

conference

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS ROME

C 89/2
August 1989

C

Twenty-fifth Session

E

Rome, 11-30 November 1989

THE STATE OF FOOD AND AGRICULTURE 1989

This document has been prepared in accordance with the revision and rescheduling of the annual FAO publication The State of Food and Agriculture and its related Conference/Council documents, which the FAO Council approved at its 94th Session in November 1988. It consists of the World and Regional Reviews of the State of Food and Agriculture 1989, prepared on the basis of material available up to February 1989. It will be supplemented by a substantive updating document, C 89/2 Sup.1, containing information up to September 1989.

Attention is also drawn to document C 89/18, International Agricultural Adjustment, Progress Report on Guidelines 7, 8 and 12, which reports developments in distortions and barriers to agricultural trade, stability of world markets for agricultural products and external assistance to agriculture of developing countries, based on information available to June 1989.

CONTENTS

	<u>Paras</u>
I. WORLD REVIEW	1-162
A. <u>World Economic Environment</u>	1-42
Output growth and patterns	7-11
Trade and external accounts	12-19
External debt	20-25
Inflation, interest rates and currency values	26-31
Commodity prices	32-34
What do these global economic trends mean for Third World Agriculture?	35-42
B. <u>Agriculture and Food Production</u>	43-70
Cereal stocks and food security	48-50
Fewer food emergencies in 1988	51-53
Desert locusts: the threat continues	54-59
Fertilizers	60-63
Assessing nutritional levels with "food balance sheets"	64-70
C. <u>Agricultural Trade</u>	71-99
Agricultural export prices and terms of trade	85-92
Uruguay Round of multilateral trade negotiations: implications for agriculture	93-99
D. <u>Food Aid and External Assistance to Agriculture</u>	100-116
Official external assistance to agriculture	100-108
External private lending to agriculture	109
Food Aid	110-116
E. <u>Fisheries</u>	117-130
Trade	123-125
Outlook	126-127
Policy issues	128-130
F. <u>Forestry</u>	131-162
Production and trade	132-136
Wood: still a major energy source in the Third World	137-139
Deforestation: a growing threat to the environment	140-146
Developing nations reduce imports of paper through recycling and use of domestic sources of non-wood raw materials	147-148
Forest conservation and management: still a long way to go	149-150
Tropical Forestry Action Plan (TFAP): international cooperation to save forests	151-154
FAO meeting underlines importance of forestry to food security	155-162

	<u>Paras</u>
II. REGIONAL REVIEW	163-403
A. <u>Africa: Mid-term Review of the UN Programme of Action for African Economic Recovery</u>	163-182
Debt	166-172
Domestic economic policy reform	173-178
Agricultural performance	179-182
B. <u>Asia and the Pacific: Trade, Adjustment and the Monsoon</u>	183-217
India: progress slows down because of bad weather	190-202
China: overall good performance... but serious problems	203-217
C. <u>Latin America and the Caribbean: Economic Crisis and the Prospects for Agriculture</u>	218-237
Difficult policy decisions needed to revive the agricultural sector	230-237
D. <u>Near East: Uneven Progress</u>	238-249
Structural adjustment	242-244
Agricultural performance	245
Policy reforms needed to spur investment in the agricultural sector	246-249
E. <u>Eastern Europe and the USSR</u>	250-271
The impact of economic reform	250
The overall economic situation	251-255
Agricultural production in 1987	256-265
1988 production estimates for Eastern Europe and the USSR	266-268
Main issues in economic and agricultural policy	269-271
F. <u>The Developed Market Economies</u>	272-403
United States	277-283
European Economic Community	284-301
Policy issues	286-301
- Production quotas for dairy products and sugar	287-293
- Cereal and oilseed policies	294-300
- Recent policy developments	301
Canada, Oceania and Japan	302-403

I. WORLD REVIEW

A. World Economic Environment

1. Global economic growth continued in 1988, for the sixth consecutive year, but was sustained mainly by growth in industrialized countries and Asia. Serious problems remained, however, in many developing countries, especially in Africa and Latin America and the Caribbean, where investment rates continued to be depressed and net capital outflow unabated.

2. The cloud of uncertainty which hung over the world economy after the October 1987 stock market crash began to dissipate in 1988. After a period of instability, financial markets regained their balance and proceeded to grow in an orderly manner. As the memory of Black Monday receded, so did fears of global recession. Forecasters revised their growth and trade estimates upwards, reflecting general optimism about short-term prospects.

3. With monetary and financial markets calm, business and consumer confidence grew in industrial countries. Capital expenditures in these countries increased substantially, especially in North America and Japan. Rising employment stimulated income and consumption. Trade imbalances tended to decrease among them. The industrialized countries also strengthened efforts to coordinate economic policy, and took steps, most notably at the June 1988 Toronto Summit, to reduce trade imbalances and to promote more sustainable patterns of growth. There were some favourable impacts also on the developing countries, particularly in Asia. Stronger exports, for some, and higher commodity prices in 1987 and 1988 helped ease the economic situation in some countries. Overall, debt-service ratios of capital-importing countries declined in both years, although the decline was marginal in 1988. Furthermore, of the major regional groupings only Asia registered an improvement in 1988. Both Africa and Latin America and the Caribbean experienced a worsening in their debt-service ratios, after the temporary improvement registered the previous year.

4. Despite some favourable developments, serious dangers to the world economy, and to the developing countries in particular, remain. Protectionism plagues trade relationships, and increasing inflationary pressures are compelling governments to raise interest rates and possibly slow economic growth. These factors could weaken demand for developing countries' exports, in a period when imbalances in their trade and payments remain abnormally large.

5. The debt problem remains a serious unresolved threat to growth and stability. Indeed, despite improvements for some developing countries, the debt trap actually deepened for some nations whose economic adjustment measures had reached their limits. Declines in oil prices and increases in interest rates exacerbated the debt of many countries, further compromising their development prospects.

6. A developing country perspective of the global economy was expressed in the group of 24 (Development Committee) communiqué issued during the World Bank/IMF Spring Meetings in April 1988. A major concern was that unless industrial countries did more to step up the pace of their economic growth and provide debt relief, there was little hope of easing the debt crisis and reversing the present perverse flow of resources from developing to developed countries. Other interrelated reasons for concern continue to be the inadequate access of developing countries' products to world markets, the erosion of preferential trade arrangements and the inability for these countries to improve their position in world trade.

Output growth and patterns

7. World economic output increased an estimated 3.2 percent in 1987, continuing the steady, if moderate, expansion begun in 1983. Estimates for 1988 suggest a global economic growth rate of 3.8 percent - the highest since 1984 and the second highest in the 1980s (Table 1-1).

8. Economic growth in the industrial countries was unexpectedly vigorous in 1987 (3.4 percent), benefiting from lower oil prices and interest rates, as well as exchange rate realignments, up until the October 1987 stock market crash. Growth remained strong in 1988 (nearly 4 percent), and is expected to continue at from 2.5 to 3 percent in 1989.

9. Demand and economic activity in the USA increased sharply in 1988 while Japanese economic growth was particularly dynamic in both 1987 and 1988. Moreover, Japan's growth was more internally-generated than in previous years - welcome news for her trading partners and for international adjustment. By contrast, most European countries experienced only modest increases in generally low growth rates. Demand, especially its investment component, was stronger, but unemployment remained high.

10. Overall growth in the developing regions was strong (an estimated 3.4 percent in 1987 and 3.6 percent in 1988), but it was unevenly distributed, and failed to prevent per caput incomes from dropping in many areas. Real growth was impressive only in Asia, because of advances in China and the Republic of Korea. In Africa, real per caput GDPs dropped in 1987, with economic growth failing to keep pace with population increases. In Latin America and the Caribbean, the situation was only slightly better, with economic growth just keeping up with population increases. In the Near East, economic growth was negative.

11. In 1988, economic growth accelerated, by varying degrees, in all developing regions except Latin America and the Caribbean, where the 1.4 percent regional GDP growth estimate implied a significant reduction in per caput production and income - the first such decline since the 1981-83 recession.^{1/} The estimated 2.6 percent increase in output in Africa would be one of the highest in the 1980s, but would still fall short of population growth. Thus 1988 would be the seventh year since 1980 in which African per caput output declined.

Trade and external accounts

12. World merchandise exports increased by approximately 5 percent in 1987, according to GATT, the fastest annual growth in volume during the 1980s except for 1984. This increase was two percentage points more than world output, and similar to the high rates of the 1970s. Manufactures, which represent over two-thirds of total merchandise trade, grew by 5-6 percent and accounted for most of the overall gain. In dollar terms, GATT estimates a growth in merchandise trade of 16 percent to almost US\$ 2 500 000 million. This large increase reflected higher dollar prices for several primary products, and for oil during the first half of the year, as well as the continued depreciation of the US dollar.

^{1/} IMF estimates. According to the UN Economic Commission for Latin America and the Caribbean, regional GDP growth was only 0.7%.

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

	1980	1981	1982	1983	1984	1985	1986	1987	1988 a/
%								
Output									
Industrial countries	1.4	1.5	-0.3	2.8	5.0	3.3	2.7	3.3	3.9
Developing countries	3.4	1.8	1.7	1.9	4.0	3.5	4.2	3.4	3.6
Africa	3.6	2.0	1.2	-1.3	0.8	3.7	2.1	2.3	2.6
Asia	5.5	5.8	5.2	7.6	7.8	6.3	6.4	6.8	7.3
Middle East	-2.5	-2.1	0.2	0.9	-0.2	-1.1	2.2	-0.5	0.9
Western Hemisphere	6.0	0.2	-1.1	-2.4	3.5	3.5	3.9	2.5	1.4
World	2.2	1.7	0.5	2.7	4.5	3.4	3.2	3.2	3.8
Consumer prices									
Industrial countries	11.8	10.0	7.4	4.9	4.7	4.1	2.3	3.0	3.3
Developing countries	26.8	25.9	25.4	33.0	38.6	38.9	29.8	40.0	59.0
Africa	16.2	21.2	13.1	18.9	20.4	13.2	15.3	15.8	14.0
Asia	13.1	10.5	6.4	6.6	7.3	7.1	7.8	8.8	8.0
Middle East	16.8	15.2	12.7	12.2	14.8	12.2	11.4	14.7	14.4
Western Hemisphere	55.7	60.7	66.8	108.6	131.8	143.5	88.3	131.2	252.7
Export volumes									
Industrial countries	4.2	3.8	-2.1	3.0	9.9	4.7	2.6	5.3	7.7
Developing countries	-4.1	-5.9	-7.7	3.0	7.1	0.6	10.5	8.6	7.7
Africa	-1.6	-15.0	-4.9	3.5	6.4	6.7	6.1	-2.9	0.1
Asia	8.8	8.8	1.1	10.5	14.2	4.3	17.6	16.6	10.9
Middle East	-15.2	-17.7	-20.1	-9.4	-4.5	-9.4	18.5	-1.3	4.9
Western Hemisphere	2.0	6.7	-3.0	7.6	8.1	0.6	-0.8	6.5	8.0
Import volumes									
Industrial countries	-1.5	-1.7	-0.6	4.7	12.5	4.6	8.3	6.9	8.0
Developing countries	7.4	8.0	-3.3	-2.4	2.7	-0.9	-4.5	4.4	8.0
Africa	9.2	10.9	-7.5	-10.3	-0.2	-7.0	-11.1	-5.3	1.2
Asia	9.7	7.5	2.2	8.7	7.9	5.7	2.0	11.8	14.3
Middle East	9.1	16.9	5.9	-2.5	-6.1	-13.8	-21.7	-8.7	-1.8
Western Hemisphere	9.4	4.0	-17.7	-22.6	3.1	1.5	3.2	3.6	3.2
Terms of trade									
Industrial countries	-7.3	-1.7	1.9	1.5	0.2	0.5	8.8	0.5	1.2
Developing countries	16.6	3.6	-0.2	-3.4	1.7	-2.2	-19.6	3.1	-2.3
Africa	17.0	1.6	-5.1	-2.6	1.3	-3.6	-26.7	2.2	-4.0
Asia	-1.4	-2.7	1.3	0.2	2.8	-2.9	-7.7	2.9	0.3
Middle East	41.5	13.8	2.9	-8.5	0.2	0.1	-48.6	11.6	-15.6
Western Hemisphere	7.4	-4.6	-4.7	-3.0	3.8	-2.7	-14.3	-0.9	0.6
Debt-service ratio b/									
Capital-importing countries	18.6	21.5	25.0	22.0	22.8	24.0	24.5	21.2	20.6
Africa	14.2	17.2	21.2	23.0	26.5	29.2	29.3	24.8	26.2
Asia	8.6	9.7	11.5	11.0	11.4	13.1	13.5	13.7	10.6
Middle East	3.7	4.8	6.4	7.8	9.5	9.9	13.5	12.3	12.8
Western Hemisphere	33.3	41.8	51.6	40.8	40.9	40.3	45.0	35.5	42.8

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.

a/ Preliminary.

b/ 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*, October 1988.

13. Industrial country imports remained the main component of the expansion in world trade during 1987, although their volume increased more slowly than in 1986. The volume of developing countries' exports increased rapidly for the second consecutive year, because of both improved Latin American exports and yet another boom year in Asia, where exports have expanded by an average 12 percent yearly since 1983. The 15 most indebted developing countries performed well in 1987, with export volumes increasing by 10 percent and imports by 7 percent, after declines in 1986. Moreover, with export unit prices rising for the first time since 1981, the value of developing countries' exports increased by 20 percent in 1987. This was due largely to the temporary recovery in oil prices in early 1987, a more sustained increase in metal prices, which continued into 1988, and outstanding growth in manufactures exports by the newly industrialized countries.

14. Estimates for 1988 suggest another strong acceleration, to 7-8 percent, in the volume growth of world merchandise trade. An expansion of nearly 27 percent in the volume of United States' exports accounts for perhaps one-third of the total. Exports by the other industrial areas rose moderately. Developing countries' export volumes continued to expand at a healthy rate, although they did so less rapidly than in the two previous years. Strong demand in the industrial countries benefitted once again the newly industrializing countries in Asia. Those countries exporting primary commodities also increased their export volumes.

15. The overall value of exports by developing countries, expressed in terms of SDR, increased only slightly in 1988 and their terms of trade deteriorated because of the sharp fall in world oil prices. However, for non-oil exporting developing countries, the terms of trade improved for the first time since 1984 as a result of higher non-oil commodity prices.

16. Imbalances in international payments, although still serious and potentially destabilizing, began to improve gradually during 1987-88. Current account imbalances between the United States, Japan and the Federal Republic of Germany peaked in 1987 in nominal terms, began to decline in 1988, and were expected to fall further in 1989. In volume terms they dropped in 1987 and, considered in relation to rising GDPs adjustment appears to have already begun in 1986.

17. Despite this improvement, the imbalances are still considered unsustainably large and to require further reduction even though such an adjustment will not be without risks. In particular, reducing the United States of America's huge deficit will tend to undermine growth and employment among that nation's trading partners, which in turn could cause a global economic downturn.

18. The current account deficits of the developing countries shrank significantly in 1987 largely as a result of higher oil prices and adjustment measures by oil-exporting nations. But non-oil exporters also achieved an overall current account surplus for the first time in over 20 years. This surplus resulted largely from the strong export performance of Asian countries, but the other developing regions also reduced their current account deficits (mainly by curtailing imports.)

19. In 1988, however, the current account position of the oil exporters again deteriorated, as oil prices turned downward. Even the newly industrialized countries in Asia experienced a reversal in their current account position, due to currency appreciations and measures to reduce their surpluses. By contrast, many primary commodity exporters continued to achieve moderate success in their efforts to reduce their current account deficits.

External debt

20. Oppressive external debt remains the main obstacle to satisfactory economic growth in many developing countries, particularly in Africa, and Latin America and the Caribbean. For developing countries as a whole, external debt increased 4 percent in real terms in 1987, reaching US\$ 1 218 000 million by the end of the year. For capital importing countries (all developing countries except the eight capital exporters of the Middle East), external debt stood at about US\$1 156 000 million in 1987 and was estimated to have reached US\$1 178 000 million in 1988. Most of the increase derived from official creditors.

21. Even though total debt increased, however, debt-service ratios (external debt service payments as a share of exports of goods and services) improved overall in capital-importing countries. They declined from 24.5 percent in 1986 to 21.2 percent in 1987 and 20.6 percent in 1988, mainly because of expanded export earnings in 1987 and 1988. Nevertheless, debt-service ratios remained far worse than before the onset of the debt crisis in 1982, and 1988's improvement was not shared by all groups of capital-importing developing countries. Indeed, the debt service ratio worsened again in 1988 for some of the most severely indebted and for capital-importing countries in Africa, the Middle East, and Latin America and the Caribbean.

22. High debt-servicing payments, coupled with low levels of commercial bank lending and new investment, resulted in growing net transfers of resources from the poor nations to the rich (by World Bank estimates, no less than US\$43 000 million in 1988, compared to US\$38 100 million in 1987. Furthermore, many indebted countries have undertaken major adjustment efforts in order to reduce their debts. Frequently, these have entailed high social costs in terms of foregone economic growth, increasing poverty and hunger, and reduced imports. Unfortunately, these sacrifices often have not been met with the debt restructuring that would allow these nations to continue adjustment, but with renewed economic expansion and reduced social hardship.

23. Indebted sub-Saharan countries have benefited from long-term rescheduling by the Paris Club and additional resources through the IMF Structural Adjustment Facility (SAF) and the World Bank's Special Action Programme. At the Toronto summit in June, the seven major industrialized countries agreed to provide additional debt relief for low income countries. This effort by the Big Seven provides about US\$500 million a year for the 34 low income countries, most of which are in Africa.

24. The highly-indebted, middle-income countries, however, still have enormous debt burdens, despite continuing adjustment efforts, further reschedulings and a search for new debt relief and debt conversion options, such as that announced by Japan at the IMF/World Bank meeting in September 1988, which will relieve the debts of middle income countries by restructuring and converting loans into securities.

25. Ultimately, the only solution to the debt crisis will be to reverse the flow of resources from developing to developed countries. Recent developments in the overall economic setting - particularly higher interest rates in the developed countries - are anything but encouraging in this regard.

Inflation, interest rates and currency values

26. Consumer prices in the industrial market economies rose by 3 percent in 1987, slightly faster than in 1986. In 1988, they increased further to 3.3 percent, and are expected to increase by at least 3.5 percent in 1989. Consumer prices rose faster in the United States than the OECD average, due in particular to the weaker dollar, higher primary commodity prices, and high rates of capacity utilization. The drought in the mid-west also put only mild upward pressure on food prices.

27. In other industrial countries, inflation rates in 1988 varied from 1 percent in Japan to about 5 percent in Italy and the United Kingdom. Despite these generally comforting figures, however, authorities in several countries tightened monetary policies. They feared that rapidly increasing demand, high use of capacity, higher non-oil commodity prices, lower unemployment and demands for high wages in some labour markets could reignite inflation.

28. In many developing countries, 1987's high inflation accelerated in 1988, particularly in Latin America, where stabilization programmes in several countries encountered severe difficulties and consumer prices reached historic heights. Higher commodity prices, inability of many countries to maintain fiscal restraint, and strong growth in some manufacture-exporting countries all contributed to the inflationary surge.

29. In 1988 industrial countries, wary of inflation, raised interest rates which had come down substantially from the high levels of the early 1980s. These tighter monetary policies may dampen investment and economic growth, could cause financial difficulties and bankruptcies in certain sectors, particularly farming, and will aggravate the problems of indebted countries.

30. By January 1988, the real effective value of the US dollar had dropped 40 percent from its peak in March 1985. The depreciation continued through the first five months of 1988, when the dollar fluctuated around 1.35-1.4 per SDR, but it came to a halt in June, primarily as a consequence of the United States' improved trade position. The dollar remained relatively stable between June and October, at around 1.28 per SDR, but weakened again during the fourth quarter of 1988.

31. The currencies of most developing countries continued to depreciate in 1987, though more slowly than in previous years. According to the IMF, the real effective value of their currencies declined by 31 percent during the three years ending October 1987 - a period of severe adjustment for many of them - but by only 4 percent in the last year of this period. While most effective exchange rate fluctuations remained moderate in 1988, several inflation-stricken nations in Latin America and the Caribbean experienced real exchange rate appreciations, despite repeated nominal devaluations. Rates also appreciated for those African countries with currencies pegged to the French Franc or the South African Rand.

Commodity prices

32. Commodity prices rose sharply in 1987 after having fallen to their lowest levels since 1973 at the beginning of the year. This recovery continued during 1988. According to the World Bank's aggregate commodity price index (1980=100), during January-November 1988 the prices of 33 selected commodities (excluding petrol and steel) rose almost 13 percent over average 1987 levels. Food commodity

prices rose 17.7 percent, agricultural timber 5 percent, metals and minerals 35 percent in that period.

33. Oil prices recovered substantially from the low levels of mid-1986, but began to weaken again in mid-1987. In nominal US dollar terms, the price of crude oil (North Sea Brent) averaged US\$ 26.50 a barrel in 1985, US\$13.30 a barrel in 1986 and US\$17.10 a barrel in 1987. The price fell during much of 1988, to a low of US\$10.50 per barrel in October, but picked up subsequently, following the OPEC production control agreement reached late November. Overall, crude oil prices averaged approximately US\$14 a barrel in 1988, 18 percent less than the 1987 average.

34. Clearly higher commodity prices are a godsend for many developing countries - and essential if the debt crisis is to be resolved. But these increases already have raised inflation fears in the industrialized countries - even though most prices are still well below 1980 levels. At their June 1988 Toronto Summit, the major industrial powers underlined their concern on the potential impact of rising commodity prices on their domestic inflation rates, by including a commodity price indicator on the list of key economic variables to be closely monitored. Furthermore, some experts believe that higher international prices will reduce pressures to liberalize agricultural trade.

What do these global economic trends mean for Third World agriculture?

35. The main positive trend for Third World agriculture is higher prices for many commodities although not all key Third World export commodities have shared in the price rise. Lower energy costs have also compensated farmers for higher fertilizer and credit costs. More important - but far less positive - are the trends of slow growth in global demand for agricultural products. Present trends are unlikely to provide Third World Agriculture with the stimulus to increase output, exports and consumption. Why not?

36. Reason 1: Domestic demand for food lags in the poor countries. Stagnant or declining per caput incomes in 1987 and 1988 in all developing regions except Asia, mean that farmers in most poor countries will receive little domestic stimulus to increase output. Overall demand for food is expected to grow by only 2.5 percent per year in Africa, 2 percent in the Near East, 2.2 percent in Latin America and the Caribbean, and 3.5 percent in Asia and the Pacific. Such levels of growth, Asia excepted, would be well below those of the 1970s.

37. Accelerating price inflation, especially in Latin America, may also depress domestic demand for food. Minimum wages have not kept up with food price increases in countries where economic adjustment programmes have required reduction in aggregate demand.

38. Reason 2: Export demand of other developing countries will lag for the same reasons and because of current account difficulties aggravated by the burden debt servicing. High food commodity prices in world markets also make some exports too expensive for poorer potential importers.

39. Reason 3: Demand in the industrial countries for Third World agricultural exports grows slowly even in the best of times. Despite steady economic growth since 1983 in the developed world, only the USA has increased agricultural imports substantially. Low population growth, already high per caput consumption levels, protectionism and other policies supporting domestic agriculture have contained demand for agricultural imports.

40. Reason 4: After an unusually long economic expansion in the 1980s, the developed countries may be heading for a slowdown which would cut their demand for imports. Third World exports also would suffer should the industrial countries succeed in reducing their trade imbalances. Reductions in the USA budget and trade deficits would depress that country's demand for imports and, even if this were to be accomplished gradually, it would slow growth in other parts of the world. Furthermore, inflation fears in Western Europe are likely to lead to tighter monetary policies and less growth.

41. Only in Japan might demand increase substantially but since it accounts for only about 10 percent of world agricultural imports (compared to 16 percent for the USA and 26 percent for EEC), overall demand will be weak.^{2/} Furthermore, the countries most in need of increased exports are those nations - in Africa and Latin America - that trade least with Japan. Each of these developing regions sells only 4 to 5 percent of its total agricultural exports to Japan. Should Japanese demand increase, East and South-East Asian countries would be the main beneficiaries - about 20 percent of all Asian agricultural exports currently go to Japan. Even these Asian countries would suffer, however, from weak USA and EEC markets (which currently absorb nearly 30 percent of their agricultural exports.)

42. An additional threat to Third World agriculture could come from low oil prices. Should oil prices remain low, the competitiveness of petroleum-based synthetic substitutes for such products as cotton, jute and natural rubber would increase. Furthermore, continued oversupply of many agricultural products in world markets, as well as unstable commodity prices, add to agriculture's uncertain future for most exporters.

B. Agricultural and Food Production

43. Global agricultural production stagnated in both 1987 and 1988: overall output remained at approximately 1986 levels (Table 1-2). Output fell by about 5 percent in the developed market economies. Drought-stricken North America registered a large decline in food production. West European output also declined. Oceania saw modest increases. Eastern Europe and the USSR recovered somewhat in 1988 from the previous year's poor performance, but only Bulgaria had a truly good year. Romanian and Czech production fell sharply in 1988. Polish output also declined. Production increased in Africa, the Far East and the Near East, where it had declined or stagnated in most areas in 1987. African per caput food production rose by 1 percent. Agricultural output in Latin America and the Caribbean fluctuated, strong output in 1987 being sandwiched between poor output in 1986 and 1988. Increases in foodcrop production in China slowed significantly in 1988 from the high growth rates of recent years and livestock production rose only slightly.

44. Cereal production declined worldwide in 1988 to an estimated 1 743 million tons - 3.3 percent less than the already low level of 1987 (Table 1-3). The sharpest drop occurred in North America, where drought reduced output by 27 percent. East European and USSR production dropped slightly (-0.5 percent). In the Far East, however, cereal production increased by nearly 9 percent because of an excellent

^{2/} These trends were already evident in 1987. USA demand grew by only 2.5 percent (compared to 3.9 percent in 1986). In West Germany it fell from 3.7 percent to 2.8 percent. Japanese demand grew from 4.0 percent to 5.1 percent in the same period.

TABLE 1-2. TOTAL AGRICULTURAL, FOOD AND NON-FOOD PRODUCTION, 1986-88

	1986	Index		Change		Annual rate of change 1981-88
		1987	1988	1986-87	1987-88	
	... 1979-81=100 %		
WORLD						
Agricultural	115	115	115	-	0.1	1.9
Food	116	115	115	-0.5	-	1.9
Non-food	107	116	117	8.0	1.2	1.6
Developing market economies						
Agricultural	117	117	121	-0.1	3.7	2.2
Food	118	117	122	-0.9	4.4	2.2
Non-food	105	114	111	8.1	-2.7	1.7
Africa						
Agricultural	118	115	120	-2.6	4.1	2.5
Food	118	114	119	-3.2	4.0	2.4
Non-Food	117	122	129	4.2	5.4	3.6
Far East						
Agricultural	121	118	124	-2.1	5.3	2.4
Food	121	119	125	-2.3	5.5	2.4
Non-food	114	114	118	-0.1	3.3	2.6
Latin America						
Agricultural	111	115	117	3.9	1.6	1.8
Food	113	115	119	1.8	3.6	1.9
Non-food	93	114	99	22.5	-13.1	0.4
Near East						
Agricultural	116	117	121	0.6	3.2	2.1
Food	118	118	122	0.7	3.4	2.3
Non-food	102	102	104	0.2	1.3	0.5
Asian centrally planned economies						
Agricultural	134	140	140	4.0	0.4	4.3
Food	134	138	138	3.3	-0.3	4.4
Non-food	140	157	169	11.9	7.9	3.5
Total developing countries						
Agricultural	122	123	126	1.2	2.6	2.8
Food	123	123	127	0.5	2.9	2.9
Non-food	113	123	124	9.1	0.2	2.2
Developed market economies						
Agricultural	105	104	100	-0.9	-4.6	0.1
Food	106	104	99	-1.4	-4.9	0.1
Non-food	91	103	105	12.7	2.6	0.6
North America						
Agricultural	102	100	89	-2.8	-11.2	-1.2
Food	104	100	88	-4.1	-11.6	-1.2
Non-food	74	98	95	32.9	-2.8	-0.7
Oceania						
Agricultural	109	108	112	-0.7	3.8	1.7
Food	108	107	109	-1.3	2.1	1.4
Non-food	113	115	128	1.8	11.1	3.0
Western Europe						
Agricultural	108	109	108	0.6	-0.5	1.0
Food	108	109	108	0.7	-0.5	1.0
Non-food	128	117	119	-8.7	1.9	2.7
Eastern Europe and USSR						
Agricultural	118	115	117	-2.0	1.1	2.4
Food	119	116	117	-1.9	0.9	2.6
Non-food	104	100	104	-4.2	4.6	-0.1
Total developed countries						
Agricultural	109	107	104	-1.3	-2.9	0.8
Food	110	108	104	-1.6	-3.2	0.8
Non-food	96	102	105	5.7	3.4	0.3

Source: FAO, Statistics Division.

TABLE 1-3. AGRICULTURAL PRODUCTION, BY COMMODITY

	Developed countries			Developing countries			World		
	1987	1988a/	Change 1987 to 1988	1987	1988a/	Change 1987 to 1988	1987	1988a/	Change 1987 to 1988
	million m.t.	%	%	million m.t.	%	%	million m.t.	%	%
Total cereals b/	868.7	772.2	-11.1	933.2	970.7	4.0	1 801.9	1 742.9	-3.3
Wheat	299.9	292.1	-2.6	214.8	216.5	0.8	514.7	508.6	-1.2
Rice, paddy	24.7	25.2	2.0	440.5	459.2	4.2	465.2	484.4	4.1
Coarse grains	544.2	454.9	-16.4	277.9	295.0	6.1	822.1	749.9	-8.8
Root crops	214.6	214.6	-	369.7	369.1	-0.2	584.3	583.7	-0.1
Pulses	20.3	21.8	7.4	33.3	35.9	7.8	53.6	57.8	7.8
Oilcrops (oil equiv.)	25.7	23.6	-8.2	41.1	42.6	3.6	66.8	66.2	-0.9
Sugar, centrifugal(raw)	43.5	43.1	-0.9	59.5	60.4	1.5	103.0	103.5	0.5
Cocoa beans	-	-	-	2.0	2.2	12.0	2.0	2.2	12.0
Coffee	-	-	-	6.8	5.5	-19.3	6.8	5.5	-19.3
Tea	0.3	0.3	1.6	2.2	2.2	3.7	2.4	2.5	3.5
Cotton lint	6.3	6.6	5.1	10.3	11.6	12.1	16.6	18.1	9.0
Tobacco	1.9	1.9	-1.0	4.3	4.3	0.6	6.2	6.2	0.1
Total meat	100.1	101.2	1.1	58.9	61.0	3.6	159.0	162.2	2.0
Total milk	384.8	386.3	0.4	136.8	141.8	3.7	521.6	528.2	1.3
Hen eggs	19.4	19.6	1.0	14.7	15.4	4.9	34.1	34.9	2.3

a/ Preliminary.

b/ Including rice in terms of paddy.

Note: Percentage changes have been calculated from unrounded figures.

Source: FAO, ESS.

crop in India. China's cereal output declined by nearly 2 percent, African cereal production staged a strong and much-needed recovery of about 12 percent from 1987 shortfalls. Cereal crops, particularly wheat, fared poorly in Latin America, but Oceania registered significantly larger harvests.

45. Coffee production declined sharply in 1988 as a result of bad weather in Brazil and other Latin America and Caribbean areas, where output dropped nearly 30 percent. Sugar output changed little from the previous year's levels: small declines in the developed regions were offset by larger crops in the Far East, Latin America and the Caribbean. Cocoa production rose, as did that of pulses, in the main producing areas. Cotton lint production rose substantially - in Africa by 8 percent, in the Far East by 10 percent and in Latin America by 36 percent.

46. Meat production increased by an estimated 2 percent globally. Beef output increased substantially in Latin America, the Caribbean and North America, but these gains were largely offset by reductions in Western Europe. Milk production, which had declined in 1987 for the first time in 24 years, expanded modestly in 1988 with Third World increases offsetting reductions in Western Europe.

47. Per caput food production continued to lag in much of the developing world: 56 out of 108 developing countries failed to increase per caput food production in 1988 (Table 1-4). This represented, however, an improvement over 1987, when 78 had failed to do so. Output increased substantially in several densely populated, mainly Asian, countries. India's food production rose by 6.1 percent; Sri Lanka's by 3.1 percent; Indonesia's by 2.8 percent; and Pakistan's by 2.7 percent. Several other populous countries, including Brazil and Ethiopia, increased output. But 29 African countries saw per caput food production drop again. Nearly two-thirds of African countries suffered setbacks, compared to just over half in Latin America and the Caribbean, a third in the Near East and a quarter in the Far East.

Cereal stocks and food security

48. Food security is expected to decline in 1989 because of weak cereal's output in the main producing countries in 1988. Reduced availability for export, higher international prices and probable reductions of food aid supplies could create serious difficulties for low-income, food-deficit countries, many of whose import needs are increasing.

49. World cereal stocks are expected to fall to dangerously low levels in 1988-89, largely as a result of the drought in the United States. Carryover world stocks at the end of 1987-88 were already low, only 398 million tons - 52 million tons (12 percent) less than the previous year (Table 1-5). By the end of 1988-89, cereal stocks are forecast to fall even further, to 288 million tons consisting of 118 million tons of wheat (a 20 percent decline from previous levels), 129 million tons of coarse grains, (a 39 percent decline), and 41 million tons of milled rice (approximately the same very low level of the previous crop year). This would be the largest yearly drawdown in history, and would deplete stocks to only 16 percent of estimated 1989-90 world consumption. (FAO estimates world food security requirements at 17-18 percent). Nearly all of this reduction would be in the main exporting countries, with the United States accounting for most of it. The wheat situation is particularly worrisome with the ratio of exporters' carryovers to domestic and export requirements expected to fall even lower than during the world food crisis of the early 1970s.

50. A good harvest is needed to maintain current consumption trends, replenish depleted food stocks and reestablish minimum levels of global food security. FAO

TABLE 1-4. PERCENTAGE RATE OF CHANGE IN PER CAPUT FOOD PRODUCTION, BY COUNTRY, 1987-88

Percent	Developing countries	Developed countries
More than 10%	Lesotho, Morocco, Zimbabwe, Trinidad and Tobago, Saudi Arabia, Sudan	Finland
5.01% to 10%	Benin, Ethiopia, Brazil, Honduras, India, Laos, Syria, Cyprus, Suriname	Malta, Greece
3.01% to 5%	Botswana, Mali, Paraguay, Uganda, Bolivia, Chile, Malaysia, Sri Lanka, Guatemala, Thailand	Denmark, Bulgaria
1.01% to 3%	Kenya, Libya, Guadalupe, Uruguay, Burma, Bhutan, Indonesia, Lebanon, Mongolia, Kampuchea, Pakistan, Iraq, Rep. of Korea, Mauritania, Somalia, Togo, Venezuela	Belgium + Luxembourg, German Democratic Republic, Switzerland, Australia, Hungary
0.01% to 1%	Burundi, Côte d'Ivoire, Malawi, Zambia, Colombia, Martinique, People's Democratic Republic of Korea, Vietnam, Tonga, Turkey	Austria, USSR, Albania, France, Spain
-0.01% to -1%	Argentina, Cameroon, Central African Republic, Chad, Gabon, Mauritius, Reunion, Sierra Leone, Burkina Faso, Jamaica, Haiti, Puerto Rico, Peru, Jordan, Fiji, Papua New Guinea, Samoa, Egypt	Federal Rep. of Germany, Norway, New Zealand, Czechoslovakia, Poland, South Africa
-1.01% to -3%	Algeria, Angola, Congo, Rwanda, Cuba, Zaire, Liberia, Namibia, Niger, Mexico, Panama, China, Iran, Singapore, Yemen Arab Republic, Philippines, People's Democratic Republic of Yemen, Dominican Republic, El Salvador	Japan, Israel, Iceland, Italy, Portugal, Sweden, United Kingdom, Yugoslavia
-3.01% to -5%	Ghana, Guinea, Mozambique, Nigeria, Madagascar, Swaziland, Nepal, Costa Rica, Barbados, Nicaragua	Romania
-5.01% to -10%	Gambia, Guinea Bissau, Bangladesh, Ecuador, Afghanistan, Guyana	Ireland, Netherlands
Below -10%	Cape Verde, Senegal, Tunisia, Tanzania	Canada, USA

Source: FAO.

TABLE 1-5. CARRYOVER STOCKS OF CEREALS

	1983	1984	Crop year ending in			1988	1989
			1985	1986	1987		
	..... million m.t.						
Developing countries	235.7	157.7	198.3	288.3	317.7	277.6	169.2
Canada	18.5	13.3	12.1	14.4	18.5	13.7	10.5
United States	152.2	79.5	98.8	181.2	203.8	169.4	73.9
Australia	2.5	8.2	8.8	6.2	4.2	3.3	3.1
EEC	23.7	16.4	29.2	36.2	31.8	29.3	25.9
Japan	5.2	4.8	4.3	5.2	5.8	5.9	5.1
USSR	18.0	23.0	29.0	31.0	38.0	42.0	38.0
Developing countries	106.3	124.2	136.9	132.1	132.1	119.8	117.6
Far East	76.3	95.0	105.8	95.5	86.6	80.5	76.0
Bangladesh	0.6	0.8	1.0	0.9	0.8	1.4	1.3
China	50.0	57.0	64.0	52.0	46.0	47.0	38.0
India	7.6	12.8	18.1	17.1	15.2	8.7	13.1
Pakistan	2.2	2.2	1.7	2.0	3.2	1.7	2.3
Near East	12.4	14.0	14.9	15.3	19.0	16.5	16.5
Turkey	1.0	0.3	0.7	0.5	0.9	0.8	0.8
Africa	4.9	4.2	4.7	8.7	11.5	8.2	9.5
Latin America	11.4	9.3	10.0	11.0	11.0	13.8	14.3
Argentina	1.8	1.7	1.0	0.7	0.7	1.1	0.8
Brazil	3.1	1.4	1.7	2.8	4.4	7.4	8.4
World total of which:	342.0	281.9	335.1	420.3	449.8	397.5	286.7
Wheat	122.0	134.1	152.5	160.5	168.7	145.9	117.3
Rice (milled basis)	42.9	48.1	53.8	54.9	51.2	40.8	40.5
Coarse grains	177.1	99.7	128.8	204.9	229.9	210.7	128.9
World as % consumption	22	18	21	25	26	23	16

Source: FAO, Commodities and Trade Division.

estimates that an unprecedented 12 percent increase in world cereal output would be required in 1989 to accomplish this. This goal will be reached only if normal weather conditions return and the major producers increase plantings substantially. For 1989, the United States has reduced its percentage of land set-aside to 10 percent of basic cereal acreage in response to lower global supply, but early forecasts suggest that this will not be sufficient. Inadequate rains in early 1989, make it unlikely that production in the United States will increase sufficiently to permit more than a modest rebuilding of cereal stocks.

Fewer food emergencies in 1988

51. As food output improved in 1988 in many developing countries, emergency situations became less frequent than in 1987. In January and February 1988, shortages afflicted 21 countries sufficiently to require additional and/or emergency food aid. By December 1988, only sixteen countries (Angola, Benin, Bangladesh, Djibouti, Ethiopia, Haiti, Kampuchea, Laos, Lebanon, Malawi, Mozambique, Nicaragua, Sri Lanka, Somalia, Sudan, Viet Nam) still had food emergencies.

52. Despite this general improvement, food shortages remained extremely severe in Bangladesh, Sudan and Ethiopia. Bangladesh's famine was caused by the worst flood in years, which affected some 28 million people and caused grave damage to crops, property and infrastructure. In November 1988 a cyclone in southern Bangladesh caused further damage. In southern Sudan, civil strife caused malnutrition and starvation, especially among displaced persons. In Ethiopia, food shortages resulting from the 1987-88 crop failure continued.

53. A hurricane late in 1988 caused extensive damage in Central America and the Caribbean. Nicaragua was hit hardest. A joint FAO/WFP/multi-donor mission there estimated losses to agriculture, livestock, forestry and fishing at US\$110 million. Cereal output was expected to fall by some 18 percent from the previous year.

Desert locusts: the threat continues

54. Desert locusts have become a serious problem in much of West, North-West and East Africa, and now have spread into the Near East and South-West Asia. An extraordinary migration in October 1988 invaded Cape Verde several times and locusts have even reached the Caribbean in significant numbers. Millions of hectares of cereal crops have been threatened with devastation and the extent of the plague raised difficult questions about the most efficacious and environmentally sound means of control. After unprecedented breeding in West Africa during the winter of 1987-88, large swarms born early in 1988 invaded northern Africa. Other swarms migrated to the western Sahel. Simultaneously, East African swarms escaped from winter breeding areas on the Red Sea coasts, invading parts of the Near East.

55. Unusually heavy rainfall in 1988 provided favourable conditions for reproduction in all the main summer breeding areas of Mauritania, Mali, Niger, Chad, producing at least two enormous generations of locusts. Huge swarms grew larger between August and November, when they reinvaded the far west of the Sahel and then Morocco. Swarms from the central Sahel moved north into Algeria, Morocco and Libya, with some reaching Syria and Turkey by early December.

56. Breeding conditions were also favourable throughout eastern Africa during the summer and autumn. Many swarms were produced in Sudan and some in Ethiopia. In October 1988, swarms crossed the Red Sea to Saudi Arabia, where

further breeding occurred. There were minor invasions of Kuwait, Iraq, Iran, Bahrain and Qatar, followed by Turkey, Lebanon and Jordan. Fortunately, winter breeding conditions were not favourable at traditional sites on the Red Sea coast.

57. Massive control measures helped avert major crop losses in 1988. While severe local crop damage occurred in several west and east African countries, particularly in Sudan, Senegal and Mauritania, bumper crops were harvested in most Sudano-Sahelian countries. But last year's successful containment does not mean that the tide has turned in the fight against desert locust plagues. New generations will continue to breed in large numbers in 1989 and possibly for several years to come. Large-scale international emergency control campaigns will still be needed. As it has in the past, FAO will coordinate the Desert Locust Campaign through its Emergency Centre for Locust Operations (ECLLO). The cost of the control campaigns for 1988-89 already has exceeded US\$200 million.

58. In early 1989, the prospects for the year were unpredictable, for several reasons. First, the plague was much more widespread than it had been twelve months earlier, and was therefore potentially capable of spreading to even more countries. Second, in 1988 the locusts had proven more mobile than previously, making it more difficult to foresee where they might go. Third, in many countries monitoring of the swarms is still inadequate for accurate assessment of size, location and movement. Finally, control operations in several key areas had failed to eliminate major population. Nevertheless, there were grounds for cautious optimism for 1989.

59. Early in 1989, FAO estimated that while large-scale movement into West Africa from the Maghreb and the east might lead to the invasion of 25 million hectares by the middle of the year, it was more likely that less than 2.5 million hectares would be involved. This compares favourably with earlier estimates made in mid-1988 for some 12 million hectares. A major reason for this more optimistic outlook is the reduction of West African locust populations following their exodus over the Atlantic in October. This exodus reduced substantially the likelihood of a large-scale invasion of North-West Africa.

Fertilizers

60. Fertilizer prices rose sharply during 1988, mainly because of increased imports by the major fertilizer-consuming countries of Asia and Latin America. Import demand from these regions increased because of favourable weather conditions and increased aid from financing agencies to buy fertilizers (Table 1-6).

61. Urea prices increased on average by a third between October 1987 and October 1988. After remaining firm in America and possibly weakening in Asia, prices of urea and other nitrogenous fertilizers may have risen in late 1988, as large Asian countries, as well as North America and Europe, increased their consumption. Ammonium sulphate supplies remained tight, and prices increased by more than 20 percent in western Europe and 45 percent in the Far East during the year ending November 1988.

62. Prices of phosphatic fertilizers were more stable. Only slight price changes occurred in the markets for both diammonium phosphate and triple superphosphate. The US Gulf and North African spot prices for these fertilizers increased by about 8 to 14 percent during the one-year period to November 1988. In the United

TABLE 1-6. 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.				
1987				
January	44	114	68	168
February	45	127	68	173
March	46	131	68	165
April	43	133	68	152
May	44	133	68	153
June	44	140	71	171
July	48	147	71	183
August	51	153	71	186
September	51	150	76	176
October	51	146	78	177
November	51	144	78	189
December	53	143	78	196
1988				
January	53	155	82	213
February	57	154	82	190
March	63	154	82	190
April	63	154	83	174
May	63	154	86	186
June	58	158	87	201
July	57	158	95	202
August	59	162	95	200
September	62	162	95	197
October	62	164	95	206
November	62	164	95	204
December	...	...	...	...

Source: FAO, Land and Water Development Division.

States, weak domestic demand, rising inventories and limited export demand prevented big price rises. This situation could change as a result of purchases of diammonium phosphate planned by some major Asian and Latin American countries.

63. Potash prices rose because of large commitments made in the early months of 1988. Potassium chloride prices increased 9 percent at the start of the third quarter of 1988; the spot price of North American potash was 22 percent higher in November 1988 than a year earlier. Potash suppliers were seeking still higher prices for remaining contracts in late 1988.

Assessing nutritional levels with "food balance sheets"

64. Precise assessments of national nutritional levels are difficult. Food consumption and household expenditure surveys are potentially the most accurate sources of information, but they are costly, and hence usually impractical for poor countries. Not surprisingly, coverage is incomplete.

65. An alternative, frequently more feasible, approach is FAO's "food balance sheet" (FBS), which examines each nation's food situation. FBS's provide, among other data, the country's average per capita dietary energy supply (DES) which indicates the amount of food available for human consumption in the country.

66. DES is an imperfect tool. As a measure of food availability, it does not assess food consumption directly and may be misleading, for example, in situations where food is available but not consumed (as frequently occurs when people are too poor to buy food). Attempts to assess food adequacy by comparing DES with requirement figures sometimes fail for these reasons. Furthermore, the question of which requirement figure is most appropriate is not always obvious. Should it be that for mere survival or should it refer to a particular level of activity?

67. Despite such limitations, DES is useful because it makes possible calculation of the incidence of malnourishment in a country, given specific assumptions about calorie supplies and distribution and minimum requirements. DES has been shown to correlate closely with all the main indicators of health and socio-economic development.

68. The methodology is soon to be presented in an FAO manual which will explain how to calculate energy requirements of a household, a group of people or a population. ^{3/} It will even supply many basic data needed to apply the methodology, (e.g. average body weights for different populations, 1985 demographic breakdowns by age and sex, energy activity indexes for various occupations) for users who do not have their own data.

69. Provisions are made for extra individual allowances (for example, policy-makers may wish to allocate more food for children to sustain better growth, or for adults to permit higher levels of physical activity). Such allowances can also be adjusted, if necessary, at the household, regional and/or national level to account for such factors as post-harvest losses in food production, processing, storage, distribution and in the preparation of food within the household.

^{3/} FAO, Human Energy Requirements: a Manual for Nutritionists and Planners, Oxford University Press, 1989.

70. This approach is useful because it separates analytically a country's real food requirements from national economic indicators. Since it focuses attention on nutritional needs rather than production, it may also suggest alternative ways to improve food consumption, for example through tax reforms, land redistribution and subsidies for the poor.

C. Agricultural Trade

71. Global agricultural trade - crops, livestock, fisheries and forestry - grew by 11.1 percent in 1987, bringing the total for 1986-87 to an impressive cumulative total of 23 percent (Table 1-7). Since trade in other economic sectors grew even faster, however, the long-term decline in agriculture's share of world merchandise trade continued: to 14 percent in 1986 and 13 percent in 1987. Among the main agricultural sub-sectors, trade expanded most rapidly in fisheries and, to a lesser extent, forestry. Trade in crops and livestock grew somewhat slower (10 percent). Nevertheless, this was the strongest increase for crops and livestock of any consecutive two years since the commodity boom period of 1977-80.

72. The 1987 increase in crop and livestock trade was concentrated in the developing areas of Asia and, especially, in the developed market economies. Developed country exports rose about 15 percent, while developing countries' exports declined 1 percent overall. Both groups of countries, however, expanded significantly the value of their imports. Once again, this increase was concentrated in the industrial countries, with strong growth also in Asia, mainly China and to a lesser extent, the Near East.

73. These changes produced significant shifts in the structure of agricultural trade. In the early-mid 1980s the developing countries increasingly became net exporters of crops and livestock products (in most cases, because of austerity policies which reduced their imports rather than an expansion in exports). Export/import ratios increased steadily from 94 percent in 1981 to nearly 125 percent in 1986. But with the export setback of 1987, which coincided with sharp increases in imports, their export/import ratio fell again to 113 percent (Table 1-8).

74. The opposite occurred in the developed market economies. After a small net surplus in crop and livestock products in 1981, they returned to their traditional position as net agricultural importers. By 1986, their export/import ratio had fallen to 87 percent. In 1987, however, the ratio began to rise again (to 89 percent) as a result of booming exports. A major component was the sharp increase in exports by the United States, accompanied by a reduction in that country's imports. At the same time EEC exports grew even faster than strongly accelerating imports.

75. The developed centrally planned economies continued to register large deficits in agricultural trade (only Hungary, Bulgaria and to a lesser extent Romania export significantly more than they import), but their deficits narrowed in 1987. Agricultural exports expanded strongly for the second year in a row for the German Democratic Republic, Poland and, especially, USSR. In these three countries, export earnings from crops and livestock products rose by a total of about 25 percent during 1986-89.

76. The 1 percent overall decline in the value of agricultural exports by the developing countries conceals far worse performances for many individual countries. The general decline would have been much larger had it not been for the good export performances of a relatively small number of countries in each region:

TABLE 1-7. VALUE OF WORLD EXPORTS OF AGRICULTURAL (CROPS AND LIVESTOCK), FISHERY AND FOREST PRODUCTS, AT CURRENT PRICES, 1985-87

	1985	1986	1987	Change		Average
				1985 to 1986	1986 to 1987	of annual changes 1980 to 1987
	...000 million \$...			..... %		.....
Agricultural products	208.6	228.4	251.2	9.5	10.0	1.2
Total developing countries	70.3	74.4	73.6	5.8	-1.0	0.4
Total developed countries	138.3	154.0	177.6	11.4	15.3	1.7
Fishery products	17.1	22.5	26.8	31.6	19.1	8.9
Total developing countries	7.5	10.0	11.8	33.3	18.0	10.5
Total developed countries	9.6	12.5	15.0	29.8	20.2	7.8
Forest products	49.5	57.6	64.7	16.3	12.3	2.5
Total developing countries	6.7	7.7	9.8	13.8	27.3	1.7
Total developed countries	42.8	49.9	54.9	16.7	10.0	2.7
TOTAL	275.2	308.5	342.7	12.1	11.1	1.9
Total developing countries	84.5	92.0	95.2	8.9	3.4	1.3
Total developed countries	190.7	216.4	247.6	13.5	13.4	2.2
Share of developing countries	..... %			31	30	28

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

Source: FAO.

TABLE 1-8. VALUE OF WORLD AGRICULTURAL TRADE (CROPS AND LIVESTOCK),
AT CURRENT PRICES, BY REGION, 1985-87

	1985	1986	1987	Change		Average of annual changes	
				1985 to 1986	1986 to 1987	current prices	1980 to 1987 volume a/
	.. 000 million \$..		 %			
Developing market economies							
Export	63.7	65.8	64.7	3.3	-1.7	-0.5	3.0
Import	56.8	53.8	57.0	-5.4	5.9	-0.5	3.3
Africa							
Export	8.7	10.1	8.8	15.3	-12.7	-1.8	-1.1
Import	9.1	8.4	8.1	-8.1	-3.5	-3.2	1.8
Far East							
Export	18.6	18.9	20.6	1.9	9.0	1.2	4.2
Import	16.9	16.3	19.0	-3.4	16.4	2.6	4.6
Latin America							
Export	31.0	31.1	29.2	0.3	-6.2	-1.1	2.7
Import	10.2	10.2	9.8	0.6	-4.4	-5.1	-1.7
Near East							
Export	4.8	5.1	5.5	6.1	7.1	1.6	5.0
Import	20.0	18.1	19.3	-9.3	6.5	1.4	6.7
Asian centrally planned economies							
Export	6.6	8.5	9.0	29.7	4.8	9.4	12.1
Import	5.2	5.9	7.8	14.2	31.3	-0.3	6.7
Total developing countries							
Export	70.3	74.4	73.6	5.8	-1.0	0.4	3.5
Import	62.0	59.7	64.7	-3.7	8.4	-0.6	3.5
Developed market economies							
Export	129.8	144.9	167.9	11.6	15.9	1.9	2.0
Import	144.1	167.4	188.7	16.1	12.7	2.9	2.5
Eastern Europe and USSR							
Export	8.4	9.1	9.7	7.9	6.6	-1.1	0.6
Import	25.4	23.1	23.9	-9.0	3.1	-2.4	-0.5
Total developed countries							
Export	138.3	154.0	177.6	11.4	15.3	1.7	1.7
Import	169.6	190.5	212.6	12.4	11.6	2.1	1.8
World							
Export	208.6	228.4	251.2	9.5	10.0	1.2	2.5
Import	231.6	250.3	277.3	8.1	10.8	1.4	2.8
Share of developing countries in world agric. trade%.....						
Export	33.7	32.6	29.3				
Import	26.8	23.9	23.3				

a/ Obtained by deflating current values of trade with the indices (1979-81=100) of export and import unit values of agricultural products.

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

Source: FAO.

Brazil, Cuba and Chile in Latin America and the Caribbean; the Republic of Korea, Malaysia, Thailand and Indonesia in Asia; and Algeria, Tunisia, Gambia and Benin in Africa. Of 117 developing countries, 75 earned less from agricultural exports in 1987 than they had the previous year (only 46 had experienced declines in 1986). The weakest performance was in Africa, where 76 percent of the countries saw their exports decline, followed by Latin America and the Caribbean, where 67 percent fared less well in 1987 than in 1986. In the Far East and Near East, roughly equal numbers of countries recorded increases and decreases in the value of their agricultural exports.

77. Despite buoyant growth in agricultural trade in 1987, most developing countries experienced stagnant or declining export earnings from agriculture, largely as a consequence of low prices for several key commodities during much of the year. Of the 75 countries whose agricultural exports declined in value in 1987, about one-third could blame these declines primarily or entirely on lower export prices. Depressed prices for coffee and other exports caused earnings to drop throughout Latin America especially Ecuador, Mexico, Costa Rica, the Dominican Republic and Honduras. Many countries earned sharply less from their exports despite increased volumes.

78. In Africa and the Near East, lower prices and the inability of countries to compensate by increasing export volumes conspired to reduce earnings substantially. In 21 African countries, lower export earnings were caused primarily by falling export volumes. In 15 countries the fall was attributable mainly to lower export prices. In several countries, including Angola, Chad, Central African Republic, Côte d'Ivoire, Nigeria and Togo, both factors were important in significantly reducing agricultural export earnings. In the Near East, lower volumes were usually the most important factor. In almost every country in the region where agricultural export earnings declined in 1987, including Iran, Iraq, Jordan, Lebanon, Oman and Syria, the decline was due primarily to lower export volumes. Only in Saudi Arabia, Sudan and Turkey were lower average prices fully offset by significant increases in the quantities exported.

79. Developing countries increased their food import volumes in 1987, after having cut them the previous year. In 1986, about two-thirds of developing countries had reduced import volumes, in 1987 62 percent increased them. In the Far East, Near East and in the Asian centrally planned economies, domestic production shortfalls were the main cause, with food import volumes varying inversely with domestic per caput food production.

80. This correlation between poor domestic output and increased imports was weaker, however in Africa, Latin America and the Caribbean, where countries lacked the necessary foreign exchange to increase imports when domestic production lagged. For many countries, food imports declined in volume, but continued to absorb a very high, or even increasing, share of total export earnings. This was the case for Lesotho, Liberia, Rwanda, Senegal, Nepal, Afghanistan and Yemen Arab Republic. Nevertheless, most countries benefitted from lower food import prices in 1987 compared to the previous year.

81. FAO forecasts that world cereal trade will grow to 206 million tons in 1988/89, 9 million tons more than the previous season, but well below the record levels of 1984/85. This represents the net result of a 5 percent fall in wheat imports (from 103 to 98 million tons) and a 16 percent increase (from 83 to 96 million tons) of coarse grain imports. Rice imports also are expected to rise by 12 percent to 12 million tons in 1989.

82. Wheat trade reductions are expected to result from a 7 million ton decline in imports by the USSR relative to 1987/88, as well as smaller reductions by western European countries. Wheat imports by developing countries are expected to increase, though less rapidly than in the previous season. Coarse grain (mainly maize) imports by the USSR are expected to double to 21 million tons in 1989, following 1988's poor cereal harvest. Demand from the principle importing developing countries - mainly in Asia - should remain stable. World trade in rice in 1989 is likely to increase both because of increased supplies in exporting countries, and growing demand from many importers.

83. It is difficult to estimate the total growth of agricultural trade for the whole of 1988 from the information available in early 1989. The past is not a good predictor of current or near future events, as patterns of world output have undergone significant changes in recent years. In particular, compared to the 1960s and 1970s, economic growth in the 1980s has been relatively stronger in the developed than in the developing countries. In the 1970s, for example, the developing countries grew, on average, 2.5 percentage points higher than did the developed countries, but in the 1980s this gap disappeared (in the period 1983-87, the developing countries' economic growth was significantly stronger than that of the industrialized countries only in 1986). Furthermore, farm support and protectionist policies in the developed countries have blunted the impact on agricultural trade of economic growth. Thus the continued expansion of the world economy in 1988 should not be expected to have a significant impact on the volume of agricultural trade.

84. Nevertheless, value growth of agricultural trade is estimated to have continued at a strong pace in 1988, almost entirely as a consequence of higher prices, not volume increases. Price increases were strong for cereals, feeds and some livestock products, but not for tropical beverage crops and agricultural raw materials. Thus, as in 1987, growth was to the advantage primarily of the developed countries.

Agricultural export prices and terms of trade

85. Despite price surges by many agricultural commodities, the net barter terms of trade (i.e. relative unit prices) continued to decline in 1987 for agricultural exporters in general, as the prices of non-agricultural exports rose more.

86. Most agricultural commodity prices rose sharply in late 1987 and 1988, having fallen previously to the lowest levels in many years. Strong growth and demand in the major importing countries, plus crop shortfalls in drought-stricken North America contributed to these price rises. Of the major commodities, only cocoa, cotton, plywood, and a limited number of fruits and animal products failed to participate in the price recovery (Table 1-9).

87. Cereal price rises were particularly strong. Wheat averaged 28 percent higher in 1988 than the previous year, maize 41 percent, rice 27 percent. Some developing countries benefitted from the strong recovery in the prices of several agricultural raw materials which are their most important exports. Sugar prices strengthened as stocks fell to their lowest since 1980/81. But many tropical beverage prices remained depressed, as surpluses glutted the markets. Tea prices stayed low for the third year in a row, and cocoa dropped another 21 percent below 1987 levels. Coffee prices in 1987/88 remained well below the temporary peak of 1986, but firmed in 1988 following expectations of a sharp drop in Brazilian harvests in 1988/89.

TABLE 1-9. 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						
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	1 773	1 521	440a/	1 365b/						
1987	114	.....	73	.....	263	129	2 309	1 989	1 607	1 831	415	1 678						
September	117	.....	79	.....	287	147	2 467	1 912	1 846	1 692	415	1 647						
October	117	.....	82	.....	285	162	2 548	1 939	1 926	1 686	415	1 765						
November	126	.....	83	.....	279	183	2 538	1 898	2 072	1 648	415	1 462						
December	130	.....	87	.....	299	213	2 536	1 973	2 128	1 604	440	1 498						
1988	132	.....	89	.....	320	186	2 661	1 798	1 933	1 539	440	1 406						
January	125	.....	90	.....	313	188	2 595	1 685	1 916	1 560	440	1 301						
February	127	.....	89	.....	314	188	2 564	1 649	1 846	1 596	440	1 247						
March	130	.....	89	.....	307	196	2 565	1 707	1 707	1 660	440	1 289						
April	152	.....	120	.....	311	231	2 617	1 627	1 661	1 763	440	1 352						
May	152	.....	126	.....	315	309	2 506	1 609	1 462	1 630	440	1 178						
June	151	.....	121	.....	315	246	2 368	1 448	1 484	1 335	440	1 339						
July	160	.....	122	.....	315	224	2 509	1 237	1 645	1 337	440	1 354						
August	163	.....	121	.....	315	227	2 512	1 303	1 759	1 370	440	1 380						
September	164	.....	114	.....	315	239	2 513	1 473	1 794	1 408	440	1 673						
October	164	.....	114	.....	299	248	2 735	1 504	1 936	1 451	....	....						
November	167	.....	118	.....															
December		.....		.....													

C 89/2
- 23 -

a/ January-October.
b/ January-November.

Source: FAO, Commodities and Trade Division.

88. Against this mixed picture for agricultural prices, manufactures prices surged by nearly 14 percent in 1987, consolidating the strong recovery of the previous year. Prices of crude petroleum also recovered from 1986's depressed levels, although they subsequently fell again. Taken together, manufactures and oil rose more than did agricultural tradables, revealing a deterioration in the net barter terms of trade for agriculture in 1987. For developing country agricultural exporters, this marked the third consecutive decline, depressing their agricultural terms of trade on average to levels about 20 percent below those of 1979-81 (Table 1-10).

89. Africa and Latin America and the Caribbean suffered the sharpest declines in agricultural terms of trade in 1987 because of depressed markets for major tropical products during much of the year. In the Near East, higher cotton prices were more than offset by lower prices for tobacco, cereals and other exports, producing a sizeable net deterioration in the region's agricultural terms of trade. By contrast, the terms of trade remained stable for Far East countries, thanks to stronger export prices of cotton, jute, rice, rubber, forest products and some vegetable oils.

90. As terms of trade worsened for most developing nations in 1987, export volumes also dropped, by 3.5 percent. Hence both price and volume factors contributed to a pronounced (13 percent) decline in the actual purchasing power of their agricultural exports (income terms of trade). Particularly worrisome is the fact that during 1987's declines in income terms of trade were sharpest precisely in those regions where foreign debt is most severe, and where expansion of real earnings from agricultural exports is most crucial to economic recovery - Africa and Latin America and the Caribbean. For Africa, the decline largely erased three years of relative recovery after the serious setback of 1981-83. By 1987, African agricultural export earnings could afford only 82 percent of the non-agricultural imports which the region had imported on average during 1979-81. Latin America and the Caribbean also fared poorly, as the income terms of trade improved in 1984/85 but declined in 1986 and collapsed in 1987.

91. The situation was less dire in the Near East, where a sharp fall in net barter terms of trade was cushioned by increased export volumes. However, in Asia, the income terms of trade deteriorated because of lower export volumes.

92. The fall in export prices of many temperate zone agricultural products contributed to a large decline in 1987's barter terms of trade for developed country agricultural exporters, and in particular for North America. Western Europe, however, was able to compensate with expanded agricultural export volumes, permitting that region to improve its income terms of trade. Complete trade data for 1988 are not yet available, making it impossible to indicate the changes in terms of trade and purchasing power of agricultural exports for the whole of 1988. However, 1988 price rises exceeded those of 1987 for most major traded agricultural commodities. Manufactures prices had increased only 4 percent by the second quarter of 1988, and crude oil had fallen by 18 percent below the levels of 1987. Under these circumstances, it is reasonable to assume a significant improvement in the overall terms of trade for agricultural exports in 1988.

Uruguay Round of multilateral trade negotiations: implications for agriculture

93. The General Agreement on Tariffs and Trade (GATT) began its most recent round of multilateral trade negotiations in early 1987 in Uruguay. The negotiations are expected to last four years, and will address, among other things, the following areas: tariffs, non-tariff barriers, agriculture, natural resource-based products, tropical products, textiles and clothing, subsidies, safeguards, intellectual property

TABLE 1-10. NET BARTER AND INCOME TERMS OF TRADE OF AGRICULTURAL EXPORTS FOR MANUFACTURED GOODS AND CRUDE PETROLEUM, 1980-87

	1980	1981	1982	1983	1984	1985	1986	1987
	..... 1979-81=100							
NET BARTER TERMS OF TRADE								
Developed market economies	101	102	97	100	102	100	103	93
North America	101	107	99	105	114	109	97	78
Oceania	86	111	99	102	95	76	71	68
Western Europe	106	95	93	89	88	84	92	91
Eastern Europe and USSR	104	101	97	98	97	90	93	85
Total developed countries	102	102	97	91	102	99	102	93
Developing market economies	109	94	86	89	103	92	92	81
Africa	104	92	86	90	119	105	112	88
Far East	106	99	80	96	106	92	79	79
Latin America	113	93	90	87	102	90	97	83
Near East	102	98	84	85	92	95	91	76
Asian centrally planned economies	95	110	106	105	110	83	78	81
Total developing countries	108	95	87	90	103	90	88	80
INCOME TERMS OF TRADE								
Developed market economies	105	108	100	102	108	101	103	103
North America	104	111	99	104	113	87	73	72
Oceania	106	110	104	96	103	106	99	92
Western Europe	105	104	100	102	109	113	125	130
Eastern Europe and USSR	103	101	98	93	92	90	90	84
Total developed countries	105	107	100	93	108	100	101	102
Developing market economies	105	102	95	102	118	110	105	89
Africa	105	91	87	86	102	100	108	82
Far East	106	106	94	104	127	109	102	97
Latin America	104	103	94	105	118	115	106	86
Near East	99	113	114	116	123	105	104	97
Asian centrally planned economies	105	102	103	118	140	156	184	171
Total developing countries	105	102	95	104	119	113	108	94

Source: FAO.

rights, and trade-related investment measures. Other groups also have been established to examine other issues, such as the overall functioning of the GATT system. The implications for world agricultural trade could be substantial, as the Uruguay Round will set the framework for agricultural trade relations for years to come.

94. The stakes are high for both industrialized and developing countries, as the Round could either succeed or fail to promote significant agricultural policy reforms and expanded international agricultural trade. A recent GATT study (International Trade, 1987/1988) concludes that agricultural protectionism in the North has a powerfully negative impact not only on farm trade, but also on all merchandise trade and worldwide economic growth.

95. A number of perspectives on future agricultural trade policy have been expressed in the negotiating group on agriculture, with differences emerging both between the developed and developing countries, and among the members of each group. Some countries (e.g. the USA) advocate the rapid elimination of all domestic agricultural support programmes, while others (e.g. the EEC) suggest a more restrained and partial dismantling of such efforts. Both those developing countries which are net food importers and those for whom agriculture plays an important developmental role have requested special treatment in the negotiations on agriculture.

96. During 1988, negotiators dedicated much attention to the still-unresolved question of how to measure trade-distorting support many countries provide to their domestic agriculture. They also focused on how to take short-term remedial action to alleviate existing supply/demand imbalances, while still pursuing the long-term objective of freer trade.

97. Sharp differences emerged between developed and developing nations in the negotiating group on tropical products. While some industrialized nations argued that all nations must share the costs of trade liberalization ("burden-sharing"), many developing countries insisted that this would be contrary to GATT's provisions for special, more favourable treatment for developing countries.

98. The negotiating group on natural resource-based products identified several issues related to trade in raw materials, but has not yet decided which of these it will address, or how. Countries still disagree as to which products should be covered, and whether or not forestry and fisheries should be considered.

99. As the negotiations entered their crucial second half, a ministerial level mid-term progress review was held in Montreal, Canada, the week of 5 December 1988. It was evident at Montreal that, despite some progress in other areas, the United States and the EEC remained far apart on a number of issues, including agricultural policies. Their failure to reach an agreement on farm reform, textiles and clothing, and intellectual property rights resulted in an adjournment, until April 1989, of the mid-term review. A tentative accord, however, was reached on tropical products, although this agreement to reduce tariffs and other forms of protectionism will not be fully implemented until after GATT reassemble in April, 1989.

D. Food Aid and External Assistance to Agriculture

Official external assistance to agriculture

100. Official external financing commitments for agriculture declined sharply in 1987, to an estimated \$13 400 million (7 percent or \$1 000 million less than in 1986)

(Table 1-11). This decrease, however, must be seen in the light of exceptionally high commitments made by the World Bank in the previous year, 1986 (\$5 500 million). Most other multilateral donors increased their activity somewhat in 1987, while preliminary data on bilateral aid commitments indicate a small decline. Total official dollar commitments were 8 percent higher in 1987 than the average for 1984-86, but in constant 1980 prices they decreased by 14 percent, reflecting the weakness of the US dollar in 1987.

101. Concessional aid commitments increased substantially in dollar terms in 1987 from 1986's low levels. This reflected both higher commitments by the International Development Association (IDA is the World Bank's soft loan "window") and record efforts by the African Development Fund and the Asian Development Bank (\$480 million and \$797 million respectively, at current prices). However, in constant 1980 prices, the 1987 increase in concessional commitments was only 2 percent above the 1984-86 average.

102. Early estimates suggest that IDA concessional commitments grew again in 1988, surpassing the \$1.4 billion committed in 1987. IDA commitments for 1988 amounted to an estimated \$1.5 billion. Depleted funds, however, caused concessional commitments by the Inter-American Development Bank (IDB) to fall again in 1987 for the seventh consecutive year. Disbursements fell for the third year in a row. Repeated consultations among funding bodies during 1987 and 1988 have not yet produced agreement on how to replenish IDB's resources.

103. Multilateral concessional lending to the developing countries of Africa increased sharply in 1987, to 125 percent of the 1984-86 average in constant 1980 prices. This was largely in response to the appeal of the UN Programme of Action for Africa's Economic Recovery and Development (UN-PAAERD). IDA's lending to Africa increased to 29 percent of its total agricultural lending in 1987 (from 23 percent during the three-year period 1984-86.) IDA's lending to Africa in 1988 also is believed to have increased, based on preliminary figures for the first six months of the year.

104. African Development Fund (ADF) lending increased by 93 percent in 1987 over the previous three years' average, at constant prices. This represented 42 percent of total multilateral concessional lending to Africa. The fund will have an additional \$1 billion available for lending during 1988-90, making it highly likely that its commitments to agriculture will rise. Concessional lending to Asian and Pacific agriculture in 1987 was some 60 percent higher than such lending to Africa. While concessional aid to Africa grew rapidly, however, assistance to these countries was stable in real terms.

105. Even as total multilateral concessional aid to agriculture increased in 1987, from \$2.5 billion to \$3.8 billion, non-concessional multilateral commitments declined sharply, from \$6.2 billion to \$4 billion, reflecting World Bank lending \$2 billion below 1986's exceptionally large effort.

106. Actual disbursement of multilateral loans are estimated to have fallen 5 percent in 1987, at current prices, from 1986's \$6.8 billion to \$6.5 billion in 1987 (Table 1-12). Disbursements of concessional loans and grants also fell 4 percent from \$2.8 billion. Disbursements of multilateral concessional lending to Africa increased in current terms in 1987 by 10 percent, but fell 4 percent relative to 1986 in 1980 prices.

TABLE 1-11. COMMITMENTS OF OFFICIAL EXTERNAL ASSISTANCE TO AGRICULTURE (BROAD DEFINITION). 1984-87

DONORS	TOTAL COMMITMENTS			CONCESSIONAL COMMITMENTS			NON-CONCESSIONAL COMMITMENTS					
	1984	1985	1986	1987	1984	1985	1986	1987	1984	1985	1986	1987
At current prices												
TOTAL COMMITMENTS	1199	11701	14393	(13391)	7733	7916	8097	(9361)	3380	3785	6296	(4030)
of which GRANTS	3778	3556	3991	...	3778	3556	3991	...	-	-	-	-
BILATERAL	5109	4779	(5672)	(5630)	4879	4610	(5586)	(5560)	144	169	(86)	(70)
of which GRANTS	3257	3025	3418	...	3257	3025	3418	...	-	-	-	-
MULTILATERAL	6090	6922	8721	7761	2854	3306	2511	3801	3236	3616	6210	3960
of which GRANTS	521	531	573	581	521	531	573	581	-	-	-	-
WORLD BANK	3261	4244	5520	4045	1487	1871	884	1413	1774	2373	4636	2632
IBRD	1774	2373	4636	2632	0	0	0	0	1774	2373	4636	2632
IDA	1487	1871	884	1413	1487	1871	884	1413	-	-	-	-
IFAD	190	184	130	215	161	161	107	207	29	23	23	8
REG DEV BANKS	1911	1736	2092	2667	567	640	748	1391	1344	1096	1344	1276
OPEC MULTILATERAL	252	267	428	274	163	143	221	230	89	124	207	44
UNDP/FAO/CGIAR	476	491	551	(560)	476	491	551	(560)	-	-	-	-
At constant 1980 prices a)												
TOTAL COMMITMENTS	13022	13449	13974	(11544)	8992	9099	7861	(8070)	3930	4350	6113	(3474)
of which GRANTS	4393	4087	3875	...	4393	4087	3875	...	-	-	-	-
BILATERAL	5941	5493	(5507)	(4853)	5673	5299	(5423)	(4793)	167	194	(84)	(60)
of which GRANTS	3787	3477	3319	...	3787	3477	3319	...	-	-	-	-
MULTILATERAL	7081	7956	8467	6691	3319	3800	2438	3277	3763	4156	6029	3414
of which GRANTS	606	610	556	(501)	606	610	556	(501)	-	-	-	-

() Preliminary and including partial estimates

... Data not available

a) Deflator used: UN index of unit values of exports of manufactured goods, 1980 = 100

Source: FAO and OECD

TABLE 1-12. DISBURSEMENTS OF OFFICIAL EXTERNAL ASSISTANCE TO AGRICULTURE (BROAD DEFINITION), 1983-1987

DONORS	TOTAL DISBURSEMENTS					CONCESSIONAL DISBURSEMENTS					NON-CONCESSIONAL DISBURSEMENTS				
	1983	1984	1985	1986	1987	1983	1984	1985	1986	1987	1983	1984	1985	1986	1987
At current prices	US\$ millions														
TOTAL	8978	10292	10600	11530	...	6314	6819	(7000)	(7440)	...	2665	3473	3606	(4090)	...
BILATERAL	4107	4403	(4490)	(4730)	...	4029	4287	(4390)	(4630)	...	78	116	(100)	(100)	...
of which Grants	2825	3257	3025	3418	...	2825	3257	3025	3418	...	-	-	-	-	-
MULTILATERAL	4871	5890	6094	(6800)	(6480)	2285	2532	2614	(2810)	(2700)	2587	3357	3486	(3990)	(3780)
of which Grants	494	506	515	570	(571)	494	506	515	570	(571)	-	-	-	-	-
World Bank	3224	3946	3782	4164	3889	1144	1295	1243	1379	1352	2081	2651	2539	2785	2537
IBRD	2109	2685	2568	2787	2537	28	34	28	3	0	2081	2651	2539	2785	2537
IDA	1116	1262	1215	1376	1352	1116	1262	1215	1376	1352	-	-	-	-	-
Regional Dev Banks	936	1183	1460	1680	1631	458	514	591	575	498	478	669	669	1105	1133
ADF	82	50	100	119	143	82	50	100	119	143	-	-	-	-	-
AFDB	48	51	84	119	175	4	3	2	1	0	44	47	82	118	175
ASDB	215	331	390	361	423	89	144	188	177	197	127	187	202	184	226
IDB	591	751	886	1081	890	283	316	301	277	157	307	435	585	803	733
IFAD	138	188	220	244	233	124	181	212	233	218	14	6	8	11	16
OPEC Multilateral	79	67	117	(100)	(150)	65	36	53	(50)	(60)	14	31	64	(80)	(100)
Grants	494	506	515	570	(571)	494	506	515	570	(571)	-	-	-	-	-
At constant 1980 prices	1)														
TOTAL DISBURSEMENTS	10202	11967	12184	11194	...	7174	7929	(8046)	(7223)	...	3028	4038	4145	(3970)	...
BILATERAL	4667	5120	(5160)	(4592)	...	4578	4985	(5046)	(4495)	...	89	135	(115)	(97)	...
MULTILATERAL	5535	6847	7004	(6602)	(5586)	2597	2944	3005	(2728)	(2328)	2940	3903	4007	(3873)	(3259)

() Including partial estimates

... Data not available

1) Deflator used: UN index of unit values of exports of manufactured goods, 1980 = 100

Source: FAO and OECD

107. Total World Bank lending to all sectors is expected to rise by about 10 percent a year over the next five to six years, as a consequence of April 1988's increase in the Bank's total authorized capital from \$74.8 billion to \$171.4 billion, its third general capital increase. This expansion should benefit agriculture significantly, given the Bank's traditional emphasis on the sector (the Bank dedicated more than 20 percent of its lending to agriculture in 1987/88).

108. Agriculture also is likely to benefit, albeit indirectly, from the IMF's new Compensatory and Contingency Financing Facility (CCFF), which was established in August, 1988 to help protect economic adjustment efforts from such external shocks as lower export receipts, and higher import prices and interest rates. In contrast to the Fund's traditional ex post balance of payments support for temporary shortfalls in export earnings, CCFF will be able to intervene ex ante to protect adjustment efforts before foreign exchange shortages occur. Together with IMF's new Extended Fund Facility (EFF), CCFF will help provide greater economic stability in developing countries, by reducing the international vulnerability of longer-term adjustment programmes. This improved stability should promote more vigorous and sustained economic growth - which also will benefit agriculture.

External private lending to agriculture

109. Private lending to agriculture, such as commercial bank loans and suppliers' credits, collapsed in the 1980s. ^{4/} This important traditional source of development financing still showed no signs of improvement in 1986, the last year for which data are available. In 1986, commitments to agriculture stood at only \$102 million, 13 percent of 1985's already low level, and a small fraction of the \$2-3 billion average annual flows for 1979-81, the peak years. ^{5/} Actual disbursements, however, had not yet fallen as far, due to the residual effects of past commitments. Preliminary estimates for 1986 suggest total disbursements of \$479 million. This would be equal to about one-fourth the disbursements of 1980.

Food aid

110. Food aid is expected to drop in 1988-89. Preliminary FAO estimates of cereals food aid volume suggest a 3.3 million ton decline from the previous season. This is due primarily to the higher market prices brought on by poor crops in many donor countries (many food aid commitments are made in money, not volume terms). At 9.8 million tons, cereal food aid shipments would drop to the lowest level since 1983/84, and would fall below the 10 million ton level established by the 1974 World Food Conference. However, they would remain above the minimum commitment of 7.6 million tons of cereal established under the Food Aid Convention (FAC).

111. Food aid from the USA will drop under both of that country's official programmes, the PL480 programme and the Section 416 programme. Not only was funding reduced for PL480 in fiscal year 1989, but because of higher food prices the programme will provide only about 5.3 million tons of food in 1989, compared

^{4/} This issue was treated in detail in the special chapter "Financing Agricultural Development", in The State of Food and Agriculture, 1986.

^{5/} Defined broadly to include rural development and infrastructure, agro-industries, manufacture of inputs, regional river development.

to nearly 6.8 million tons in fiscal year 1988. The 1.4 million tons the USA provided under Section 416 during fiscal year 1988 also will decline in fiscal year 1989.

112. The EEC, Canada and Japan all will reduce their food aid as well in 1988/89 - by an estimated 18 percent from the previous year's levels, to a total of 3.38 million tons compared to 4.10 million tons in 1987/88.

113. Food aid shipments to the low-income food-deficit countries will fall to an estimated 8.0 million tons in 1988/89, from 10.6 million tons in both 1987/88 and 1986-87. This decline will force these nations to spend more of their scarce foreign exchange on food imports rather than developmental inputs. As a consequence of these donor cutbacks, the proportion of LDCs' food imports covered by food aid is expected to continue to decline - from 19 percent in 1987/88 to about 14 percent in 1988/89.

114. Sixty-five World Food Programme (WFP) emergency operations, costing a total \$254 million, were approved in 1988. Forty-one of these were in Africa, ten in Asia, eight in the Near East and six in Latin America and the Caribbean. About 69 percent of WFP emergency assistance in 1988 was used for refugees, returnees and displaced persons. The rest, 31 percent, went to victims of drought and other natural disasters.

115. Pledges to WFP's regular resources for the biennium 1987-88 fell short of their target. By the end of 1988, only \$1 239.8 million (89 percent of the \$1 400 million target) had been pledged. \$947.7 million of the sum raised was in the form of commodities, and \$292.1 million in cash. For 1989-90, total pledges announced by early 1989 amounted to only 60 percent of the \$1 400 million target.

116. Total pledges to the 1988 International Emergency Food Reserve (IEFR) from twenty-three donors amounted to 462 917 tons of cereals and 92 088 tons of non-cereal food commodities. Over 90 percent of the pledged total was to be channelled multilaterally through the WFP. Non-cereal commitments were significantly higher than the 60 030 tons reached during 1987, but pledges in cereals were well below the 1987 level of 663 752 tons. Throughout 1988, IEFR resources were under continual strain, with uncommitted resources consistently at very low levels. As of early December 1988, the Reserve was totally exhausted, and was forced to utilize 1989 pledges to meet immediate needs. By early 1989, announced pledges to the 1989 IEFR amounted to 250 310 tons of cereals and 8 022 tons of other foods.

E. Fisheries

117. The world fish catch levelled off in 1987, after ten years of steady growth. The world harvest in 1987, 92.7 million tons, exceeded only marginally the record 92.4 million tons of 1986 (Table 1-13). This levelling off had been expected. Quota controls limited the output of a number of important fisheries and, even more importantly, El Niño warm currents in the South Eastern Pacific substantially reduced catches of small pelagic species in South America. Production fell by 32 percent in Ecuador, by 30 percent in Peru and by 14 percent in Chile. In other parts of Latin America, output continued to expand, especially in Argentina, which boosted its production by 33 percent, Panama (by 30 percent) and Mexico (by 9 percent). Overall, Latin American output fell by some 2 million tons, causing a 17 percent reduction in the region's production of fish meal. Food fish harvests, however, were not seriously affected.

TABLE 1-13. CATCH OF FISH, CRUSTACEANS AND MOLLUSCS, INCLUDING ALL AQUATIC ORGANISMS EXCEPT WHALES AND SEAWEEDS, COUNTRY GROUPS AND WORLD, 1985-87

Country/Region	Catch		Change		Annual rate of change 1980-87
	1985	1986	1987	1986-87	
	.. million tons %		
DEVELOPING COUNTRIES					
Developing market economies	34.5	38.2	36.4	-4.8	3.5
Africa	3.4	3.7	4.0	8.7	2.5
Far East	15.9	17.0	16.7	-2.1	3.0
Latin America	13.7	15.9	13.9	-12.1	5.3
Near East	1.3	1.3	1.4	6.7	6.0
Asian centrally planned economies	9.4	10.6	12.0	13.1	9.1
Total developing countries	43.8	48.8	48.3	-0.9	4.7
DEVELOPED COUNTRIES					
Developed market economies	30.3	31.0	31.9	2.8	2.1
North America	6.2	6.5	7.2	11.5	4.9
Oceania	0.5	0.5	0.6	20.4	11.5
Western Europe	11.7	11.4	11.3	-1.0	0.1
Other a/	12.0	12.6	12.8	1.1	2.4
Eastern Europe and USSR	11.8	12.6	12.5	-0.8	2.6
Total developed countries	42.2	43.6	44.3	1.8	2.2
World	86.0	92.4	92.7	0.4	3.4

Note: Changes based on thousand tons.

a/ Japan, South Africa and Israel.

Source: FAO.

118. Japan and USSR, the world's two largest producers, reported catches of 11.8 and 11.2 million tons respectively - very close to their 1986 levels. China, the world's third largest producer, increased its catch by 16 percent, mainly as a result of further expansion in freshwater aquaculture and the development of long-distance marine fisheries. United States' production surged 16 percent, aided by the expansion of at-sea transshipment operations in the North Pacific. Joint venture enterprises were also a major factor behind a further 25 percent increase in landings by New Zealand, whose production has now risen nearly five-fold over the last 10 years.

119. The most spectacular growth, however, was in the anchovy and pilchard fisheries off South and South West Africa. Favourable environmental conditions made possible large catch quotas. As a consequence, catches almost trebled compared to 1986, resulting in a doubling of fish meal production and a notable increase in the output of canned fish. Elsewhere off West Africa, experiences varied. Ghana and Senegal saw continued healthy growth in their fish output (16 percent and 5 percent, respectively), but Morocco and Côte d'Ivoire experienced declines (by 18 percent and 3 percent, respectively).

120. Catches rose in several Asian countries. The Philippines, Malaysia, Indonesia, Pakistan and Sri Lanka, for example, all reported bigger catches. Only Thailand saw its output fall - by 15 percent. Elsewhere in Asia, catches were generally stable.

121. Output declined or remained stable in most European and Scandinavian countries. In Norway, despite a 14 percent increase in the cod catch, total production remained at the same level as 1986. Production fell from between 2 percent and 4 percent in all EEC nations except Ireland, where output rose by 8 percent, and the UK where it increased by 12 percent, boosted by direct landings in foreign ports and over-the-side sales of mackerel and other species not highly regarded by the domestic market.

122. Aquaculture continued to make an important contribution to fish and shellfish supplies. This was particularly the case for carp, tilapia, eel, trout, salmon, molluscs and crustaceans. Asian aquacultural production of shrimp grew particularly rapidly.

Trade

123. International trade in fish and fishery products continued to grow rapidly. Volume increased by 6 percent, but in dollar terms, trade grew by 22 percent to a new record (\$28 000 million) (Table 1-14). Since 1981, total world fish trade has expanded by over 50 percent in volume and by about 75 percent in dollar terms. Exports by developing countries have grown even faster - by 75 percent in volume and nearly 100 percent in dollar terms.

124. Canada, the world's largest exporter of fish and fishery products, increased its exports by 19 percent in 1987 and earned more than US\$2 000 million. Other nations achieving export growth above the world average were the USA (26 percent), Denmark (28 percent), the Republic of Korea (37 percent), Thailand (25 percent), Norway (28 percent) and Iceland (25 percent).

125. Strong world demand stimulated fish trade, further boosting prices for the most preferred species and products. Japan remained the leading purchaser of fish and fishery products, its imports rising in 1987 by nearly 30 percent to an aggregate value of \$8 600 million. USA imports, mainly of shrimp, tuna, scallops,

TABLE 1-14. FAO INDEX NUMBERS OF VOLUME, VALUE AND UNIT VALUE OF EXPORTS OF FISH AND FISHERY PRODUCTS, 1985-87

Item	1985	1986	1987 _{a/}	Change		Annual rate of change 1980 to 1987
				1985 to 1986	1986 to 1987	
	... 1979-81=100 %		
Volume						
World	133.6	147.4	156.6	10.3	6.2	6.2
Total developing countries	141.6	164.4	180.5	16.1	9.8	8.1
Total developed countries	128.4	137.0	141.9	6.7	3.6	4.9
Value						
World	114.0	151.7	184.7	33.1	21.8	9.4
Total developing countries	124.6	170.7	206.9	37.0	21.2	11.2
Total developed countries	106.7	138.6	169.5	29.9	22.3	8.2
Unit value						
World	85.6	103.1	118.2	20.4	14.6	2.9
Total developing countries	89.0	104.2	115.3	17.1	10.7	3.4
Total developed countries	83.5	103.1	122.6	23.5	18.9	3.5

a/ Preliminary.

Source: FAO.

lobsters and salmon, also increased by 19 percent to \$5 600 million. EEC members imported \$8 500 million worth of fish products, mainly from one another - an increase of 32 percent. Despite a nearly 5 percent decline in fish meal and oil production in 1987, the fish meal trade remained at the previous year's level in both value and tonnage.

Outlook

126. Preliminary indications for 1988 suggest no marked change in the total world catch. The passing of El Niño phenomena may have led to some growth in catches of small pelagic species in the Eastern Pacific, but stricter regulation of fisheries will limit the increase. Total allowable catches have been reduced also for some of the most important North Atlantic fish, including cod and whiting, and Canada anticipates restriction on most demersal species.

127. Consistently strong demand and short supplies for many species seem likely to keep prices high and to stimulate fish trade further.

Policy issues

128. Fish prices have been rising sharply in many countries, especially relative to those for meat and other forms of animal protein. This trend has provided an incentive to increase aquaculture production, which already accounts for about 10 percent of total fisheries output (including seaweeds and aquatic plants) and may well double by the end of the century.

129. Interest in the farming of shrimp and prawns continues to increase, but fish farming offers the greatest potential for substantial growth in aquaculture. Culture-based fisheries in reservoirs, lakes and coastal areas could provide major increases in harvests. Such efforts, however, require more encouragement. National policies for aquaculture are essential, as are local management schemes to control access and ensure adequate returns on investment. In many areas, better distribution and marketing facilities are also needed. Many coastal fisheries could be improved through community-level integration of aquaculture production of fish and molluscs with enhancement of the coastal environment and consequent improvement of the natural fisheries. Few countries have exploited adequately this promising area.

130. Furthermore, recent technological improvements in tracking offshore fish stocks may improve the profitability of sea-ranching of salmonids and other species, and may at the same time blur even further the distinction between culture and capture fisheries.

F. Forestry

131. Production and trade of forestry products expanded significantly in 1987 and 1988. At the same time, awareness of the fragility of the world's forests grew, as did understanding of the forest's importance for food security.

Production and Trade

132. During 1987, world production of roundwood and all categories of wood products increased by 3 to 5.4 percent. World trade in forest products increased by a volume of 24 percent in 1987 (Tables 1-15 and 1-16). Exports by developing countries increased by 23 percent, while their imports increased by 15 percent. Exports of industrial wood, sawnwood and wood-based panels increased by between

TABLE 1-15. OUTPUT OF MAIN FOREST PRODUCTS, DEVELOPING AND DEVELOPED COUNTRIES, 1985-87

	Output		Change 1986 to 1987	Annual rate of change 1980 to 1987	
	1985	1986			1987
	..... million m ³%.....	
ROUNDWOOD	3 158	3 254	3 352	3.0	1.9
Total, developing countries	1 742	1 781	1 819	2.1	2.1
Total, developed countries	1 417	1 473	1 533	4.1	1.7
Fuelwood and charcoal	1 644	1 678	1 719	2.4	2.4
Total, developing countries	1 382	1 413	1 444	2.2	2.2
Total, developed countries	262	264	275	4.2	3.6
Industrial roundwood	1 514	1 577	1 633	3.6	1.5
Total, developing countries	359	368	375	1.9	1.9
Total, developed countries	1 154	1 208	1 258	4.1	1.4
PROCESSED WOOD PRODUCTS					
Sawnwood and sleepers	465	482	502	4.1	1.1
Total, developing countries	105	106	110	3.8	3.4
Total, developed countries	360	375	392	4.5	0.6
Wood-based panels	112	118	122	3.4	1.9
Total, developing countries	19	20	22	10.0	5.8
Total, developed countries	93	98	100	2.0	1.0
	..... million tons %	
Paper and paperboard	193	202	213	5.4	3.0
Total, developing countries	27	29	32	10.3	7.5
Total, developed countries	166	172	181	5.2	2.3
Pulp for paper	141	147	152	3.4	2.4
Total, developing countries	18	19	20	5.3	6.7
Total, developed countries	123	128	133	3.9	2.0

Source: FAO, Forestry Department.

TABLE 1-16. VOLUME OF EXPORTS OF MAIN FOREST PRODUCTS, DEVELOPING AND DEVELOPED COUNTRIES, 1985-87

	Exports			Change		Annual rate of change
	1985	1986	1987	1985 to 1986	1986 to 1987	1980 to 1987
	..... million m ³ %		
<u>Industrial roundwood</u>	104	105	115	0.8	10.0	-0.1
All developing countries	29	28	33	-4.8	17.2	-3.6
All developed countries	75	77	82	3.1	7.3	2.0
<u>Sawnwood and sleepers</u>	86	87	95	1.3	9.0	1.9
All developing countries	9	10	12	8.4	19.4	1.0
All developed countries	76	77	83	0.4	7.6	2.0
<u>Wood-based panels</u>	19	20	23	7.3	12.2	4.3
All developing countries	7	8	10	10.8	17.1	9.0
All developed countries	12	12	13	5.1	8.9	1.8
	.... million tons %		
<u>Pulp</u>	21	22	23	7.3	5.4	3.0
All developing countries	2	2	2	5.6	-10.5	3.9
All developed countries	19	20	22	7.4	6.9	3.0
<u>Paper and paperboard</u>	41	44	47	6.6	7.8	4.5
All developing countries	1	2	2	26.7	10.5	19.0
All developed countries	39	42	45	5.6	7.9	4.1

Source: FAO, Forestry Department.

9 percent and 12.2 percent, in volume. Prices of forestry products were also generally higher in 1987.

133. Demand for forest products grew rapidly in 1987, sustained by strong housing markets in the major industrialized countries, particularly in North America where housing demand was close to the record level of 1986. In Japan, wood housing starts increased by 17 percent over the previous year. World output of mechanically processed wood products reached unprecedented levels, as a result of increased demand in the construction sector.

134. North American exports grew rapidly, stimulated by both rising international demand and the weak US dollar. North America's share of world trade in coniferous logs and sawnwood grew particularly rapidly. For example, North American coniferous sawnwood exports to Japan increased by 45 percent. In 1988, Japan's high rate of housing construction continued and the rate in Europe increased considerably. Developing country consumption also continued to grow. In the United States, however, demand slackened as a consequence of fewer housing starts.

135. Trade in tropical timber, an important export for many developing countries, grew in 1987. The total value of tropical wood exports increased from around US\$6 000 million to more than US\$8 000 million. In volume terms, global exports of all kinds of logs increased 10 percent while unit values increased by some 40 percent. Southeast Asian producers expanded their exports of sawnwood and plywood for the third year in a row to 25-30 percent above 1986 levels. Unit values also increased 20 percent. African exports were stable, but Ghana, the Congo and Equatorial Guinea increased their exports substantially. Latin American exports of sawnwood and panels, which constitute around 8 percent of total tropical exports of those products, also grew.

136. The pulp and paper industry continued to grow at a healthy pace in 1987 and 1988. Developed country output of paper and paperboard rose by some 5 percent per annum. The industry in the developing countries grew more rapidly, led by Southeast Asia. Buoyant trade in pulp and paper in 1987 benefited all the major producers. The United States and Canada increased exports by about 10 percent. In Europe trade in pulp increased by 5 percent. Trade in paper went up 10 percent. South Korean paper exports soared by 40 percent, but its imports of pulp and waste paper also went up by 15 percent. Prices for pulp and paper rose by up to 25 percent.

Wood: still a major energy source in the Third World

137. Wood is the largest renewable source of energy, currently accounting for 5 percent of world energy. In the developing countries, it accounts for nearly 20 percent. The greatest dependence on wood as a source of energy is found in the less developed countries and in Africa, where fuelwood often accounts for 80 percent of total energy consumption. In the Far East, the average is 30 percent and in Latin America 15 percent.

138. When income levels rise, especially in urban areas, people tend to substitute wood with fossil fuels and electricity. Poorer urban groups and rural dwellers remote from modern supply infrastructure continue, however, to remain heavily dependent on wood, often complemented by crop waste. But expanding populations

and deforestation have depleted local supplies in many areas, pushing wood fuel costs up.

139. Lower oil prices in the late 1980s are likely to increase demand for petroleum-based fuels in the developing nations. This may ease slightly the increasing demand for firewood. In the early-mid 1980s, when fuel prices rose sharply and remained at high levels, the reverse occurred; developing countries with domestic fossil fuel sources were able to increase consumption by expanding their own production, but the lower-income countries dependent on fuel imports were forced to consume more wood.

Deforestation: a growing threat to the environment

140. Deforestation proceeds at an alarming rate in many parts of the world. Developing countries in the tropics are experiencing the most rapid rates of deforestation, with an average loss estimated at 11 million hectares per year. Damage is also considerable in non-tropical areas. For example, in 1988 fires in North America destroyed some 2 million ha.

141. Population growth is a major cause of deforestation in the Third World, particularly through land clearance for agriculture. Overcutting forests for fuelwood and burning forest for livestock grazing are also serious problems. Timber harvesting exceeds sustainable capacity in many areas and road systems built for logging often provide access to land by persons interested in converting it to agricultural use.

142. In many countries the destruction of forests leads to soil erosion, wildlife depletion (often even the extinction of species) and other forms of irreparable environmental damage. Burning wood for fuel or clearance also releases carbon dioxide into the atmosphere, contributing to a variety of environmental dangers, above all the greenhouse effect. Worldwide, about 5 percent of energy comes from combustion of wood, dung and similar organic materials while forest fires and clearance consume an equivalent quantity of biomass. Regrowth of forests would help to absorb the rising levels of carbon dioxide.

143. Deforestation in the Amazon has reached crisis proportions, as revealed by satellite photographs showing massive forest clearance in what is one of the planet's last and largest environmental "lungs". Ranchers and agricultural settlers have been destroying forests which indigenous populations and rubber tappers depend on for their livelihood. This has resulted in political conflict and even violence against the indigenous people.

144. Efforts have begun (in both the North and the South) to fight deforestation in the Amazon and elsewhere. The Brazilian Government, for example, has designated large parts of the country as protected areas, parks and zones for the exclusive use of forest dwellers and forest-dependent communities. Recently, greater constraints have been placed on forest clearing. In 1988 a presidential decree established a programme called "Our Nature" to develop and implement policies for more rational use of the Amazon. The Government also appealed to the international community for support in the development of a conservation programme.

145. In southern Thailand, excessive logging is believed to have caused disastrous flooding and the Government has banned further logging. Serious depletion of forests and a relentless demand for fuelwood led the Indian Government to publish a

"National Forest Policy" in 1988, aimed at promoting sustainable economic growth and environmental stability.

146. Conservation groups in industrialized countries have tried to discourage tropical deforestation by proposing such measures as embargoes on the import of tropical timber not certified to have come from forest areas managed on a sustainable basis. The European Parliament has called for regulations on the importation of southeast Asian tropical timber, and some EEC business groups have proposed taxing tropical timber imports to raise funds for reforestation and conservation management of tropical forests. The United States has introduced environmental guidelines for all projects in tropical forest areas receiving US Government financing.

Developing nations reduce imports of paper through recycling and use of domestic sources of non-wood raw materials

147. Developing countries account for only 15 percent of world paper production and most production is concentrated in a few major producers. But since paper imports drain foreign reserves, many developing countries have sought to increase domestic production. As a result of such import substitution, the Third World has become about 85 percent self-sufficient in paper. Annual growth of developing country production has averaged about 8 percent over the past decade compared to a world rate of only 3 percent. Only one-third of developing country paper production depends on wood fibre; another third comes from non-wood fibres such as straw, bamboo and bagasse; and the final third comes from recycling waste paper.

148. This emphasis on recycling and non-wood fibres is both economically and ecologically advantageous because it helps conserve both material and financial resources, but it requires special efforts in design, financing, planning, supplying, marketing and the procurement of raw materials. In particular, the small scale of the industry and the raw materials used necessitate mill design which assures adequate chemical recovery and effluent control to protect the local environment.

Forest conservation and management: still a long way to go

149. Management of forest resources remains inadequate in most countries. A recent survey carried out for the International Tropical Timber Organization (ITTO) confirmed previous FAO assessments that only a small percentage of moist tropical forests are effectively managed. While this survey may underestimate the efforts of governments to survey and designate the use of tropical forests, it nevertheless reflects the limited resources available to forestry organizations to assess properly how forests should be used and managed so that indeed they are so utilized.

150. If properly used and managed, tropical forests can continue to provide massive amounts of energy, as well as jobs and income. They are a strong potential base for generating economic wealth and social development, and a storehouse of genetic resources to meet future needs. More effective strategies and sustained commitment are therefore needed for conservation, reforestation and forest management, as well as for assuring the appropriate integration of forestry into land use and rural development programmes. Forestry management must be harmonized with other land uses such as agriculture to ensure sustainable development.

Tropical Forestry Action Plan (TFAP): international cooperation to save forests

151. The FAO-coordinated Tropical Forestry Action Plan emphasizes five priority areas of action to promote sustainable tropical forestry:

- forestry in land use
- forest-based industrial development
- fuelwood and energy
- conservation of tropical ecosystems
- strengthening of institutions.

152. The Plan provides the framework for an internationally coordinated approach to the tropical forest crisis. It seeks to improve the lives of the rural people, to improve food production and security, to rationalize shifting cultivation, to ensure sustainable use of forests, to increase supplies of fuelwood and to expand income and employment opportunities.

153. At the second TFAP strategy meeting, held in Bellagio, Italy, in December 1988, proposals were put forth to strengthen international cooperation in tropical forestry research. An international framework was proposed to plan, coordinate and support an expansion of research - with a doubling of funding by 1995.

154. So far, 56 countries have begun reviewing their forestry strategies and programmes in the framework of the TFAP. Discussions will continue between national authorities and the international donor community on national forestry development plans.

FAO meeting underlines importance of forestry to food security

155. Forests are fundamental to food security: forest products make an irreplaceable contribution to both the cash and the subsistence economies of poor nations. While national production statistics sometimes underestimate the contribution of forests (which often are particularly important in the informal economy), it is no exaggeration to say that for many nations forests make the difference between food security and hunger.

156. This centrality of the forests was made evident in a 1988 FAO Expert Consultation hosted by the Indian Government. The meeting of 57 participants from 27 countries explored the various contributions made by the forests to food security in developing nations.

157. The meeting revealed that in many areas tree fruits, leaves, nuts and other tree foods are essential components of local diets. A study of one northeast Thailand community showed that 60 percent of all food came from forests. In rural Java, one community acquired a similar percentage of its food from agroforestry.

158. Forests and trees are also essential to agricultural cash economies. Studies from Costa Rica showed the importance of tree shade to coffee production. A Nigerian study demonstrated the importance of forest organic matter to soil fertility. A wide range of studies from nations as diverse as Argentina, China, Niger, Tunisia, the Antilles and Papua New Guinea showed that tree shelter belts increased crop production by 30 to 200 percent, depending on the area. Other studies showed how trees protect and improve soil fertility by reducing salt concentrations, by draining marshes and by stabilizing dunes.

159. Forests are also important for livestock. Tree fodder is a major source of nutrition for the animals of the world's 30-40 million pastoralists. In the Sahel, *Acacia albida* is believed to provide 30-40 percent of all livestock feed in the dry season, while in Mexico *Prosopis tamarugo* was the main dry season fodder. In tropical Africa, no less than 75 percent of all indigenous tree species are used for browse.

160. The forest is an essential source of animal protein in many nations. In Nigeria, communities living near forests obtain more than 80 percent of their meat from bushmeat, about the same percentage as for the Peruvian Amazon. Indeed, over 40 percent of total Peruvian meat consumption comes from forest wildlife.

161. The forests also provide cash incomes for millions of poor rural dwellers throughout the Third World. Many small-scale forest enterprises provide the income to purchase food for millions of smallholders and landless poor. A study from lowland villages in the Philippines showed that 73 percent of all households depended upon rattan collection as their primary source of cash income. In northeast Brazil, millions of poor farmers rely on cash from the sale of babassu palm kernels. The palm also provides them with thatch, material for basketry and charcoal. In Zambia, informal forest-based processing enterprises provide an estimated 600 000 person years of employment per annum - significantly more than the formal forestry sector. Case studies in six countries revealed that small-scale forestry industries, averaging between 2 and 4 employees, were the second largest source of jobs.

162. Statistics such as these underline the importance of trees and forests for rural economies, and in particular for the increasing numbers of people living in the subsistence economy. Clearly, national, regional and global food security strategies must review forest policies and the planting and management of forests to ensure that this irreplaceable resource is adequately developed and protected.

II REGIONAL REVIEW

A. Africa: Mid-term Review of the UN Programme of Action for African Economic Recovery

163. Africa's economic performance in the 1980s is summarized in Table 2-1. The most striking aspects of the continent's difficult experience in this period were the following:

- Overall GDP growth was nil (-0.08 percent), representing a decline of 3 percent per year in per caput terms. West African mid-income countries, especially Nigeria, fared even worse experiencing a regional GDP drop of 4.2 percent (4.7 percent for Nigeria). This represents a per caput decline of approximately 8 percent in the subregion. Northwest and Central Africa were the only areas of the continent where regional per caput GDP increased.

- Agricultural GDP growth averaged less than 1 percent per year overall. This poor performance, however, was better than that of other economic sectors.

- Agricultural production grew by 1.9 percent per year during 1981-87, well below the rate of population growth. This represents a 1.2 percent yearly decline in per caput terms. West African countries, both middle- and low-income, and the Sahel were the only regions that performed better than this.

TABLE 2-1. cont.

COUNTRY AND GROUPS	POPUL % CHANGE		AGRLAB % CHANGE		TOTGDP % CHANGE		AGRGDP % CHANGE		TOTEXP \$ VAL % CHANGE		TOTIMP \$ VAL % CHANGE		AGRPROD % CHANGE		AGREXP \$ VAL % CHANGE		FOODIMP VOL % CHANGE	
	81-88	81-88	80-86	80-86	81-87	81-87	81-87	81-87	81-87	81-87	81-87	81-87	81-87	81-87	81-87	81-87	81-87	81-87
TANZANIA	3.63	2.26	0.85	1.08	-3.09	-2.43	2.21	-9.09	0.12	-7.86	-4.09							
UGANDA	3.44	2.18	1.82	1.29	8.56	-3.13	2.74	8.78	1.08	0.69	7.21							
BURUNDI	2.87	1.95	2.92	1.89	8.55	4.16	4.03	2.06	7.68	-2.57	4.99							
KENYA	4.24	3.00	3.74	3.32	-4.01	-4.15	3.34	4.04	1.27	-3.36	14.78							
SOMALIA	2.66	1.05	-	-	8.36	-6.07	3.18	4.78	9.70	0.79	11.20							
RWANDA	3.38	2.62	1.65	-0.17	10.96	3.87	0.82	1.20	15.80	2.77	6.90							
ETHIOPIA	2.62	1.18	3.39	-0.11	2.29	6.29	0.78	9.47	-1.08	24.98	24.09							
EAST	3.25	1.95	2.57	1.32	-1.25	-1.86	1.89	4.87	0.01	-0.96	3.00							
MALAWI	3.23	1.56	0.90	1.63	0.71	-4.74	1.20	3.61	1.01	-14.28	-6.13							
MOZAMBIQUE	2.81	1.70	-	-	-11.21	-3.81	0.19	-1.37	-9.99	6.43	5.73							
SOUTH LOW_INCOME	2.95	1.66	0.90	1.63	-4.68	-4.75	0.34	0.84	-2.95	3.11	3.69							
SWAZILAND	3.11	1.12	3.19	-	-3.90	-7.10	2.80	-1.33	-1.32	8.51	4.86							
LESOTHO	2.59	1.22	4.77	0.80	-9.25	-1.67	-0.24	12.76	-19.81	-0.57	-0.11							
BOTSWANA	3.84	2.25	11.69	-9.17	20.40	3.86	0.86	6.45	6.94	2.47	6.39							
ZAMBIA	3.41	2.65	-2.48	3.25	-12.37	-6.21	1.98	11.23	26.50	-15.69	-12.60							
ZIMBABWE	3.60	2.10	2.12	0.47	-4.74	-2.34	2.41	24.43	4.66	5.06	40.17							
ANGOLA	2.60	1.23	-	-	2.72	3.57	-0.14	-0.18	-21.11	-2.80	-0.51							
SOUTH MID_INCOME	3.17	1.82	1.77	0.53	0.22	-1.55	1.08	12.47	-0.65	-4.50	-2.13							
MAURITIUS	1.82	0.89	4.49	7.42	14.28	9.49	4.83	0.98	5.66	-3.07	0.96							
MADAGASCAR	2.88	1.45	-2.43	1.64	-3.79	-6.42	1.93	-0.43	-0.28	-1.37	13.96							
COMOROS	3.12	2.02	-	-	27.25	5.99	2.28	2.35	146.62	3.41	15.36							
ISLANDS	2.79	1.45	-0.67	-0.36	7.28	2.33	1.66	-0.72	2.39	-3.69	2.71							
AFRICA	3.10	1.72	-0.08	0.74	-6.40	-3.99	2.04	3.65	-1.84	-3.91	0.55							

SOURCE : FAO

Agricultural growth was very slow in most of southern Africa. The continent's performance was again disappointing in 1987, when per caput agricultural output fell nearly 5 percent. Production improved, however, in 1988, particularly in southern mid-income, east and northwest nations.

- Agricultural export values declined by 1.8 percent on average during 1981-87. The fall was greatest in the northwest (3.8 percent), and in the central and the southern low-income countries (both 3 percent).

- Food import volumes grew rapidly in most parts of the continent, particularly in central (5.6 percent in the period 1981-87) and west low-income (4.8 percent) countries, as a result of the 1983-84 drought.

- Sharp declines occurred in the overall value of both merchandise exports (6.4 percent per year) and imports (4 percent).

164. The UN Programme of Action for African Economic Recovery and Development (UN-PAAERD) 1986-90 was initiated by the UN General Assembly's Special Session on Africa, held from 27 May to 1 June 1986, to cope with the continent's deep and worsening economic crisis. It was based on a twin commitment:

- an undertaking by African governments to reform economic and especially agricultural policies; and

- an agreement by the international community to provide an additional \$5 400 million per year in funding for the programme during 1986-90.

165. As the UN-PAAERD reached its midway point in 1988, the UN Secretary-General presented a progress report to the 43rd Session of the UN General Assembly. The report considered the main issues facing Africa today - debt, domestic economic policy reform, and agricultural performance.

Debt

166. Africa's mounting debt burden is its most oppressive constraint on development. Declining prices for oil and other primary commodities, combined with rising interest rates, have produced an average yearly increase in total debt of about \$20 000 million. According to the Economic Commission for Africa, total debt rose from \$152 000 million to about \$218 000 million between 1984 and 1987, with sub-Saharan Africa's debt rising from \$81 000 million to \$118 000 million.^{6/}

167. Sub-Saharan Africa's debt-service ratio rose from 26.1 percent in 1984 to 43.3 percent in 1987, according to the Economic Commission for Africa (ECA), meaning that merely servicing the debt absorbs almost half the value of the region's exports. Clearly, under such circumstances, development becomes almost impossible, as resources which could buy essential developmental inputs are diverted to debt repayment.

^{6/} ECA, Survey of Economic and Social Conditions in Africa, 1986-87 E/ECA/CM.14/4, 4 March 1988.

168. The prospects are not good for an immediate improvement in this situation. The World Bank recently calculated that for the 22 most seriously indebted African countries, debt-service ratios will more than double during 1988-90, compared to their average over the previous five years.

169. The patent untenability of African burgeoning debt - and the need to find immediate remedies - was emphasized in a report by the UN Secretary-General's Advisory Group, published in February 1988, entitled "Financing Africa's Recovery". This report, also known as the "Wass Report", said Africa would need another \$5 000 million a year for several years in additional financing to service its debt. It showed a \$6 500 million/year net deterioration in sub-Saharan Africa's financial position between 1979-81 and 1985-87. Terms of trade losses accounted for \$2 800 million, increased interest charges \$2 100 million, reduced net credit \$2 400 million, and reduced net direct investment \$200 million - for a total loss of about \$7 500 million, partially offset by about \$1 000 million in increased official grants.

170. The international community has begun to recognize the seriousness of the African debt crisis and to seek ways of resolving it. The major industrial powers, first at their June 1987 Venice Economic Summit and then at their June 1988 Toronto Summit, noted that Paris Club creditors are rescheduling debts, offering extended grace and repayment periods. They also estimated that \$15 000 million of the \$18 000 million mobilized through the IMF's Structural Adjustment Facility, World Bank-based cofinancing programmes and the fifth replenishment of the African Development Fund would favour the poorest and most indebted countries in sub-Saharan Africa. Indeed, multilateral commitments to African agriculture rose sharply in 1987 (see section on external assistance to agriculture in Chapter I).

171. At the Toronto Summit, the major industrial powers proposed various means to ease debt service, including concessional interest rates, longer repayment periods and partial write-offs of debt service. Some creditor governments have also written-off or otherwise reduced the burden of loans for development assistance. The industrial nations favour a case by case approach to the problem, with the Paris Club the main forum for negotiations.

172. Such initiatives are clearly a step forward, but they may not be sufficient to achieve the substantial and rapid reductions in indebtedness necessary for healthy economic growth to begin again. Only a major international assault on the debt spiral can hope to reverse Africa's economic decline and the heavy social costs that accompany it.

Domestic economic policy reform

173. The UN-PAAERD committed African countries to a variety of economic policy reforms, particularly regarding agriculture, in order to restore that sector's traditional key role in promoting growth and development. Often these reforms are part of structural adjustment programmes promoted by the IMF and the World Bank. By late 1987, 36 African countries were under standby or extended arrangements of the World Bank or the IMF's Structural Adjustment Facility.

174. Exchange rate realignment is almost always a central element in these adjustment efforts, since most African countries had overvalued their currencies in the 1970s, producing a variety of economic inefficiencies and obstacles to growth. Devaluations of 35 African currencies, averaging 10-11 percent per year against

the Special Drawing Right (SDR), took place during 1980-87. During 1986-87, only 13 of the 35 currencies appreciated against the SDR (those tied to the French franc or the South African rand).

175. Currency devaluations have stimulated the production of tradable goods, including agricultural products. This is because overvalued currencies frequently made imports too cheap and exports too expensive, thereby undermining domestic production. Higher producer prices stimulate agriculture. However, if food prices rise and subsidies for the poor simultaneously are cut (as typically required by adjustment programmes), people may go hungry, domestic demand may drop, and agriculture may become increasingly oriented toward exports rather than food. While boosted exports may ease somewhat the debt problem, the social cost in terms of aggravated poverty and hunger is high.

176. Clearly such reforms - whether beneficial or not in the long term - are politically difficult in the short term. They raise prices of imported goods and of products - often including food - that compete with imports. Both the poor and the politically influential middle classes, who are hurt immediately by devaluations, may not see the benefits of improved economic efficiency for several years.

177. Adjustment programmes also usually require governments to cut agricultural input subsidies, in order to reduce deficits. The consequences of this are not always positive, since such cutbacks may cause agricultural production to decline. Increased farmgate prices for fertilizers have caused significant declines in their use in recent years, retarding agricultural output. Not only is this an obvious drawback in itself but, by reducing longer-term government tax revenue, it aggravates the budget deficit.

178. Another major policy reform has been to reduce the state's role in the distribution of inputs and in marketing output, by dismantling government monopolies and allowing the private sector to assume these functions. The results of these reforms so far have been mixed. Elimination of government monopolies has sometimes lowered costs and encouraged the formation of farmer cooperatives, but private entrepreneurs have not always proved capable or sufficiently motivated to take on so many new responsibilities in the short term. As a consequence, simply liberalizing agricultural markets in Africa has not always improved efficiency and lowered marketing costs. The private sector needs both incentives and time to learn, adjust and mobilize resources.

Agricultural performance

179. In 1985, agricultural production recovered from the drought which had decimated agriculture in several countries during 1983-84. Since then, however, Africa's agricultural performance has again lagged. In 1986-88, agricultural growth averaged a sluggish 1 percent a year - well below the 2.5 percent six-year average of 1980-85. Of the seven subregions defined by the UN-PAAERD, only three equalled or slightly exceeded their 1980-85 average. Clearly this marks a setback for the programme, which had assigned to agriculture the central role for economic recovery.

180. Agricultural exports remained generally sluggish, except in 1986 which was the best export year of the 1980s. On average, coffee export volumes declined 1.2 percent yearly during 1986-88, after having increased by 2.5 percent per year in 1980-85. In value, these had fallen about 1 percent yearly in 1980-85, a decline which accelerated to nearly 3 percent per year during 1986-88. Cocoa exports

fared better, however. While the growth in exports decelerated in volume terms, their value rose 4 percent per year in 1986-88, compared to a 0.5 percent annual decline during 1980-85. Short-term prospects are mixed: cocoa markets slipped in 1988/89, while coffee prices were strengthening.

181. Clearly it is difficult to assess yet the impact of the UN-PAAERD on agricultural development. The increased sensitivity of the major donor countries to Africa's debt problem is certainly a change for the better, but its benefits remain to be realized. Many African countries have also adopted far-reaching policy reforms regarding agricultural pricing, marketing and input distribution but, once again, the benefits of these changes will accrue only over time.

182. More immediate benefits may result from recent increases in non-oil commodity prices, which should accelerate economic growth and raise domestic demand for food and agricultural products. This highlights, of course, a fundamental reality - the success of the UN-PAAERD depends to a large extent, on global factors beyond the control of the Africans. The international terms of trade are an aspect of the problem which the UN-PAAERD cannot control, but whose impact on African development will be as important as that of domestic economic reforms and debt relief.

B. Asia and the Pacific: Trade, Adjustment and the Monsoon

183. Asia's generally positive economic and agricultural record in the 1980s is presented in Table 2-2. The outstanding traits of that record may be summarized as follows:

- Economic growth was strong (averaging 7 percent a year, or 5.3 percent per caput) and fairly well balanced between the various subregions of Asia. GDP growth was particularly strong in China (9.3 percent) and the Republic of Korea (8.8 percent). Some countries, however, most notably the Philippines (0.6 percent), had low rates of economic growth.

- Agricultural GDP also grew at an impressive 5.4 percent per year. Combined with the slow growth of the agricultural labour force, this indicates a rapid increase in productivity (about 4 percent a year overall). This was even higher in China (6.9 percent), but much lower in India (1.1 percent/year).

- Total merchandise trade grew rapidly, with China, the Republic of Korea and Thailand exhibiting particularly dynamic growth.

- Agricultural trade trends varied widely, and regional growth in agricultural exports and imports was generally low. India increased its food imports substantially (by 8.3 percent a year), as did China (nearly 10 percent yearly) and several south Asian countries.

- Agricultural production in 1981-87 grew by a strong 3.8 percent a year, buoyed by China's high rate (5.3 percent). But other subregions grew at slower rates, ranging from about 2.4 percent to 2.9 percent.

- Agricultural production slipped severely in 1987 for every subregion but China, because of unfavourable weather during the monsoon. It then improved in 1988 in India, east and southeast Asia but stagnated in China, again due to bad weather.

TABLE 2-2. ASIA AND PACIFIC, SELECTED INDICATORS OF ECONOMIC AND AGRICULTURAL PERFORMANCE
BY COUNTRY GROUPS, 1981-88

COUNTRY AND COUNTRY GROUPS	POPUL		AGRLAB		TOTGDP		AGRGDP		TOTEXP		TOTIMP		AGRPROD		AGREXP		AGRIMP		FOODIMP	
	CHANGE	%	CHANGE	%	CHANGE	%	CHANGE	%	\$ VAL	%CHANGE	\$ VAL	%CHANGE	%CHANGE	CHNAGE	%	\$ VAL	%CHANGE	\$ VAL	%CHANGE	VAL	%CHANGE
	81-88	81-88	80-86	80-86	80-86	80-86	81-87	81-87	81-87	81-87	81-87	81-87	81-87	87-88	81-87	81-87	81-87	81-87	81-87	81-87
FIJI	1.79	0.43	3.21	8.15	-1.42	-4.96	2.06	0.81	-2.97	-0.58	2.89	0.81	-2.97	-0.58	2.89	0.81	-2.97	-0.58	2.89	0.81
KOREA REP	1.62	-1.44	8.80	7.37	15.70	9.61	4.18	4.25	-1.44	3.99	9.14	4.25	-1.44	3.99	9.14	4.25	-1.44	3.99	9.14	4.25
SINGAPORE	1.13	-3.06	6.81	-2.42	5.73	2.92	-3.68	0.0	4.20	2.82	3.35	-3.68	0.0	4.20	2.82	3.35	4.20	2.82	3.35	4.20
MALAYSIA	2.35	0.35	4.99	3.50	5.73	2.92	5.32	4.86	1.60	1.17	6.58	5.32	4.86	1.60	1.17	6.58	1.60	1.17	6.58	1.60
INDONESIA	1.89	0.74	4.72	2.88	-6.50	3.77	4.10	4.58	1.35	-3.04	1.83	4.10	4.58	1.35	-3.04	1.83	4.10	4.58	1.35	-3.04
THAILAND	1.87	1.34	4.22	2.82	9.67	6.01	1.90	10.60	2.81	-2.01	1.60	1.90	10.60	2.81	-2.01	1.60	2.81	-2.01	1.60	2.81
PHILIPPINES	2.38	0.48	0.58	2.10	0.30	-0.73	0.80	0.52	-7.55	1.31	1.60	0.80	0.52	-7.55	1.31	1.60	-7.55	1.31	1.60	-7.55
PAPUA N GUIN	2.54	0.83	-	2.26	2.91	1.21	2.34	1.76	0.42	3.04	3.04	2.34	1.76	0.42	3.04	2.34	1.76	0.42	3.04	2.34
BRUNEI	4.29	3.36	-	-	-9.93	2.93	8.13	7.61	23.07	8.00	5.33	8.13	7.61	23.07	8.00	5.33	23.07	8.00	5.33	23.07
EAST + S.EAST	1.95	0.82	5.30	3.62	5.42	5.19	2.74	5.07	-0.05	1.14	2.87	2.74	5.07	-0.05	1.14	2.87	-0.05	1.14	2.87	-0.05
BURMA	1.94	0.71	4.97	5.20	-6.57	-2.25	5.38	4.02	-10.34	-6.05	1.81	5.38	4.02	-10.34	-6.05	1.81	-10.34	-6.05	1.81	-10.34
SRI LANKA	1.68	1.25	4.80	3.15	5.25	0.21	0.19	5.08	0.95	-3.23	1.81	0.19	5.08	0.95	-3.23	1.81	0.95	-3.23	1.81	0.95
PAKISTAN	2.79	1.99	6.35	2.30	7.99	1.99	4.59	3.71	3.38	5.42	13.92	4.59	3.71	3.38	5.42	13.92	3.38	5.42	13.92	3.38
NEPAL	2.34	2.17	-	5.83	3.11	7.94	3.17	-1.17	-0.55	5.61	5.61	3.17	-1.17	-0.55	5.61	5.61	-0.55	5.61	5.61	-0.55
BANGLADESH	2.72	1.97	3.85	3.18	7.49	2.86	1.49	-3.16	-1.77	9.47	9.47	1.49	-3.16	-1.77	9.47	9.47	-1.77	9.47	9.47	-1.77
BHUTAN	2.04	1.75	-	-	0.0	0.0	4.99	2.86	1.22	15.44	15.44	4.99	2.86	1.22	15.44	15.44	1.22	15.44	15.44	1.22
SOUTH	2.55	1.76	5.35	3.35	5.53	1.60	2.92	1.29	-0.91	4.97	4.97	2.92	1.29	-0.91	4.97	4.97	-0.91	4.97	4.97	-0.91
INDIA	1.88	1.51	5.18	2.65	4.36	2.36	2.77	7.33	-0.83	2.08	8.26	2.77	7.33	-0.83	2.08	8.26	-0.83	2.08	8.26	-0.83
CHINA	1.22	1.30	9.34	8.22	12.01	13.69	5.03	0.12	10.72	-3.00	9.96	5.03	0.12	10.72	-3.00	9.96	10.72	-3.00	9.96	10.72
ASIA AND PACIFIC	1.67	1.34	7.00	5.40	6.42	5.67	3.75	2.84	1.52	-0.76	3.69	3.75	2.84	1.52	-0.76	3.69	1.52	-0.76	3.69	1.52

SOURCE : FAO

184. Several factors have shaped the economic performance of Asian nations in recent years. ^{7/} Strong growth in merchandise trade for several countries was the key to impressive expansion. For the newly industrialized east Asian economies, rapid growth of manufactures, often in competition with Japan's, allowed unusually high growth rates.

185. For other Asian nations, changing oil and non-oil commodity prices were the main determinants of merchandise trade growth (or lack thereof). Generally weak oil prices hurt exporters (e.g., Indonesia and Brunei Darussalam), but helped importers. Price increases for such agricultural raw materials as jute, timber and rubber helped several exporter countries in the region, especially during 1987-88. Prices of most minerals and metals also rose, though less rapidly. Prices of food commodities, particularly rice, remained low until late 1987, and tropical beverage prices were also generally weak.

186. Economic adjustment programmes were another major factor determining economic performance. Successful economic adjustment in the Philippines and Singapore permitted economic recoveries in 1987-88, after the declines or very slow growth rates during 1984-86. China also recovered in 1987-88, after having held back growth in 1986 to reduce inflationary pressures and the current account deficit.

187. The poor development and erratic performance of the southeast monsoon of 1987 were other major factors, negatively affecting virtually the entire region in both 1987 and 1988. Drought hurt the economies of India, Pakistan, Sri Lanka and Nepal, while floods devastated eastern India and Bangladesh. Bad weather in 1987 also hurt agricultural production in Indonesia, Thailand and, to a lesser extent, China.

188. The impact of the recent drought, however, was less than that of previous droughts, as irrigation and improved farming practices have made Asian agriculture less dependent on the weather. Government efforts to protect economic activity from the drought were helpful as well. Nevertheless, these natural disasters have increased pressure to improve natural resource management through such measures as water harvesting in drought-prone areas, and catchment protection measures in flood-prone river basins.

189. Economic performances in the developing Pacific island economies continue to be influenced by volatile commodity prices and adverse weather. Rising commodity prices and improved flows of international assistance promise some improvement in the late 1980s for these nations.

India: progress slows down because of bad weather

190. Drought and floods both plagued India in 1987, undermining the nation's Seventh Five-Year Plan (1985-90). The failure of the 1987 monsoon was the fourth in a row, and provoked the most serious drought in years. Twenty-one of the 35 rainfall subdivisions were seriously affected, compared with 19 in 1965, the last severe drought.

^{7/} See also ESCAP, Economic and Social Survey of Asia and the Pacific, 1987, Bangkok, 1988.

191. While foodgrain output (rice, wheat, coarse grains and pulses) dropped an estimated 6-10 percent (9-12 million tons), the losses were fewer than in earlier droughts, mainly because of increased irrigation. (Indeed, some estimates put the decline at only 7 million tons, or 5 percent). In 1988, better weather led to a strong recovery in overall food production, with output returning to 1986 levels. Paddy output was expected to be excellent despite flood damage in several regions in late 1988. The wheat harvest, however, was poor, due to shortages of irrigation water, which hurt the spring crop. The year's production declined 2 percent.

192. Several disappointing agricultural years in a row did not undermine India's economic growth rate, even though agricultural output declines often led to slowdowns in other sectors. Sustained by industry, India's GDP growth was 4.9 percent in 1986 and 4.1 percent in 1987. In 1988, however, GDP growth slowed to 1.5 percent. The delayed impact of 1987's sharp decline in agricultural output (7 percent) was largely to blame.

193. The 1987 drought also caused inflation to increase by more than 10 percent in 1987-88. It aggravated both the Government's budget deficit, which has risen to more than 8 percent of GDP, and the nation's balance-of-payments difficulties. Foreign exchange reserves fell in 1987-88 for the first time since 1980-81.

194. The impact of the drought on agricultural production. Foodgrain production including rice, wheat, coarse grains and pulses, has not increased since the record year 1983-84. Output in 1986-87 was only 144 million tons, 4 percent less than 1985-86, and 5 percent below 1983-84. While the rabi (November-May) crop was better than expected (about the same level as 1986/87), anticipated 1987-88 foodgrain output was at least 5 percent less than 1986/87's mediocre performance.

195. Improved irrigation of the rabi crop helped contain these losses. Previous droughts, such as occurred in 1965-66 when foodgrain output declined almost 20 percent, were much more destructive. Nevertheless, four years of stagnation in foodgrain production have taken their toll, raising concern among agricultural policy-makers about the nation's food security.

196. Measures to increase foodgrain production. To improve foodgrain production and food security, the Indian Planning Commission recently established a task force to study the nation's foodgrain structure and advise on setting priorities. ^{8/} The Task Force determined that development resources should be focused on the 169 districts with the highest agricultural potential - India has over 500 districts. Both short-term and long-term measures have been adopted.

197. In the short term, support prices for wheat and rice were increased for the 1988/89 season, with the procurement price of wheat increased by Rs 6 to Rs 173/100 kg, and that of rice by Rs 10 to Rs 160/100 kg. This should boost production.

198. To reduce India's longer-term vulnerability to adverse weather conditions, its Eighth Five-Year Plan (1990-95) will contain four main elements. The first is to increase the land under assured irrigation. Significant progress has already been made in recent decades, with the total irrigated area having risen from about 17 percent of agricultural land in the early 1950s to about 30 percent. But much of

^{8/} Framework Action Plan for Foodgrains, Report of the Task Force, Planning Commission, 19 March 1988.

this newly irrigated land can still become dry during droughts, since it depends on groundwater reserves which may be depleted during dry years. To cope with this situation and guarantee that existing irrigation potential will always be functional, the Seventh Five-Year Plan emphasizes large- and medium-sized irrigation projects, which will provide irrigated land with assured water sources even during severe droughts.

199. The second and third main elements seek to improve output in 70 percent of cropped area which is still rainfed. To this end, agricultural strategy stresses full exploitation of groundwater in high rainfall areas such as the Gangetic region, to achieve more multiple cropping. The National Watershed Development Programme for Rainfed Agriculture was started in 1986/87, and is being strengthened with this objective in mind. For rainfed agriculture in water-scarce areas, the strategy is to:

1. improve water management;
2. sharpen the focus of rural employment and area development programmes such as the Drought-Prone Area Programme and the Desert Development Programme;
3. improve agricultural research on the problems of rainfed and dryland agriculture; and
4. promote reforestation programmes to reduce depletion of water and soil resources.

200. The fourth element of national strategy will be to give greater emphasis in agricultural planning to regional differences. Future agricultural development strategies will be based on 15 spatial zones with different agro-climatic features.

201. The debate over Indian agricultural and rural development policy is strongly influenced by the issue of poverty and hunger alleviation in a country which has made substantial progress in recent decades, but which is still plagued by widespread extreme poverty. While the percentage of the rural populations below the poverty line has fallen by about 11 percentage points in six years, from 51 percent in 1977/78 to about 40 percent in 1983/84, no less than 220 million Indians continue to live in absolute poverty. Furthermore, large regional disparities remain mainly because the benefits of the Green Revolution have not been evenly distributed geographically.

202. As a consequence, agricultural policy-makers face hard choices between efficiency and equity, with the goal of national food security sometimes in conflict with that of poverty and hunger alleviation. Shifting emphasis to rainfed agriculture, for example, will help the poorest regions and individuals most, reducing inequalities and hunger. But such efforts may be less effective than the strengthening of irrigated agriculture in improving overall national food security.

China: overall good performance... but serious problems

203. The People's Republic of China began a revolutionary transformation nearly a decade ago, as major economic and agricultural policy reforms set in motion the transition from a centrally planned to a mixed socialist/market economy. While the benefits of these reforms have been notable, the next five years will be critical in managing the transition because the introduction of market mechanisms has also created new problems and challenges.

204. China's economy grew by more than 9 percent in 1987, after two years of slower growth as a result of government efforts to reduce the balance-of-payments deficit. But price inflation remains a major concern (it was officially estimated at 7.5 percent in 1987, but may have reached 20 percent in some areas). Prices of certain food products such as pork have risen even more.

205. Increases in grain production have become the symbol of successful agricultural policies, having risen to a record 407 million tons in 1984 (including cereals, pulses and tubers). However, partly as a consequence of unfavourable weather, output dropped in 1985 and 1986. For a country which must feed over 1 000 million people, and where arable land accounts for less than 10 percent of total area, this was a major disappointment. Grain production increased to 401 million tons in 1987, but remained below target. The Government hopes to increase output to 500 million tons by the end of the century.

206. Despite the successes of recent years, the Government is concerned about declining growth rates for some agricultural products. For example, grain and cotton output grew by 5 percent and 16.9 percent respectively during the period 1979-83, but by only 1.1 percent and 1.2 percent respectively during 1984-87. In 1987, port production declined. Such poor performances raise doubts about the longer-term productivity prospects for agriculture, and call for the following policy issues to be addressed.

207. Following the economic reforms, agriculture's share of public sector investment (including water conservation, forestry and meteorology) slumped from YRMB 6 900 million in 1979 (about 12-13 percent of total investment) to YRMB 3 600 million in 1981. Since then, it has again increased (to YRMB 7 500 million in 1986), but this still represents only 4-5 percent of total public investment. Much of China's agricultural infrastructure, such as irrigation and drainage works, is 20-30 years old and is deteriorating. Maintenance has slackened since the disbanding of the communes, which previously had mobilized rural labour to maintain infrastructure.

208. Lower investment levels are reflected in reduced use of land and most other factors. In 1986, the sown area was 3.9 percent less than in 1979. The irrigated area had declined by 1.8 percent, labour use by 1.2 percent and tractor use by 11.4 percent. Although total fertilizer consumption rose 30 percent between 1980 and 1986, the use of green and organic manures declined. The desired growth of "sideline" rural activities, including light industries, has been striking, but may be withdrawing too many resources from agriculture. As a consequence of these developments, the Government is seeking to restore agricultural investment and to improve farming practices.

209. Problems of input supply are a major concern, particularly for fertilizers, but also for other inputs such as agrochemicals and plastic sheeting used in the production of horticultural crops. Prices of these inputs have escalated in recent years.

210. Fertilizer availability remains a problem. Despite considerable investment in new fertilizer capacity in the late 1970s and early 1980s, it was inadequate to cope with fast rising demand. Furthermore, many traditional small-scale ammonia bicarbonate plants have been closed in recent years because they consumed too much energy and produced low-grade fertilizers. While the larger plants produce higher-quality fertilizer at lower cost, distribution problems have been aggravated by the closing of decentralized smaller factories.

211. The Government faces a dilemma regarding foodgrain pricing policy, as it seeks simultaneously to increase food production (which would suggest higher prices) and to fight inflation (which would call for lower prices). The Government is also trying to phase out foodgrain subsidies, which currently cost no less than YRMB 20 000 million a year.

212. Average producer prices have risen in recent years. While the official contract prices for grains have risen only slightly, contracted amounts have fallen from 79 million tons in 1985 to 50 million tons in 1987 and 1988. Since the Government buys large additional quantities of grains at above contract prices to meet its rationing needs of about 65 million tons per year, actual producer prices have risen more than the contract price. The authorities plan to raise contract prices gradually.

213. Changing food consumption patterns are also of concern. For example, domestic demand for meat has risen, requiring pork rationing in many cities. While impeding this demand will be politically unpopular, it may be necessary, because livestock consume cereals which could be used for human consumption.

214. The Government is also concerned about rising demand for imported foods, which requires higher expenditure of precious foreign exchange. For example, demand is shifting from rice to imported wheat. China imported a record 15.3 million tons of wheat in 1987/88 and this is expected to increase to 16 million tons in 1988/89. Demand for sugar and vegetable oils is also rising rapidly, putting further pressure on the nation's current account. In 1987, sugar imports rose to nearly 1.9 million tons, having fallen to 1.2 million tons in 1986, and edible vegetable oil imports more than doubled to 520 000 tons (still, however, a relatively small quantity).

215. The loss of 250-500 000 ha/year of arable land, mostly to construction, is another major problem for China. Even though the nation possesses about 93 million ha of arable land, losses are mostly of high-quality land on the outskirts of cities. New land being brought into cultivation is of marginal quality and cannot compensate for land that is lost. Rigorous taxation measures have been introduced to discourage the loss of arable land, but demand for land for residential and industrial purposes remains high.

216. An associated problem in some areas is land fragmentation, which reduces productivity. The Government is encouraging consolidation, which is necessary if improved farming technologies are to be used, since they require a reasonable scale of output. So far, however, such consolidation has taken place for only 5 percent of the land.

217. Government policy regarding land tenure varies according to circumstances. In areas of lower agricultural potential, peasants are granted leases for up to 50 years. If they leave the land to take non-farm jobs, they may "sell" their land entitlement to specialized households involved in agriculture. Alternatively, small farmers are free to form cooperatives, or to work the land of others who have taken nearby non-farm jobs but wish to retain their entitlements to the land.

C. Latin America and the Caribbean: Economic Crisis and the Prospects for Agriculture

218. The 1980s were critical years for most of Latin America and the Caribbean. Their dismal economic record is presented in Table 2-3. The most important

TABLE 2-3. LATIN AMERICA AND THE CARIBBEAN, SELECTED INDICATORS OF ECONOMIC AND AGRICULTURAL PERFORMANCE BY COUNTRY GROUPS, 1981-88

COUNTRY AND GROUPS	POPUL %	AGRLAB %	TOTGDP %	AGRGDP %	TOTEXP \$ VAL	TOTIMP \$ VAL	AGRPROD %	AGRPROD %	AGRPROD %	AGREXP \$ VAL	AGRIMP \$ VAL	FOODIMP VOL
	CHANGE 81-88	CHANGE 81-88	CHANGE 80-86	CHANGE 80-86	%CHANGE 81-87	%CHANGE 81-87	CHANGE 81-87	CHANGE 87-88	CHANGE 81-87	%CHANGE 81-87	%CHANGE 81-87	%CHANGE 81-87
MEXICO	2.55	1.21	-0.27	1.73	6.63	-2.36	1.86	-2.73	5.23	-5.30	1.15	
BRAZIL	2.19	-0.26	1.79	0.36	4.49	-5.21	3.75	0.88	-0.16	-2.41	-3.11	
CUBA	0.76	0.15	-	-	2.53	5.42	1.84	1.63	2.99	-3.73	-0.48	
TRINIDAD TOB	1.60	-0.63	-4.61	4.12	-12.22	-11.63	-1.73	1.31	-7.86	-0.35	4.56	
COSTA RICA	2.59	0.34	0.27	3.07	2.01	-0.45	1.48	0.15	1.88	-6.08	-0.68	
JAMAICA	1.48	1.37	1.23	1.82	-4.54	1.91	1.76	1.41	6.56	-2.28	1.45	
DOMINICAN RP	2.31	0.88	1.78	1.92	-2.64	3.15	1.68	0.48	-0.95	2.28	9.12	
NICARAGUA	3.39	1.89	0.70	1.67	-7.66	-1.47	0.01	3.48	-7.94	-4.31	2.53	
GUYANA	1.88	1.04	-3.51	0.86	-5.01	-3.82	-1.80	-4.32	-3.51	-7.74	19.83	
PANAMA	2.16	0.54	2.53	1.87	0.80	-0.80	2.48	-2.46	-1.09	-0.54	2.38	
GUATEMALA	2.88	1.85	-1.18	-	-6.40	-9.87	0.75	5.73	-5.69	-1.28	4.64	
HONDURAS	3.33	2.89	0.99	1.62	2.82	5.42	1.42	4.16	0.59	-1.97	0.79	
EL SALVADOR	3.04	1.60	-2.21	-2.37	-7.45	0.05	-2.82	-3.07	-7.82	-3.34	1.49	
HAITI	2.59	1.10	-1.27	-	-0.18	2.96	1.16	1.93	-5.85	1.32	2.00	
CENT+CARIBBEAN	2.30	1.31	-0.51	1.22	-2.99	-0.04	0.62	1.51	-0.14	-2.82	1.00	
COLOMBIA	2.13	0.53	2.59	2.39	5.45	-0.84	1.82	3.81	-0.15	-5.36	4.13	
VENEZUELA	2.79	-0.48	-0.12	1.77	-10.27	-0.06	2.70	4.50	6.08	-3.13	-0.48	
PERU	2.60	1.43	1.28	3.24	-0.51	5.46	3.81	4.15	1.29	6.58	9.38	
BOLIVIA	2.75	1.59	-3.03	-1.54	-8.23	6.26	3.05	4.38	-7.52	-2.59	0.54	
ECUADOR	2.88	0.61	1.18	1.56	-2.15	1.20	3.31	-3.33	4.01	-4.95	1.69	
ANDEAN	2.52	0.82	0.75	1.95	-6.16	0.11	1.95	1.95	0.20	-3.50	0.44	
ARGENTINA	1.55	-1.16	-0.17	2.65	-0.77	-8.75	1.51	2.98	-4.05	-2.03	-1.32	
PARAGUAY	2.97	2.48	0.69	2.69	4.41	4.90	4.66	10.89	0.48	-6.63	17.43	
URUGUAY	0.72	-0.72	-1.77	-0.67	2.67	-3.03	1.92	1.91	-0.63	-2.98	18.01	
CHILE	1.56	-0.37	-1.23	3.29	2.18	-0.28	2.60	4.66	10.91	-5.32	-16.28	
SOUTH CONE	1.60	-0.17	-0.46	2.52	0.21	-5.36	1.76	4.28	-2.81	-10.97	-11.83	
LAT AMERICA	2.27	0.56	0.42	1.44	-0.23	-3.16	2.33	1.35	-1.31	-6.03	-2.61	

SOURCE : FAO

aspects of that record can be summarized as follows:

- The 1980s were a "lost decade" for socio-economic progress, with GDP growth averaging less than 0.5 percent per year between 1980 and 1986. This represents a decline of nearly 2 percent yearly in per caput terms. By the mid-1980s, no less than 12 of the 30 countries had seen their GDP drop to below their average level for the late 1970s. Only nine had increased per caput GDP.
- GDP growth accelerated during 1984-86 to more than 3.5. percent yearly, but slowed again in 1987 with the decline in economic growth to an estimated 2.5 percent.
- A sharp deterioration occurred in 1988, as economic growth rates dropped to an average below 1 percent, and inflation accelerated to unprecedented levels.
- Agricultural GDP rose much faster than total GDP, but not enough to offset population and demand growth. Agricultural labour force productivity increased modestly.
- Agricultural production growth dropped sharply in 1982 and 1983, after strong expansion in 1980 and especially 1981. A very uneven recovery then followed, with another disastrous year in 1986, excellent harvests in 1987 and yet another shortfall in 1988.
- Worsening terms of trade led to a decline in the value of merchandise exports, despite substantial increases in volume. Export earnings from agriculture stagnated even though volumes increased moderately. The overall terms of trade fell by a cumulative 15 percent between 1981 and 1987. Growth in the value of imports stagnated overall. In some countries and periods (particularly in 1982 and 1983) imports, including food imports, were cut sharply. Exports were estimated to have recovered strongly in 1987 (by 14 percent), partially offsetting the sizeable reversals of 1986 and 1987. Preliminary estimates suggest that exports will expand sharply again in 1988, in both volume (about 10 percent) and value (15 percent) terms. Import values are expected to increase by 10 percent.
- External debt grew slowly in 1987 and 1988. Debt-service ratios declined overall in 1987 but increased sharply in 1988. In 1987, the net outward transfer of resources declined slightly, but still accounted for 16 percent of exports, according to the UN Economic Commission for Latin America and the Caribbean (ECLAC). In 1988, the situation worsened: a sharp decline in net capital inflows coupled with higher debt-service payments pushed net resource transfers to nearly 25 percent of the value of exports.

219. These developments illustrate the severity of the region's economic crisis in the 1980s, and have stimulated a reappraisal of past development strategies and the role of the agricultural and rural sectors within them. The crisis has also led to

a search for more sustainable approaches to development in general and agricultural and rural development policies in particular. ^{9/}

220. The poor economic performance of Latin America and the Caribbean is particularly unfortunate in the light of the high expectations for the region prior to the 1980s. From the end of the Second World War until the late 1970s, the region seemed capable of the rapid and sustained economic growth necessary for development. Some experts saw the region as poised for a take-off that would soon bring it close to industrialized country standards of living. There were significant signs of improvement in human welfare, including growing per caput food supplies, higher life expectancy, lower infant mortality and increased primary school enrolment.

221. External factors, however, and above all worsening terms of trade and the burden of foreign debt, stopped Latin American and Caribbean development in its tracks in the 1980s, exposing the structural weaknesses of the region's economies, and the unsustainability of the development strategies then being pursued.

222. The external factors that undermined the region's development hopes in the 1980s were:

- negative net capital flows to the region from the early 1980s onward. This was the result of the sudden shut-off of private foreign lending and the simultaneous increase in debt service costs, primarily because of rising international interest rates;
- large price declines for most of the region's principal primary commodity exports.

223. In addition to these external factors, mistaken development strategies had weakened the region's capacity to respond to the economic challenges of the 1980s. Most countries had stressed industrialization and neglected agriculture, undermining rural economic and social development, and exposing their economies excessively to the vicissitudes of international events.

224. The cornerstone of most development strategies had been to substitute imported manufactured goods with domestic production. Governments overvalued their own currencies and kept out foreign industrial imports with tariffs, quotas and outright bans. These import-substitution policies were usually narrowly focused on domestic urban markets, again to the neglect of rural areas and agriculture. While some industry did develop, it tended to be high-cost and inefficient, and hence incapable of competing internationally and generating export-led growth. Rather, such protected, "hot-house" industrial structures were dependent upon continual import financing for much of their capital requirements, inputs and technology.

225. Such financing in theory could have been generated by the traditional exporting sectors (in most countries agriculture and/or mining), but in practice increasingly took the form of money borrowed abroad - leading to the accumulation

^{9/} See FAO, Potentials for Agricultural and Rural Development in Latin America and the Caribbean, LARC 88/3, Rome 1988.

of debt. This was in large part possible because the excess liquidity of many foreign banks in the 1970s made them eager to lend.

226. Despite the fact that governments de-emphasized agriculture, the sector grew by 3-3.5 percent a year during the 1960s and 1970s, providing many nations with needed export earnings and keeping the demand for food imports down. But pressures to commercialize farming encouraged the emergence of a dual agricultural structure in most countries. Modern large- and medium-size farms utilizing improved technology and more agricultural inputs served the export and urban markets. The small farmer was bypassed by these innovations and continued to produce staple foods such as cassava, beans and maize by traditional means. At the same time, the number of small-scale peasant farms increased, while their average size decreased.

227. While there were exceptions to this rule (in a few countries smallholders produced a good deal for export or urban markets), in most countries small-scale backward agriculture was, and is still, widespread, as was the rural poverty associated with it. This dual economy, in which peasant farming, like the informal urban economy, came to play the role of a surplus labour reserve for the more "modern" sectors, was both inequitable and vulnerable to external destabilization. This became evident in the early 1980s, when prices for the region's main exports fell and the foreign creditors who had financed industry pulled back.

228. The economic crisis of the 1980s demonstrated the importance of agriculture to the development hopes of Latin American and Caribbean nations. When international financing dried up, industry went into severe crisis, but agriculture proved more resilient because it was largely oriented to food production, had a big subsistence component and required few imported inputs. Furthermore, new macro-economic policies arising from structural adjustment and stabilization programmes stimulated agriculture to move into new export and import substitution markets. Expanding agriculture also became central to alleviating poverty, since most of the poor live in rural areas.

229. These factors - agriculture's greater resiliency in the face of international instability, its export and import-substitution potential, and its role in fighting poverty and hunger - have led to a reappraisal of development strategies. Greater emphasis is now placed on agriculture and rural development. Given the relatively plentiful natural resources of the region and their ecological diversity, there is considerable potential to expand into a wide range of markets. Land reform and redistribution could also offer substantial possibilities for equitable growth in this part of the world. The present unequal distribution of land and productive assets in Latin America and the Caribbean seriously undercuts both production and equity.

Difficult policy decisions needed to revive the agricultural sector

230. Relaunching the economies of Latin America and the Caribbean will require substantial increases in demand for the region's agricultural products. Such increases could come from either higher domestic demand or growth of exports. In both cases the potential for growth is substantial - but the political obstacles to releasing it are daunting.

231. As regards domestic demand, population growth is expected to slow to about 2 percent per year for the rest of the century (from about 2.3 percent in 1980-85). This means that the only hope for stronger domestic markets would be to increase the purchasing power of the lower income groups. Existing trends promise only very slow growth of per caput incomes. Only stronger, more equitable economic

growth could provide the stimulus needed - and this would require political choices, such as land reform, that most Latin American and Caribbean nations have so far been unwilling or unable to make.

232. Food demand growth in the region averaged about 3.3 percent per year during the 1960s and 1970s, but decelerated to only 1.9 percent during 1980-86, primarily because of worsening poverty. FAO estimates that reducing malnutrition by a modest 10 percent by the year 2000 would require a 200 kcal increase in per caput daily food consumption (from 2 700 to 2 900 kcal). This would imply a 2.8 percent yearly growth in domestic food demand, lower than the rate of the 1970s, but substantially above the slow growth of recent years.

233. Such an improvement is possible only if per caput incomes increase and governments reorient their policies to achieve a more equitable distribution of wealth and income, so that the poor can afford to eat more.

234. Exports could also provide a major stimulus to Latin American and Caribbean agriculture - but are unlikely to do so under present international political circumstances. Foreign markets currently absorb about 20 percent of the region's crops and livestock production, but demand from Eastern Europe and the USSR and developing countries is structurally weak, at least in the short- and middle-run, while slow population growth, existing high levels of consumption and agricultural protectionism all limit the growth of exports to the developed market economies.

235. Theoretically, considerable scope exists for increased consumption and imports in other developing countries and Eastern Europe, but major increases in exports to these nations from Latin America and the Caribbean are unlikely. Except for a few commodities such as sugar, they account for only about one-third of the region's agricultural exports. Limited income growth and widespread balance-of-payments problems will continue to restrain the growth of their imports for years to come.

236. The only immediate possibility for a relaunching of exports would be to the developed market economies - but this would require reduced restrictions on their agricultural imports. It probably would also necessitate major cuts in their agricultural support policies, which generate huge surpluses that are disposed of as food aid or at heavily subsidized prices on world markets - thereby undercutting potential demand for Latin American and Caribbean exports to third country markets.

237. A revival of agricultural exports is unlikely unless the industrialized countries open their markets to such key Latin American and Caribbean exports as cereals, beef, vegetable oils and oilseeds, sugar and citrus, and if they reduce subsidies on other products sold on world markets. Most developed countries would find such a liberalization politically very difficult. Nevertheless, some progress may be made at the ongoing Uruguay Round of multilateral trade negotiations.

D. Near East: Uneven Progress

238. Economic and agricultural performance in the Near East has been mixed in the 1980s, as shown in Table 2-4. The main developments were the following:

- The oil exporting countries suffered GDP declines, while non-oil exporters' GDPs grew.

TABLE 2-4. NEAR EAST, SELECTED INDICATORS OF ECONOMIC AND AGRICULTURAL PERFORMANCE
BY COUNTRY GROUPS, 1981-88

COUNTRY AND GROUPS	POPUL % 81-88	AGRLAB % 81-88	TOTGDP % 80-86	AGRGGDP % 80-86	TOTEXP \$ VAL 81-87	TOTIMP % 81-87	AGRPROD % 81-87	AGRPRD % 87-88	AGREXP \$ VAL 81-87	AGRIMP \$ VAL 81-87	FOODIMP VOL 81-87
	CHANGE	CHANGE	CHANGE	CHANGE	%CHANGE	%CHANGE	CHANGE	CHANGE	%CHANGE	%CHANGE	%CHANGE
U A E	5.22	-1.29	-4.96	11.38	-2.90	0.0	0.0	0.0	-2.43	2.13	11.54
KUWAIT	5.13	2.53	-0.06	12.47	-9.79	-2.41	0.0	0.0	-2.50	1.93	6.96
OMAN	4.20	3.09	-2.42	-	1.09	9.76	0.0	0.0	3.42	6.41	15.60
HIGH-INCOME	4.89	1.73	-2.47	11.53	-6.01	-1.17	0.0	0.0	-3.31	2.30	9.66
LIBYA	3.86	-0.85	-5.75	5.65	-16.21	-3.56	10.79	3.61	0.0	-2.51	2.45
IRAN	2.88	0.38	-	-	1.71	-0.84	3.56	0.09	24.93	2.00	6.10
SAUDI ARABIA	4.13	1.94	-5.62	9.54	-17.50	-4.65	18.54	13.05	6.33	-0.65	9.67
IRAQ	3.54	-0.41	-	-	-13.88	-9.56	3.41	6.70	15.85	0.01	6.79
OIL EXPORTERS	3.25	0.56	-5.88	8.47	-15.43	-5.43	4.60	3.35	12.03	-0.70	6.68
CYPRUS	1.15	-1.23	5.43	1.30	3.02	3.29	2.85	3.41	3.78	0.70	8.33
EGYPT	2.40	1.37	4.90	1.62	6.99	21.66	4.70	1.38	1.66	7.48	6.69
SYRIA	3.66	0.45	1.90	-1.55	13.65	-6.78	0.18	20.14	-1.68	4.43	16.23
TURKEY	2.08	0.28	5.10	3.48	21.42	9.11	2.50	2.61	5.41	29.06	67.56
LEBANON	0.81	-2.43	-	-	-13.19	-6.99	0.95	3.11	-8.73	-3.71	-3.15
JORDAN	3.87	-1.00	5.59	-0.14	3.00	-0.06	3.72	2.54	-6.27	1.58	1.16
MID-INCOME	2.38	0.59	4.64	2.34	10.33	7.41	2.98	4.02	2.28	6.02	6.97
YEMEN DEM	2.90	0.50	-	-	-2.90	0.90	1.51	0.57	-1.64	-2.97	1.97
YEMEN AR	2.82	1.87	3.14	0.28	13.95	-5.59	1.50	1.78	1.92	-5.32	4.84
AFGHANISTAN	2.21	1.08	-	-	5.26	13.26	0.84	-3.74	1.15	4.03	13.72
SUDAN	2.91	1.18	3.54	7.44	-1.22	-9.63	1.44	11.36	-0.28	-2.78	12.00
LOW-INCOME	2.63	1.21	3.36	5.51	-1.34	-3.15	1.47	1.87	-0.91	-4.53	4.81
NEAR EAST	2.74	0.76	-1.39	3.30	-10.63	-1.10	2.83	3.58	1.51	1.27	6.75
ALL REGIONS	1.99	1.34	2.60	3.79	-2.56	0.47	3.16	2.66	-0.37	-1.79	2.72

SOURCE : FAO

- Export values declined significantly for all categories except the middle income nations. They plummeted 15.4 percent for the oil exporters.
- Agricultural production failed to keep pace with population growth in all categories. It was particularly poor in the low-income countries during 1981-87.
- The value of agricultural exports grew substantially for some oil-exporting and middle-income countries, but declined or grew sluggishly elsewhere. The volume of food imports grew faster than in any other developing region.

239. Near Eastern economic activity made a modest recovery in 1987, after the severe blow received in 1986, when oil prices dropped sharply. After declining 3 percent in 1986, regional output expanded by an estimated 2.5 percent in 1987. Despite this improvement, aggregate output for the region was still almost 3 percent below 1985's level, and the long-term decline or stagnation in real incomes which began in the early 1980s has continued. It is unlikely that 1987's moderate improvement in aggregate output will lead to a fundamental shift in the economies of the region toward sustained recovery.

240. The precipitous fall in oil prices, from \$28 per barrel in early January 1986 to \$9.2 per barrel at the end of July of that year, drastically cut the external revenues of the oil-exporting countries. OPEC's subsequent production restraint was then able to maintain a \$17 per barrel marker price throughout most of 1987, but in 1988 prices fell again, to an average of \$14 per barrel. Total oil revenues dropped 30 percent in 1986, but increased by nearly 13 percent in 1987. However, although this rebound in oil revenues in 1987 reduced current account and fiscal imbalances, it failed to restore confidence. Investment and private consumption lagged and the exodus of capital continued unabated. To stay this capital flight, several governments increased their issues of treasury bonds.

241. Import volumes are also believed to have continued to fall in 1987, after declining by nearly 2 percent per year from 1980 to 1986. For the oil exporters, this decline was much larger - about 10 percent. Imports by the non-oil countries fell by 13 percent in 1986. They are not likely to have grown significantly since because of import-reduction policies undertaken as part of structural adjustment programmes. Output and investment - and hence potential productive capacity - are believed to have suffered severely as a consequence of reduced imports of productive inputs.

Structural adjustment

242. The intensity and duration of external shocks since the late 1970s induced several non-oil exporters in the region to adopt economic adjustment policies aimed at reducing their large current-account deficits. While these policies included short-term restraints on demand to slow the growth of imports, they emphasized longer-term supply-side adjustments to boost earnings from agricultural and, in some cases, energy exports.

243. Governments believed they could afford to stretch out adjustment periods this way, both because of the short-term availability of external financial resources, and because they failed to foresee the worsening of the international market situation which took place in the 1980s and undercut most of their exports.

They actively promoted expansion of the agricultural and energy sectors, expecting that shortfalls in export earnings would be temporary and that export markets would remain open.

244. Growing protectionism and the end of easy credit forced these nations to adopt more painful adjustment programmes that emphasized demand and import restraint. Such policies have cut output and employment, depressing real wages. Interest rates have risen, subsidies have been reduced or eliminated, and the consumption levels of the poor have fallen. Many adjustment programmes have provoked serious popular opposition; some governments are having difficulty maintaining the domestic political support needed to continue them.

Agricultural performance

245. Agricultural output rose 3.2 percent in 1988, after stagnating in 1987. Several countries that had experienced sharp drops in agricultural output in 1986 made strong recoveries in 1987. Preliminary estimates predicted a 32 percent increase in Saudi Arabia's output, although later figures may show this to have been somewhat exaggerated. The Sudan and Iraq also made strong recoveries, primarily because of good cereal harvests. In countries such as the Syrian Arab Republic, Yemen and Turkey, where about 70 percent of cultivated land is rainfed, agricultural production slipped in 1987, mainly because of unfavourable weather. In 1988, output improved with the return of more favourable weather. Egyptian production was more stable, thanks to its extensive irrigation although even Egypt is vulnerable to drought - in 1988, production suffered from water shortages in the Nile's catchment area.

Policy reforms needed to spur investment in the agricultural sector

246. Faster economic and agricultural growth in the Near East will require above all increased private and public investment. In theory, these resources could come from either more domestic savings or increased foreign investment. Some policy reforms have already been adopted to stimulate both, but more will be needed. Stagnating and generally low incomes continue to limit domestic savings and, while most oil exporters enjoy good credit ratings, foreign investors are wary of indebted non-oil exporters.

247. Sound domestic policies to increase savings and attract official and private capital from abroad are therefore essential. Non-oil exporters need to increase their export earnings, both to generate domestic savings and to regain the confidence of foreign investors. But despite recent commodity price increases, markets remain depressed for many of the commodities that they export. Until export earnings improve, stimulating income and savings growth and improving creditworthiness, the prospects for investment will remain poor.

248. Agriculture is a priority for most countries of the region. A number of policy measures have already been adopted to spur the sector's development. In the oil-exporting countries, agriculture has benefited from infrastructural investments and generous farm subsidies. Non-oil countries have also adopted measures to improve producer incentives and attract private agricultural investment.

249. A number of other policy reforms, however, should be adopted to realize the region's agricultural potential:

- Irrigation is the key to agricultural development. Unfortunately, most countries lack the foreign exchange to finance major improvements in

irrigation and sufficient foreign capital is not likely to be forthcoming. Nations must seek to go forward as rapidly as financial limitations permit, making investments with care to ensure maximum returns.

- Policy measures which improve the profitability of farming should be adopted, particularly those which raise producer prices and reduce input costs. Institutional reforms to protect farmers from such problems as environmental degradation, drought and desertification should also be intensified. These measures, of course, would raise farm incomes, spurring domestic savings and investment. Even more important, they would attract more foreign investment.
- Strengthening and streamlining research and extension services could produce substantial improvements in agricultural production and rural living standards, and would also have a positive effect on investment. Better research and extension in the Near East could resolve many technical constraints on increased output, at a relatively low cost, since many improved farming practices and technological advances simply have not yet got to the farmers because of severe shortages of qualified research and extension staff.
- Finally, several countries in the region need to improve their capacity to formulate, execute and monitor agricultural development plans, policies, programmes and projects. Inadequate ability to perform these functions often prevents them from making desirable agricultural investments.

E. Eastern Europe and the USSR

The impact of economic reform

250. The Soviet Union's far-reaching programme of economic reforms, which began in 1985, gave a powerful new impetus to similar policy changes in Eastern Europe, notably in Hungary, Bulgaria and Poland, where important initiatives had already begun. The new course of Soviet policy has radically changed the economic and agricultural environment, influencing the functioning of all of the centrally planned East European economies.

The overall economic situation

251. Economic growth has continued although Net Material Product (NMP) growth in Eastern Europe and the USSR fell in 1987 to 2.6 percent, after having risen an average of nearly 4 percent per annum between 1983 and 1986 (Table 2-5). ¹⁰/NMP expansion slowed in all countries except Hungary, although Bulgaria's rate remained a healthy 5.1 percent, only slightly below 1986's impressive 5.3 percent. Poor agricultural performance was a major reason for this overall slowdown in 1987's NMP growth, because it also depressed industries which process agricultural products.

252. Consumer prices continued to increase slowly in the USSR (1.6 percent) and barely in Czechoslovakia (0.1 percent) in 1987. Poland's already high price inflation worsened considerably, from 17.3 percent in 1986 to 26 percent in 1987; it

¹⁰/ NMP of centrally planned economies differs from GDP, since it excludes the value of consumption of fixed capital and of services such as public administration, personal and professional services, etc.

TABLE 2-5. EASTERN EUROPE AND USSR: ANNUAL CHANGES IN SELECTED ECONOMIC INDICATORS, 1981-87

	1981	1982	1983	1984	1985	1986	1987
<u>Net material product a/</u> %						
Bulgaria	5.0	4.2	3.0	4.6	1.8	5.3	5.1
Czechoslovakia	-0.1	0.2	2.3	3.5	3.0	2.6	2.0
GDR	4.8	2.6	4.6	5.5	5.2	4.3	3.6
Hungary	2.5	2.6	0.3	2.5	-1.4	0.9	2.3
Poland	-12.0	-5.5	6.0	5.6	3.4	4.9	2.0
Romania	2.2	2.7	3.7	7.7	5.9	7.3	4.8
USSR	3.3	3.9	4.2	2.9	3.5	4.1	2.3
Eastern Europe and USSR	1.7	2.8	4.1	3.6	3.5	4.2	2.6
<u>Consumer prices</u>							
Bulgaria	0.4	0.3	1.4	0.7	1.7	3.5	...
Czechoslovakia	0.9	4.7	1.1	0.9	1.3	0.4	0.1
GDR	0.2	-	-	-	-0.1	-	-
Hungary	4.6	6.9	7.3	8.3	7.0	5.3	8.6
Poland	24.4	101.5	23.0	15.8	14.4	17.3	26.0
Romania	2.0	17.0	5.5	0.9	-0.4	-0.1	-
USSR	1.4	3.4	0.7	-1.3	0.7	2.0	1.6
Eastern Europe and USSR	...	...	...	...	...	...	...
<u>Export volumes</u>							
Bulgaria	8.4	11.3	4.4	11.6	3.9	-5.5	3.3
Czechoslovakia	0.5	6.1	5.7	8.5	2.6	1.8	3.7
GDR	8.4	5.4	10.6	2.1	2.1	0.5	0.8
Hungary	2.6	7.3	9.4	5.8	-0.3	-2.2	3.7
Poland	-19.0	8.7	10.3	9.5	1.3	4.6	4.6
Romania	11.3	-8.3	3.2	15.9	0.3	8.9	-3.2
USSR	1.9	4.5	3.3	2.5	-4.0	9.3	4.2
Eastern Europe and USSR	1.4	4.8	5.4	5.5	-0.9	5.0	3.1
<u>Import volumes</u>							
Bulgaria	9.3	3.2	5.2	5.6	11.7	-3.8	1.8
Czechoslovakia	-6.9	2.9	2.0	4.8	4.6	2.9	4.3
GDR	-1.3	-4.7	5.3	3.6	3.1	4.7	2.3
Hungary	0.1	-0.1	3.9	0.1	1.1	2.1	3.2
Poland	-16.9	-13.7	5.2	8.6	7.9	3.6	4.9
Romania	-7.2	-22.4	-3.8	10.5	8.5	15.0	-17.6
USSR	6.4	9.7	4.0	4.4	4.6	-5.0	-2.2
Eastern Europe and USSR	-0.1	1.3	3.7	4.9	5.3	-0.6	-0.8

a/ The aggregate Net Material Product for the centrally planned economies differs from Gross Domestic Product primarily in excluding the value of consumption of fixed capital and of non-material services such as public administration and personal and professional services and similar activities.

Source: UN/ECE, Economic Survey of Europe in 1987-88, New York, 1988.

is believed to have surged again in 1988. Hungary's inflation also increased in 1987, from 5.3 percent to 8.6 percent. In both countries, these increases were partly the result of price policy reforms.

253. The region's export volumes increased faster than overall output in 1987 (3.1 percent), but more slowly than in 1986 when they had grown by 5 percent. Import volumes again fell, reflecting strong contraction in Soviet and Romanian import demand. As a consequence of these changes, the region returned to its traditional positive balance of trade, after the deficit of 1986.

254. Provisional 1988 major economic indicators suggest a strong upsurge in economic activity for the region as a whole after the poor performance in 1987. Growth in output for the first half of 1988 was estimated at around 4.8 percent on an annual basis, with industrial production rising 4.6 percent. If maintained, this would represent the highest growth rate of the 1980s.

255. Despite this growth, problems remained on the road to reform with structural changes planned for industry proceeding less rapidly than planned. The significant increase in investment underlying 1988's recovery in product growth was not accompanied by commensurate gains in productivity. In the USSR, the implementation of economic reform programmes continues to encounter a variety of obstacles, most notably in the area of factory management, which has had difficulty in adapting to the decentralization of decision making at present under way.

Agricultural production in 1987

256. The agricultural production of Eastern Europe and the USSR declined in 1987 for the first time since 1981. The drop was moderate (-1 percent) in the USSR, but severe (-3.4 percent) in Eastern Europe (Table 2-6). Regional crop output fell almost 3 percent, while livestock production increased slightly. Overall, cereal output remained virtually unchanged. Declines were sharpest for potatoes (-10 percent) and fruit (about -20 percent).

257. Bulgarian agricultural output declined 4.5 percent in 1987, as a result of particularly unfavourable weather conditions, similar to those that had damaged output even more severely in 1985. Output of all major crops dropped significantly in 1987, while livestock production was stable. Cereal output is highly dependent on rainfall in Bulgaria. In response to this problem, the Government allocated significant additional resources in 1988 to develop and expand irrigation.

258. In Czechoslovakia, agricultural production declined 11.2 percent in 1987 despite improved output of cereals and oil-bearing crops. The Government has given top priority to grain crops, enabling the country to reduce drastically grain imports, especially imports of feed grains. Economic reforms currently under way include a major restructuring of management and productive organization of farming and agricultural processing. The government hopes this will improve both cost-efficiency and the incentives for farming activity.

259. In the German Democratic Republic, agricultural production was stable in 1987. Cereal output declined slightly from 11.7 million tons in 1986 to 11.5 million tons in 1987. At 45-46 quintals per hectare, however, average cereal yields remained high by international standards. While elsewhere in Eastern Europe market-oriented reforms got forward, in June 1987 the Government of the German

TABLE 2-6. EASTERN EUROPE AND USSR: ANNUAL CHANGES IN
AGRICULTURAL AND FOOD PRODUCTION, 1985-88

	1985	1986	1987	1988 ^{b/}
 %			
<u>Agricultural production</u>				
Bulgaria	-11.6	11.4	-4.5	3.7
Czechoslovakia	-0.1	3.7	-11.1	-0.6
GDR	6.1	2.6	0.4	1.4
Hungary	-5.8	1.6	0.2	1.0
Poland	2.3	6.4	-3.6	0.2
Romania	-5.7	13.5	-1.4	-3.1
USSR	0.7	6.6	-1.0	1.6
Eastern Europe and USSR ^{a/}	0.5	7.3	-2.0	1.1
<u>Food production</u>				
Bulgaria	-12.0	12.9	-5.7	3.9
Czechoslovakia	-0.1	3.9	-11.2	-0.6
GDR	6.3	2.9	0.1	1.3
Hungary	-5.8	1.6	0.1	1.0
Poland	2.1	6.5	-3.3	0.5
Romania	-5.7	13.7	-1.4	-3.3
USSR	0.2	7.3	-0.7	1.4
Eastern Europe and USSR ^{a/}	0.1	7.9	-1.9	0.9

^{a/} Including Albania.

^{b/} Preliminary.

Source: FAO.

Democratic Republic reaffirmed its continued commitment to cooperatives and state farms. The Government has also emphasized the need for agricultural intensification in order to conserve natural resources and preserve the environment.

260. Hungarian agricultural output was also stable in 1987. Cereal production, which reached its peak in 1984 (14.1 million tons), continued its decline mainly because of decreasing yields. The government planned to reduce the area under wheat in 1988, and increase that of maize and feed crops by the same amount. In September 1987 Parliament adopted the Triennial Stabilization Programme which aims to improve the Hungarian economy's openness and responsiveness to world market conditions. The programme, based largely on price and tax reforms, became operational in January 1988.

261. After seven years of continuous expansion, agricultural production in Poland decreased by 3.6 percent in 1987, mainly because of unfavourable weather conditions. The long, cold winter destroyed about 25-30 percent of the orchards. As a result, fruit output declined by almost 50 percent. Cereal production, however, increased to a 26 million ton peak. Economic reforms seeking to make agricultural prices more responsive to market forces have cut agricultural subsidies drastically. Subsidies of farming inputs of industrial origin will also be reduced gradually.

262. In Romania, total agricultural production fell by 1.4 percent in 1987, continuing wide fluctuations in annual output, but substantially improved cereal yields led to another record harvest - over 30 million tons. This brings the total increase in cereal output over the past two years to 36-37 percent. Romania's 1988 plan intends to increase significantly total agricultural production. Increased areas and the introduction of improved hybrid seeds should result in even higher cereal output. The plan also hopes to expand the output of livestock products, through larger herds and improved breeding efficiency. The goal of paying off the nation's large foreign debt by 1990, however, is a serious investment constraint. By mid-1987, the debt had been reduced to \$3 000 million; the Government intends to cut it further by continuing to expand exports and ration consumption of energy and all main food products.

263. Agricultural production in the USSR was stable in 1987, following the good harvests of 1986. Crop output fell in 1987, but this was offset by an increase in livestock production. Despite a slight decline in total agricultural output, a good cereal harvest of 211.3 million tons was achieved, up from 210 million tons in 1986. This marked the first time that grain output exceeded 200 million tons in two consecutive years. These relatively large harvests were achieved despite bad weather in some areas in both years. A harsh winter and wet summer hampered sowing and harvesting, thereby impeding the realization of 1987's production target of 232 million tons. The increases in Soviet cereal output of 1986-87 were achieved exclusively through higher yields; the area sown decreased between 1981 and 1987 at an annual rate of 1 to 1.5 percent. Nevertheless, at 18 quintals per hectare, cereal yields in the USSR are still the lowest in the region. Sugar-beet production increased 13 percent in 1987 and more sunflower seed was produced, up 15 percent from 1986, than in over a decade.

264. The steady growth of USSR livestock output of recent years continued in 1987, with total meat production increasing more than 3 percent. Some reduction in livestock numbers occurred, largely due to economic and management reforms which have induced farmers to slaughter less productive stock.

265. USSR economic reform has introduced sweeping changes in agriculture. The nation's agricultural administration was restructured, beginning in November 1985. A comprehensive package of policies was introduced in March 1986 to streamline management of the agro-industrial complex and improve performance. It included wage incentives, bonuses and credit, as well as new rules for the operation of the agricultural economy. The reform process was accelerated in 1987, with the establishment of a closer link between output and income, and the adoption of profitability as a basic criteria for farm operations. Centrally fixed targets are giving way to more local independence and responsibility for planning, investment and financial control.

1988 production estimates for Eastern Europe and the USSR

266. Preliminary estimates for 1988 show a weak recovery in total agricultural and food production in the region (Table 2-6). Output of non-food products, especially cotton, however, increased substantially. Most individual countries performed at close to the regional average. The only exceptions to this were Bulgaria, where production recovered significantly from 1987's setback, and Romania, which suffered even worse crop shortfalls than those of the previous year.

267. Regional cereal production fell again in 1988 to an estimated 287 million tons, almost 17 million tons less than 1986's record output. Wheat production increased by about 4 percent, but coarse grains declined about 10 percent. In the USSR, preliminary figures suggest a decline in the grain harvest to 195 million tons, after two consecutive years in which output exceeded 200 million tons. Despite this decline, however, production remained above the average level of the early 1980s. The shortfall occurred largely because of drought in the Volga river basin and floods in the central Asian republics.

268. Several countries in the region, in particular Bulgaria and Romania, and to a lesser extent the USSR, continue to be subject to pronounced year-to-year fluctuations in food and agricultural output. Good harvests tend to alternate with bad ones, producing long-term stagnation or at best very slow growth in agricultural production during the 1980s. The German Democratic Republic has been a notable exception: it has maintained a fairly steady growth rate in agricultural output (2 percent per year) during the 1980s - the highest in the region.

Main issues in economic and agricultural policy

269. The pace of economic reform quickened in 1987 in most countries of the region. Awareness continued to grow that economic and social progress require even greater changes in the way East European economies function. Centralized planning, management and resource control are giving way increasingly to market incentives, albeit the pace and scope of this process differs. Reforms in agricultural management have been particularly far-reaching in most countries.

270. The changes taking place in the USSR are very important. Economic enterprises are acquiring more and more autonomy, as the traditional mandatory planning indicators based on production targets are replaced by a more limited scheme of state orders. In Hungary, changes in macro-economic planning and enterprise management were accompanied by the introduction of a value-added tax for enterprises and a progressive personal income tax. In Poland, a radical phase of economic reform is under way. This initially included an extensive restructuring of the price system, but consumer resistance forced the Government to slow down the

pace of reform. Poland's high foreign debt also continues to restrain the pace of economic reforms. In Bulgaria, enterprises are freer to set prices, salaries and targets, and a total reform of the pricing system is on the national agenda. Major reforms are also taking place in Czechoslovakia, which is attempting to restructure its economy and improve economic management. The Government is examining ways to make enterprises responsible for their own financing, and to give them more independence regarding production decisions. Only the German Democratic Republic and Romania have not announced major alterations in their economic and management systems.

271. As regards agriculture, policy-makers of the region currently emphasize the following areas for priority action:

- Decentralization of decision-making and greater attention to market forces. The main thrust of reforms is to increase production through gains in productivity brought about by a radical restructuring of agricultural management. Decision-making is being decentralized, economic incentives are being strengthened, and greater reliance is being given to market mechanisms.
- An intense debate is also under way on how to reduce consumer subsidies, which have kept most basic foodstuffs' prices lower than production costs, putting an undesirable burden on the state. Price reform cannot be too rapid, however, as it is inevitably inflationary and in some countries potentially destabilizing. Excessively rapid removal of subsidies could also have negative effects on savings, wages, pensions and the functioning of taxation systems. The experiences of Hungary and Poland, where cuts in subsidies aggravated inflation, illustrate the need for caution when undertaking such reforms.
- Opening to international markets. This can be achieved only if competitiveness vis-à-vis western markets improves. This in turn will require price reforms and full convertibility of currencies.
- Self-sufficiency in food and agriculture. Food security is a major goal of all countries of the region. The need to reduce imports is particularly compelling in the light of the severe foreign exchange shortages they face.
- Modernization of agriculture. Across the region, governments are recognizing the need for major efforts to overcome backwardness through the introduction of modern farming technology.
- Sustainable agriculture and environmental protection. The need to increase production puts additional pressure on the environment. Governments recognize that they must develop the capacity to increase output while respecting ecological limits, if such production increases are to be sustainable over time.

F. The Developed Market Economies

272. Supply of agricultural products in the developed market countries continued to exceed demand in 1987. Prices were low, especially for cereals and oilseeds, although dairy and meat prices strengthened a little, as production controls began to take effect. Real farm incomes declined, despite increased assistance, and

above all price supports. In all countries, calls for reform continued to grow as policy-makers recognized the need for freer agricultural markets and better international policy coordination.

273. In 1988, markets for most temperate-zone agricultural commodities changed dramatically. Output dropped sharply and prices rose significantly, especially for cereals, oilseeds and dairy products. These changes resulted mainly from the drought in North America and from supply adjustment measures introduced by the EEC and some industrial countries. Developed countries' agricultural export earnings rose, and stocks, especially of cereals, were sharply reduced.

274. The 1988 decline in agricultural, especially food, output extended to most of the developed market economies. Of the major subgroups, only Oceania and the non-EEC countries of western Europe increased output (Table 2-7).

275. Despite 1988's more balanced supply/demand situation and tighter agricultural markets, policy-makers remained concerned about the high cost of price supports and subsidy programmes used extensively to support farm incomes. Interest continued to grow in shifting the emphasis of agricultural policies away from farm income support toward environmental objectives, such as compensation for reducing land-use and assisting farmers on marginal land in finding alternative employment.

276. The outlook for 1989 is for reduced crop supplies, firm demand and higher agricultural prices. Some expansion in output may occur in the second half of the year, however, should favourable weather return to the major producing countries, halting the reduction of stocks. World supplies of animal products are expected to remain large, and livestock price increases will be modest as a consequence.

United States

277. The United States' agricultural production declined for the third consecutive year in 1988. A sharp fall of 10 percent in food output reflected the devastation of the cereal harvest (down 19 percent) caused by the most severe and widespread drought in 50 years. Non-food production declined moderately, following 1987's 34 percent increase. The exceptional output of 1987 had resulted from record cotton yields.

278. Agricultural exports continued to expand in crop year 1987/88 (October-September) despite the stronger dollar and the drought. Soybeans remained the most important agricultural export commodity. Wheat exports increased sharply, more than any other commodity. Exports of high-value products such as grapefruit, tree-nuts, raisins, feed and fodder reached record levels.

279. Wheat export values rose 55 percent - reflecting increases in both prices and volume. Wheat export volumes increased by 12 million tons. Exports to the USSR more than doubled to a record 9 million tons; those to China rose by 5 million tons. Exports also increased to Latin America and Eastern Europe. Wheat exports were encouraged by the implementation of the 1985 Food Security Act, in particular by the Export Enhancement Programme (EEP) which awards large bonuses to exporters for sales to some nations. In 1987/88 bonuses were US\$32 per ton for wheat sales to the USSR and \$42 per ton for sales to China, with an average selling price of \$106 per ton.

TABLE 2-7. DEVELOPED MARKET ECONOMIES: ANNUAL CHANGES IN AGRICULTURAL, FOOD AND NON-FOOD PRODUCTION 1985-88

	1985	1986	1987	1988 ^{a/}
 %			
<u>Agricultural production</u>				
Developed market economies	2.0	-1.9	-0.9	-4.6
North America	5.9	-5.2	-2.8	-11.2
USA	4.9	-6.3	-1.6	-9.6
EEC (12)	-1.6	0.5	1.5	-0.7
Other Western Europe	-4.7	3.5	-5.7	1.0
Oceania	2.9	0.9	-0.7	3.8
Japan	0.5	-0.2	-4.5	-1.7
<u>Food production</u>				
Developed market economies	1.9	-1.5	-1.5	-4.9
North America	6.1	-4.4	-4.1	-11.6
USA	5.4	-5.2	-3.3	-10.1
EEC (12)	-1.7	0.5	1.6	-0.7
Other Western Europe	-4.8	3.4	-5.5	1.0
Oceania	1.0	1.1	-1.3	2.2
Japan	0.9	-0.1	-4.4	-1.7
<u>Non-food production</u>				
Developed market economies	4.5	-11.6	12.7	2.6
North America	0.9	-23.3	32.9	-2.8
USA	-3.0	-25.0	34.4	-2.1
EEC (12)	4.9	3.6	-6.7	1.3
Other Western Europe	6.1	12.4	-21.9	7.2
Oceania	12.9	-0.3	1.8	11.1
Japan	-7.2	-3.4	-7.1	-0.5

a/ Preliminary.

Source: FAO.

280. The value of agricultural imports also expanded in 1987/88, to a record \$21 000 million. Price increases accounted for nearly all of the higher import values.

281. The drought did not cause the sharp increases in consumer prices for food that had been feared. The 1988 consumer price index for food increased 4.1 percent - about the same as in 1987. Food supplies remained ample, in part because of plentiful supplies of red meat and poultry.

282. In the light of supply cuts caused by the drought, the Government in 1989 lowered the land area reduction requirement for participation in farm support programmes for most crops. For wheat, the requirement for participation in the Acreage Reduction Programme (ARP) was reduced from 27.5 percent of planted land area to 10 percent; for maize from 20 percent to 10 percent. The paid land diversion (PLD) was reduced from 10 percent to zero. ^{11/}

283. Higher prices expected in 1989 should encourage agricultural production. Even though most drought years have been followed by good years, the 1989 season was off to an unfavourable start, and both domestic and international demand are expected to be strong. Thus stocks are not likely to be rebuilt rapidly, and prices will remain high.

European Economic Community (EEC)

284. EEC agricultural production declined slightly in 1988, according to preliminary estimates. This was the result of an overall drop in output of roots, tubers, oilcrops, fruit and milk, which more than offset increases in cereals, sugar and pulses. Cereal output among the 12 EEC members is estimated to have risen by about 7 percent to 167 million tons. If this estimate holds, production will exceed the EEC's 160 million ton "trigger level", thereby reducing guaranteed prices by 3 percent for the 1989/90 season. Harvests were particularly good in the Federal Republic of Germany, Spain and France.

285. Milk production fell nearly 4 percent in 1987 and another 2 percent in 1988. This, plus increased consumption of fresh milk and expanded output of cheese and whole milk powder, caused butter and skim milk powder production to drop sharply. Sugar output decreased nearly 7 percent in 1987 as a result of lower yields and a 3 percent reduction in cultivated area. Despite further reductions in beet land area, output was estimated to increase 3 percent in 1988. Production of oil-bearing crops also fell by more than 5 percent in 1988, from 1987's record output of almost 6 million tons oil equivalent, an increase of more than 40 percent over 1986.

286. Policy issues. The Common Agricultural Policy (CAP) of the EEC is its largest budget item. EEC agriculture is highly subsidized, and most of the CAP is concerned with various farm support programmes. The high costs of the CAP have led to calls for reform in the 1980s. This section reviews the major elements of the CAP and the types of changes taking place.

^{11/} Both PLDs and ARPs are voluntary, but only participating farmers qualify for deficiency payments and commodity loans. ARPs are uncompensated, whereas PLDs pay producers for idled acreage.

287. **Production quotas for dairy products and sugar.** To maintain market balance and to restrain overproduction in the milk sector, the EEC employs:

- a production quota introduced in April 1984; and
- a flexible price support policy which includes a coresponsibility levy on producers.

288. The system sets a production limit for each farmer or dairy. If the producer exceeds his limit, he must pay a levy on the overproduction equal to 100 percent of the target price.

289. Following an agreement reached in December 1986, the EEC reduced milk quotas by 8.5 percent during the period 1987-89. The EEC also adjusted the system of penalties for overproducing farmers, with the aim of reducing output by 9.5 percent. Despite these efforts, however, current quota levels (96 million tons) still exceed unsubsidized sales of dairy products by a wide margin. Such sales have averaged only about 73 million tons in recent years. March 1987 the EEC also began limiting its intervention purchases of butter and skim milk powder.

290. Milk production has fallen from 129 million tons in 1983 to 120 million tons in 1988. This decline, together with drastic measures of surplus disposal, has nearly eliminated government-held stocks of skim milk powder; they fell from 708 000 to 13 000 tons between October 1987 and October 1988. Butter stocks also fell substantially - from 1 006 000 tons to 83 000 tons - during the same period. The 80 percent reduction in butter stocks was largely the result of subsidized sales to the USSR and to animal feed manufacturers. Dairy cow herds were cut by some 8 percent between 1983 and the end of 1986, to 23.9 million head, with an expected overall reduction of some 17 percent by the end of 1988.

291. As a consequence of these events, EEC spending on the dairy sector is expected to decline to 4 900 million European currency units (ECU) in 1989. While still high, this represents an 18 percent decline from the 6 000 million ECU spent in 1987.

292. To control sugar production, the EEC has imposed output quotas on each member nation, which in turn are allocated to refineries. These quotas are fixed for five years, beginning with crop year 1986/87, and forward planning is required of farmers and processors. ^{12/} To contain costs, the system is self-financed. Each year, the costs of disposal of surpluses on world markets are passed back to producers through a special levy, which in 1987/88 was about 3.2 percent of the intervention price. Since the establishment of the EEC sugar regime in 1981/82, producers have had to pay the costs of losses resulting from the disposal of their "C" quota sugar - surplus production sold on world markets. On sugar exported up to the quota, producers receive export restitutions. Since quotas will remain fixed

^{12/} The EEC has two sugar quotas which benefit from minimum price guarantees. The "A" quota corresponds to the EEC's estimated consumption. The "B" quota, designed to assure an extra margin plus some surplus, is defined as a varying percentage of the "A" quota. Sugar produced in excess of this amount is referred to as non-quota or "C" quota sugar; it is not eligible for export subsidies or price support. It may not be sold in the EEC.

until 1990/91, EEC producers will continue to be insulated from most international price fluctuations. They will feel the direct effect of fluctuations only for "C" quota production. This in turn may encourage growers to produce more sugar.

293. The EEC also imports 1.4 million tons of sugar per year - almost 13 percent of its annual consumption - from India and countries included under the Lomé Convention. These imports, part of the EEC's development commitment, are fixed at EEC prices, but EEC producers may re-export them in addition to their "A" and "B" quota exports, and may receive export restitutions.

294. **Cereal and oilseed policies.** Over the past decade, the EEC has gone from being the world's leading importer to being the second largest exporter of cereals. Cereal production expanded dramatically because of technological innovations and, above all, high price supports. The EEC's farm budget spends more on the cereal sector than on any other except the dairy sector. It rose almost threefold between 1984 and 1987.

295. In 1986, in order to reduce output and cut budget costs, the EEC began a major reform of its policies regulating cereal markets by:

- reducing intervention prices,
- introducing a coresponsibility levy on cereal production exceeding reference levels,
- modifying intervention arrangements, which previously bought cereals only when the average Community market price was below the intervention price; and
- tightening the criteria which qualify cereals for intervention.

296. In February 1988, the EEC tightened up further by introducing a "budget stabilizer" which set a 160 million ton "maximum guaranteed quantity" for each of the four marketing years beginning with 1988/89. An additional 3 percent coresponsibility levy (reimbursable if the 160 million ton threshold is not exceeded) was imposed. Furthermore, should the threshold be exceeded, the intervention price for the following year will fall 3 percent automatically.

297. The EEC has also adopted other means to discourage cereal production. For example, farmers are exempted from basic coresponsibility and other levies if they take at least 30 percent of their arable land out of cereals.

298. The EEC is the world's leading importer of oilseeds and oilseed products, such as oilcake for feed uses. There are no import restrictions on such products, except for some low customs duties.

299. Oilseed output expanded by 90 percent between 1984 and 1987, but still represents only some 2 percent of total EEC agricultural production. The EEC sets target prices for soybeans, sunflowerseed and rapeseed, and growers are paid the difference if world market prices fall below them. The cost of such support has been growing rapidly, from 1 700 million ECU in 1984 to well over 4 000 million ECU in 1987, making oilseeds the third biggest item of the farm budget after dairy and cereals.

300. The new oilseeds stabilizer mechanism agreed to in February 1988 cuts the target price automatically whenever production exceeds the "maximum guaranteed

quantity" (2 million tons for sunflowerseed, 4.5 million tons for rapeseed and 1.3 million tons for soybeans). For every 1 percent of production above these limits, prices will be cut by 0.45 percent in 1988/89 and 0.5 percent in each of the following seasons up to 1990/91. There is no limit to potential price cuts, which will be directly proportional to overproduction. Furthermore, cuts are made in the same marketing year as the overproduction and not, as for cereals, in the following season.

301. Recent policy developments. Massive oversupply of agricultural products and, above all, the high cost of maintaining the Common Agricultural Policy led, at the February 1988 Brussels Summit, to reforms of the CAP and the EEC's system of finance. Community leaders adopted a series of measures to solve the immediate budget crisis, increase revenues in the mid-term, provide additional funds for structurally weak areas and impose a ceiling on total expenditures for agricultural price supports. To contain the 1987 budget deficit, price supports increases were postponed until 1988. In addition to the measures on specific crops discussed above, the EEC's total expenditure was limited to 1.2 percent of GNP. Growth of spending on agriculture was capped at 74 percent of Community GNP growth. The Brussels agreement also covered programmes for early retirement of farmers and measures were adopted to promote the development of less-favoured mountain and hill areas. New environmental regulations were also introduced.

Canada, Oceania and Japan

302. Following a major shortfall in 1987, Canadian agricultural output dropped again (by 12.6 percent) in 1988. Cereal output fell by almost 36 percent, bringing the cumulative decline during 1987-88 to nearly 47 percent. Below average rain and high temperatures affected most crops sown in the spring of 1988 in the southern prairies. Livestock producers were affected by poor range and pasture conditions, as well as rising feed costs.

303. The Canadian Government remains committed to the liberalization of agricultural policies, especially as they relate to grains. Feedgrain price changes are fully transmitted to the livestock sector to ensure better allocation of resources between commodities. Dairy support prices, however, have been increased.

304. Recently, the Government has intervened to support incomes and stabilize prices, but these short-term measures have been costly. Grains and oilseeds have been the most favoured crops. The Special Canadian Grains Programme was announced in December 1986 to provide direct income support to farmers hurt by declining world prices. The programme was extended for the 1987/88 crop.

305. The Free Trade Agreement concluded with the United States in early 1988 will liberalize drastically trade, including agricultural trade, between the two countries. All tariffs and some non-tariff barriers will be eliminated by the year 2000. Since most of the agricultural trade between them consists of fruit and vegetables, these areas will benefit most from the agreement.

306. Australian food output increased by about 4 percent in 1988. The rise in non-food production was much larger (15.3 percent), stimulated by continuing strong demand for wool. Cereal output rose 11 percent, recovering somewhat from a severe setback in 1987. Nevertheless, the overall trend for the 1980s remains one of stagnation in cereal output. Meat production remained virtually unchanged, but milk output rose by 5 percent - twice the average growth rate of the 1980s.

307. Average farm income was expected to rise 68 percent in 1987/88, primarily because of increased revenues from wool, pay-outs from past wheat crops, and higher beef and dairy prices. Farm costs were expected to rise somewhat, mainly because of higher interest payments. The rise in farm income helped reduce average farm debt in both 1986/87 and in 1987/88. Nominal land values started to climb again after having fallen for several years in a row.

308. High levels of support to the Australian dairy sector continued, but new marketing regulations were introduced in 1986 to begin phasing down discriminatory domestic prices and to improve the response of individual exporters to market signals. Tariffs were reformed on imports of fresh and processed vegetables, and many input subsidies were reduced or removed. All other major commodities were already largely exposed to world market prices.

309. New Zealand food production was stable in 1988, remaining at the level of 1987. Non-food output increased only marginally. In 1988, the farm sector suffered severely as a result of the worst drought in history which imposed heavy financial losses and cost the sector an estimated 11 000 jobs.

310. Since 1984 the New Zealand Government has introduced a wide range of liberalizing reforms to improve competition and the allocation of resources between sectors, including agriculture. The Government has reduced compensation to farmers for low agricultural prices and natural disasters, and since 1986 there have been no new government- or consumer-funded price and income supports for major commodities. As a consequence, both budget expenditures and farm incomes have declined gradually.

311. The New Zealand Government has, however, introduced measures to promote the restructuring of agriculture and to protect farmers from its effects. For example, the Rural Bank Discounting Scheme was introduced to improve farmers' equity positions and to help farmers who are no longer economically viable to leave the land. New Zealand has also seen some productive diversification with new products, such as deer meat and kiwi fruit, increasing in importance.

312. After having declined 4.5 percent in 1987, Japanese agricultural production decreased a further 1.7 percent in 1988. Once again, the shortfall was primarily a result of significant declines in cereal production. Livestock output increased slightly, after having stagnated in 1987.

313. Japan is the world's largest net importer of agricultural products, and the Government has no export subsidies. In recent years, Japan has helped reduce tensions over international agricultural trade by opening its import markets, for example for beef. The basic orientation of agricultural policy is to reduce public support, improve farm structures and increase productivity. Policies are being introduced to reduce domestic prices and production especially in the dairy meat and cereal sectors.