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### THE STATE OF FOOD AND AGRICULTURE 1989

This document updates and is keyed to the sections in document C89/2 taking into account developments through September 1989. The section on World Economic Environment is updated mainly on the basis of IMF World Economic Outlook, April 1989 and contains a supplementary discussion on the implications of the global macroeconomic setting on agriculture. The section on Agriculture and Food presents preliminary food and agricultural production estimates for 1989, agricultural trade estimates for 1988, and places recent developments in the agricultural sector in a long-term context. The sections on Fisheries and Forestry present estimates of production and trade in 1988 and discusses issues of current relevance to the subsectors.

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## WORLD ECONOMIC ENVIRONMENT

1. While the trends and features in the world macroeconomic setting reported in document C89/2 remain broadly unchanged, some revisions have been made in the main economic and financial indicators in 1988, and estimates for 1989 are presented. In particular:

### Output growth and employment

2. Global production of goods and service increased 4.1% in 1988, a better performance than previously reported (Table 1). This reflected stronger than expected growth in both industrial and, more significantly, developing countries and regions. Stronger growth in the latter reflected bouyant economic activity in Asia particularly in the newly industrializing economies of the Pacific rim and to a lesser extent the Middle East. By contrast, economic growth in Africa and Latin America and the Caribbean fell short of already pessimistic earlier expectations.

3. The acceleration of economic growth in the industrial countries, Asia and the Middle East had a positive impact on their labour markets. The unemployment rate in the United States fell to its lowest level in over 14 years and in Japan to the lowest level since 1982. The stimulus to employment was weaker in the European countries, where the unemployment rate at the end of 1988 was only half a percentage point below the 1986 peak. Limited information from the developing countries suggests a marked contrast in unemployment between the high and low economic growth regions, with the highest rates in the Africa and the Latin America and Caribbean regions.

4. Every region except Africa is expected to experience slower growth in 1989, which will adversely affect labour markets and restrain demand for food and agricultural products. The world economic growth rate is likely to fall back to the 1985-87 average. In Africa, the growth in output is expected to be slightly better than in the previous year, but economic activity still remains depressed in this region. Further, no significant improvement is foreseen in the pattern of regional economic growth, so the demand for agricultural products will continue to be weakest in the Africa and Latin America and Caribbean regions.

### Trade, commodity prices and external accounts

5. GATT estimates indicate an 8.5% increase in the volume of world merchandise trade in 1988, a stronger growth than previously estimated. This rate is far above the 5.5% growth of the previous year and equal to the record performance for the 1980s achieved in 1984. In value terms, the increase in world merchandise trade was estimated at 14%. Unlike 1984, however, when imports by the United States alone had played a major role, the buoyancy of trade in 1988 was shared by a relatively large number of countries, particularly industrial and main trading developing countries. Indeed, import demand in developing countries was the strongest among major country groups, rising 16% in value. Prospects for 1989 remain generally encouraging, although the slowdown in world economic growth is likely to reduce trade growth to a more moderate pace.



TABLE 1. ANNUAL CHANGES IN SELECTED ECONOMIC AND FINANCIAL INDICATORS, 1980-88

	1981	1982	1983	1984	1985	1986	1987	1988	1989 <sup>a/</sup>
	..... % .....								
<b>Output</b>									
Industrial countries	1.5	-0.3	2.8	4.9	3.4	2.6	3.4	4.1	3.3
Developing countries	1.9	2.2	2.2	4.1	3.6	4.2	3.3	4.3	3.3
Africa	1.9	2.5	-0.9	0.5	3.5	2.2	1.2	1.7	2.3
Asia	5.9	5.4	7.8	8.2	6.7	6.6	7.2	9.0	6.4
Middle East	-1.3	1.3	1.7	0.1	-1.4	0.9	-1.6	3.9	2.3
Western Hemisphere	0.3	-0.8	-2.7	3.7	3.6	4.1	2.6	0.9	0.8
World	1.8	0.7	2.8	4.5	3.4	3.2	3.2	4.1	3.3
<b>Consumer prices</b>									
Industrial countries	10.1	7.5	4.9	4.7	4.1	2.3	2.9	3.2	3.8
Developing countries	25.8	25.2	32.4	38.2	39.7	31.1	40.5	67.1	45.5
Africa	20.8	13.1	17.9	20.8	13.3	14.4	15.0	18.8	15.1
Asia	10.4	6.4	6.7	7.3	7.1	9.1	9.8	14.6	10.0
Middle East	15.1	12.9	12.0	14.4	17.0	18.2	19.3	18.8	14.6
Western Hemisphere	60.8	66.8	108.6	133.0	144.9	87.8	130.0	277.6	154.9
<b>Debt-service ratio <sup>b/</sup></b>									
Developing countries	16.2	19.7	18.6	20.0	21.3	23.0	20.3	19.6	18.9
Africa	17.0	21.2	22.9	26.6	29.1	29.1	25.4	28.8	29.0
Asia	9.9	12.3	11.9	12.3	14.4	14.5	14.8	11.4	10.6
Middle East	5.0	6.5	8.3	10.0	10.3	14.0	12.6	12.8	12.6
Western Hemisphere	43.9	54.0	43.3	42.7	42.1	47.2	37.0	41.6	43.2
	..... billion US dollars .....								
<b>Payments balances on current account</b>									
Industrial countries	-15.8	-19.5	-18.0	-57.3	-67.1	-17.5	-44.6	-59.0	-67.0
United States	6.9	-8.7	-46.3	-107.1	-115.1	-138.8	-154.0	-135.3	-139.3
Japan	4.8	6.9	20.8	35.0	49.2	85.8	87.0	79.5	84.0
Germany Fed. Rep.	-3.6	5.1	5.3	9.9	16.6	39.3	45.0	48.5	49.7
Other industrial countries	-23.9	-22.8	2.1	4.9	-1.7	-3.8	-22.7	-51.6	-61.4
Developing countries	-49.1	-83.4	-62.4	-31.4	-26.0	-42.2	1.4	-19.1	-19.4
Africa	-22.1	-21.3	-12.2	-8.0	-0.6	-9.6	-5.3	-9.5	-7.8
Asia	-18.6	-16.5	-14.2	-4.2	-14.0	3.9	21.6	10.0	8.8
Middle East	48.5	5.0	-19.4	-13.7	-3.6	-17.2	-3.8	-11.7	-10.4
Western Hemisphere	-43.0	-42.5	-10.9	-2.5	-4.7	-17.3	-12.0	-11.5	-11.5

Note: IMF regions shown above are similar to FAO regions—used elsewhere in this document. In particular, Western Hemisphere refers to Latin America and the Caribbean and Asia to Far East.

<sup>a/</sup> Preliminary.

<sup>b/</sup> Payments of interest on total debt plus actual amortization payments on long-term debt as percentage of exports of goods and services.

Source: IMF, World Economic Outlook, April 1989.



6. Commodity prices which, according to the World Bank's aggregate index for non-oil commodity prices increased 20% in 1988 in relation to 1987, generally continued to strengthen during the first months of 1989. Average prices between January-May 1988 and 1989 rose approximately 6%. Among agricultural commodities export prices of cereals and oilseeds continued strong during the first half of 1989 but weakened subsequently following indications of significant production increases in 1989. Oil prices moderately increased during the first months of 1989 but started weakening again since late April.

7. Adjustments in the large negative and positive payment balances on current account for the three main industrial economies tended to slow down during the second half of 1988 and the first months of 1989, and are projected to increase slightly for the year (Table 1). However, in relation to their respective GNPs, the payment balances for these countries are projected to stabilize in 1989 and 1990. Of particular interest is the surge in the net inflow to the other industrial countries, from \$22.7 billion in 1987 to a forecast \$61.4 billion for 1989.

8. Current account payment balances for developing countries, which had shown a small surplus in 1987, turned again negative in 1988, mainly reflecting a lower surplus in Asian countries and a sharp increase in the deficit of the Near East. At approximately \$19 000 million, the overall deficit of developing countries in 1989 is forecast to be broadly unchanged from that in 1988.

#### Inflation, interest rates, currency values

9. While remaining generally moderate, inflation rates in several industrial countries have increased, bringing this issue to the centre of their economic concerns. Inflation rates in industrial countries as a whole averaged 3.2% in 1988, and are forecast to increase to 3.8% in 1989. In some, however, including the United States, the United Kingdom and Italy, the increase in prices in 1989 is expected to be in the range of 5 to 8%.

10. While prospects for developing countries remain uncertain, some easing in inflationary pressure is expected in 1989, from the dramatic price upsurge of 1988. The decline would mainly reflect recently introduced anti-inflationary measures, particularly by Latin America and Caribbean governments. Inflation will nevertheless remain a most difficult problem in many countries.

11. The perceived danger of inflationary pressures has prompted authorities in several industrial countries to tighten their monetary policy. Interest rates rose significantly during the first half of 1989. For instance, Eurodollar LIBOR rates (6 months) rose from 7.6% in June 1988 to 9.4% in June 1989 <sup>1/</sup> before easing; prime lending rates in the United States rose from 9.0% to 11.5% during the same period, but began to decline by mid-year.

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<sup>1/</sup> LIBOR = London Interbank Offer Rate, a key rate in determining interest rates payable on international loans.



12. While remaining generally stable, exchange rates of the main currencies have shown greater responsiveness to interest rate differentials, which have shifted in favour of US dollar-denominated assets. Thus, the US dollar appreciated approximately 6% against SDR between the last quarter of 1988 and March-May 1989. The Japanese yen and Deutsche mark depreciated 2-3% against SDR during the same period.

#### External Debt

13. Total external debt of developing countries continued to increase in 1988, albeit at a slow pace. At \$1,240,000 million (IMF estimate) it only rose 1% in nominal terms, and the increase in export earnings of developing countries was relatively high. Nevertheless, the debt-service ratio fell only for Asia, where another modest decline is anticipated in 1989. The debt-service ratio markedly deteriorated in 1988 for Africa, and for Latin America and the Caribbean, as well as in the group of 15 heavily indebted countries. Furthermore, the heavily indebted countries are expected to experience a further significant deterioration in their debt-service ratios in 1989, unless the higher interest rates during the first half of 1989 are offset by lower rates subsequently. Further, the World Bank's preliminary estimate of the net outward transfer (disbursements minus debt-service) from the developing countries on public and private long-term debt is \$US 43 000 million for 1988, a record amount.

14. The still unresolved issue of debt has been the subject of intense debate and negotiations in recent months. An important initiative put forth on 10 March 1989 by the U.S. Treasury Secretary, N. Brady, called for support from the IMF and World Bank to provide funding, as part of their policy-based lending programmes, for debt or debt-service reduction purposes. This funding would be provided, together with continued new bank lending, to indebted countries that agree to economic adjustment programmes supported by the Bretton Woods institutions.

15. The possible impact of this initiative is still uncertain. A major issue is whether financial resources are, or will be, made available to the World Bank and IMF on the scale needed to help bring about significant debt reduction. Another debated issue concerns support for interest rate reduction that, while being the most direct way to address the problem of resource outflows from debtor countries, is seen by some officials as involving great risks for the international financial institutions. Yet, the importance of this issue cannot be overstated. With interest rates at 10%, every dollar of debt reduction saves the debtor country only 10 cents in its first year. This small saving is easily offset by increasing interest rates. In the example of Mexico, it has been estimated that a reduction of one-third in debt service payments would barely compensate for the increase in dollar interest rates during the past year.

16. It is in the case of Mexico, however, that a breakthrough in the debt spiral may have recently occurred in the form of a major package agreement reached with creditor banks in late July. Under the agreement, which applies to US\$ 53 billion of Mexico's US\$ 107 billion total debt, commercial banks have three options: cut the principal on the old loans by exchanging them for 30-year bonds at a discount to a face value of 35%; swap old loans for 30-year bonds carrying a fixed interest rate of 6.25%



(down from current market rates of about 10%); and provide new loans over four years equivalent to 25% of each bank's current medium and long-term exposure. Creditworthiness of the new bonds is to be enhanced by US\$ 7 billion of funds to be provided by IMF, the World Bank, the government of Mexico and Japan. While the extent of the resulting debt relief will depend on individual bank's decisions, it is expected to be considerable. The agreement raises the hope that similar arrangements can be concluded with other indebted countries.

#### Macroeconomic Environment and Agriculture

17. The above features of the current overall economic situation have important implications for food and agriculture, particularly in developing countries.

18. Although a few developing countries have benefited from stronger agricultural commodity prices, the major export items of developing countries have not shared in the strengthening. Indeed, prices of cocoa, tea, cotton and coffee in the first quarter of 1989 have remained below the average levels in the first quarter of 1988. A notable exception was sugar. Conversely, the strengthening in cereal prices was bad news to all but the ten or so developing countries that normally export more cereals than they import, and have caused severe financial strain in many, and particularly the low-income ones. As regards oil, the increase in prices early in 1989 provided temporary relief to oil-exporting countries, several of which are facing severe current account deficits. Yet, the many net oil-importing countries faced higher costs of energy and petrol-based inputs and technology. If the recent trend towards lower crude oil prices were to continue, the financial position of the exporters would deteriorate but the importers would benefit from lower cost imports.

19. The trends in overall economic and demand growth do not augur well for agriculture. With expectations of growth in real per caput GDP in 1989 sharply reduced in Asia, and negative in Africa, the Near East and Latin America and the Caribbean, and the prospect of higher unemployment, domestic demand for food and other agricultural products will be weak. Similar considerations apply to farm investment. While no specific information is available on the sector, the fact that total capital formation in Africa fell from 26% of GDP in 1981 to an estimated 18% in 1988 and 1989 reflects the magnitude of the problem, which is also shared by some countries in the Near East and Latin America and the Caribbean.

20. Another negative factor affecting demand for agriculture in developing countries was the strong upsurge in domestic consumer prices in 1988 and still high inflationary pressures this year. In many countries, particularly in Latin America and the Caribbean and Africa, food prices have tended to increase even faster than other consumer prices in recent years, more markedly in 1988, fueling the overall inflationary process and inhibiting food demand. Inflation necessarily affects more severely low-income and wage-earning populations, a major segment of developing countries' potential demand for food.



21. High interest rates during the first half of 1989, the appreciation of the US dollar and the increase in debt-service ratios for most developing countries placed increased pressure on the agricultural sector to produce for export, which in some cases aggravated internal supply problems. These developments also adversely affected the flow of external capital for investment in agriculture and the importation of items essential to agricultural production. The recent reduction in interest rates will ease these pressures, but interest rates remain relatively high.

22. The prospects of a slowdown in growth of economic activity and domestic demand in industrial countries are bound to reduce further the current already sluggish growth in demand for developing country agricultural exports.<sup>1/</sup> In the case of the group of countries defined by IMF as 'net debtors', a recent study estimated that a reduction in projected GNP growth in the industrial countries of one percentage point a year during 1989-94 would result in the volume of exports of the net debtors falling 1.5% a year during 1991-94.<sup>2/</sup> While the exports of manufactures in Asia would experience the largest decline in export growth, exports by countries in Latin America and the Caribbean and Africa, largely consisting of agricultural products, would decline 0.8% to 0.9% yearly during the same period.

23. In the USSR and Eastern Europe the movement towards far reaching economic reforms has gathered momentum, though not in the same way and not at the same pace everywhere. The acceleration of the process in the USSR, and the continuous and extensive economic adjustments in Hungary and Poland are the main features. Market liberalization is an important aspect of the economic reform process. It is generally recognized that such reforms are essential for accelerated growth in the agricultural sector, but the impacts so far have been mixed.

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<sup>1/</sup> The growth in real total domestic demand is forecast to fall from 3% in 1988 to 2.8% in 1989 in the United States; from 7.7% to 5% in Japan; and from 4% to 3% in Western Europe.

<sup>2/</sup> IMF, World Economic Outlook, April 1989. The group of net-debtor countries comprises 126 countries.



AGRICULTURE AND FOODAgricultural and food production in 1988-89

24. Revised estimates of global agricultural and food production in 1988 indicate an increase of approximately 1% over the previous year as against an overall stagnation previously reported (Table 2).<sup>1/</sup> The most significant upward revision was for the developing countries, where agricultural production was higher in every region, and especially in the Far East. The decline in agricultural and food production in 1988 was slightly less pronounced than previously estimated for the developed countries, with the significant upward revision for North America being nearly offset by the downward adjustment for Eastern Europe and the USSR.

25. The outcome for global production in 1989 still depends on developments in the last quarter of the year, particularly in the southern hemisphere. Preliminary estimates suggest that:

- Agricultural and, more markedly, food production growth are likely to exceed the averages for the 1980s by a substantial margin. This would mainly reflect the recovery in crop production in North America after the 1988 drought, but also the significant increase foreseen in Eastern Europe and the USSR. Production in Western European and the Asian centrally planned countries is also likely to moderately recover from the 1988 shortfall. On the other hand, slower output growth is expected in Oceania and in all developing market economy regions

- Current estimates indicate an actual decline in agricultural production from the levels of 1988 for Latin America and the Caribbean and the Near East. Last year's welcome recovery in Africa apparently will be short-lived, as food production is expected to virtually stagnate in 1989, implying a decline of the order of 3% in per caput terms. In all developing regions except the Far East production growth in 1989 is likely to fall below the average rate of the 1980s. China is expected to achieve significant increases in both crop and livestock production in 1989, after the 1988 setback, but the increase in food crop output would still remain below the high rates of the early 1980s.

26. The commodity composition of agricultural production is shown in Table 3.

3. Outstanding features are:

- World cereal production in 1989 is estimated to rise 5.9% above the poor 1988 harvest, a less pronounced recovery than expected earlier. Production would fall short of estimated consumption for the third consecutive year, implying a further drawdown from stocks. The increase in global output is largely due to a recovery in developed countries, particularly Canada and the United States. Wheat production is forecast to be 5.5% above that in 1989, as a consequence of the recovery in North America, record harvests in Asia and expanded output in the EEC, Eastern Europe and the USSR.

<sup>1/</sup> World production estimates for a given year, first produced in September of the same year, are subject to significant revisions as more complete information becomes available. For instance, the estimates of food production growth from 1987 to 1988 ranged from 2.6% to 4.3% for developing and from -2.7% to -3.2% for developed countries.



TABLE 2. ANNUAL CHANGES IN WORLD AND REGIONAL FOOD, AGRICULTURAL, CROP AND LIVESTOCK PRODUCTION

	Food		Agriculture		Crops		Livestock	
	1987 to 1988	1988 to 1989*	1987 to 1988	1988 to 1989*	1987 to 1988	1988 to 1989*	1987 to 1988	1988 to 1989*
Developing market economies	5.6	1.3	5.2	1.3	6.1	1.1	2.4	2.4
Africa	4.7	0.1	4.5	0.8	6.2	0.6	2.7	2.5
Far East	8.1	3.7	7.6	3.8	8.8	3.8	4.7	3.8
Latin America	3.1	-1.0	2.5	-1.0	2.0	-1.3	2.3	1.1
Near East	4.5	-2.2	4.6	-1.8	6.3	-5.0	1.7	2.6
Asian centrally planned economies	1.3	3.2	1.7	3.5	0.2	3.0	5.3	4.2
All developing countries	4.3	1.8	4.1	1.8	4.1	1.7	3.8	3.0
Developed market economies	-3.9	5.9	-3.6	5.4	-8.6	9.3	1.1	0.3
North America	-8.4	12.7	-7.7	11.4	-17.3	18.6	2.5	0.8
Oceania	5.4	0.6	5.8	0.5	9.5	2.1	4.6	0.1
EEC (12)	-2.1	1.5	-2.0	1.5	-2.4	1.2	-0.6	-0.3
Other Western Europe	0.2	2.5	-0.2	2.6	5.9	4.9	0.6	
Eastern Europe and the USSR	-0.9	3.8	-0.7	3.6	-4.1	4.0	1.6	1.8
All developed countries	-3.0	5.3	-2.8	4.8	-7.1	7.5	1.3	0.8
World	0.9	3.4	1.0	3.2	-0.3	3.9	2.1	1.6

\* Preliminary.

Source: FAO. Based on information available up to 31 August 1989.



TABLE 3. AGRICULTURAL PRODUCTION BY COMMODITY

	Developed countries			Developing countries			World		
	1988	1989a/	Change 1988 to 1989	1988	1989a/	Change 1988 to 1989	1988	1989a/	Change 1988 to 1989
	million m.t.	%	million m.t.	%	million m.t.	%	million m.t.	%	
Total cereals b/	775.0	874.1	12.8	982.3	986.5	0.4	1 757.3	1 860.6	5.9
Wheat	294.1	310.7	5.6	215.1	226.6	5.3	509.2	537.3	5.5
Rice, paddy	25.4	26.0	2.4	464.6	474.0	2.0	490.0	500.0	2.0
Coarse grains	455.4	537.4	18.0	302.7	285.9	-5.6	758.1	823.3	8.6
Root crops	197.1	210.0	6.5	377.7	379.7	2.6	574.8	588.7	2.4
Pulses	19.3	20.3	5.2	36.0	36.9	2.5	55.4	57.2	3.2
Oilseeds	95.6	107.7	12.7	165.4	170.6	3.1	261.0	278.3	6.6
Sugar, centrifugal (raw)	42.7	43.2	1.2	60.9	62.1	2.0	103.6	105.2	1.5
Cocoa beans	0	0	0	2.2	2.4	9.1	2.2	2.4	9.1
Coffee	0	0	0	5.5	5.5	0.0	5.5	5.5	0.0
Tea	0.3	0.3	0	2.3	2.2	-4.3	2.6	2.5	-3.8
Cotton lint	6.8	5.8	-14.7	11.1	11.3	1.8	17.9	17.1	-4.5
Tobacco	1.8	2.0	11.1	5.0	5.3	6.0	6.8	7.3	7.4
Total meat	102.6	102.9	0.3	62.3	63.9	2.6	164.9	166.8	1.2
Total milk	383.3	386.2	0.8	142.3	145.8	2.5	525.6	532.0	1.2
Hen eggs	19.6	19.5	-0.5	15.5	16.0	3.2	35.0	35.5	1.4

a/ Preliminary

b/ Including rice in terms of paddy

Note: Percentage changes have been calculated from unrounded figures

Source: FAO. Based on information available up to 31 August 1989



- Coarse grain production is expected to rise 9% above the poor 1988 harvest, as the sharp increase in developed countries, mainly North America, will more than offset declines in developing countries from the very high level of last year, particularly Argentina and some large producer countries in Asia, including India and Turkey. With a favourable crop outlook for rice in most main producing countries in Asia, production is expected to reach 500 million tons in 1989, about 2% above the 1988 record, and nearly one-third higher than a decade previously.
- Sugar production is forecast to rise 1.5%, as the net result of modest overall increases in the Far East, Eastern Europe and the USSR, virtually unchanged production in North America and Western Europe, and a fall in Latin American production.
  - Coffee production is unlikely to exceed the 1988 crop, as larger harvests in Brazil and Côte d'Ivoire are likely to be offset by a drop in other important producing countries, such as Colombia, Angola, Rwanda and Kenya.
  - Cocoa production is anticipated to increase 9% in 1989, continuing the recent years' trend of production exceeding consumption and adding to the already burdensome stocks.
  - Cotton lint production is expected to decline, mainly due to a reduction of more than 10% in North America. Production may only slightly increase in developing countries, as increases in the Far East and some major producing countries such as Egypt, are likely to be partially offset by generally poor growing conditions in most other countries.
  - Oilseed production is expected to be well above the 1988 level. Significantly reduced crops in France, Turkey and the USSR, will be more than offset by expanded production in North America and, with the exception of Argentina, Latin America (Brazil's soybean crop being 29% higher), and to a lesser extent in Africa and the Far East.
  - Growth in output of animal products is likely to slow, more markedly in developed countries, reflecting low supplies of feed and relatively high feed prices, as well as continued efforts to reduce structural surpluses in several European countries.

27. As regards per caput food production, there will be a significant increase in the number of developing countries that experience declines in 1989. Of 108 developing countries, food production in 1989 may fail to match population growth in 70 countries, compared to only 56 in 1988, an exceptionally good year for production (Table 4). In Africa per caput food production may fall in three-fourths of the countries. About two-thirds of the countries in the Latin America and the Caribbean and Near East regions, and 37% of those in the Far East also may see declines in per capita production. However, food production is expected to exceed population growth in several of the most populous developing countries, particularly in Asia (China, Indonesia, Malaysia, India and Pakistan) but also in Egypt, Côte d'Ivoire and Ethiopia. By contrast, per caput food production is likely to decline in all of the largest countries in Latin America and the Caribbean, with the notable exception of Colombia.



TABLE 4. PERCENTAGE RATE OF CHANGE IN PER CAPUT FOOD PRODUCTION, BY COUNTRY, 1988 TO 1989

Percent	Developing countries	Developed countries
More than 10%	Dominican Republic, Madagascar	Canada, USA
5.01% to 10%	Côte d'Ivoire, Paraguay, Tunisia Laos, Mauritius	South Africa, Finland, Portugal, Yugoslavia
3.01% to 5%	Chile, Uruguay, Cyprus, Reunion, Martinique	Spain, Japan
0.1% to 3%	India, Colombia, Comoros, Guatemala, China, Malaysia, Vietnam, Central African Republic, Bhutan, Cameroon, Sierra Leone, Egypt, Singapore, Iraq, Ethiopia, Indonesia, Panama, Tonga, Pakistan, Burma, Guadeloupe, Republic of Korea, Thailand, Libya, Puerto Rico, Samoa	Hungary, Greece, German Democratic Republic, Bulgaria, USSR, Nether- lands, Denmark, Italy, Romania, UK, Czechos- lovakia, Norway, Poland, Sweden, France, Belgium- Luxembourg
0 to -3%	Malawi, Mauritania, Bangladesh Somalia, Congo, Papua New Guinea, Trinidad and Tobago, Venezuela, People's Democratic Republic of Korea, Mali, Costa Rica, Uganda, Philippines, Fiji, Mexico, Bolivia, Namibia, Ghana, Mongolia, Mozambique, Suriname, Iran, Gabon, Guyana, El Salvador, Barbados, Rwanda, Chad, Cuba, Nigeria, Liberia, Swaziland, Zaire, Gambia, Morocco, People's Democratic Republic of Yemen	New Zealand, Switzerland, Iceland, Australia, Austria, Malta, Albania, Israel, Federal Republic of Germany
-3.01% to -5%	Brazil, Peru, Cape Verde, Honduras, Burkina Faso, Guinea, Nepal, Guinea-Bissau, Angola	Ireland
-5.01% to -10%	Haiti, Sri Lanka, Kenya, Togo, Jamaica, Saudi Arabia, Benin, Argentina, Ecuador, Kampuchea Democratic, Jordan, Algeria, Sudan, Botswana, Senegal, Tanzania, Turkey	
Below -10%	Zimbabwe, Burundi, Nicaragua, Lesotho, Niger, Syria, Yemen Arab Republic, Zambia	

Source: FAO.



### Cereal Stocks, Food Security and Food Aid

28. The decline in cereal supplies in the main producing countries in 1988 was bound to have repercussions on food security in 1989. Reduced global export availability, higher international prices and prospects of reduced food aid (see section on food aid) can only exacerbate the difficulties of those low-income food-deficit countries that are facing increased import requirements. Although latest reports indicate a recovery in world cereal production in 1989 from last year's drought-reduced level, stocks at the end of the 1989/90 season are expected to remain at a level close to the minimum that FAO considers necessary to safeguard world food security.

29. At the end of the 1987/88 crop year, estimates for world cereal carryover stocks, at 399 million tons, were 52 million tons (12%) less than that of the previous crop year. By the end of the 1988/89 crop year, world cereal stocks are forecast to have fallen by the largest recorded year-to-year drawdown, to 305 million tons (comprising: wheat, 121 million tons, a decline of 18% from the previous crop year's level; coarse grains, 141 million tons, 33% less; and milled rice, 43 million tons, 6.4% above the very low level in 1987/88). Nearly all of the reduction in cereal stocks was estimated to be in the main exporting countries, with the United States accounting for the bulk of the total. At 305 million tons, the volume of cereal stocks is equivalent to barely 17% of estimated world consumption in 1989/90, compared with the 17-18% minimum level estimated by FAO as necessary for safeguarding world food security.

30. The preliminary forecast of world carryover cereal stocks for 1989/90 is put at around 290 million tons, which would represent a further 5% drop compared with their already low opening level. This estimate assumes an increase in world cereal production in 1989 as currently forecast, and that total utilization in 1989/90, though higher than the previous year, remains below trend.

31. The situation for wheat is particularly preoccupying because at the end of 1989/90, world carryovers are forecast to be 113 million tons, 8 million tons below their already low opening level. Therefore, between 1987/88 and 1989/90, wheat stocks would be reduced by 60 million tons or over 30% and the aggregate holdings of the main exporters would be at their lowest level since the world food crisis of the early 1970s.

### Food emergencies in Africa

32. Although food supply conditions improved for Africa as a whole in 1988-89, as of mid-1989 grave difficulties continue to persist in a number of countries, particularly southern Sudan and Mozambique.

33. However, some progress has been made in strife-torn southern Sudan with the implementation of the UN's emergency relief programme, "Operation Lifeline", launched on 1 April 1989, which by June 1989 had delivered more than half of its target of 100 000 tons of food and relief supplies. The agreement is allowing international agencies to supply relief goods to civilian populations on both sides of the conflict. Additional pledges of food and non-food items in support of "Operation Lifeline" are still required.



34. In Mozambique, food shortages are still critical despite the recent harvest which, at 575 000 tons, will cover less than half of domestic cereal requirements. Malnutrition and starvation-related deaths continue to be reported, particularly in inaccessible areas. A deterioration in the security situation has reduced road and rail transport further, so that the movement of relief food and farm produce to markets is becoming increasingly difficult. For inaccessible areas, more airlifting operations will be needed to ensure much needed food distribution.

35. Countries facing exceptional food emergencies, as of August 1989, were: Angola, Ethiopia, Lesotho, Malawi, Mozambique, Sierra Leone, Somalia and Sudan.

36. Compared with 1988, harvests so far this year have been sharply down in Angola, Botswana, Lesotho and Zimbabwe. Substantial exceptional food assistance will be required by Angola and Mozambique (a total of 755 000 tons) to cope with serious food supply difficulties caused by drought, lack of inputs and civil strife. Food aid (132 000 tons of coarse grains) will also be required by Malawi in 1989/90, mainly to cover the needs of Mozambican refugees.

37. In summary, although food supplies in sub-Saharan Africa remain stable in most of the 45 countries, following above-average to record crops in 1988, four main areas require immediate attention: (i) priority must be given to the implementation of "Operation Lifeline" in Sudan; (ii) further donor assistance is needed to ensure supplies through the conflict zones in Angola and Mozambique; (iii) additional donor support is required for the purchase and internal distribution of local surpluses and the disposal of exportable surpluses through triangular transactions and/or swap arrangements; and (iv) further pledges of food aid for 1988/89 are required by 13 countries. The 'gap' is estimated at 220 thousand tons.

#### Food Emergencies in Other Developing Regions

38. Particularly difficult food supply situations were reported in nine other developing countries. Most serious in terms of the populations involved were those in Asia (chiefly Bangladesh and Vietnam, but also Afghanistan, Sri Lanka and Laos). Three countries in Latin America and the Caribbean were also experiencing serious food supply shortages (Haiti, Nicaragua and Peru), as well as Lebanon in the Near East.

#### Food aid

39. FAO's preliminary estimate of food aid shipments in cereals for 1989/90, at about 8.3 million tons, is 15% less than in the previous year and 38% below 1987/88. This volume of food aid would fall below the minimum annual target established by the World Food Conference in 1974 (i.e. 10 million tons) and approach the minimum commitment under the Food Aid Convention (i.e. 7.5 million tons). The large reduction in the volume of food aid is mainly due to declines in expected shipments from Canada and the United States. In 1989/90 the volume of food aid to be provided by Canada is expected to drop to 600 000 tons from 1 million tons in 1988/89; while the corresponding estimate for the United States shows a fall to 4.5 million tons in 1989/90 from 5.5 million tons in 1988/89.



40. Total contributions from 22 donors to the International Emergency Food Reserve (IEFR) for 1989, as of end August 1989, amounted to 394 000 tons of cereals and 32 000 tons of other food commodities. Total contributions to the IEFR in cereals so far this year are at about the average level pledged at the corresponding period during past years. However, considerable amounts from 1989 IEFR pledges had already been called forward to meet emergency requirements during 1988. Thus, presently uncommitted resources from 1989 pledges to the Reserve are well below anticipated emergency requirements during the remaining part of the year.

#### Pests and diseases

##### The screwworm

41. In 1989, FAO reported the presence in North Africa of an insect known as the American screwworm fly 1/ (*Cochliomyia hominivorax*), a pest that has caused widespread damage to livestock in the Western Hemisphere, with economic consequences counted in millions of dollars a year. This pest, unless checked, could pose a similar threat to livestock and to human populations as well as in Africa, the Middle East and southern Europe, where until now it has been unknown.

42. It is feared that given tropical and subtropical climatic conditions, this insect could spread rapidly. The insect poses a particular problem to wildlife, which cannot be as easily monitored. Eradication can be successful, however, using the "sterile insect technique", along with careful control of animal movement and an inspection/treatment programme, as has been successfully carried out in the United States and Mexico. The costs of the programme, however, are high.

43. According to the information available to FAO, breeding populations appear to have been established. However, as of 30 June 1989, the infestation had been reported only in Libya. Surveys undertaken in neighbouring countries have not demonstrated the presence of this pest.

44. FAO held a preparatory meeting, 5-6 June 1989, on the formulation of a regional strategy for the control/eradication of the screwworm in North Africa. Recommendations and follow-up action by governments, FAO and other forms of international cooperation were agreed upon.

##### Update of the locust situation

45. Swarms, which moved from southwestern Mali eastwards through northern Burkina Faso and into southwestern Niger during late May 1989, have not been reported since. The swarms have probably dispersed but scattered adults continued to move slowly eastwards.

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1/ The screwworm is a parasite, in which the female is attracted to wounds, even those as small as tick bites, where she deposits a batch of eggs that hatch into larvae within a few hours. Non-treatment leads to debilitation and even death. Any warm-blooded animal, including humans, is susceptible to the screwworm. The insect is a strong flier and can move long distances.



46. Hopper bands were reported in Djibouti during early June with groups of maturing adults later in the month. Similar infestations were likely to have occurred on the western part of the Northern Somali coastal plain, southern Eritrea, and in other parts of Ethiopia. Scattered bands have been also found at several places in the Yemen AR highlands and Yemen PDR coastal plain.

47. By late August, however, the desert locust situation was considered generally calm. Only Pakistan reported significant infestations, while smaller infestations were present in Mauritania and in Yemen, A.R. However, widespread and substantial rains fell in the summer breeding areas of the Sahel and south-west Asia. Breeding was already in progress in both these areas and will continue, resulting in some small hopper bands and swarms forming in September.

#### Fertilizer prices in 1989

48. Prices for most types of fertilizers declined in the first half of 1989 after the sharp rises of the previous year (Table 5). This was mainly due to the weakening in the demand of major importers, particularly China and other main Asian countries. Fertilizer prices are likely to remain relatively low during the rest of the year unless large quantities of fertilizers are soon contracted.

49. In July 1986 urea prices were 35% lower than a year earlier. The reluctance of China to buy resulted in a build-up in major suppliers' inventories, which contributed to the weakening of urea prices and in turn caused other major importers to withhold contracts in the hope that prices would go down further. In the case of ammonium sulphate, the drop in July of about 6% from the level reached in June, after a period of relative stability since September 1988, was mainly due to competition between the Republic of Korea and Eastern European producers and Japanese and Western European suppliers.

50. The prices of diammonium phosphate continually declined in 1989 up to June due to a lack of demand from major importers. Renewed buying by India and Pakistan in July resulted in an increase of more than 6% in the price of diammonium phosphate. In the case of triple superphosphate, reduced purchases by the USSR contributed to lower prices during 1989. The stability of potassium chloride prices in the first seven months of 1989 was also due to reduced demand, as well as the decision by most Canadian plants to remain shut in July in an effort to stabilize the market.

#### Recent Developments in a Long-Term Context

51. The years 1986-88 marked a turning point in the long-term pattern of world per caput food production, which had been characterized by relatively steady growth. Although global shortfalls have not been uncommon in past decades (global declines in per caput food output have occurred broadly every three years), and have sometimes assumed major proportions (e.g., in 1972-74 and 1979-80), according to data available the cumulative 3.5% reduction in per caput world food output in 1986-88 has had no precedent since the end of World War II.



TABLE 5. EXPORT PRICES OF FERTILIZERS

	Ammonium Sulphate W. Europe	Triple Superphosphate U.S. Gulf	Potassium Chloride W. Europe	Diammonium Phosphate U.S. Gulf
	..... \$ per m.t. ....			
1988				
November	62	164	95	204
December	63	164	95	198
1989				
January	64	164	100	197
February	64	164	104	197
March	64	158	104	184
April	64	157	104	178
May	64	149	104	177
June	63	141	104	161
July	59	141	104	172

Source: FAO, Land and Water Development Division.



52. A closer insight of these developments can be derived from the patterns and changes in the actual volume of staples produced per person in the different regions (Table 6).<sup>1/</sup> The following main features stand out:

- World production of staple food is adequate to cover every person's basic caloric needs, but is unevenly distributed.

- Overall, world production steadily rose from 348 kg per caput/year in the early 1960s to 408 kg per caput/year during 1980-85, an increment of 60 kg or 17% in 20 years. The 1986-88 shortfall resulted, however, in a reduction of 11 kg or 3% from the peak levels of 1980-85.

- A wide gap of 463 kg per caput/year currently exists between staple food output of developed and developing countries as a whole. In other words, developing countries' production only accounts for 38% of that of developed countries. Furthermore, as differentials in production growth from 1961-65 to 1986-88 moved in favour of industrial countries, the gap widened significantly. During this period, per caput staple food output increased 169 kg or 29% in developed countries, but only 41 kg or 17% in developing countries.

- Levels of and changes in staple food production have been very uneven among developing regions. Asian centrally planned economies (ACPE) made the most outstanding progress, their volume of per caput output increasing by nearly half between 1961-65 and 1986-88. Thus, while the level of ACPE's per caput output in 1961-65 was close to the developing country average, it was 22% higher in 1986-88. The Far East region (excluding the ACPE) also recorded a significant improvement, although its level of output remained below the developing country average.

- Performances were uneven in Latin America and the Caribbean and the Near East. In the former, per caput output levels remained relatively unchanged between the mid-1960s and the late 1970s, substantially increased in 1981-85, but fell in 1986-88 back to the levels of the 1970s. In the Near East, pronounced fluctuations between periods resulted in an overall stagnation in per caput output levels.

- A notable deterioration occurred in Africa, where staple food output consistently lagged behind population growth during 1961-65 and 1981-85, and exceeded it only marginally in 1986-88. Overall, per caput staple food production in Africa declined 38 Kg, or 17%, between 1961-65 and 1986-88. This is particularly serious in view of the large proportion of Africa's food production used for direct human consumption in relation to feed and other non food uses, which reduces the margin for adjusting direct human consumption to changes in supply and prices.

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<sup>1/</sup> Staple food comprises cereals, pulses, roots and tubers, in grain equivalent. The share of cereals in the total (currently about 93% in developed and 88% in developing countries) has tended to increase overtime, particularly in Latin America and the Caribbean.



TABLE 6 PER CAPUT OUTPUT OF STAPLE FOOD (CEREALS, PULSES, ROOTS AND TUBERS IN GRAIN EQUIVALENT) 1961-65 TO 1986-88

Region/Country Group	1961-65	1966-70	1971-75	1976-80	1981-85	1986-88
	..... Kg. per caput per year.....					
Africa	230	224	219	201	186	192
Far East	222	224	228	240	254	246
Latin America/Caribbean	284	301	301	297	317	299
Near East	290	284	276	287	272	289
Asian Centrally Planned Ec.	249	281	299	321	358	364
Total Developing Countries	243	255	262	271	286	284
North America	968	1 064	1 162	1 304	1 390	1 194
Oceania	855	1 042	1 013	1 182	1 409	1 268
Western Europe	376	412	452	468	527	541
EEC	362	393	431	445	507	531
Eastern Europe and USSR	647	761	805	846	769	845
Total Developed Countries	578	650	696	746	762	747
World	348	373	384	398	408	397

Source: FAO, Policy Analysis Division



53. The above trends raise a number of important issues that can only be briefly mentioned here. In the case of developed countries strong farm support in many countries, together with rapid technological progress and intensive use of land and capital, brought about a rapid increase in per caput food output that ultimately generated the by now well-known problems of oversupply, depressed prices and burdensome stocks. The decline in most recent years was due, other than the North American drought in 1988, to policy measures aimed at bringing about a better balance to supply and demand and in response to low world prices. Awareness of the growing problems of overexploitation of land and water resources, and measures to preserve the environment, also have played a role in this process.<sup>1/</sup>

54. As regards the developing world, the slow progress or outright decline in per caput staple food production in many countries raises worrisome questions. Is the Green Revolution showing its limits? Can the long-term decline in per caput food production be arrested in Africa where the population is projected to more than double by the year 2020? Can the densely populated nations in Asia resume the fast pace of per caput production growth in past years? It may be recalled that China has not yet surpassed its record per caput cereal production level of 1984 (347 Kg compared to 320 Kg in 1988), and India only surpassed its record total production of 1983 five years later, but with 70 million extra people to feed, no improvement was made in per caput terms. In sum, are we witnessing a temporary downturn or entering a new phase of slower growth/deterioration in per caput food output?

55. This issue assumes a disquieting dimension given the growing consensus amongst scientists that man is altering the world's climate. This would have long-term effects that are impossible to predict with accuracy, but which are likely to be unfavourable to agriculture in many areas though favourable in some others. Five out of the six hottest years in the current century were in the 1980s. The extent to which this was a cyclical phenomenon or shows a new trend, is not yet possible to say. At the same time, an unusual sequence of severe droughts and other climatic disasters have affected food and agriculture in many countries during the 1980s. These events show the urgency of closely monitoring the global food supply situation in the coming years, and of adequate growth in food production, economic progress and sustainable development.

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<sup>1/</sup> Measures to place farm land under the US Conservation Reserve Programme are an example.



## AGRICULTURAL TRADE

56. World agricultural trade continued to expand strongly in 1988, though moderately less than total merchandise trade. The growth in exports of crop and livestock products accelerated for the third consecutive year in 1988, to about 14%, bringing the dollar value of trade in 1988 to more than one-third above its value in 1985 (Table 7).<sup>1/</sup> Trade in fisheries also remained dynamic although less so than in 1987 (see Fisheries section).

57. Growth in crop and livestock exports was the same in developed and developing countries, but occurred in a widely different context. While for developed countries it was the third consecutive year of buoyant growth, the 1988 favourable trade outturn in the developing world followed a sequence of very uneven performances in earlier years. There were also wide regional variations in export growth. Among the developing country regions, the Far East showed the most striking performance in 1988-- a 22% increase in exports, twice the rate of the already high figure of the previous year. Latin America and the Caribbean staged the strongest recovery from the setback of the previous year, and the Near East improved upon its already good performance of 1987. However, Africa's small increase in exports of crop and livestock products in 1988 was totally inadequate to compensate for the disappointing performances in recent years.

58. While all developing country regions except Africa significantly expanded their agricultural exports in 1988, an even faster expansion occurred in imports (Table 8). Thus, the export/import ratio, which had risen from 0.9 in 1981 to 1.25 in 1986--largely because of austerity measures restricting imports--again fell to 1.15 in 1987 and further to 1.1 in 1988. The most imbalanced developments occurred in Africa where, although both exports and imports showed little dynamism during 1980-88, imports rose faster. As a consequence, Africa became a net agricultural importer during 1981-85, temporarily reversed this position in 1986-87, but in 1988 exports again failed to exceed imports.

59. A global estimate of agricultural trade in 1989 cannot be attempted because data for products other than cereals are not yet available. Current forecasts are for world 1989/90 cereal trade to about 205 million tons, close to the volume of 1988/89, but below the record 219 million tons of 1984/85. Only four countries--China, Japan, the Republic of Korea and the USSR--would account for almost half of total imports, the USSR being again the largest buyer, with wheat and coarse grain imports currently forecast at 34 million tons. In the case of the other major agricultural commodities, the volume of trade is also likely to remain dynamic, but with unstable price conditions in individual markets--the recent case of coffee is an example--it is difficult to predict how, on balance, the value of agricultural trade will move in 1989.

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<sup>1/</sup> The US dollar having depreciated 4.6% against SDR between 1987 and 1988, the increase in agricultural exports in 1988 expressed in SDR would only be approximately 9%.



TABLE 7.- VALUE OF WORLD EXPORTS OF AGRICULTURAL (CROPS AND LIVESTOCK),  
FISHERY AND FOREST PRODUCTS, AT CURRENT PRICES, 1986-88

	1986	1987	1988	Change		Average
				1986 to 1987	1987 to 1988	of annual changes 1980 to 1988
... 000 million \$ ...						..... % .....
Agricultural products	228.5	251.8	287.2	10.2	14.1	4.2
Total developing countries	74.6	74.0	84.5	-0.7	14.1	3.1
Total developed countries	153.9	177.7	202.7	15.5	14.1	4.7
Fishery products	23.1	28.1	31.4	21.6	11.8	7.9
Total developing countries	10.5	12.7	14.4	21.0	12.6	10.4
Total developed countries	12.2	15.3	17.0	25.4	11.1	6.9
Forest products	57.9	73.1	...	26.2	...	-6.0
Total developing countries	7.7	10.1	...	30.2	...	-8.4
Total developed countries	50.2	63.0	...	25.5	...	-5.6
TOTAL	309.5	353.0	...	13.8	...	2.2
Total developing countries	92.8	96.8	...	4.0	...	2.3
Total developed countries	216.3	256.0	...	18.0	...	2.2
Share of developing countries	30.0	27.4	...			

Note: Figures may not add up because of rounding. Annual changes and their averages have been calculated from unrounded figures.

Source. FAO.



TABLE 8.- VALUE OF WORLD AGRICULTURAL TRADE (CROPS AND LIVESTOCK),  
AT CURRENT PRICES, BY REGION, 1986-88

	1986	1987	1988	Change		Average of annual changes	
				1986 to 1987	1987 to 1988	1980 to 1988	
						current prices	volume
	... 000 million \$ ...			..... % .....			
Developing market economies							
Export	66.1	64.3	74.1	-2.8	15.3	2.4	2.7
Import	53.8	56.8	67.3	5.6	18.4	4.8	4.4
Africa							
Export	10.2	9.0	9.2	-12.1	1.2	-0.9	-0.3
Import	8.4	8.1	9.2	-3.6	13.9	2.0	3.6
Far East							
Export	18.8	21.0	25.6	11.3	22.1	5.3	3.9
Import	16.3	19.1	24.3	17.4	26.9	7.3	5.8
Latin America							
Export	31.2	28.0	32.5	-10.0	16.1	1.8	2.0
Import	10.3	9.8	11.5	-4.5	17.0	2.3	2.6
Near East							
Export	5.3	5.7	6.3	7.8	10.8	3.9	9.6
Import	18.1	19.0	21.5	5.0	13.2	5.8	5.5
Asian centrally planned							
Export	8.5	9.8	10.4	15.3	6.3	10.7	10.7
Import	5.9	8.0	10.1	35.7	26.1	5.8	5.2
Total developing countries							
Export	74.6	74.0	84.5	-0.7	14.1	3.1	3.3
Import	59.7	64.8	77.4	8.6	19.4	4.9	4.3
Developed market economies							
Export	144.8	168.0	192.5	16.0	14.6	5.0	2.7
Import	167.4	188.9	209.3	12.8	10.8	4.3	1.7
Eastern Europe and USSR							
Export	9.1	9.7	10.3	6.9	5.5	0.3	0.6
Import	23.4	24.3	26.8	3.8	10.5	1.7	1.4
Total developed countries							
Export	153.9	177.7	202.7	15.5	14.1	4.7	2.5
Import	190.8	213.2	236.1	11.7	10.8	3.9	1.6
World							
Export	228.5	251.8	287.2	10.2	14.1	4.2	2.7
Import	250.5	278.0	313.5	11.0	12.8	4.0	2.5
Share of developing countries in world agric. trade	..... % .....						
Export	32.6	29.4	29.4				
Import	23.8	23.3	24.7				

Note: Figures may not add up because of rounding. Annual changes and their averages have been calculated from unrounded figures.

Source: FAO.



60. Wheat imports in 1989/90 would only increase about 1 million tons over the previous year's level, constrained by tight supplies and high prices, favourable domestic cereal supply conditions in many importing countries and budgetary restrictions arising from balance of payment and debt problems. Thus, imports of developing countries are expected to stagnate for the third consecutive year.

61. Imports of coarse grain are forecast to be somewhat smaller than in 1988/89, as a decline in purchases by the USSR and other European countries would more than offset an increase by developing countries. The 3 million ton expected increase in imports by developing countries (to a total of 40 million tons) would mainly stem from higher import demand from Asia, particularly the Republic of Korea, Saudi Arabia and Turkey. Purchases of coarse grains by Africa are not expected to increase, due to generally favourable domestic crop prospects, while those by Latin America and the Caribbean will remain constrained by high prices and external financing difficulties.

62. World trade in rice in 1989 is currently forecast at 13.1 million tons, almost one-quarter more than the estimate for 1988. The bulk of the increase in exports is likely to be in Asia, with Thailand's shipments reaching record levels, but significantly higher exports are also expected by North America. The increase in rice imports would mainly stem from larger purchases by Asian countries, including Bangladesh, Indonesia, Iraq and Malaysia. Africa's imports are also anticipated to rise by 24% from the low level of 1988.

#### Agricultural export prices and terms of trade

63. Export prices of several of the main traded agricultural commodities continued to strengthen during the first half of 1989 (Table 9). After having risen 28% in 1988 over the average of the previous year, wheat prices rose a further 19% during January/July 1989 from the average of 1988. Prices of maize rose 7.5% during the same period; those of sugar 15%, with a strong upsurge in July due to large import requirements in particular by the USSR--and those of cotton lint and beef approximately 7-8%, partially recovering from the depressed levels of 1988. On the other hand, coffee prices, which had only shown a relatively modest overall strengthening last year dropped substantially during 1989, particularly in recent months. The continuing fall in cocoa prices, which were 17% lower in January-July 1989 than the already depressed average levels of 1988, was also of particular concern for developing country exporters.

64. As had been anticipated, the overall strengthening in prices of most agricultural commodities during 1988 resulted in a general improvement in terms of trade of agricultural products for manufactured goods and crude petroleum (Table 10). However, this welcome development benefited relatively more developed market economies as price increases mostly accrued to the temperate products they chiefly export. Thus, North America, and even more markedly Oceania, recorded a significant improvement in both net barter and income terms of trade in 1988. The improvement was less pronounced in Western Europe, while Eastern Europe and the USSR recorded a further fall in their net barter terms of trade.



TABLE 9. EXPORT PRICES OF SELECTED COMMODITIES, 1985-88

Year	Wheat	Maize	Rice	Sugar	Coffee	Cocoa beans	Tea	Cotton	Jute	Beef
	U.S. no. 2 hard winter ord. prot.	U.S. no. 2 yellow	Thailand 100% II gr.	Raw, ISA daily, f.o.b	Green 1976 ICA	U.K. exp. London spot	London Auction	Lint Memphis territory	Bangladesh Chittagong f.o.b., BWC	Argentina f.o.b. all beef
	.....	.....	.....	.....	..... \$ per m.t.	.....	.....	.....	.....	.....
1985	138	112	227	90	2 932	2 255	2 074	1 572	613	2 932
1986	115	88	225	133	3 770	2 068	1 930	1 263	325	3 770
1987	114	76	244	149	2 379	1 997	1 709	1 634	389	2 379
1988	146	107	311	225	2 557	1 584	1 790	1 521	440	1 373
1987	September	73	263	129	2 309	1 989	1 607	1 831	415	1 678
	October	79	287	147	2 467	1 912	1 846	1 692	415	1 647
	November	82	285	162	2 548	1 939	1 926	1 686	415	1 765
	December	83	279	183	2 538	1 898	2 072	1 648	415	1 462
1988	January	87	299	213	2 536	1 973	2 128	1 604	440	1 498
	February	89	320	186	2 661	1 798	1 933	1 539	440	1 406
	March	90	313	188	2 595	1 685	1 916	1 560	440	1 301
	April	89	314	188	2 564	1 649	1 846	1 596	440	1 247
	May	89	307	196	2 565	1 707	1 707	1 660	440	1 289
	June	120	311	231	2 617	1 627	1 661	1 763	440	1 352
	July	126	315	309	2 506	1 609	1 462	1 630	440	1 178
	August	121	315	246	2 368	1 448	1 484	1 335	440	1 339
	September	122	315	224	2 509	1 237	1 645	1 337	440	1 354
	October	121	315	227	2 512	1 303	1 759	1 370	440	1 380
	November	114	315	239	2 513	1 473	1 794	1 408	440	1 673
	December	118	299	248	2 735	1 504	1 936	1 451	440	1 463
1989	January	118	285	213	2 804	1 437	1 931	1 482	440	1 578
	February	118	286	232	2 594	1 482	1 819	1 501	440	1 581
	March	118	295	254	2 585	1 409	1 772	1 542	440	1 424
	April	114	301	268	2 590	1 291	1 723	1 633	440	1 451
	May	117	325	264	2 554	1 206	1 707	1 695	440	1 380
	June	113	344	279	2 312	1 252	1 797	1 717	440	...
	July	109	...	309	1 697	1 345	1 859	1 825	440	...

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Source: FAO.



TABLE 10.- NET BARTER AND INCOME TERMS OF TRADE OF AGRICULTURAL EXPORTS FOR  
MANUFACTURED GOODS AND CRUDE PETROLEUM, 1980-88

	1980	1981	1982	1983	1984	1985	1986	1987	1988
	..... 1979-81=100 .....								
NET BARTER TERMS OF TRADE									
Developed market economies	101	102	97	100	102	100	102	92	100
North America	101	107	98	105	114	109	97	77	89
Oceania	86	111	99	103	95	76	70	66	91
Western Europe	106	95	92	89	87	84	91	89	92
Eastern Europe and USSR	104	101	96	98	96	90	93	82	81
Total developed countries	102	102	97	99	102	99	102	91	98
Developing market economies	109	94	85	89	103	92	92	78	81
Africa	104	93	85	89	120	106	110	87	84
Far East	106	98	80	95	105	93	79	79	87
Latin America	113	93	90	87	102	90	97	79	83
Near East	101	98	83	84	93	96	86	70	57
Asian centrally planned economies	95	110	106	105	111	82	77	80	85
Total developing countries	108	95	87	90	103	90	89	78	80
INCOME TERMS OF TRADE									
Developed market economies	105	108	100	102	109	101	102	102	113
North America	104	112	98	103	113	87	73	71	87
Oceania	106	110	104	96	102	107	98	89	108
Western Europe	105	104	99	102	108	110	124	127	133
Eastern Europe and USSR	102	101	96	93	91	90	91	84	86
Total developed countries	105	108	100	101	108	100	102	101	111
Developing market economies	104	102	94	102	118	110	106	87	97
Africa	105	92	86	86	103	100	109	84	81
Far East	106	105	94	102	126	109	102	97	113
Latin America	104	103	94	105	118	115	106	83	92
Near East	99	113	113	115	126	107	105	98	106
Asian centrally planned countries	105	103	103	117	142	159	181	177	180
Total developing countries	105	102	95	103	119	113	111	94	102

Source: FAO.



65. The improvement in the terms of trade of agricultural exports of developing countries as a whole is subject to qualification. Its magnitude was disappointing in the light of the deterioration that took place in earlier years. Also, Africa did not share in the improvement and the Near East could only compensate for a further loss in net barter terms of trade through a sharp increase in the volume of its agricultural exports. The most favourable regional development occurred in the Far East, whose net barter terms of trade improved by 10% due to the strengthening in prices of cereals, particularly rice, and vegetable oils. With increased volume of shipments, the purchasing power of agricultural exports (income terms of trade) rose almost 17% in the Far East, the second best year-to-year performance of the 1980s. Latin America and the Caribbean also experienced an improved situation, although the region's net barter and income terms of trade remained 17% and 8% respectively below the level of 1979-81. In the case of Africa, the deterioration in agricultural net barter terms of trade in 1988--largely caused by the collapse in cocoa prices coupled with a weakness in beverage crop prices generally--and the inability to expand the volume of agricultural shipments, combined to further depress the economic role of agricultural exports in the region.<sup>1/</sup> By 1988 Africa's agricultural exports could purchase 19% less manufactured goods and crude petroleum than in 1979-81.

#### EXTERNAL ASSISTANCE TO AGRICULTURE

66. Later information on official commitments of external commitments to agriculture (OCA) and on disbursements, than that shown in Tables 11 and 12 of document C 89/2, The State of Food and Agriculture and Tables 12.1 and 12.2 of document C 89/18 International Agricultural Adjustment, is not available. The estimate for OCA (broad definition) for 1987 remains at \$13.4 billion in current prices (\$7.3 billion at 1975 prices) 70% of which was on concessional terms, and 58% of which was from multilateral sources.

67. The World Bank announced on 1 June 1989 its adoption of operational guidelines to provide support to assist heavily indebted countries through reductions in their debt and debt servicing payments. This new phase in the World Bank's debt strategy will enable debt-reduction to play a key role in the medium term financing plans of these countries. The Bank will provide loans for heavily indebted countries having medium-term adjustment policies and programmes to reduce their stock of debt or for credit enhancement programmes. The amounts set aside for debt reduction will be determined on a case-by-case basis, but a figure of about 25% of a country's adjustment lending programme over a three year period is used as a guideline.

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<sup>1/</sup> Cocoa beans account for approximately 17% of all African exports of agricultural, fishery and forestry products.



## FISHERIES

### Production in 1988

68. After a pause in 1987, total world fishery production in 1988 resumed the sustained growth achieved since the mid 1970s. Reports from major fishing nations indicate that total production in 1988 exceeded 96 million tons, an increase of some 3.8 million tons, or 4%, on the catches of the previous year, an increase well above previous indicators (Table 11).

69. The fisheries for small pelagic species off the South Eastern Pacific were again the main contributor to the overall increase in the world catch. These fisheries had been unfavourably affected by the "El Niño" warm currents in 1987 but in 1988 output by Chile, Ecuador and Peru rose by some 1.5 million tons. Another important factor was the continued substantial growth in fish production by China whose output increased by a further 1 million tons, to a new record of 10.4 million tons. The two other world major producers, Japan and the USSR, maintained output at their recent high levels of 11.9 and 11.3 million tons respectively. In North America, both Canada and the USA achieved new peaks of output; the latter slightly exceeded the 5.7 million tons caught in 1987 and Canada's catch rose by over 230 000 tons to a record of 1.7 million tons.

70. Higher catches were also experienced in other countries and regions. Preliminary information indicates a further steady if small increase in total output by African countries and expansion in production by Asian countries, notably India (4 percent), Indonesia (10 percent) and Thailand (8 percent). The rapid growth in New Zealand's fish production, boosted by joint venture enterprises, continued with an increase in catch of 12 percent. With the exception of Denmark, where output rose by 13 percent, fish production in the European Community showed little change from recent levels.

71. Primarily as a result of the higher catches of small pelagic species, the greater part of the overall increase in fish production in 1988 was used for reduction to fish meal; very favourable fish meal/soya meal price ratios and low stock levels encouraged a marked growth in fish meal production which rose by some 400 000 tons. Thus, although supplies of fish for direct human consumption continued to grow in 1988, the rate of increase (2 percent) was much less than the overall expansion in the total world catch (Table 12).

### Trade in 1988

72. Short supplies of some important species and sustained demand further boosted the value of international fish trade and fish prices. The data presently available indicates that the value of fish trade in 1988 rose by some 12 percent to reach well over US \$31 billion (Table 13). Exports by developing countries exceeded US \$14 billion, double those achieved in 1984.

73. The USA became the world's leading exporter of fishery products in 1988; taking into account the US \$220 million received for transshipments to foreign vessels in the North Pacific, the USA achieved a remarkable 30 percent growth in fish exports whose total value exceeded US \$2.4 billion. The other major exporters, Canada and Denmark, also significantly expanded their sales.



TABLE 11. CATCH OF FISH, CRUSTACEANS AND MOLLUSCS INCLUDING ALL AQUATIC ORGANISMS

	1981	1982	1983	1984	1985	1986	1987	1988	Change 1987 to 1988	Annual rate of change 1981 to 1988
	..... 000 m.t. ....								..... % .....	
World	74 778	76 063	77 597	83 711	85 988	92 349	92 693	96 480	4.1	3.7
Catches in inland waters	8 150	8 512	9 279	9 900	10 585	11 388	12 192	13 500	10.7	7.3
Catches in marine fishing areas	66 628	68 351	68 318	73 811	75 403	80 961	80 501	82 980	3.1	3.3
by principal producers										
Japan	10 740	10 827	11 255	12 021	11 409	11 976	11 841	11 950	0.9	2.2
USSR	9 566	9 991	9 817	10 593	10 523	11 260	11 160	11 310	1.3	2.2
China	4 377	4 927	5 213	5 927	6 779	8 000	9 346	10 359	10.8	11.9
USA	3 766	3 987	4 257	4 813	4 765	4 943	5 736	5 748	0.2	6.1
Chile	3 394	3 673	3 978	4 499	4 804	5 572	4 814	5 146	6.9	8.3
by main groups of species										
Miscellaneous freshwater fishes	5 451	5 679	6 258	6 613	7 334	7 944	8 521	...		
Cods, hakes, haddock	10 653	10 982	11 223	12 258	12 451	13 535	13 703	...		
Redfishes, basses, congers	5 295	5 402	4 984	5 448	5 208	5 994	5 732	...		
Jacks, mullets, sauries	8 057	7 808	7 967	8 562	8 013	7 182	7 866	...		
Herrings, sardines, anchovies	16 920	17 867	17 503	19 619	21 101	23 968	22 227	...		
Tunas, bonitos, billfishes	2 649	2 796	2 967	3 145	3 179	3 427	3 442	...		
Miscellaneous marine fishes	8 107	8 005	8 194	8 426	8 773	9 510	9 622	...		
Mackerels, snoeks, cutlassfish	3 885	3 852	3 674	4 268	3 828	4 018	3 648	...		
Shrimps, prawns	1 637	1 714	1 791	1 865	1 980	2 002	2 028	...		
Carps, barbels + other cyprinids	707	749	830	880	920	1 019	1 059	...		
Salmons, trouts and smelts	901	838	956	914	1 121	1 044	1 033	...		

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Source: FAO, Fishery Department.



TABLE 12. DISPOSITION OF WORLD CATCH

	1981	1982	1983	1984	1985	1986	1987	1988	Change 1987 to 1988	Annual rate of change 1981 to 1988
World	74 777	76 863	77 598	83 710	85 988	92 349	92 693	96 480	4.1	3.7
For human consumption	55 058	55 325	56 530	59 406	60 715	65 514	67 115	68 380	1.9	3.2
Marketing fresh	15 323	14 301	14 731	15 446	16 112	19 235	20 187	...	...	...
Freezing	17 165	18 661	18 862	20 156	20 388	21 784	22 107	...	...	...
Curing	11 539	11 653	11 832	12 193	12 745	13 045	13 191	...	...	...
Canning	11 031	10 710	11 105	11 611	11 470	11 450	11 630	...	...	...
For other purposes	19 719	21 538	21 068	24 304	25 273	26 835	25 578	...	...	...
Reduction	18 979	20 788	20 268	23 404	24 273	25 835	24 578	...	...	...
Miscellaneous purposes	750	750	800	900	1 000	1 000	1 000	...	...	...

Source: FAO, Fishery Department.



TABLE 13. TRADE IN FISHERIES

	1981	1982	1983	1984	1985	1986	1987	1988	Change 1987 to 1988	Annual rate of change 1981 to 1988
..... million US \$ .....									..... % .....	
World										
Exports	16 067	15 556	15 887	16 210	17 327	23 057	28 080	31 389	11.8	10.6
Imports	16 660	16 801	17 097	17 171	18 559	24 195	30 552	34 695	13.6	11.6
Total developing countries										
Exports	6 708	6 740	6 780	7 160	7 677	10 518	12 751	14 361	12.6	12.1
Imports	2 705	2 630	2 562	2 451	2 464	3 027	3 732	4 554	22.2	8.4
Total developed countries										
Exports	9 358	8 815	9 107	9 050	9 650	12 238	15 329	17 028	11.1	9.5
Imports	13 955	14 171	14 535	14 720	16 095	21 168	26 820	30 141	12.4	12.2
Major exporters										
Canada	1 261	1 300	1 277	1 272	1 359	1 752	2 092	2 187	4.5	8.6
USA	1 163	1 068	1 048	1 003	1 162	1 481	1 836	2 442	33.0	12.1
Denmark	940	901	928	899	953	1 341	1 751	1 854	5.9	11.3
China (Taiwan Province)	771	680	780	825	956	1 422	1 674	...	...	...
Korea Republic	839	764	740	782	797	1 171	1 506	1 784	18.5	12.8
Norway	1 002	888	978	903	922	1 171	1 475	1 606	8.9	7.9
Thailand	412	482	545	633	675	1 012	1 261	1 631	29.3	22.4
Major importers										
Japan	3 793	4 028	4 015	4 207	4 744	6 594	8 308	10 664	28.4	31.0
USA	2 988	3 175	3 621	3 702	4 052	4 785	5 662	5 389	-4.8	9.1
France	1 043	1 036	1 050	976	1 040	1 510	2 022	2 043	1.0	11.5
Italy	720	753	735	742	985	1 265	1 738	1 918	10.4	16.0
UK	994	885	911	875	941	1 216	1 387	1 577	13.7	7.5
Spain	481	526	398	390	412	722	1 322	1 503	13.7	23.0
Germany F.R.	819	823	831	801	820	1 113	1 270	1 384	9.0	8.4
..... % .....										
Exports as share of catches										
Total developing countries	9.0	8.9	8.7	8.6	8.9	11.4	13.8	14.9		
Total developed countries	12.5	11.6	11.7	10.8	11.2	13.3	16.5	17.6		

Source: FAO, Fishery Department.



74. Japan was again by far the world's major importer of fishery products; its purchases rose by a further 28 percent in value to a total representing almost one third of world fish trade. Imports by the USA declined in both quantity and value but purchases by France, rising by over 12 percent, reached a level more than twice the value of its imports in the early 1980s.

#### Assessment and Outlook

75. A notable expansion in the world catch of fish has been achieved in the 1980s, with an average annual growth rate of 3.8 percent, almost double that of the previous decade when it was being postulated that the limits of the resources were being approached.

76. A number of factors can be identified as prime influences upon this resumption of faster rates of growth. Fish production in 1988 was some 22 million tons greater than in 1981. About one quarter of this increase is attributable to the remarkable development of China's fisheries. Output by China has expanded in all sectors but the most rapid growth has been in inland aquaculture operations which between 1982 and 1988 have been responsible for an increase in output of 2.7 million tons. Greater areas under cultivation and, particularly, higher yields have both contributed to this growth; average yields per hectare, for example, have risen from 0.3 tons to over 1.0 tons.

77. Another major factor has been the substantial renewal of the fisheries, particularly in the South Eastern Pacific, for small pelagic species, although it should be noted that these fisheries, which are notoriously subject to considerable fluctuations, have merely resumed the high levels attained in the early 1970s.

78. Catches of Alaska pollack, notably by the USA and the USSR, have also played a significant role in this growth in the world catch. There have been slower but, in value terms, important increases in such species as shrimps and prawns, squids and molluscs.

79. Some slight expansion in the catches of marine fish can be anticipated provided that correct management practices are applied by the fishing nations. Strict management is also necessary to avoid loss of catch and over exploitation. The long-term and sustainable growth in overall fish production, however, appears to depend heavily upon the continued development of aquaculture. There would, in particular, appear to be opportunities for further notable increases in aquaculture output by China which already accounts for over a half of total world production in this sector. There is clearly scope for additional growth in both yields and areas under cultivation. A major constraint may be the availability of feed. Aquaculture is becoming an increasingly significant consumer of fish meal; it is estimated that some 650 000 tons of high-quality fishmeal, involving the reduction of over 3 million tons (liveweight) of fish, were used in aquaculture operations in 1988.

80. The outlook for 1989 and 1990 is for continued impetus to both fish production and trade from high levels of demand, shortages of many preferred species and rising prices. The favourable markets for fish meal are likely to be an important factor; trade estimates for 1989 postulate a requirement for an additional 1 million tons of fish to permit a 200 000 ton increase in meal production and a further 20 percent growth in exports.



**FORESTRY****Production and trade in 1988**

81. Out of the total 3 418 million m3 world roundwood production in 1988, fuelwood remained the major forest product accounting for 1 758 million m3 (Table 14). 1 475 million m3 of fuelwood was produced in developing countries, representing 80% percent of their roundwood production and contributing some 18% of their energy needs. In some African countries, however, the percentage of energy from wood reaches 80-85 percent.
82. A striking feature of the production of the main forest products in 1988 was the continuation of the strong growth of pulp and paper. The sector set new records, both in production and consumption, and achieved very high levels of capacity utilization. Investment in the sector continued to grow strongly in both developed and developing areas, but pulp and paper capacity expansion up to the year 1992 was forecast to grow much more quickly in developing countries—4.5% per year, against a world growth rate of 2.2 percent per year.
83. The mechanical wood products sector reflected the varying pace of housing activity. In North America the previously steady growth of sawnwood and wood based panels was reversed due to the decline in housing starts. On the other hand the improved situation of the housing sector in Europe, after many years of stagnation, contributed to a new 72 million m3 record level for coniferous sawnwood consumption. In Japan, despite a moderate decrease of the housing activity, the strong appreciation of the yen continued to favour increase in consumption of imported wood products, both from temperate and tropical regions, while domestic production fell back.
84. There was a marginal increase in 1988 of 1.5 percent in the export of manufactured products such as sawnwood and plywood, with a decline in the trade of logs, reflecting efforts to add value through forest-based industries and to provide employment and opportunities for economic development.
85. Continuing the trend of recent years and in line with current trade policy, in 1988 imports of Japan included an increasing share of processed tropical products. Japan's imports of tropical sawnwood grew by some 19% and those of tropical plywood by some 13%, while imports of logs decreased 15%. In Europe demand for tropical wood products continued to weaken reflecting a tendency to substitute temperate zone species for tropical wood, both for reasons of price and uncertainty on the reliability of supply. Total trade in tropical wood products is estimated to have remained stable in 1988 at about US \$7.3 billion.
86. In contrast with domestic sales, export trade was buoyant for wood products in the United States. The weakening of the US dollar contributed to an increase of some 35% above 1987 levels, to a total US \$5.3 billion. The recently signed US/Canada free trade agreement will lead to the reduction in tariffs on a number of wood products over the next several years which were already set at a low level.



TABLE 14. OUTPUT OF MAIN FOREST PRODUCTS, DEVELOPING AND DEVELOPED COUNTRIES, 1986-88

	1986	Output 1987	1988	Change 1987 to 1988	Annual rate of change 1981 to 1988
..... million m <sup>3</sup> .....				.....%	.....
<b>ROUNDWOOD</b>	3 254	3 352	3 418	2.0	2.0
Total, developing countries	1 781	1 819	1 860	2.2	2.1
Total, developed countries	1 473	1 533	1 558	1.6	1.9
<b>Fuelwood and charcoal</b>	1 678	1 719	1 758	2.2	2.2
Total, developing countries	1 413	1 444	1 475	2.1	2.2
Total, developed countries	264	275	283	2.8	2.4
<b>Industrial roundwood</b>	1 577	1 633	1 660	1.6	1.7
Total, developing countries	368	375	385	2.7	1.7
Total, developed countries	1 208	1 258	1 275	1.3	1.8
<b>PROCESSED WOOD PRODUCTS</b>					
<b>Sawnwood and sleepers</b>	482	502	504	0.4	1.5
Total, developing countries	106	110	112	1.4	2.8
Total, developed countries	375	392	392	0.1	1.1
<b>Wood-based panels</b>	118	122	125	2.9	2.8
Total, developing countries	20	22	23	6.3	6.6
Total, developed countries	98	100	102	2.1	2.1
..... million tons .....				..... % .....	
<b>Paper and paperboard</b>	202	213	220	3.7	3.3
Total, developing countries	29	32	33	3.2	6.7
Total, developed countries	172	181	187	3.4	2.8
<b>Pulp for paper</b>	147	152	159	4.5	2.7
Total, developing countries	19	20	21	7.3	5.9
Total, developed countries	128	133	138	4.1	2.3

Source: FAO, Forestry Department.



### Trade Surcharge

87. The increasing population pressure associated with the alienation of forest land to agriculture and continued dependence on fuelwood are considered the main cause of the deforestation of tropical moist forests. Commercial logging plays a limited role aggravated by the access of new settlers into the forest through new roads established for extraction of logs. Many governments are becoming increasingly aware that the forest resource is a primary development asset but also that the resource needs to be managed on a sustainable basis in order to maintain its economic and environmental values. Some timber trade associations are suggesting the possibility of imposing a surcharge on imported tropical timber; its revenue could finance projects aimed at introducing or reinforcing the sustained yield management of the forest. Such a levy would face implementation difficulties and may have a negative impact on trade in these products.

88. While the wish to increase resources for tropical forestry has its own merit, proposals which would limit trade such as embargos should be viewed with concern as they are in conflict with the current international trade discussions which seek, under the Uruguay Round, the fullest liberalization of trade in natural resource-based products. Also, obstacles to the international trade in tropical forest products may be counter-productive to the sustainable management of this asset, as the producing countries would have reduced returns for investment in forest management. Employment and income accruing to local people may also be affected. With only a few tropical countries currently able to manage their tropical moist forests on an operational scale for the sustainable production of timber, the urgent need is for additional technical and financial resources to support a significant increase in the area under effective forest management.

### Concern for Amazonia

89. Recently the destruction of tropical forests in the Amazon Basin has been a major focus of attention and concern of world public opinion. Even if there is not as yet established evidence of the impact of deforestation on global warming and climatic change, the matter has raised alarm concerning the risk that the consequences of deforestation might be irreversible. In addition, the loss of genetic resources and the socio-economic impact on indigenous groups of forest dwellers are further matters of concern. Environmental groups in the countries of the Amazon Basin, as well as in the industrialized countries, have contributed substantially to raising the level of awareness at public and political levels about the environmental issues involved.

90. The governments of the countries of the sub-region have responded by a joint Declaration of the Amazon which was adopted on 6 May 1989 and which aims to strengthen concerted action and cooperation within the framework of the Amazon Cooperation Treaty. The Declaration expresses strong commitment to the conservation and sustainable management of forests and other natural resources of the Basin for the benefit of local communities. It also underlines that increased international cooperation and more favourable international economic situation are indispensable to sustain national efforts.



91. Action at national level is also underway. Brazil has adopted a new Programme called "Our Nature" which is supervised by an interministerial coordinating committee and implemented by a new agency, the Brazilian Institute for Environment and Renewable Natural Resources. FAO's assistance to the Programme has been requested and has started on land use planning as a basis for sound land management. Some other countries of the Amazon Basin, such as Bolivia, Colombia, Guyana and Peru, are in the process of formulating and adopting national action plans in the framework of the Tropical Forestry Action Plan with specific programmes for conserving and managing their share of Amazon forests.

92. The overall effort of the Tropical Forestry Action Plan now involves over sixty countries. National forestry action plans will have been prepared by eight countries and presented to international round tables to mobilize financial support for their implementation.

#### Forestry in Europe

93. In May 1989, the Council of European Communities adopted a coordinated Forestry Action Programme, centred on four main objectives: protection of forests, development of forestry within the framework of the development of rural and backward regions, production and marketing of forest products, and support for afforestation of agricultural land as an economic alternative to agricultural surpluses. Coordination was organized through the constitution of a Permanent Committee on Forestry and the creation of a system of forestry information. The forestry sector is important in the community as it is estimated to employ more than 2 million workers. Forests cover some 20 percent of land area and produce around 115 million m<sup>3</sup> of roundwood annually. The domestic production covers some 50 percent of annual consumption of community member countries.