

TRADE AS THE ENGINE FOR GROWTH AND POVERTY REDUCTION

The share of total developing country exports in world exports increased from 19 per cent in 1973 to 28 per cent in 1980 (partly owing to high oil prices) and remained stable at 22 to 23 per cent thereafter. From 1985 to 1995, the Asian shares increased from 10 per cent to 15 per cent, while the African dropped from about 4 per cent to about 2 per cent (WTO, 1996). The Middle Eastern countries also lost about half their market share, while Latin America largely held its ground.

Agricultural trade has been lagging significantly behind trade in manufactured products. World trade in all manufactured products expanded at 5.8 per cent from 1985 to 1994, but agricultural trade grew at only 1.8 per cent during the same period. One of the reasons for this difference is the high agricultural protection in industrial and developing countries.

The share of developing country (LDC) agricultural exports in total world agricultural exports has been decreasing steadily over time, from 40 per cent in 1961 to 27 per cent in 1990 (Table 1). It increased to 30 per cent in 1996 as a result of temporarily higher commodity prices. Of all the major developing country regions, only East Asia and the Pacific increased its market share, while all others regions lost shares. The loss of Africa is particularly striking, decreasing from 8.6 per cent in 1961 to 3.0 per cent in 1996 (Table 1).

During the same period, the terms of trade of agricultural exports have worsened. In fact, in 1999, prices in real terms (deflated by the manufactured unit value of exports from industrial to developing countries) reached a historical low for food and grains (Table 2). With the exception of 1992, the 1999 number was also a record low for all agricultural goods combined (Table 2). Thus, not only has the share of developing country agricultural exports decreased over time, but the purchasing power of the export revenues has also declined.

TABLE 1 *Market shares of agricultural exports in current US$ (in percentages)*

Region or Country Group	1961	1965	1973	1980	1990	1996
OECD high income	47.1	48.8	56.7	58.5	63.6	60.5
South, East & West Africa	8.6	8.0	6.3	5.1	3.2	3.0
North Africa & Middle East	3.6	3.4	2.7	1.6	1.7	1.5
East Asia & Pacific	9.1	9.0	7.5	8.7	9.9	13.3
South Asia	4.0	3.8	2.0	1.9	1.6	1.8
Latin America & Caribbean	14.6	14.4	12.7	13.3	10.5	10.1
LDC total	39.8	38.7	31.3	30.7	26.8	29.7
World	100.0	100.0	100.0	100.0	100.0	100.0

Source: FAO Trade, SIMA Data Base.

TABLE 2 *Low and middle-income countries, commodity price indices, constant 1990 US dollar terms, 1960–99 (1990=100)*

	Agriculture	Beverages	Energy	Fats & Oils	Fertilizers	Food	Grains	Metals & Minerals	Non-fuel	Raw Materials	Timber	Other Raw Materials	Other Food
1960	208.16	234.22	34.42	252.45	179.91	183.67	195.90	137.26	187.43	220.49	128.92	283.02	120.48
1961	197.12	213.67	32.60	272.00	174.61	189.20	203.47	131.21	177.96	195.11	129.34	240.03	113.39
1962	188.48	201.00	30.94	245.53	162.62	183.44	221.22	126.52	170.33	185.72	134.09	220.98	111.39
1963	203.88	206.43	31.12	260.94	168.01	219.24	224.93	127.91	181.52	182.17	134.60	214.66	181.89
1964	201.87	230.95	29.57	263.20	171.65	207.11	221.13	150.28	186.53	173.62	120.64	209.80	153.32
1965	193.20	213.54	28.75	291.19	178.91	196.67	211.68	172.84	187.08	173.67	130.38	203.23	110.84
1966	190.03	209.21	26.60	277.45	160.18	194.65	228.81	174.52	184.85	169.87	129.70	197.31	107.68
1967	186.26	204.61	25.71	255.27	143.70	196.21	255.64	149.03	174.63	159.86	133.21	178.06	114.50
1968	185.47	214.90	25.77	238.07	126.99	188.29	245.02	156.82	175.82	160.08	135.95	176.55	155.71
1969	183.99	217.50	23.52	225.94	123.06	184.44	223.35	168.64	178.01	158.62	126.81	180.34	128.64
1970	182.58	226.83	21.09	256.60	121.15	186.19	186.28	160.95	174.82	145.20	126.75	157.79	128.48
1971	167.71	190.90	27.94	245.44	117.12	178.90	174.25	137.85	157.93	136.13	120.46	146.83	127.02
1972	165.25	193.57	27.61	223.91	148.76	179.39	173.47	124.77	153.41	126.08	107.29	138.92	146.25
1973	226.72	218.18	36.77	399.60	180.62	274.32	301.78	147.56	203.19	171.64	124.27	203.98	156.31
1974	246.27	212.69	117.98	366.40	480.25	335.74	376.65	149.94	225.50	155.68	113.81	184.27	287.68
1975	178.86	179.68	100.86	227.73	349.69	223.35	257.63	116.60	165.96	120.85	91.61	140.82	200.53
1976	215.08	339.68	110.89	237.18	166.04	188.76	206.39	132.29	190.44	156.92	108.56	189.94	139.22
1977	251.87	529.44	109.07	266.91	148.58	177.80	171.69	130.08	214.78	142.24	99.38	171.50	108.25
1978	199.50	341.71	97.44	239.13	126.62	170.73	185.59	116.49	174.16	131.49	89.02	160.49	106.39
1979	196.70	314.89	206.24	240.19	152.61	171.53	172.70	128.14	176.21	141.81	110.03	163.50	114.65
1980	191.87	252.08	223.88	206.56	179.08	193.48	186.58	130.88	174.35	145.27	109.77	169.50	186.64
1981	162.72	201.00	214.60	196.10	169.26	170.06	198.33	113.93	149.16	124.95	94.60	145.67	132.88
1982	145.28	206.58	200.53	164.95	147.37	135.72	148.53	104.13	133.75	112.29	92.94	125.50	104.61
1983	160.86	223.73	186.41	194.93	141.12	151.50	157.67	116.35	147.79	126.46	91.54	150.30	112.46
1984	171.75	257.05	183.41	231.56	143.56	156.95	153.18	107.62	152.93	127.77	101.24	145.89	97.97
1985	145.89	238.65	173.17	164.71	129.76	125.79	130.05	101.02	132.82	103.25	86.08	114.97	91.53

1986	127.82	239.73	77.54	108.40	110.40	95.25	94.75	79.73	113.81	87.11	79.02	92.63	84.75
1987	111.10	152.07	89.28	113.96	106.24	95.08	87.20	87.84	104.42	101.49	90.40	109.07	84.02
1988	115.11	146.67	67.49	140.30	114.05	112.58	107.26	119.79	116.40	95.05	84.36	102.35	92.86
1989	111.74	120.10	82.38	126.21	112.16	114.18	118.38	117.55	113.39	102.43	98.45	105.14	101.96
1990	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1991	95.43	90.62	82.82	102.21	100.20	96.98	99.47	86.77	93.12	96.99	101.95	93.60	91.31
1992	87.96	72.03	77.96	104.70	89.84	93.78	95.37	80.63	85.95	92.21	107.34	81.88	83.96
1993	92.80	78.25	69.24	104.88	78.68	92.70	88.08	69.21	85.78	103.69	143.30	76.65	85.32
1994	111.78	134.48	63.00	114.28	84.71	96.94	92.63	76.55	101.13	114.15	142.06	95.09	85.17
1995	110.10	126.60	62.97	114.55	86.90	98.06	100.98	85.21	102.46	113.43	117.06	110.95	82.92
1996	109.83	110.56	78.15	128.74	104.91	108.26	123.10	77.96	100.72	111.32	122.14	103.92	83.16
1997	118.78	157.54	77.32	136.32	110.47	107.30	103.44	83.09	108.51	104.94	116.10	97.31	85.69
1998	103.48	134.92	54.83	127.49	117.18	100.71	97.19	72.43	95.11	83.82	87.27	81.46	80.75
1999	89.57	103.97	76.27	101.43	110.15	84.53	83.39	71.17	84.95	85.44	107.94	70.07	71.32

Source: World Bank.

TABLE 3 *Growth of agricultural exports (average annual percentage growth rates in real terms)*

Region	1961–73	1973–80	1980–90	1990–96	1973–96
OECD high income	6.7	5.7	2.1	2.2	3.2
South, East & West Africa	1.9	–2.2	1.4	1.5	0.3
North Africa & Middle East	2.2	–5.8	1.5	5.5	0.2
East Asia & Pacific	4.8	6.2	4.9	0.9	4.2
South Asia	3.8	0.8	1.5	10.3	3.5
Latin America & Caribbean	2.9	3.2	3.1	3.1	3.1
All LDC	3.0	2.0	3.2	2.8	2.7

Source: FAO Trade, SIMA Data Base.

The change in shares of agricultural exports in world exports over time reflects different growth rates in volume terms as well as changes in the prices of the average basket of agricultural goods exported. For the period 1973–96, agricultural exports of OECD countries expanded at 3.2 per cent whereas developing countries' agricultural exports grew at 2.7 per cent. East Asia and Pacific countries achieved 4.2 per cent growth per annum, while African countries only reached 0.3 per cent (Table 3).

It is noteworthy that the growth rate of agricultural exports of the OECD countries increased by 6.7 per cent from 1961 to 1973 and by 5.7 per cent from 1973 to 1980. We believe that the protectionist policies and in particular export subsidies had much to do with this. Also note that GDP growth of the high-income OECD countries was 2.6 per cent on average from 1973 to 1996, compared to 3.5 per cent from low and middle-income developing countries (Table 4). The population growth rates for the same period for OECD countries was 0.63 per cent, and for developing countries 1.87 per cent (Table 5).

An income elasticity for food of say, 0.2 per cent in high-income OECD countries, would mean increases in food consumption of 0.6 per cent for the 1973–96 period. But agricultural GDP in high-income OECD countries, stimulated by protectionist incentives, increased by 1.5 per cent (Table 6), thus putting pressure on increases in exports. In comparison, with an assumed income elasticity for food of say, 0.6 per cent in developing countries, internal demand would have increased at around 2.1 per cent. Agricultural GDP for those countries increased at 2.8 per cent (Table 6), showing a smaller difference between agricultural GDP growth and expected food demand growth (0.7) than between the same variables for OECD countries (0.9 per cent).

Manufactured exports of developing countries did much better than agricultural exports, steadily increasing from 7 per cent of world manufactured exports in 1973 to 20 per cent in 1995. Those exports now account for more than 62 per cent of total developing country exports (WTO, 1996).

Why have developing countries failed to keep or increase their share in world agricultural exports? Aside from protectionism including export subsi-

TABLE 4 *Growth of GDP (average annual GDP growth rates in real terms, at constant 1995 US dollars)*

Region	61–73	73–80	80–90	90–96	73–96
East Asia & Pacific	7.4	6.7	8.0	9.1	7.7
Europe & Central Asia	—	—	—	–5.4	—
European Monetary Union	—	—	—	1.4	—
Heavily indebted poor countries	—	—	2.5	2.7	2.2
High income	5.3	3.0	3.1	1.9	2.7
High income: OECD	5.2	2.9	3.1	1.8	2.6
High income: non-OECD	8.5	7.5	5.6	6.0	6.1
Latin America & Caribbean	5.9	5.0	1.6	3.7	2.6
Least developed countries: UN classification	—	—	2.6	2.6	2.4
Low & middle income	6.2	5.1	3.5	3.0	3.5
Low income	5.3	4.7	6.6	7.6	6.1
Low income, excluding China & India	4.3	4.8	4.1	3.8	4.2
Lower middle income	—	—	—	–2.2	—
North Africa & Middle East	—	5.3	2.0	3.0	2.9
Middle income	6.6	5.2	2.6	1.5	2.7
South Asia	3.5	4.1	5.7	5.6	5.1
Sub-Saharan Africa	5.1	2.8	1.8	1.6	1.9
Upper middle income	7.0	5.5	2.7	4.0	3.3

Source: World Bank.

dies in industrial nations, there may have been a limited response in developing countries to trade opportunities. That is why the World Bank actively encourages policy and institutional reforms in developing countries to create a more favourable incentive framework so that developing countries can benefit more from international trading opportunities.

There are many good examples of developing countries that have succeeded in developing a strong market position in selected export products, particularly non-traditional ones. Brazil has done very well in sugar, soybeans and orange juice. Thailand, in addition to its traditionally strong position in rice, has developed other export products like sugar and cassava. Bangladesh developed shrimp exports from a very small base to a major export industry. Kenya's non-traditional exports (fresh fruits, vegetables and flowers) are doing well. And Tanzania has increased its cashew nut exports significantly during the last decade. A good example of a successful country is also Chile, where reliability in quality, timeliness of delivery and other contractual conditions have contributed to a strong market position. Chile may be somewhat exceptional because it has strong technical capacities to stay at the forefront and anticipate developments in the phytosanitary and other areas. It also can afford to support and

TABLE 5 *Population growth (average annual per cent)*

Region	61–73	73–80	80–90	90–96	73–96
East Asia & Pacific	2.43	1.71	1.60	1.33	1.56
Europe & Central Asia	1.21	0.99	0.91	1.20	0.75
European Monetary Union	0.74	0.41	0.26	0.39	0.34
Heavily indebted poor countries (HIPC)	2.47	2.71	2.68	2.49	2.64
High income	1.03	0.79	0.63	0.68	0.69
High income: OECD	0.96	0.71	0.58	0.63	0.63
High income: non-OECD	2.71	2.37	1.73	1.44	1.85
Latin America & Caribbean	2.61	2.34	1.97	1.70	2.01
Least developed countries: UN classification	2.45	2.60	2.62	2.32	2.54
Low & middle income	2.30	2.02	1.93	1.60	1.87
Low income	2.41	2.09	2.00	1.73	1.96
Low income, excluding China & India	2.50	2.62	2.52	2.29	2.49
Lower middle income	1.95	1.75	1.73	1.21	1.60
North Africa & Middle East	2.70	2.95	3.11	2.38	2.87
Middle income	2.06	1.87	1.77	1.30	1.68
South Asia	2.38	2.37	2.20	1.86	2.17
Sub-Saharan Africa	2.59	2.84	2.89	2.63	2.81
Upper middle income	2.23	2.07	1.83	1.45	1.80
World	2.04	1.79	1.71	1.46	1.67

Source: World Bank.

defend its position in trade disputes, whereas others may need technical assistance from the international community.

International trade has been one of the important engines of growth for industrial and developing countries. Agricultural trade can be equally important for growth of the agricultural sector, inducing non-farm employment and thus stimulating the whole rural economy. Aggregate agricultural exports are a robust explanatory variable for agricultural growth (Scandizzo, 1998).[3] In short, the agricultural sectors of countries with outward-looking policies and small distortions of their incentive frameworks benefited from international trade in agricultural commodities.

Adding value to locally grown agricultural products is one of the keys to an agriculture-led industrialization strategy. Hindering this potential today is tariff escalation in industrial countries; that is, increasing tariff rates with the degree of processing. This hurts the developing countries and must be reduced. In addition, developing countries need to pursue prudent development strategies conducive to efficient local processing.[4]

TABLE 6 *Growth of agricultural GDP (average annual growth rates in real terms, at constant 1995 US dollars)*

Region	61–73	73–80	80–90	90–96	73–96
East Asia & Pacific	4.9	2.5	4.4	3.6	3.8
Europe & Central Asia	—	—	—	–6.8	—
European Monetary Union	—	—	—	0.7	—
Heavily indebted poor countries (HIPC)	—	—	—	2.7	—
High income	—	—	—	0.3	—
High income: OECD	—	0.7	1.2	1.4	1.5
High income: non-OECD	—	—	—	—	—
Latin America & Caribbean	2.6	3.4	2.1	2.6	2.4
Least developed countries: UN classification	—	—	—	—	—
Low & middle income	3.0	2.7	3.4	1.5	2.8
Low income	3.1	2.1	4.1	3.6	3.6
Low income, excluding China & India	—	2.3	3.0	2.4	2.8
Lower middle income	—	—	—	–2.4	—
North Africa & Middle East	—	4.3	5.5	1.7	4.5
Middle income	—	3.2	2.6	–0.4	2.1
South Asia	3.1	2.0	3.2	3.5	3.1
Sub-Saharan Africa	—	1.5	2.5	2.1	1.9
Upper middle income	2.1	2.8	2.5	1.8	2.2
World	—	—	2.7	1.2	2.2

Source: World Bank.

LOSSES FROM AGRICULTURAL TRADE AND POLICY AND CORRESPONDING GAINS FROM LIBERALIZATION

OECD agricultural protection still harms developing countries. According to Anderson and others (2000), the farm policies of OECD countries – even after the reforms under the Uruguay Round have been taken into account – cause annual welfare losses of $11.6 billion for developing countries (Table 7). That is more than the losses that developing countries incur as a result of OECD countries' import restrictions on textiles and clothing ($9.0 billion).

The real income gains to households in poor countries from OECD agricultural policy reform would thus be sizeable. The average net gains would range from $1 per capita in South Asia to $4 in Southeast Asia, $6 in sub-Saharan Africa, and $30 in Latin America (Anderson *et al.*, 1999a). The average producer household in the major developing country regions would gain, while consumer households with a food deficit would lose. But the gains for producers would exceed any losses for consumers. They would also have dynamic

multiplier effects for the rural areas and developing economies, so that consumers should also benefit in the longer run.

OECD countries themselves are incurring very large welfare losses from their own distortionary policies – $110.5 billion a year (Table 7). The main losers are large numbers of consumers, who pay higher prices for food products than they otherwise would for such commodities as milk, sugar and bananas. The main gainers are relatively small groups of producers, who will mount the strongest opposition to the needed liberalization. Because OECD consumers would gain more than producers would lose, consumers could, in principle, compensate producers for their losses and still be better off. It seems therefore that ways should be found in OECD countries to develop compensation mechanisms so that producers do not oppose liberalization.

TABLE 7 *Sectoral and regional contributions to the economic welfare gains from completely removing trade barriers globally, post-Uruguay Round, 2005*

Liberalizing Region	Benefiting region	Agriculture and food	Other textiles & primary clothing		Other manufactures	Total
(a) *In 1995 US$ billions*						
	High income	110.5	–0.0	–5.7	–8.1	96.6
High income	Low income	11.6	0.1	9.0	22.3	43.1
	Total	**122.1**	**0.0**	**3.3**	**14.2**	**139.7**
	High Income	11.2	0.2	10.5	27.7	49.6
Low income	Low income	31.4	2.5	3.6	27.6	65.1
	Total	**42.6**	**2.7**	**14.1**	**55.3**	**114.7**
	High income	121.7	0.1	4.8	19.6	146.2
All countries	Low income	43.0	2.7	12.6	49.9	108.1
	Total	**164.7**	**2.8**	**17.4**	**69.5**	**254.3**
(b) *As percentages of total global gains*						
	High income	43.4	0.0	–2.3	–3.2	38.0
High income	Low income	4.6	0.1	3.5	8.8	16.9
	Total	**48.0**	**0.0**	**1.3**	**5.6**	**54.9**
	High income	4.4	0.1	4.1	10.9	19.5
Low income	Low income	12.3	1.0	1.4	10.9	25.6
	Total	**16.7**	**1.1**	**5.5**	**21.7**	**45.1**
	High income	47.9	0.1	1.9	7.7	57.5
All countries	Low income	16.9	1.0	4.9	19.6	42.5
	Total	**64.8**	**1.1**	**6.8**	**27.3**	**100.0**

Notes: No account is taken in these calculations of the welfare effects of environmental changes associated with trade liberalization, which could be positive or negative depending in part on how environmental policies are adjusted following trade reforms.

Source: Provisional GTAP modeling results appear in final form in Anderson *et al.* (2000).

Agricultural trade reform would increase world food prices and would hurt low-income food-importing countries, especially their poorest consumers. That elicits much anxiety. But the expected price increases are not large, amounting to 4–6 per cent for wheat, rice and coarse grains (Valdés and Zietz, 1995) and many of these commodities show a downward trend in real prices over time. In addition, the terms of trade losses under the Uruguay Round tended to be relatively small – in only a few countries did the estimated welfare change constitute more than 1 per cent of GDP. And the least developed countries had the option to remove domestic barriers, allowing them to convert the small loss into a net gain (Ingco, 1997).

Concerns existed about the possible impact of the Uruguay Round on poor countries. These were recognized by the ministers at the Marrakech Meeting. They made a Ministerial Decision on 'Measures Concerning the Possible Negative Effects of the Reform Programme on Least-Developed and Net Food-Importing Developing Countries'. The intent of the Decision was to make sure that food aid could continue to meet the needs of developing countries. Rather than set quantitative targets, the Decision encouraged activities under the Food Aid Convention. But whether the Decision had any noticeable effect on the assistance to developing countries is unclear. Shipments amounted to 9.7 million tons a year from 1990/91 to 1994/95 and to 6.1 million tons a year from 1995/96 to 1997/98 (Tangermann and Josling, 1999). The new Food Aid Convention (effective 1 July 1999) reduced the minimum annual contributions of cereals to 4.9 million tons.[5]

Another chief worry was that agricultural trade liberalization would remove the ability of countries to deal with external price shocks. But the freer world trade is, the less volatile world food prices become, since surpluses and deficits can be evened out more easily when there are more trading partners with different climatic conditions for growing food crops (Bale and Lutz, 1979; Zwart and Blandford, 1989).[6] And aside from the scarcity of financial and other resources, there are hardly any constraints from the side of the WTO for least developed food-deficit countries to deal with the issue of national food supplies.

The policy positions by industrial countries on development and trade often conflict. Pronouncements are made on aiding the poorest and aid is given, but trade policies substantially negate the assistance provided. In 1998, official grant aid from industrial countries and multilateral agencies amounted to $5.4 billion, and export credits were $4.0 billion![7] Thus the costs of industrial country agricultural protectionism on developing countries are larger than the official grant aid and (net) export credits combined.

These issues are being discussed internally in the EU, particularly in the Directorate for Development (DG8). And they are debated in connection with the renewal of the Lomé Convention. Also of great importance is the future direction of the Common Agricultural Policy (CAP) on the expected expansion of the EU into Eastern Europe. Budget pressures will not permit extending an unrevised CAP to countries in Eastern Europe because this would mean a large expansion in subsidies. Even at lower internal EU prices, the central and eastern European nations joining the EU would be expected to expand their

production so that the degree of self-sufficiency of the EU as a whole would not change much, if at all.

Put differently, developing countries can expect limited future opportunities for expanding their exports to the EU. They would, however, benefit from a reduction or outright ban on export subsidies. Without such subsidies, the EU would have to set internal prices somewhat lower so that it would be less likely to have surpluses: that is, it would have to achieve slightly less self-sufficiency. More important, the disruption of the international market from surplus disposal of the EU would be reduced, especially in periods of low world prices, as in the second half of the 1990s.

A new form of non-tariff protectionism is becoming more common: keeping out imports of a good produced with production processes not permitted in the country. Call it 'production process protectionism'. The motive for banning a production process is usually articulated on environmental or social grounds. Examples include attempts to keep out products produced using biotechnology ('genetically modified organisms'), certain pesticides, types of fishing nets, forest management practices, poultry or livestock production facilities that are judged not to protect the welfare of the animals, and labour practices (child and prison labour). We hope these issues will not hinder the current round of negotiations from making progress on the large unfinished agenda.

URUGUAY ROUND ACHIEVEMENTS FOR AGRICULTURAL TRADE

Agricultural trade has had a long history of exceptional treatment in GATT. Although non-tariff barriers have been prohibited for non-agricultural goods, quantitative restrictions were permitted by GATT for agriculture under certain circumstances. Over time, these circumstances were broadened, allowing the use of quotas, variable levies and other protective measures in almost every country. There was also protection by ordinary tariffs, but these were bound for only 55 per cent of the products in developed countries and only 18 per cent in developing countries (Hathaway and Ingco, 1996).

In export competition, agriculture also received special treatment under GATT rules. Whereas export subsidies are prohibited for industrial products, they were allowed in agriculture 'as long as the country using them did not gain more than an equitable share of the world market' (Article XVI:3). In practice, the equitable share concept proved useless, subverting GATT discipline over the use of export subsidies for agricultural products. So most countries in the OECD used (and continue to use) them, causing world market prices to be lower than otherwise, and harming producers in exporting countries with a true comparative advantage but without support from government subsidies. Export subsidies are also the key means for disposing of surpluses in industrial countries, produced inefficiently at high cost. They are thus a tool for rich countries to prop up their protectionist agricultural policies.

The Uruguay Round did bring agriculture under some multilateral discipline and agree to a partial, gradual liberalization. Behind this progress was the

possibility of measuring agricultural protection and support much better (because of replacing quotas with tariffs) and thus of comparing countries' intervention policies and agreeing on verifiable cuts in interventions.[8] These measures revealed far greater barriers to trade in agricultural goods than in industrial goods.

Given agriculture's previous exclusion from the GATT, perhaps more was achieved than could have been expected at the beginning of the Uruguay Round. But the results and associated benefits for farmers in developing countries have been modest (International Agricultural Trade Research Consortium, 1997). Under the Agriculture Agreement in the Uruguay Round, tariffs are to be reduced by 36 per cent by 2001 in the industrial countries, and 24 per cent by 2005 for developing economies.[9] The parties also agreed to limit domestic and export subsidies. Developed countries must reduce by 36 per cent the value of direct export subsidies from their 1986–90 base and cut the quantity of subsidized exports by 21 per cent over six years. For developing countries, the required reductions are two-thirds of those applying to developed countries, and the implementation period is extended to ten years. No reductions in export subsidies (where they exist) are required for the least developed countries. One problem with this part of the agreement has been that unused export subsidies can be carried over from one year to the next and shifted between commodities.

On domestic subsidies, the Agreement acknowledged for the first time that domestic agricultural policies can, if income transfers are linked to the volume of production, distort trade. The Agreement categorized (in 'boxes') domestic agricultural policy measures by how much they distort trade. It bound the magnitude of trade-distorting subsidies, required reductions in this support relative to that in a base period, and encouraged their replacement with direct payments fully 'decoupled' from the volume of production.[10]

Unfortunately, the agreement to reduce trade-distorting agricultural support bound and cut only the aggregate support to the agricultural sector, rather than requiring uniform cuts in support afforded all commodities. As a result, the support to some politically powerful commodities rose relative to that for other commodities. There was almost no progress in reducing subsidies to sugar and dairy – two of the most politically powerful agricultural interests in high-income countries. These continuing barriers to production and trade ('peaks') need to be reduced more than proportionately in the next round.

Although the United States and the European Union did not make cuts in their internal support in the Uruguay Round, the negotiating process pushed both to reduce their subsidies and shift significant portions to direct payments decoupled from the volume of production ('blue box' exceptions).[11]

Under the Agreement, developed countries had to convert all non-tariff barriers into bound tariffs. The problem is that developed and developing countries often chose to bind their tariffs at rates higher than the actual tariff equivalents. This 'dirty' tariffication provides little, if any, reduction in protection – it only makes protection more transparent (Hoekman and Anderson, 1999).

Final bindings for the EU for 2000 are almost two-thirds higher than the actual tariff equivalents for 1989–93 (Anderson *et al.*, 1999b) and for the USA

more than three-quarters higher (Ingco, 1995). Binding tariffs at such a high level allows countries to set the actual tariff below that level and to vary it to stabilize the domestic market in much the same way as the EU has done with its system of variable levies – even after 1995 (Tangermann, 1999). This implies little, if any, actual benefit from replacing non-tariff barriers with tariffs. It also implies little, if any, reduction in the price fluctuations in international food markets, which tariffication was expected to deliver.[12]

Until all countries' internal prices are relinked to world markets, world prices will continue to be much more volatile than is desirable. With the decoupling in US and EU agricultural price supports, neither is accumulating much in the way of public stocks of commodities, which previously stabilized world markets. The Uruguay Round Agreement provided for the first time a minimum of market access, another seemingly important objective. All countries were obliged to ensure that imports make up at least 5 per cent of a good's consumption by the end of the transition period. Minimum access is being provided under 'tariff quotas', considerably undermined, however, by state trading agencies with monopoly power and exclusive rights (Ingco and Ng, 1998).

The Agreement on Agriculture recognized that 'the long-term objective of substantial progressive reductions in support and protection resulting in fundamental reform is an *ongoing process*' (emphasis added). And it committed the signatories to reopen the negotiations by the end of 1999 to carry forward liberalization embarked on in the Uruguay Round (Croome, 1998). The Seattle meeting failed to start the process. It is now under way but not expected to make much progress until after the US presidential elections.

The Agreement on the Application of Sanitary and Phytosanitary Measures, linked with the Agreement on Agriculture, recognizes the right of governments to take measures to ensure food safety and to protect animal and plant health. It requires that such measures be applied only to the extent necessary to these ends and that they be based and maintained on scientific principles and scientific evidence. But, first, the SPS measures were not developed as part of the WTO process and left out the developing countries. Second, the measures are input-based (for example, one must have stainless steel up to a height of 2 metres on all walls) rather than based on the quality of the end product (for example, the level of *E. coli* bacteria must be less than some limit). Third, there is the issue that in some cases environmental concerns are used to serve protectionist ends. Fourth, even when the scientific basis of the restriction is sound, many developing countries have difficulties knowing what the applicable standards to their exports are and how to meet them. This causes problems for many countries, such as to Burkina-Faso for meats, Kenya for fresh fruits and vegetables, and Papua New Guinea for canned tuna (ibid.).[13] And finally, the cost of meeting legitimate SPS standards is large: Finger and Shuler (1999) estimated that meeting SPS requirements plus custom and intellectual property reform would cost a country some US$150 million, which is more than the development budget of many of the least developed countries.

Developing countries need help in this area. There is an important role here for UNCTAD, FAO, the World Bank and others, with technical assistance as

well as with financial assistance for upgrading facilities to meet the requirement (Krueger, 1999).[14]

The Uruguay Round introduced important differences in the obligation of developed and developing countries in agriculture, with special exemptions for the 48 least developed countries. The least developed countries can have bindings of tariffs rather than tariff equivalents. They are allowed lower rates of reductions in tariffs and domestic support. They have delayed tariffication for rice. They can use investment and input subsidies for low-income producers. They can subsidize low-income consumers. They can subsidize marketing and transport. And they can prohibit exports unless they are net exporters. The least developed countries are exempt from commitments to reduce tariffs. So, contrary to popular assertions, the exemptions imply that there are almost no binding constraints in WTO rules on the ability of the least developed countries to intervene in their agricultural trade – or to subsidize and otherwise promote their agricultural sectors.

THE AGRICULTURAL AGENDA FOR THE FORTHCOMING WTO NEGOTIATIONS

The Uruguay Round has been very important in putting agricultural trade on the agenda and starting the liberalization process, but a large unfinished agenda remains. For example, even if the Uruguay Round is fully implemented and China and Taiwan have joined the WTO by 2005, the agriculture and food processing sector will still have twice the average tariffs of textiles and clothing – and nearly four times those for other manufactures (Anderson *et al.* 1999b). That makes it all the more important to adopt a bolder agenda for the current round, from which developing countries have much to gain.[15] One problem is that they have different perceived interests, and that could make it difficult to agree on a common agenda. Latin America, Chile, Argentina, Brazil and Uruguay belong to the Cairns Group, favouring deeper trade liberalization and strongly opposing export subsidies. Meanwhile, the English-speaking Caribbean countries, still pressing for trade preferences, are rather uncommitted to a more open trade regime for their economies.[16]

Although not homogeneous, the developing countries have a common interest in strengthening the system, given their limited bargaining power compared to the USA, the European Union or Japan. It is in their interest to participate in defining the agenda, and in the current round's substantive negotiations (Valdés, 1998; Tangermann and Josling, 1999).

Reform of domestic and trade policies in agriculture is the single most important agenda for developing countries in the forthcoming trade negotiations.[17] Negotiating agricultural trade demands trained policy analysts and negotiators. Given the limited capacity in developing countries, it is difficult for developing countries to face these challenges and to take advantage of opportunities. It is one of the important roles of international agencies to assist the developing countries in building local capacities. The new round of negotiations must seek to implement the following:

- *outlawing farm export subsidies.* Nothing less than a ban on farm export subsidies is needed to bring agriculture into line with non-farm products under the GATT. Credit subsidies need to be quantified and included in the export subsidies;
- *reducing domestic producer subsidies further.* This will involve binding aggregate support levels as well as support for individual commodities, outlawing carry-over of 'savings' from year to year, and cutting high peaks;
- *increasing access under tariff quotas* significantly from the current 5 per cent of consumption; and
- *getting the level and dispersion of bound tariffs on agricultural imports of high-income countries down substantially* – say, to the applied average tariff rates for manufactured goods. As in domestic support, the high 'peaks' should be cut more than proportionately. This is important since the process of tariffication under the Uruguay Round may have actually increased the dispersion of tariff levels.[18]

A reduction in the dispersion of tariffs would benefit agro-processing industries in developing countries now hindered by 'tariff escalation' in industrial nations. Raw materials face low tariffs, but the rates increase with the degree of processing. That provides high rates of effective protection to value-adding industries in importing countries and hinders exporting countries from generating more employment, value-added and export revenue through processing their raw materials prior to exporting them. Developing countries may not have a comparative advantage processing all their raw materials, but tariff escalation by industrial countries clearly hinders development in this high-potential area and gives processing firms in rich countries an unfair advantage.

Although OECD countries would themselves benefit greatly from reducing or abolishing their high agricultural protection, they may not be willing to do so without some reciprocal changes in developing countries – say, in liberalized investment and competition policies. So, to allow for 'give-and-take' in the current round (and to liberalize access of processed and unprocessed agricultural commodities from developing countries to industrial economies) the negotiations may need to include new trade issues of interest to the rich countries. That is why developing countries, in terms of their negotiating strategy, should agree to include such other agenda items as services, intellectual property rights and manufactured products.

One question for developing countries is whether to preserve or expand preferential treatment by individual industrial countries (or country blocs) or to concentrate on obtaining tariff reductions from industrial countries that are applicable to all economies. Under the Generalized System of Preferences, agricultural products have not been important elements. Temperate zone agricultural products have been largely excluded from preferential treatment or received it only within tight quotas, and for unprocessed tropical products (except sugar) the generally applicable developed-country tariffs are zero or relatively low anyway (Tangermann and Josling, 1999). But the developing

countries should, if they can, keep what they got – for example, by having these preferences 'bound' in the current round.

Preferences under the Lomé Convention for the ACP countries have also been unimportant in the aggregate. They may have been significant for individual countries and for such commodities as sugar, bananas and beef, but it has been very inefficient to transfer aid in this form. For example, for bananas alone, it costs consumers in the EU about US$2 billion a year, while only US$150 million reaches its target (Borrell, 1999). One reason for the inefficiency is that, when the quota is fully utilized, a quota rent accrues, and so far the EU has given this rent to EU firms, thus limiting the potential benefit to ACP countries. There are also many uncertainties about the future benefits under the Convention.[19]

For sugar, the EU and the USA grant quota-restricted access to their highly protected markets. Producers in those countries as well as some exporting countries gain, while consumers in industrial countries and efficient producers lose. The overall losses of the highly distorted sugar policies amount to an estimated US$6.3 billion annually (Borrell and Pearce, 1999). The small net transfer in aid via the quotas should not be used as an excuse for not liberalizing the sugar markets during the current round.

If the new round can reduce agricultural tariffs by, say 40 or more per cent across the board, preferences will become less important and will cease to be relevant once trade is free. That is why developing countries should not rely on negotiations for special preferences, but should instead use their limited negotiating resources and limited leverage to focus on reducing most-favoured-nation tariffs (applicable to all countries) and removing industrial country export subsidies.

THE UNFINISHED AGENDA FOR AGRICULTURAL REFORM IN DEVELOPING COUNTRIES

Developing countries have to continue removing domestic policy distortions across the board. Benefits would amount to US$31.4 billion (Table 7). These reforms would counter the anti-agricultural and anti-rural bias in the trade regime. They would also open trade among developing countries, a good potential source of demand for their agricultural sectors. Distortions in need of reform have often included high protection of manufactured goods and services, overvalued exchange rates and direct taxation of agriculture (Schiff and Valdés, 1992, is dated but still relevant). Removing them would improve the allocation of resources and increase investment and profitability in agriculture. And removing them in all goods markets could bring gains to developing economies of $65.1 billion a year (Table 7).

Other desirable policy moves include the following:

- entry and arbitrage barriers, if significant, should be brought down to move towards regulatory regimes more supportive of growth and development;

- state trading entities should lose the exclusive right to import and export – and to control domestic supply and distribution of agricultural commodities;
- governments should be more proactive in promoting export diversification away from a limited set of unprocessed primary commodities (McCalla and Valdés, 1999). They could fund part of the cost of searching for new markets, because the private sector will underinvest in this, given the public good nature of this activity and the associated 'free-rider' situation; and
- opening trade would increase the number of processing technologies – and expand the productivity and value-added of agricultural products beyond the bounds of traditional agriculture. But success in this depends on good management to ensure time-coordinated sales contracts, temporary storage and quality controls in all phases of the product cycle.

The new round of trade negotiations might cover trade-impeding measures of domestic regulatory regimes, including subsidies, state trading, export controls, competition law, procurement practices and setting and enforcing product standards. But even if it does not, unilateral, domestic regulatory reform in agriculture would pay off in many countries.[20]

ASSISTING DEVELOPING COUNTRIES IN AGRICULTURAL TRADE

The IAAE, UNCTAD, FAO, the WTO and the World Bank can serve developing country interests by (a) building local capacity, (b) providing a discussion forum for them on trade and related issues, (c) maintaining trade-related databases and providing information, (d) undertaking high-quality analyses, (e) providing technical assistance in norms and standards and in dispute settlement, (f) advocating better market access in industrial countries, and (g) helping to build coalitions and achieve common developing country positions in multilateral trade negotiations.

For any assistance to produce lasting fruit, there must of course be developing country buy-in, local capacity must be built and international organizations must coordinate better.

NOTES

[1]Between 1950 and 1987, the Brazilian economy grew at an average annual rate of 6.7 per cent. Agricultural output grew less rapidly, at an annual rate of 4.4 per cent, while agricultural employment grew at only 0.9 per cent. (World Bank, 1990). The share of people living in urban areas rose from 68 per cent in 1980 to 75 per cent in 1991 (World Bank, 1995), but the massive rural–urban migration was unable to compensate for the absence of rural employment growth. While urban poverty (headcount index) in 1991 was 10.8 per cent for urban areas, it stood at 32.1 per cent for rural areas.

[2]Of course, rural development should exploit other sources of growth whenever possible.

Other sectors which sometimes fuel rural growth independent of agricultural growth are tourism, mining and handicrafts. They can be quite important for specific regions. However, for countries as a whole they are rarely sufficiently important in quantitative terms to make up for the absence of agricultural growth. Handicrafts in particular suffer from very serious demand-side constraints. There are also some notable exceptions where industrialization in sectors independent of agriculture has helped transform rural areas, such as the village and township industries of China, and rural industrialization in the province of Taiwan. These cases benefited from extremely high population densities in the rural areas affected. In China, moreover, the village and township industries are often near dynamic urban centres with adequate infrastructure, rather than in remote, marginal areas.

[3]The composition of the exports is also important: some primary commodities are under pressure from weak markets, and countries specializing in their production and exports may not gain as much, or even lose, in terms of demand-led growth as countries with more diversified products do (Scandizzo, 1998).

[4]This does not mean banning raw material exports (such as logs) altogether, which can increase smuggling and induces inefficient production (such as of furniture). It may mean some initial protection of local industry by giving it a cost advantage (such as by an export tax), but such protection should later be gradually reduced.

[5]One problem with food aid that should be noted is the tendency for shipments to increase when prices are low and to contract when prices are higher and when the needs in low-income developing countries may also be higher.

[6]Note also that different trade restrictions, or combinations thereof, have different levels of exporting domestically generated instability to the world market.

[7]Overall official development assistance from OECD/DAC members and the multilateral development agencies, which includes grants, export credits and loans, increased by $3.2 billion to a total of $51.5 billion (OECD, 1999). This represented 0.23 per cent of the combined GNP of the member countries. The crisis in confidence in emerging markets, which started in Asia in 1997, and later affected Russia and Latin America, led to a sharp fall in net private flows to developing countries and transition economies, from $242.5 billion in 1997 to $100.2 billion in 1998. Since the fall in total private flows was many times greater than the rise in official flows, the total net resource flows to these countries fell by over 40 per cent, from $325 billion to $181 billion (OECD, 1999).

[8]See also the paper by Winters (2000), which makes a passionate plea for further improvements in measurement.

[9]FAO has provided assistance to developing countries for implementing the Uruguay Round agreement, such as with the production of manuals and technical assistance. The World Bank has organized joint workshops with FAO, such as the one in Santiago, Chile, in November 1995 (FAO/World Bank, 1997) and in Katmandu, in May 1996 (World Bank/FAO, 1999).

[10]The Agreement acknowledged that there are many legitimate public goods functions of government in agriculture (listed in the 'green box') and suggested no restriction on them.

[11]The 'blue box' comprises US and EU direct payments to farmers who restrict their output or at least some inputs. These were granted exemption from challenge under the Blair House agreement to carry the Uruguay Round talks forward. In the next round, the 'blue box' should be eliminated.

[12]The reason is that, the more stable domestic prices are kept, the more domestic instability is exported on to the world market.

[13]At a workshop in San José, Costa Rica, 26–7 August 1999, which the World Bank helped organize, it was noted that most developing countries are working towards developing their own food safety strategies, particularly in response to opportunities and challenges presented by the SPS agreement. However, there is still a lack of priority setting in the sector with regard to investments, for example in export versus domestic products or niche market products versus staples. Most countries still have poor institutional arrangements for addressing agricultural health and food safety, with too many agencies and not enough coordination among them. There is also poor enforcement of existing regulations. In addition, most systems are still heavily biased towards the public sector.

[14]As one specific action, the World Bank will continue to assist with the organization of regional workshops to discuss these issues, as well as with consultations during the negotiations.

[15]Dynamic gains tend to be even larger than the calculated static gains.

[16]The World Bank, in collaboration with FAO, WTO and various regional organizations has been assisting developing countries by organizing seminars, such as a workshop in Chile, on 23–6 November 1998, or in Geneva 19–20 September 1999. The key objectives were to stimulate discussions on agricultural trade issues in the context of the WTO negotiations. Geneva material referred to below is in the process of publication, as M. Ingco and L.A. Winters (eds), *Agriculture and the New Trade Agenda in a New WTO Round from a Development Perspective*, by the World Bank and Cambridge University Press.

[17]For detailed discussions of the agricultural trade agenda from the viewpoint of developing countries, see Tangermann and Josling (1999) and Anderson, Erwidodo and Ingco (1999).

[18]This is because the Uruguay Round provided for a simple unweighted average reduction of 36 per cent, with a minimum cut of 15 per cent for each tariff. Thus many countries cut tariffs on important commodities by the minimum and make bigger percentage cuts on items of lesser domestic sensitivity.

[19]It has been ruled that the Lomé Convention is not in accordance with WTO rules. A waiver was granted, but it needs to be renewed annually, thus putting pressure on the EU to bring the Agreement or its successor into conformity with WTO rules. A WTO dispute settlement panel also ruled that quantitative restrictions by the EU for bananas were violating the rules.

[20]In addition to reforms, and for broad-based development to take place, there is of course also a need for improved financial intermediation, and infrastructure investments in transport, storage facilities and communications networks.

REFERENCES

Anderson, K., Erwidodo, and Ingco, M. (1999b), 'Integrating Agriculture into the WTO: The Next Phase', paper prepared for the World Bank's Conference on Developing Countries and the Millennium Round, WTO Secretariat, 19–20 September.

Anderson, K., Francois, J., Hertel, T., Hoekman, B. and Martin, W. (2000), *Benefits from Trade Reform in the new Millennium*, London: Centre for Economic Policy Research.

Anderson, K., Hoekman, B. and Strutt, A. (1999b), 'Agriculture and the WTO: Next Steps', paper presented at the Second Annual Conference on Global Economic Analysis, Avernaes Conference Centre, Helnaes, Denmark, 20–22 June.

Bale, M. and Lutz, E. (1979), 'The Effects of Trade Intervention on International Price Instability', *American Journal of Agricultural Economics*, **61**, 512–16.

Borrell, B. (1999), 'Bananas: Straightening Out Bent Ideas on Trade as Aid', paper presented at the World Bank Conference on 'Agriculture and the New Trade Agenda: Interests and Options in the WTO 2000 Negotiations', Geneva, Switzerland, 1–2 October.

Borrell, B. and Pearce, D. (1999), 'Sugar: The Taste of Trade Liberalization', paper presented at the World Bank Conference on 'Agriculture and the New Trade Agenda: Interests and Options in the WTO 2000 Negotiations', Geneva, Switzerland, 1–2 October.

Croome, J. (1998), *The Present Outlook for Trade Negotiations in the World Trade Organization*, Policy Research Working Paper no. 1992, Development Research Group, Washington, DC: World Bank.

FAO Regional Office for Latin America and the Caribbean and World Bank (1997), 'Implementing the Uruguay Agreement in Latin America: The Case of Agriculture', edited by J.L. Cordeu, A. Valdés and F Silva, Santiago: FAO.

Finger, J.M. and Shuler, P. (1999), 'Implementation of the Uruguay Round Commitments: The Development Challenge', paper presented at the World Bank Conference on Agriculture and the New Trade Agenda: Interests and Options in the WTO 2000 Negotiations, Geneva, Switzerland, 1–2 October.

Hathaway, D. and Ingco, M. (1996), 'Agricultural liberalization and the Uruguay Round', in W. Martin and L.A. Winters (eds), *The Uruguay Round and the developing countries*, Cambridge: Cambridge University Press for the World Bank.

Hoekman, B. and Anderson, K. (1999), *Developing Countries and the New Trade Agenda*, Policy Research Working Paper no. 2125, Development Research Group, Washington DC: World Bank.

Ingco, M. (1995), 'Agricultural Trade Liberalization in the Uruguay Round: One Step Forward, One Step Back?', Supplementary paper prepared for a World Bank Conference on the Uruguay Round and the Developing Countries, Washington, DC, 26–27 January.

Ingco, M. (1997), *Has Agricultural Trade Liberalization Improved Welfare in the Least-Developed Countries? Yes*, Policy Research Working Paper no. 1748, International Trade Division, International Economics Department, Washington, DC: World Bank.

Ingco, M. and Ng, F. (1998), *Distortionary Effects of State Trading in Agriculture: Issues for the Next Round of Multilateral Trade Negotiations*, Policy Research Working Paper No. 1915, Development Research Group, Washington, DC: World Bank.

International Agricultural Trade Research Consortium (1997), *Bringing Agriculture into GATT: Implementation of the Uruguay Round Agreement on Agriculture and Issues for the Next Round of Agricultural Negotiations*, London: IATRC.

Krueger, A.O. (1999), *Developing Countries and the Next Round of Multilateral Trade Negotiations*, Policy Research Paper no. 2118, Development Research Group, Washington, DC: World Bank.

McCalla, A. and Valdés, A. (1999), 'Diversification and International Trade', in G.H. Peters and Joachim von Braun, *Food Security, Diversification and Resource Management: Refocusing the Role of Agriculture?*, Proceedings of the 23rd International Conference of Agricultural Economists, Aldershot: Ashgate.

OECD (1999), 'Financial Flows to Developing Countries in 1998: Rise in Aid; Sharp Fall in Private Flows', News Release, 10 June, OECD, Paris.

Scandizzo, P.L. (1998), *Growth, trade, and agriculture: An investigative survey*, FAO Economic and Social Development Paper no. 143, Rome: FAO.

Schiff, M. and Valdés, A. (1992), 'The Political Economy of Agricultural Pricing', in *A Synthesis on the Economics of Developing Countries*, World Bank Comparative Study, vol. 4. Baltimore, MD: Johns Hopkins University Press.

Stewart, F. (2000), 'Income Distribution and Development', paper presented at a Round Table at the Tenth United Nations Conference on Trade and Development, Bangkok, February, available from the UNCTAD X website.

Tangermann, S. (1999), 'The European Union Perspective on Agricultural Trade Liberalization in the WTO', paper presented at the University of Guelph, February.

Tangermann, S. and Josling, T. (1999), 'The of Developing Countries in the Next Round of WTO Agricultural Negotiations', paper prepared for the UNCTAD Workshop on Developing a Proactive and Coherent Trade Agenda for African Countries, Pretoria, 29 June to 2 July.

Valdés, A. (1998), *Implementing the Uruguay Round on Agriculture and Issues for the Next Round: A Developing Country Perspective*, PSIO Occasional Paper, WTO Series no. 10, Geneva: The Graduate Institute of International Studies.

Valdés, A. and Zietz, J. (1995), 'Distortions in World Food Markets in the Wake of GATT: Evidence and Policy Implications', *World Development*, **23**, 913–26.

Winters, L.A. (2000), 'Trade Policy as Development Policy: Building on Fifty Years Experience', paper presented at a Round Table at the Tenth United Nations Conference on Trade and Development, Bangkok, February; available from the UNCTAD X website.

World Bank (1990), *Brazil: Agricultural Sector Review: Policies and Prospects*, Washington, DC: World Bank.

World Bank (1995), *Brazil: A Poverty Assessment*, Report no. 14323-BR, Washington, DC: World Bank.

World Bank (1997), *Rural Development: From Vision to Action; A Sector Strategy*, Environmentally and Socially Sustainable Development Studies and Monograph Series 12, Washington, DC: World Bank.

World Bank and FAO (1999), *Implications of the Uruguay Round Agreement for South Asia: The Case of Agriculture*, edited by B. Blarel, G. Pursell and A. Valdés, New Delhi: Allied Publishers.

World Trade Organization Secretariat (1996), *Participation of Developing Countries in World Trade: Overview of Major Trends and Underlying Factors*, Geneva: WTO.

Zwart, A. and Blandford, D. (1989), 'Market Intervention and International Price Stability', *American Journal of Agricultural Economics*, **71**, 379–86.