C 91/2
August 1991

conference

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS ROME

E

Twenty-sixth Session

Rome, 9 - 28 November 1991

THE STATE OF FOOD AND AGRICULTURE 1991

CONTENTS

I. WORLD REVIEW

Overview

1. The overall economic environment has been generally unfavourable to agriculture in both 1990 and 1991. The economic slowdown already under way in industrialized countries was accentuated by the effects of the Gulf crisis which also had negative effects on the economies of many developing countries. Their overall economic and agricultural systems were hit by slower growth of world import demand and higher oil and energy prices. These events exacerbated problems which by now have become traditional in many of them: heavy external debt, difficult access to developed country markets and low world prices for many of their main exports, particularly agricultural commodities.

2. Agriculture has been negatively affected by the economic slowdown through the complex interaction of demand-depressing and supply-constraining influences. While country and regional experiences widely varied, those countries primarily relying on agriculture as a source of growth and export earnings were amongst those most severely affected.

3. Although economic prospects for 1992 appear generally improved at the global level, it will take several years of sustained growth for many developing countries, particularly in Africa and Latin America and the Caribbean, to recover from the economic losses of the 1980s.

4. Countries in Eastern Europe and the USSR encountered serious economic, financial and political difficulties in pursuing, or intensifying in several of them, the process of reform leading to market-based economic systems. Among the various areas of reform, those related to price liberalization and land tenure are having a major impact on their agricultural sectors.

5. Numerous changes in the instruments of agricultural policies have been introduced in OECD countries although only limited progress has been achieved toward greater market orientation. The United States Food, Agriculture, Conservation and Trade Act of 1990 emphasizes greater market orientation and addresses a wide range of issues of importance for world agricultural markets and food security. Deliberations on the EEC's Common Agricultural Policy (CAP) reform are under way, against the background of a reemergence of structural surpluses. The EEC is facing another major challenge in integrating East German agriculture into the CAP.

6. Growth in world food and agricultural production slowed in 1990 from the relatively high rate of 1989. Production growth in developed countries, particularly North America, was lower and it accelerated in developing countries only because of much improved agricultural conditions in the Near East region. For a large number of developing countries, however, 1990 was a poor agricultural year.

7. Agricultural trade in 1990 is estimated to have considerably expanded in developed countries, but to have remained depressed in developing countries. Agricultural terms of trade are estimated to have considerably deteriorated in 1990, continuing their downward trend. High

levels of farm support and protection, particularly in developed countries, continue to distort resource allocation and international trade. A comprehensive and progressive reduction of agricultural support and protection is a major objective of the Uruguay Round of Multilateral Trade Negotiations. However, the outcome of the Uruguay Round remains uncertain and agreement has yet to be reached on specific measures to reduce export subsidies and domestic support, or to achieve greater market access.

8. The current supply/demand for cereals remains delicately balanced. World cereal stocks moderately increased in 1990/91, but with production expected to slightly decline in 1991 and falling below estimated world consumption requirements in 1991/1992, some drawdown of carryover stocks is foreseen.

9. The deep and worsening socio-economic crisis in sub-Saharan Africa continues to be of great concern. Per caput real income there has fallen to levels close to those of the early 1970s. Deteriorating economic infrastructures render recovery increasingly difficult. Depressed prices of key export commodities contribute to a growing marginalization of the region from world trade. In 1990 only nine out of 45 sub-Saharan countries had a positive gain in per caput food production. Seventeen of these countries are currently facing serious food shortage problems and the situation is critical in several of them.

10. Amidst major economic and financial problems, also aggravated by the effects of the Gulf crisis, many Latin America and Caribbean countries have continued their adjustment efforts. Deteriorating terms of trade, high inflation and a crippling debt problem have continued to hold economic growth well below its potential. Prospects for sustained recovery remain uncertain despite some progress in debt, inflation and external stabilization. Agricultural performances have also faltered in most countries, with food and agricultural production in the region as a whole falling well below population growth in both 1989 and 1990. Furthermore, food production in 1990 fell short of the already disappointing growth of the previous year.

11. Most countries in the Near East were severely affected by the Gulf crisis which broke late in the 1990 farm year. Apart from the massive human and material losses, most countries suffered from higher oil prices, losses in remittances from migrant workers, and disruptions to trade, tourism and capital flows. The crisis also disrupted the population's access to food, created acute shortages of food and other essential supplies for large numbers of refugees and negatively affected agricultural production systems. Although agricultural production rose significantly in 1990, it failed to totally recover from the severe production shortfall of 1989.

12. While the Gulf crisis and economic slowdown worldwide did not leave Asia and the Pacific untouched, the region's economies continued to expand at robust rates and their agricultural sectors generally shared in the overall satisfactory performance. However, the region continues to face major challenges in reducing income inequalities and poverty, meeting the nutritional needs of its massive and growing populations and countering environmental degradation.

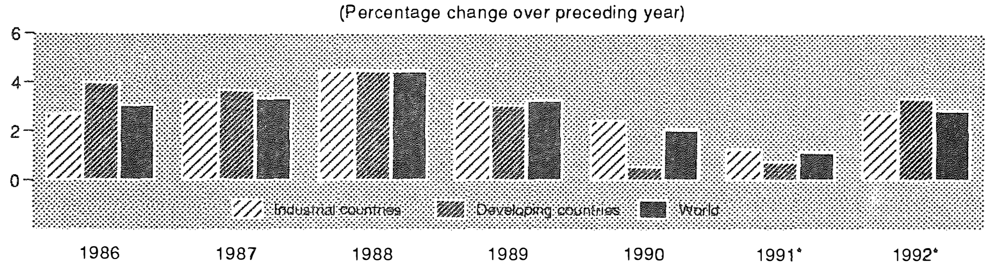
13. A common feature of policies affecting agriculture in virtually all countries has been recognition of the need for less government intervention and more liberal market, pricing and trade regimes. This tendency, which in many cases is a radical departure from previous policies, is most strikingly demonstrated in the formerly centrally-planned economies of Eastern Europe and the USSR. However, it is also demonstrated by the group of developing countries in the various regions selected for closer review. The revitalization of old, and the emergence of new, regional and sub-regional economic integration and cooperation schemes has been another general feature of recent policy orientations.

A. WORLD ECONOMIC ENVIRONMENT

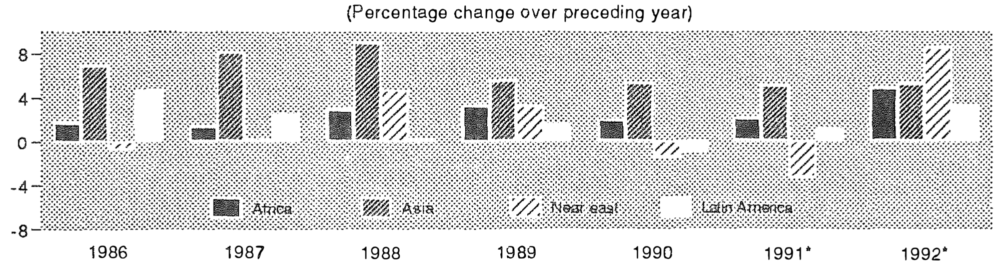
14. After seven consecutive years of sustained expansion, world economic activity slowed significantly in 1990 and is expected to weaken further in 1991 before picking up again in 1992 (**Fig. 1**). Earlier expectations of a smooth cyclical downturn in industrialized countries' economic expansion in 1990 were frustrated by the Gulf crisis. It caused a sharp, if temporary, increase in oil prices and political and economic uncertainty that undermined consumer and business confidence. Thus, the slowdown in growth which was already apparent in several industrialized countries including Australia, Canada, the United Kingdom and the United States, accentuated during the second half of 1990. Higher real interest rates in several large European countries and Japan contributed to the slowdown. At the same time, many oil-importing developing countries, particularly those which are highly indebted, confronted significantly worse external payment situations and adjustment problems. Countries in Eastern Europe and the USSR also faced major difficulties in pursuing their programmes of policy reforms, further contributing to weaken overall economic growth.

Figure 1

WORLD ECONOMIC OUTPUT
(Percentage change over preceding year)



ECONOMIC GROWTH, DEVELOPING COUNTRY REGIONS
(Percentage change over preceding year)



Source: IMF

* 1991: Preliminary - 1992: Forecast

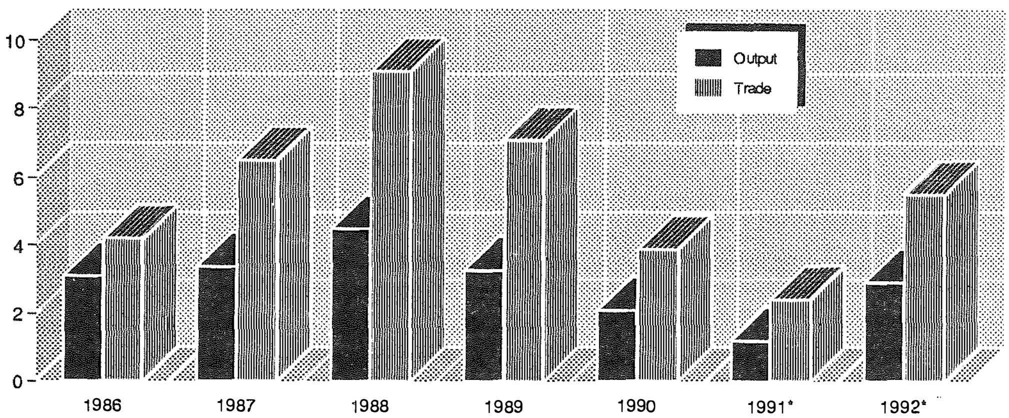
15. Prospects for 1992, however, are for a rebound in economic activity in industrialized countries, arising from greater business confidence, lower oil and non-oil commodity prices, generally declining interest rates and moderate inflation - consumer and output prices being expected to rise at approximately the same rate in 1992. Growth of world trade, which slowed down pronouncedly in 1990 and is expected to decelerate further in 1991, is also forecast to rebound in 1992. As in previous years, the growth in the volume of world trade in 1991 and 1992 would exceed that in output, underlining the growing integration of the world economy (**Fig. 2**). Such generally optimistic forecasts of recovery in industrialized countries, and the world economy at large, were echoed by a recent assessment of the Group of Seven (G7) which met in London in June 1991. Many countries that had experienced recession would likely begin to recover in the second half of this year.[1]

16. Economic growth in developing countries is also expected to significantly recover in 1992 from the depressed levels of 1990 and 1991. Their economic performance and prospects vary greatly however, depending inter alia on their net trade position for oil, their external debt situation and, more generally, how diversified is their production and trade. Among the country categories defined by IMF, the 'net debtor fuel exporting' and the 'heavily indebted' countries are the two groups with the most severely depressed economies in 1990 and 1991, although their growth is expected to resume in 1992, strongly in the former group. As regards countries exporting predominantly agricultural products, the general picture is one of continuous recession with prospects for only a limited recovery in 1992.

Figure 2

WORLD OUTPUT AND VOLUME OF WORLD TRADE, 1986-92

(Percentage change over preceding year)



Source: IMF

* 1991: Preliminary - 1992: Forecast

[1] The 'G7' group, comprising finance ministers and central bankers from Canada, France, Germany, Japan, Italy the United Kingdom and the United States, first met in its 'G5' version in May 1973 (Canada and Italy joined in the late 1980s). Unlike the current practice, early G5 meetings were held in secret and did not issue communiqués.

17. A crucial event shaping the current world economic environment was the surge in oil prices following the outbreak of the Gulf crisis. Although temporary, the oil price increase no doubt was a major factor worsening the economic slowdown in much of the developed world. According to IMF these events raised industrialized countries' consumer prices by 0.5%, reduced their real GDP by 0.2% and increased their current account imbalance by US$17 billion in 1990. As regards developing countries, the events in the Gulf have had a generally greater and more lasting impact. For the group of 130 net debtor developing countries these events would have reduced real GDP 0.3% in 1990, 1.1% in 1991 and 0.4% in 1992. In most cases, these losses would result from the deterioration in their terms of trade in 1990, reduced import demand in industrialized countries and higher debt-servicing costs resulting from higher interest rates.

18. IMF economic and financial estimates for 1990-91 and forecasts for 1992 include the following[2]:

Industrialized countries

- GDP growth is estimated to slow from 2.5% in 1990 to only 1.3% in 1991. The slowdown is expected to affect all major industrial countries, although Japan and Germany would still maintain relatively high growth rates. GDP is expected to decline in the United Kingdom and Canada, and remain practically stagnant in the United States. Forecasts for 1992 point to a recovery in industrialized countries' output, which would grow 2.8%. All major industrial countries are expected to share in this recovery, except Germany where a further slowdown in GDP growth, though to still robust levels, is forecast in 1992. In the United States, recent economic indicators suggest that the recession may bottom out in the July-September quarter of 1991.

- Consumer price inflation in 1991 would remain at 4.9%, similar to 1990 levels, and decline to 3.9% in 1992. In the year to April 1991 consumer price increases were between 6 and 7% in Canada, Italy, Spain and the United Kingdom; 4.9% in the United States; and between 3 and 4% in France, western Germany and Japan.

- Average short-term interest rates in 7 major industrial countries increased from 8.7% in 1989 to 9.1% in 1990, but had declined to 8.4% in March 1991. Interest rates were further reduced in May, particularly in the United States and the United Kingdom. This trend not only augurs well for growth prospects in these countries, but also has major positive implications for the many indebted developing countries whose interest payable on outstanding debt is on a floating rate basis.

- The reduction in the current account imbalances of the three largest industrial countries - the United States, Germany and Japan - was expected to continue in 1991 (although Japan's

---

2 IMF World Economic Outlook May 1991.

surplus should increase somewhat), but imbalances among these countries remain very high and are forecast to widen again in 1992.

- Export volumes are expected to increase by 4% in 1991 and 5.2% in 1992. In current US dollar value terms, exports should increase by 9.0% in 1991 and 6.8% in 1992. The increase in imports would be 3.6% in 1991 and 4.3% in 1992 in volume; and 7.6% in 1991 and 6.6% in 1992 in value.

Developing countries

- After having fallen 0.6% in 1990, *per caput* real GDP is expected to barely increase in 1991 (0.1%), but to increase moderately to 2.7% in 1992.

- Consumer price inflation is estimated to slow in 1991, and even more pronouncedly in 1992, largely reflecting strengthened stabilization programmes in Latin America and the Caribbean (**Fig.** 3)

- For non-oil exporting developing countries the growth in the volume of exports is expected to remain at 3.5% in 1991 (the same rate as in 1990) but to pick up to 5.8% in 1992. Terms of trade of non-fuel exports should remain broadly stationary in both 1991 and 1992 after the 2.9% decline of 1990. Among developing country regions, terms of trade deteriorated in 1990 and 1991 in all regions except Asia but should moderately improve in 1992 (**Fig. 4**).

- The aggregate current account deficit of non-oil exporting developing countries is expected to widen significantly, from US$17 billion in 1990 to US$38 billion in 1991 and US$43 billion in 1992. As a percentage of their exports of goods and services, the current account deficit should increase from 2.2% in 1990 to 4.5% in 1991 and 4.7% in 1992.

- The ratio of debt service payments on total exports is estimated to have significantly declined in 1990 from previous years' levels, but is expected to rise again in 1991 (see **Box**).

Eastern Europe and the USSR

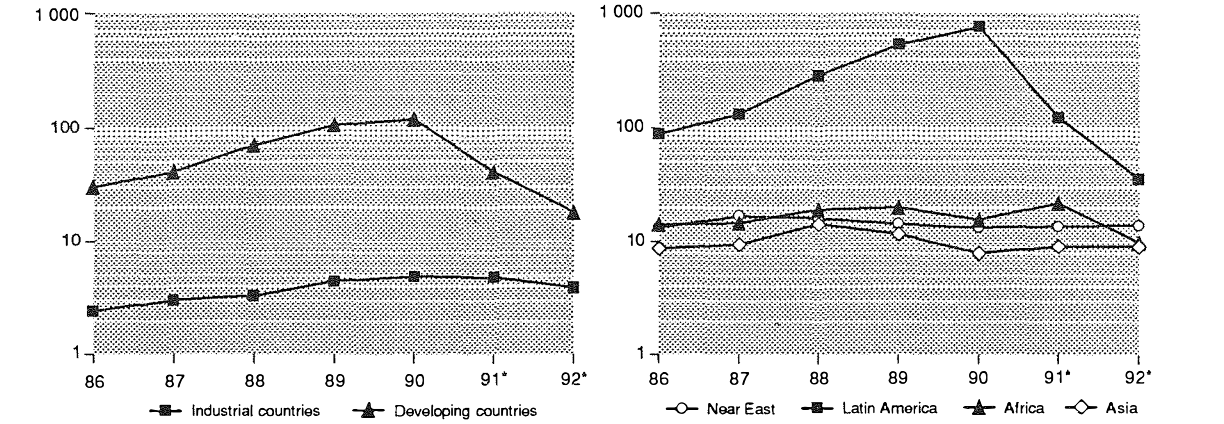
19. Although unequally advanced in the different countries, the process of transition toward market-based economies in Eastern Europe and the USSR has been evolving amidst major economic and financial difficulties. These include large fiscal and external account imbalances, terms of trade losses caused by economic dislocations and the conversion of the Council for Mutual Economic Assistance (CMEA) trade to a hard currency basis, and strong inflationary pressure requiring tight economic and financial policies. Traditional problems of shortages of consumer goods, inefficient technology and resource use and production bottlenecks, remain or have even worsened in some cases. Great uncertainty surrounds the future pace of reform, particularly in the USSR. The Soviet Government is facing a crucial choice between rapidly opening to the world economy or pursuing a more internally oriented path of reform.

Figure 3

CONSUMER PRICES 1986-1992

(Percentage change over preceding year)

- Semi-logarithmic scale -



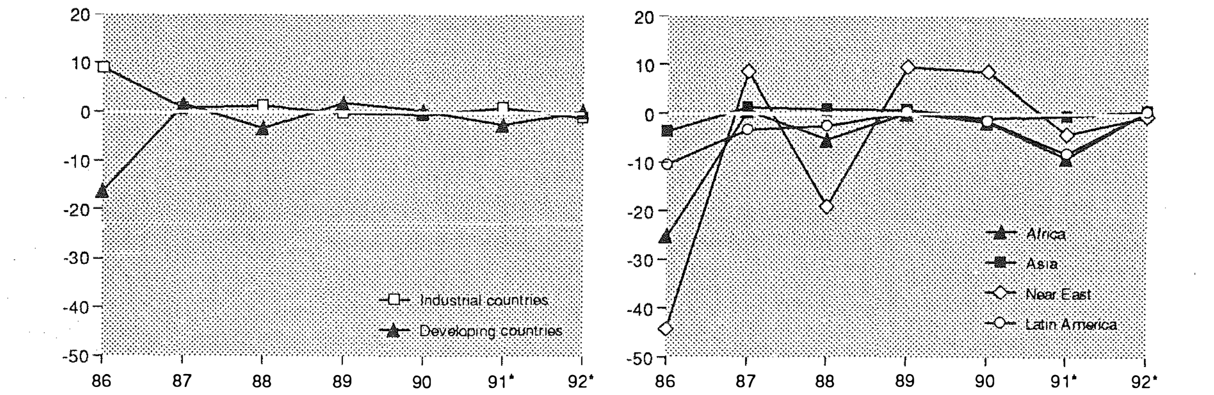
Source: IMF

* 1991: Preliminary - 1992: Forecast

Figure 4

TERMS OF TRADE, 1986-92

(Percentage change over preceding year)



Source: IMF

* 1991: Preliminary - 1992: Forecast

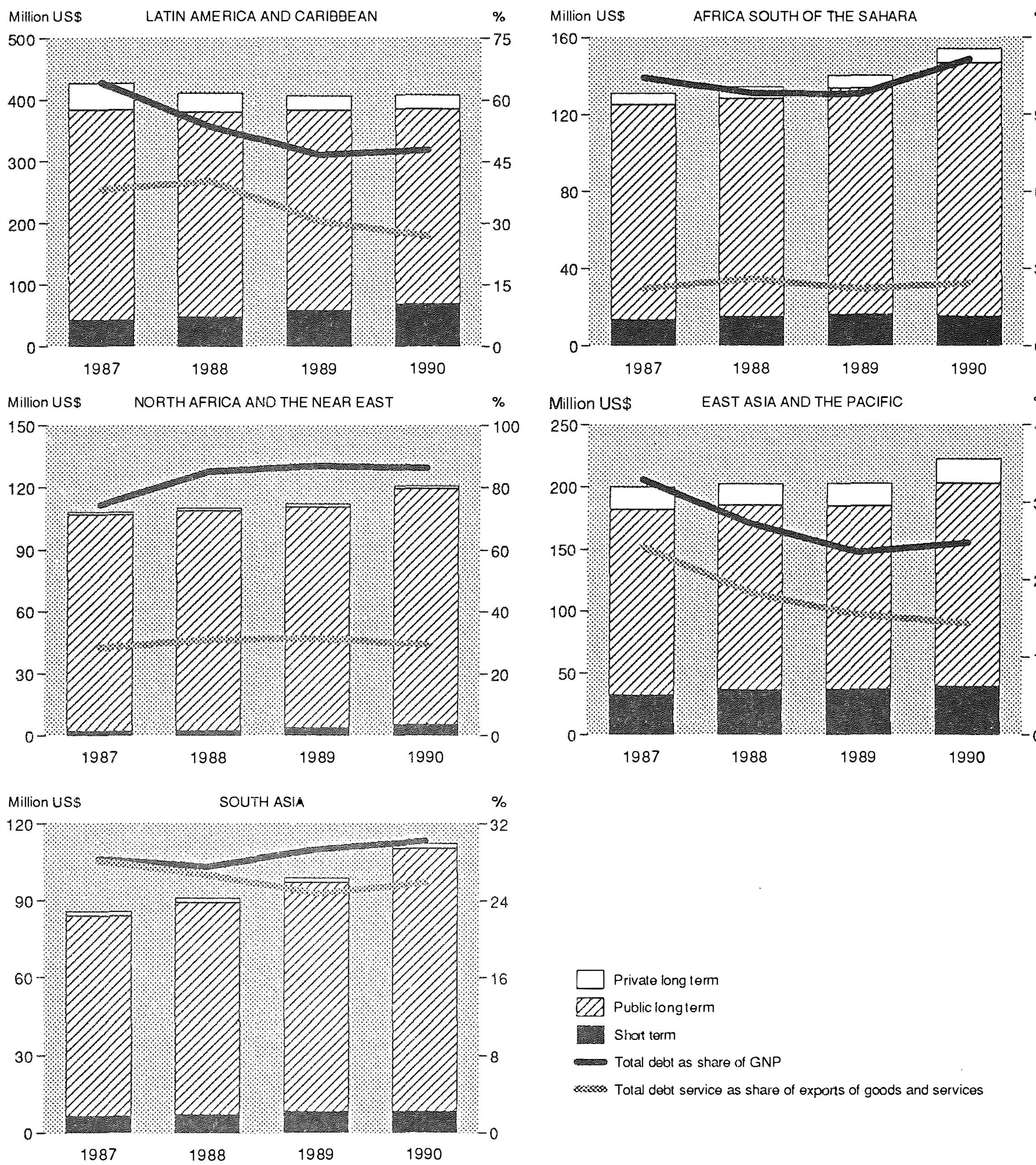
20. According to IMF, real GDP in Eastern Europe and the USSR declined 3.8% in 1990 and is expected to decline further by about 4% in 1991. In Eastern Europe (Bulgaria, Czechoslovakia, Hungary, Poland, Romania and Yugoslavia) real GDP sharply contracted by an estimated 8.6% in 1990 and would continue to decline by 1.5% in 1991. Unlike the USSR, however, Eastern European countries are forecast to begin recovery in 1992 as their private sector expands and efficiency improves. (A more detailed discussion is presented in the Regional Review of this document.)

External Debt of Developing Countries

21. Total external debt of developing countries in 1990 is estimated at US$1 341 billion[3], about US$80 billion (6%) more than the previous year (Fig. 5). The increase reflected larger net lending flows (about US$38 billion) and the appreciation in the dollar value of the stock of debt denominated in currencies other than dollars (US$46 billion). External debt liabilities of developing countries are expected to increase by over 3 percent during 1991, and further in 1992, except in the Latin America and the Caribbean region.

Figure 5

COMPOSITION OF DEBT 1987-90



Soource: World Bank

3 Including IMF credits - Source World Bank, World Debt Tables.

22. Nonetheless, the debt service ratio (payments on interest and amortization as a share of exports of goods and services) of developing countries decreased from 22.1% in 1989 to 21.1% in 1990. It declined significantly in Latin America and the Caribbean and North Africa and the Near East but remained very high in both regions. However, it is in Africa South of Sahara that the stock of debt is highest relative to the size of the economy. In 1990 Africa South of Sahara's total debt as a share of GDP was about 112%, compared to 87% for North Africa/Middle East and 48% for Latin America and the Caribbean.

23. The liabilities of developing countries to private creditors, estimated at US$494 billion in 1990, are likely to continue declining as a result of lower new bank lending, debt reduction operations and net repayments by large debtors. Indeed, new net lending by commercial banks is becoming very selective, directed mainly to creditworthy developing countries that show the best prospects for sustained medium-term economic performance and political stability.

24. On the other hand, net lending from official sources is continuing to expand and is projected to increase from about US$27 billion in 1990 to over US$30 billion in 1991.

Recent Development in Debt Reduction and Relief

25. Among recent measures and programmes aimed at easing the debt burden, several countries have benefited from a major increase in the forgiveness of official development assistance (ODA) loans in 1990. While between 1978-1989 a total of US$5.7 billion of debt had been forgiven (of which US$3.5 billion to severely indebted low-income countries), as much as US$4.9 billion were cancelled in 1990 alone. France, which contributed the bulk of the total (US$3.3 billion), further proposed in September 1990 to cancel public debt of all 41 least developed countries (LDC), worth 28.6 billion Fr. francs (an extension of the proposal made in May 1989 with respect to 35 African countries). In December, Belgium also forgave B.fr 2.5 billion in loans to ten poor African countries cooperating with IMF or the World Bank. The US Government cancelled US$32 million of Nigeria's debt earlier this year, and nearly US$7 billion of Egypt's military debt.

26. In March 1991, the first agreement in favour of lower middle-income countries was signed by the Paris Club[4] of developed creditor countries and Poland, which will reduce Poland's official hard-currency debt of US$33 billion by 50%. A similar debt relief operation was agreed between the Paris Club and Egypt. The two-stage accord, preceded by IMF arrangements on economic reforms, should halve Egypt's official debt of US$20.2 billion. Forgiveness of government-to-government debt had previously only been available to the poorest countries, mainly in Africa.

---

4 The Paris Club is an international forum for the rescheduling of service on debts granted or guaranteed by official bilateral creditors. It has neither a fixed membership nor an institutional structure. Rather, it represents a set of practices and procedures that have been developed over the 35 years since the first ad hoc meeting was convened for Argentina in 1956. Meetings are traditionally chaired by an official of the French Treasury and are open to all official creditors that accept Paris Club practices and procedures.

Poland and Egypt, both lower middle-income debtors, nevertheless carry higher levels of official debt per caput than any other country.

27. As a follow-up to the 1990 Houston Economic Summit, the Paris Club has extended more favourable terms of repayment on consolidated debt of severely indebted middle-income countries. In 1990, 17 agreements, restructuring US$15.2 billion of debt were negotiated with the Paris Club of which nine with Sub-Saharan countries, almost all of them under the Toronto menu terms.[5]

28. During 1990 and early 1991, five countries have implemented officially supported debt and service reduction agreements with commercial bank creditors under the Brady Initiative: Mexico, the Philippines, Costa Rica, Venezuela, and in May 1991 Uruguay. Final agreement, signed in principle, with Morocco in 1990, is conditional to the approval of an IMF Extended Fund Facility before the end of 1991.

29. On 1 July 1991 the Polish Government started negotiating with the Paris Club of 17 creditor governments the conversion of 10% of its debt, owed to individual members, into the world's largest debt-for-nature swap. Under this project aimed at combating pollution, the equivalent to about US$3 billion would be paid by the Polish Government into a domestic environmental fund over an 18-year period in exchange for an additional reduction in its debt of this amount. The project, internationally monitored, will be partly financed by the World Bank, the European Bank for Reconstruction and Development and the European Community.

30. In April 1991, the Development Committee (Joint Ministerial Committee of the Boards of Governors of the World Bank and the IMF) set a deadline of mid-1991 for the Paris Club of creditors to complete the review of the existing options for debt relief and to bring new proposals for additional debt relief measures which could be applied to the low-income debtor countries.

External Public Debt and Agriculture

31. Recent World Bank estimates of debt arising from agricultural-related projects in 108 countries permit an assessment to be made of the extent to which agriculture has contributed to the debt overhang of developing countries.

32. The external long-term debt of agriculture (broadly defined) amounted to about US$53.8 billion in 1989, the bulk of which was in the form of debt to official creditors (Table 1). The share of such debt owed to official creditors in the total has increased from about 70% in the early 1970s to 90% in 1988-89.

33. This implies, given the higher concessionality of official credit, a softening in the terms of agricultural borrowing. As a consequence, although agriculture received a significant share of total debt-creating

---

[5] The Toronto menu allows creditors to choose from among various rescheduling options including significant writing-off of the amount rescheduled, a reduction in the interest rate on the rescheduled debt, and an extension of the grace period and maturity.

financial flows, agricultural debt accounts for a relatively small 4-5% of total debt-service payments, and this share has tended to decline.

34. External agricultural debt approximately doubled between 1980 and 1989 but has increased at a rate similar to that of total long-term public and publicly guaranteed debt. Therefore, agricultural debt as a share of the total has remained fairly stable at about 6%.

Table 1. Developing Countries Agricultural External Debt 1/
1980-83 and 1984-86 Averages and 1987, 1988 and 1989

	1980-83	1984-86	1987	1988	1989
	.... million US $				
Private	7 796	8 090	7 631	5 893	5 171
Official	17 947	32 480	48 183	48 053	48 580
Multilateral	(10 637)	(21 418)	(33 082)	(32 881)	(33 887)
Bilateral	(7 310)	(11 062)	(15 101)	(15 172)	(14 693)
Bonds	83	37	23	23	23
Total	25 826	40 606	55 838	53 970	53 774

1/ Private, public and publicly guaranteed debt in agriculture, broad definition.
Source: World Bank tapes 1991 and FAO.

35. However, while the sector had maintained a positive, though shrinking, net transfer position during 1980-86, total agricultural debt service has exceeded disbursements to agriculture since 1987 (**Table 2**). In the case of private creditors, net transfers had already turned negative in 1983. This reversal reflected, on the one hand, relatively stable disbursement flows throughout the decade, which ranged from US$5.4 billion to US$6.4 billion; and, on the other hand, a steady increase in debt service payments, from approximately US$3.0 billion in 1980-83 to over US$6 billion in 1987-89.

Table 2. Net External Transfers to Developing Countries Agriculture 1/
1980-83 and 1984-86 Averages and 1987, 1988 and 1989

	1980-83	1984-86	1987	1988	1989
	.... million US $				
Private	369	-552	-955	-913	-280
Official	2 313	2 362	781	349	88
Multilateral	(1 320)	(1 717)	(195)	(-62)	(-98)
Bilateral	(993)	(645)	(586)	(411)	(186)
Bonds	-29	-11	-9	-4	-
Total	2 653	1 799	-183	-569	-191

1/ Net transfers = gross disbursements - total debt service.
Source: World Bank tapes 1991 and FAO.

Macroeconomic Environment and Developing Countries' Agriculture

36. The impact of macroeconomic developments on agriculture cannot be easily assessed as it is indirect, lagged and may be offset or accentuated by other factors. However, its general direction can be traced. The reduction in per caput GDP, higher unemployment and higher inflation - experiences shared by many developing countries - all combined to depress the growth of domestic demand facing agriculture. As an order of magnitude, the cumulative decline in per caput GDP between 1990 and 1991 in Africa - about 2.0% - and in Latin America and the Caribbean - about 3.5% - would result in an estimated decline in per caput food consumption of 0.8% and 1.1% in the two regions respectively. In the case of cereals, the declines would be 0.8% in Africa and 0.4% in Latin America and the Caribbean; and in the case of meat 2.4% and 1.4% respectively.[6] Apart from their negative implications on the food and nutrition situation of the populations concerned, such reductions in food demand are bound to transmit depressing impulses upstream. Indeed, agricultural growth in many countries is likely to have been seriously impaired by depressed demand in recent years. Even if the optimistic expectations for developing countries' economies in 1992 materialize, it may take several more years of sustained recovery for the domestic demand constraint to turn into a positive influence for agricultural development.

37. The situation appears hardly better on the side of external demand. Developing countries' agricultural trade prospects are precarious and uncertain in the face of depressed growth in industrial countries in 1990 and 1991, even though their growth should resume in 1992. The strengthened policies supporting trade introduced by many agricultural exporters among developing countries, have confronted continuing problems of market access and falling prices for several of their key export commodities. At the same time, higher oil and manufactured product prices - the latter reflecting higher energy costs - have contributed to a sharp deterioration of agricultural terms of trade in 1990 (see section on Agricultural Trade). These problems have translated into grave economic difficulties for the large number of developing countries that rely on agriculture as a major source of export revenue. The extent of these difficulties is illustrated by the following estimates of countries classified by IMF as predominantly exporting agricultural products[7]:

- Per caput real GDP growth in this group is estimated to fall, for the third consecutive year, by 0.3% in 1990, stagnate in 1991 and rise less than 1% in 1992. By comparison, per caput GDP growth rates in developing non-fuel exporting countries as a whole would be -0.2%, 1.5% and 2.1% during the same years.

---

6 These broad estimates assume the following income elasticities of demand as derived from the FAO Food Demand Model: for Latin America and the Caribbean total food 0.3; cereals 0.1; meat 0.4. For Africa, total food 0.4; cereals 0.4 and meat 1.2.

7 These are 41 countries (22 in Africa, 11 in Latin America and the Caribbean and 8 in Asia and the Pacific) whose exports of primary, mainly agricultural, products accounted for at least half of their total exports on average in 1984-86.

- Their gross capital formation is estimated to represent 16.6% of GDP in 1991, up on the 1990 figure of 13.4% but well below the average of 24.4% for non-fuel exporting developing countries in 1991.

- Although declining, consumer price inflation at median rates of 11.4% in 1990, 9.6% in 1991 and 7.8% in 1992 is still estimated to remain above that of non-fuel exporting countries as a group.

- After a major increase of 11.3% in 1990, export volumes would grow by 3.0% in 1991 and 4.1% in 1992. Export unit values would virtually stagnate in 1990 and 1991 and moderately increase in 1992. Terms of trade are estimated to decline, by 7.0% in 1990, 6.2% in 1991 and 0.5% in 1992.

- Their overall trade deficit is forecast to increase from US$0.5 billion in 1990 to US$2.5 billion in 1991 and US$2.6 billion in 1992. With net factor income also in deficit, largely because of heavy debt servicing obligations in several countries in this group and lower remittance inflows, the external payments position would also deteriorate. Thus, the aggregate current account deficit is estimated to widen from US$10.6 billion in 1990 to US$11.9 billion in 1991 and US$12.1 billion in 1992.

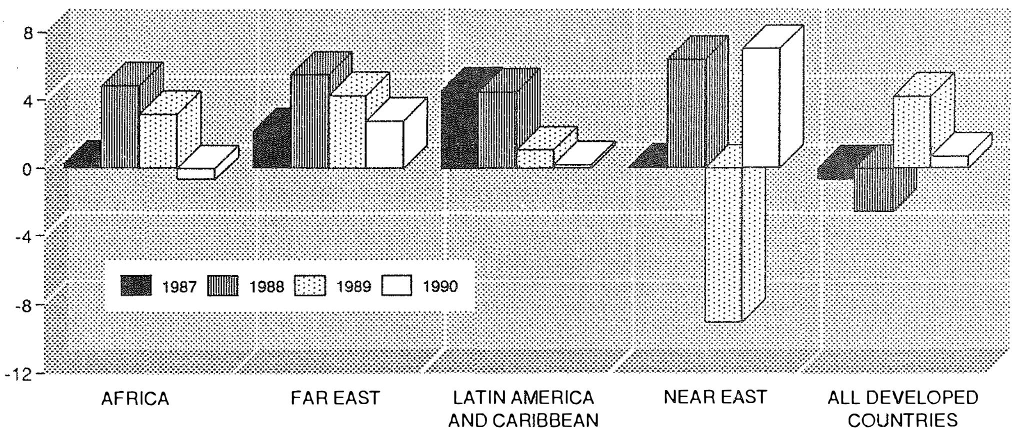
B. FOOD AND AGRICULTURAL PRODUCTION

Production in 1990[8]

38. Within this overall economic environment, current estimates of food and agricultural production in 1990 indicate an increase of around 1.5% over 1989. This increase represents a significant slowdown from the high growth rate of 3.2% in 1989 (3.6% for food) to one below both the average for the decade of 2.1% and the 1985-1990 average of 1.7% (**Fig. 6**).

Figure 6

CHANGES IN AGRICULTURAL PRODUCTION, 1987-90
(Percentage change over preceding year)



Source: Fao

[8] First estimates of food and agricultural production in 1991 will be presented in the Supplement to this document.

39. The deceleration of global production growth is largely the consequence of the return to a more normal rate of growth in North America, following the strong recovery in 1989 from the 1988 drought. But, it also reflects lower rates of growth in other developed regions. Oceania, where growth picked up following the setback in 1989, was the exception. Production in Western Europe was virtually stagnant in 1990 while it declined in Eastern Europe and the USSR (Table 3).

40. In the developing countries, agricultural production in 1990 rose by 2.2% (2.4% for food). This was lower than the 1989 growth rate of 2.5% (2.7% for food) and also significantly below both the average growth rate of 3.2% for the 1980s and the 3.0% average for 1985-1990. Furthermore, in all developing regions except the Near East, the rate of increase of production in 1990 was significantly below the equivalent figure for 1989 as well as the average growth rates for both the 1980s and the 1985-1990 period.

Table 3. Changes in World and Regional Food, Agricultural, Crop and Livestock Production, 1988-1990

	Food		Agriculture		Crops		Livestock	
	1988 to 1989	1989 to 1990*	1988 to 1989	1989 to 1990*	1988 to 1989	1989 to 1990*	1988 to 1989	1989 to 1990*
	%							
Africa	3.2	-0.6	3.2	-0.7	3.5	-1.8	2.3	3.1
Far East	4.5	3.1	4.3	2.8	4.0	2.2	4.9	4.7
Latin America and Caribbean	1.5	0.3	1.1	0.5	0.2	-	2.8	2.1
Near East	-9.6	7.3	-9.1	7.0	-12.0	8.8	0.5	1.4
All developing countries	2.7	2.4	2.5	2.2	2.1	1.8	3.7	3.6
North America	11.6	2.7	10.2	3.6	20.0	8.8	-0.1	0.8
Oceania	-2.2	0.6	-1.7	2.9	1.1	3.1	-1.9	1.0
Western Europe	1.4	-0.4	1.3	-0.3	2.7	-2.0	-1.0	1.1
EEC (12)	1.3	-0.1	1.2	-	2.2	-1.5	-1.0	1.2
Eastern Europe	0.5	-2.5	0.1	-2.4	-0.5	-3.1	0.3	-0.1
USSR	3.3	-1.1	2.8	-1.2	6.9	1.1	1.8	-0.5
All developed countries	4.7	0.3	4.2	0.7	8.4	2.6	0.1	0.6
World	3.6	1.5	3.2	1.5	4.4	2.1	1.4	1.7

* Preliminary.
Source: FAO. Based on information available up to 22 April 1991.

41. In the Far East, agricultural production growth slowed from 4.3% in 1989 to 2.8% in 1990, mainly reflecting declines in production levels in India and Thailand and a slowdown of growth in Pakistan and Bangladesh, while agricultural production growth accelerated in China.

42. In Latin America and the Caribbean, agricultural production growth slipped from an already modest 1.1% in 1989 to only 0.2% in 1990, mainly reflecting a major decline in production in Brazil and Peru and a less pronounced one in Argentina. Mexican production, in contrast, picked up significantly after the setback of 1989.

43. In Africa, after an increase in agricultural and food production in 1989 of 3.2%, agricultural production in 1990 is estimated to have declined by 0.7% and food production by 0.6%. This implies a 3.7% decline in per caput food production, following the average annual decline of 0.9% during 1980-85 and 0.5% during 1985-1990.

44. The slow growth in developing countries' food production in 1990 is reflected by the large number of countries which experienced declines in per caput food production (Table 4). This is most evident in Africa, where food production fell in 1990, and to a lesser degree in Latin America and the Caribbean, where it stagnated. Thirty-five of the 45 developing countries in sub-Saharan Africa (or about 80%) recorded declines in per caput food production. For many of these countries such experience was but the continuation of a disquieting trend. Thus, for Angola, Botswana, Burundi, Rwanda, Senegal and Tanzania, the pronounced fall in per caput food production in 1990 followed similarly pronounced declines during 1985-89. Among the few positive experiences, Kenya continued the moderate progress achieved in previous years and Cape Verde continued to significantly expand food production per caput.

45. In the case of Latin America and the Caribbean two-thirds of all countries failed to increase food production in line with population growth - the corresponding average share for 1985-89 being 50%. Performances were poor in all the major agricultural producers except Mexico and Chile. For several countries including Haiti, Bolivia, Panama and Venezuela per caput food production had already been on the decline during 1985-89.

46. A majority of Asian countries, including such populous ones as India, Bangladesh, Pakistan and Thailand also failed to raise their food production per caput in 1990. The shortfall in these countries took place after two years of significant progress, however. In China per caput production recorded an impressive increase in 1990.

47. After the severely drought-affected harvests of 1989, improved weather conditions in the Near East enabled a partial recovery in per caput food output in the main producer countries of the region.

Cereal Supply, Utilization and Stocks

48. Nevertheless, world cereal production in 1990 increased for the second consecutive year to a record 1 951 million tons, 3.9% above the level of 1989. As in 1989, most of the increase was concentrated in the developed countries (+6.7%) reflecting a major production increase in North America (11.5%) and the Soviet Union (12.9%), while production fell in both Western and Eastern Europe.

Table 4. Percentage Rate of Change in Per Caput Food Production, by Country, 1989 to 1990

	DEVELOPING COUNTRIES				DEVELOPED COUNTRIES
	Africa	Asia & Pacific	Latin America and Caribbean	Near East	
More than 5%	Reunion, Tunisia	China, Laos, Samoa	Trinidad & Tobago, Belize, Guyana	Syrian Arab Rep., Turkey	Canada, Denmark, Ireland, Portugal, Sweden
3.01% to 5%	Guinea, Mauritania	Bhutan, Philippines, Sri Lanka	Chile, Mexico		Finland
0.1% to 3%	Cape Verde, Congo, Kenya, Lesotho, Sierra Leone, Zimbabwe	Fiji, Indonesia, Malaysia, Tonga, Viet Nam	Barbados, Guatemala, Jamaica, Nicaragua	Cyprus, Egypt, Islamic Republic of Iran, Iraq, Jordan	Australia, Belgium + Luxembourg, France, Germany (N.L.), Netherlands, Spain, UK, USA
0 to -3%	Algeria, Angola, Cameroon, Central African Rep., Chad, Comoros, Ethiopia, Gabon, Guinea Bissau, Madagascar, Mali, Mozambique, Namibia, Nigeria, Uganda, Zaire	Bangladesh, Brunei, India, Kampuchea, Korea Dem., Macau, Maldives, Myanmar, Pakistan, Papua New Guinea, Solomon Islands	Bolivia, Colombia, Costa Rica, Ecuador, El Salvador, Honduras, Panama, Paraguay, Suriname, Venezuela	Libyan Arab Jamahiriya, Sudan	Austria, Czechoslovakia, Germany Fed. Rep., Iceland, Israel, Japan, Malta, Norway, Poland, USSR
-3.01% to -5%	Botswana, Burundi, Rwanda, Somalia, Swaziland	Mongolia, Nepal	Argentina, Cuba, Haiti, Uruguay	Kingdom of Saudi Arabia	Albania, Hungary, Romania, Switzerland
-5.01% to -10%	Benin, Burkina Faso, Gambia, Ghana, Côte d'Ivoire, Malawi, Mauritania, Niger, Senegal, Tanzania, Togo	Thailand	Brazil, Dominican Rep., Puerto Rico	Yemen	Bulgaria, Greece, Italy, New Zealand, South Africa, Yugoslavia
Below -10%	Liberia, Morocco, Zambia	Korea Republic	Guadeloupe, Martinique, Peru		

Source: FAO.

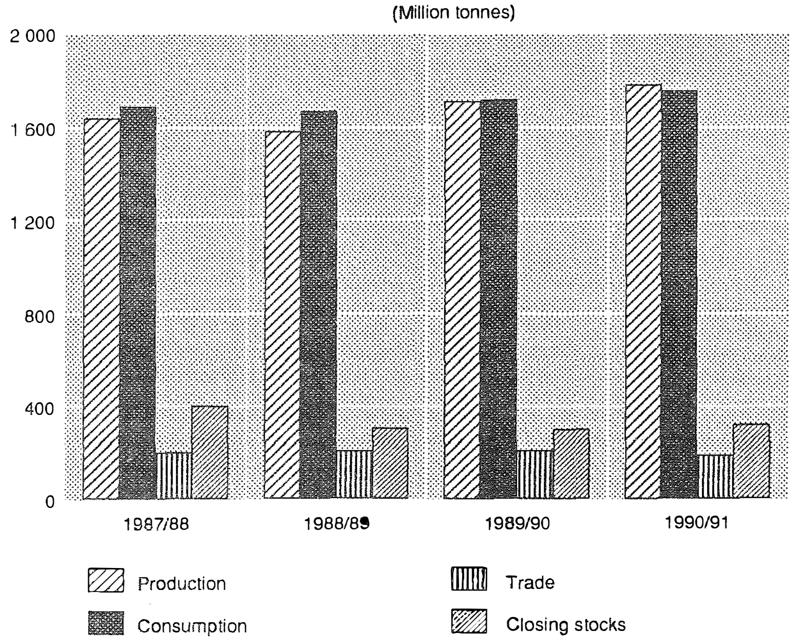
49. Cereal production in developing countries in 1990 is estimated to have increased by a modest 1.5%. Furthermore, the increase in production was concentrated entirely in Asia, where production grew by 3.0%, mainly reflecting sustained increases in China (+5.2%), while production is estimated to have declined in India, Thailand and Viet Nam. In Africa, cereal production is estimated to have declined by 7.2% as the consequence of a 6.6% increase in North Africa and an 11.3% decline in Sub-Saharan Africa. In Latin America and the Caribbean, production in 1990 is estimated at 6.1% below the level of 1989, due mainly to a major 25% decline in Brazil, while production is expected to have increased in Mexico and Argentina.

50. The bulk of the estimated increase of 3.6% in cereal production in 1990 is attributable to a 9.8% increase in global wheat production, mainly reflecting the substantial production increases in North America and the USSR. Developed country wheat production increased by almost 15% while the estimated increase in developing countries amounted to 3.0%. Growth in world coarse grain production is estimated at 1.6%, reflecting a 2.6% increase in developing countries and a 1.1% increase in developed countries. World paddy production - 95% of which takes place in developing countries - virtually stagnated.

51. Cereal production in 1990 exceeded estimated world consumption in 1990/91 for the first time since 1986/87, allowing for a modest replenishment of stocks, as discussed below (**Fig. 7**). The small changes

Figure 7

SUPPLY/CONSUMPTION TRENDS IN CEREALS *
(Million tonnes)



Source: FAO

* Rice in millet basis

in aggregate cereal consumption conceal considerable variations in the different regions, however. In fact, per caput food utilization of cereals in 1990/91 is estimated to have declined in all developing country regions except the Far East. In the cases of Africa and Latin America and the Caribbean, the decline reflected poor production performances in 1990 outweighing larger net imports. Conversely, in the Near East a significant recovery in production in 1990 was more than offset by a sharp decline in cereal imports, which account for over one-third of the region's total domestic use. In the Far East, the increase in per caput food utilization of cereals was entirely production-based as the cereal production/utilization ratio is well over 90%.

52. Forecasts for 1991 point to a small decline in world cereal production to 1 929 million tons, down from the record level of 1 951 million tons in 1990. Assuming normal weather conditions, output of wheat is forecast to decline sharply from 595 million tons in 1990 to 560 million in 1991, mainly because of lower plantings. Coarse grain production is forecast to increase by only 0.8% to 844 million tons in 1991, while output of paddy is preliminarily forecast to rise by 1.4% to 525 million tons, provided the Asian monsoon develops normally.

Box

Food Shortages and Emergencies

1. Serious problems of food shortages continue in numerous countries of Africa. In Ethiopia the interruption of relief activities following political upheaval caused further deterioration of an already serious food supply situation creating risks of widespread starvation in certain regions. Aggregate food aid needs for Somali and Sudanese refugees and returnees in Ethiopia, as of June 1991, were estimated at 240 000 tons with pledges covering 80% of requirements but only 70 000 tons having been received. Against cereal food aid needs for the Ethiopian population estimated at around 1 million tons, donor pledges as of June 1991 stood at 500 000 tons, but only 330 000 tons had been delivered.

2. In Sudan, the food situation remains precarious in practically all states. As of June 1991, food grain prices were recorded to be increasing on most local markets and were beyond the purchasing power of almost 8 million people. Thile need for relief assistance was reported in numerous regions, logistical problems were hampering the movements of grain. In Southern Sudan problems were being exacerbated by the arrival of numerous refugees from Ethiopia. By June 1991, against an overall national cereal deficit of 1.1 million tons, pledges covered only half of the requirements and only one-fifth of these had been actually delivered.

3. In Somalia as well the food supply situation remains precarious and has been aggravated by civil strife. As of June 1991, food stocks were depleted in urban areas and malnutrition widespread. Also rural areas faced severe food shortages with deaths from starvation reported from certain districts. In Mozambique a poor harvest has significantly increased food aid requirements for 1991/92, while logistic difficulties stemming from damaged infrastructure and ongoing civil strife continue to limit the movement of farm produce.

4. Other African countries facing shortfalls in food supplies in current marketing year requiring exceptional or emergency assistance as of June 1991 included: Burkina Faso, Cameroon, Chad, Gambia, Ghana, Liberia, Malawi, Mauritania, Mozambique, Niger and Sierra Leone while needs had already been covered in Angola and Guinea.

5. In Bangladesh losses to cereal crops from the cyclone of 29/30 April 1991 were estimated by an FAO/WFP mission at 247 000 tons with losses to other crops at 35 000 tons. Although rehabilitation requirements were significant, it was considered that the immediate food emergency relief needs of the cyclone victims were adequately covered by an on-going emergency programme. At the national level, the overall food supply situation remained satisfactory following an above-average cereal harvest in 1990/91.

6. Serious food shortages were reported to persist in Iraq as of June 1991. Food rationing continued at a level well below the minimum required to avert malnutrition, and stocks of cereals were virtually exhausted. Prices of most basic commodities had increased more than ten times since August 1990 and were well beyond the purchasing power of large sections of the population. Many of the 1.8 million Iraqi Kurds who left their homes in late March 1991 to seek refuge in Iran, Turkey and along the border areas of Iraq and Turkey were still suffering from inadequate supplies of food, water and other relief items.

7. Other countries in Asia confronting shortfalls in food supplies requiring exceptional or emergency assistance, as of June 1991, included: Afghanistan, Cambodia, Jordan, Lebanon and Mongolia.

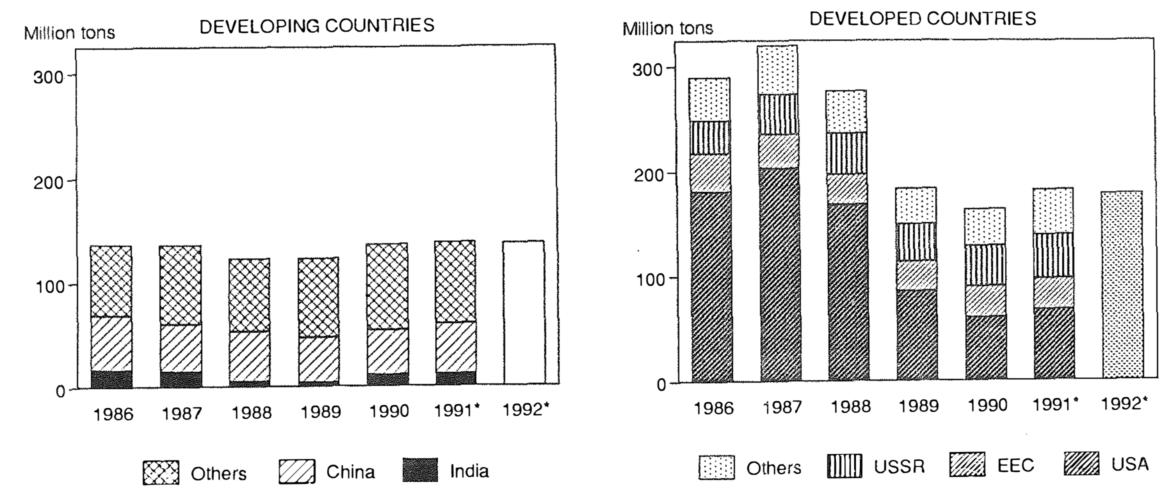
8. In Latin America, the food supply situation as of June 1991 continued to be tight in Peru, reflecting the previous year's reduced cereal harvest and lower cereal imports in 1991. The situation was particularly difficult for large sections of the population whose access to basic food had been affected by the on-going economic austerity measures. Also in Nicaragua the food supply situation remained tight as a consequence of a poor cereal harvest the preceding year and the country's difficult financial situation which had reduced its capacity to import. In Haiti, as well, a tight food supply situation persisted as the result of the preceding years drought-reduced crop.

53. Estimates as of July 1991 of global cereal stocks to be carried forward from the 1990/91 crop years amounted to 321 million tons, about 20 million higher than their opening level (Fig 8). The bulk of the increase should occur in global inventories of wheat, which were forecast to increase by 20 million tons to about 138 million tons. Virtually all of this increase would be in the holdings of the major exporters. World stocks of coarse grains are anticipated to decline marginally to 128 million tons, while global rice stocks by the end of the 1991 marketing seasons are forecast to increase by about 0.5 million tons to 55 million tons.

54. World cereal production in 1991 as presently forecasted will not be sufficient to meet expected utilization in 1991/92, necessitating a small drawdown of carryover stocks. Virtually all of the decline is anticipated to be in holdings of wheat. FAO's first forecast puts global cereal carryover stocks at the end of the 1991/92 seasons at 316 million tons, 5 million tons or 1% less than their opening level. Stocks of wheat are

Figure 8

CARRYOVER STOCKS OF CEREALS, 1986-92
(Crop year ending in the year shown)



Source: FAO

* 1991: Preliminary - 1992: Forecast

tentatively forecast to decrease by 3% to 134 million tons while those of coarse grains and rice are forecast at 128 and 55 million tons respectively, little changed from their opening level. Early indications are that the bulk of the stock drawdown will take place in the developed countries, notably in the USSR. In the major exporting countries as a group, current forecasts point to a small increase in holdings of coarse grains which, however, would remain very low. No substantial change is foreseen in exporters' wheat stocks since the projected drawdown in United States inventories would be offset by increases in those held by the EEC. At the forecast level, aggregate cereal stocks at the end of the respective 1991/92 crop years would fall to the lower end of the range of 17-18% of trend consumption in 1992/93 which the FAO Secretariat considers the minimum necessary to safeguard world food security.

55. Even assuming that current cereal production forecasts materialize, global food security will remain finely balanced in the year ahead. Any deterioration of the weather for crops in the ground could lead to serious consequences for global food security. In addition, regional food supply problems are becoming more acute in Africa and are likely to persist in the coming years also in parts of Asia as a result of man-made and natural disasters.

Fertilizers

56. After reaching a record 145.7 million tonnes in 1988/89, fertilizer consumption in terms of the major plant nutrients fell to 143.3 million tonnes in 1989/90 (-1.6%). This decline might mark the beginning of a medium-term period of decreasing global use of fertilizers. World fertilizer consumption is estimated to fall by 2.4% in 1990/91, level off in 1991/92 and resume growth only slowly in the following years.

57. The least affected among individual nutrients, is nitrogen, as consumption in 1989/90 slightly fell (0.7%) after having increased 5.4% in 1988/89. Nitrogen consumption is expected to recover from an estimated loss of 1.7% in 1990/91 but starting to grow again from 1991/92 onwards.

Phosphate is foreseen to follow the pattern of the aggregate consumption while potash would show the most negative trends. Potash consumption grew 2.8% in 1988/89, fell 4.3% in 1989/90 and is estimated to fall further by 5.0% in 1990/91 and 2.1% percent in 1991/92.

58. Overall fertilizer production has shown generally higher growth rates than consumption, which is also true for the nutrients individually. The effects of the Gulf war and the situation in Eastern Europe and USSR strongly affected nitrogen production and, to some extent, potash and phosphate production as well.

59. The short-term outlook for nitrogen fertilizers is for a moderately tight supply situation and price stability at high levels. Phosphate fertilizers would be in adequate supply and potash fertilizers would continue to show a large surplus.

60. Fertilizer consumption in the developing countries continued to increase despite the fall at world level - a welcome development. Except for potash, whose consumption fell 5.3% in 1989/90, those countries recorded increases of 1.7% in total fertilizer consumption, 2.6% in nitrogen and 2.4% in phosphate. The developed countries, conversely, recorded falls in consumption in the order of 4% for all three major nutrients.

61. Expectations for the medium term are for these general trends to continue - that is, fertilizer consumption increasing in developing regions, especially Asia, but falling in the developed regions, notably Eastern Europe and the USSR.

62. The world fertilizer situation in 1990 has been strongly influenced by the developments in the Near East, particularly the Gulf crisis. Two kinds of effects were observed: the direct reduction or cessation of fertilizer production and exports by countries of the region and the indirect consequences of the rise in oil prices on fertilizer production and transportation costs worldwide.

63. Before the crisis started, other factors were already pushing up fertilizer prices, especially for nitrogen fertilizers; namely the low return on investment that even efficient producers were making, and the tight supply situation at the beginning of the second half of 1990.

64. The tension that followed the start of the Gulf crisis in August 1990 affected fertilizer markets in three inter-related aspects: availability, prices and trade. Availability was reduced initially by the United Nations embargo on trade with Iraq and Kuwait; later, when the war started, the blockade made it impossible to ship products out of the Gulf. Prices in most markets reacted swiftly to the occupation of Kuwait, and started to climb further with the beginning of military operations in January 1991. However, prices started falling as soon as the market realized that the war would not last long.

65. The escalation of the war and the consequent disruption of shipments from the whole region, together with the assumed destruction of plants in Kuwait and Iraq raised the market uncertainty level, but contrary to what happened in the oil crisis of 1973/74 and 1979/80, the fertilizer market did not react strongly to the events. There was a sort of implicit agreement and concerted action to maintain market stability on

the part of the larger suppliers and importers. Prices were strongly influenced by availability and immediate needs rather than the possible political and economic developments. This resulted from the prevailing view that fertilizer markets operate better when neither sellers nor buyers seek large and immediate gains.

66. These factors contributed to a decline and stabilization of prices after the end of the conflict, although these remained above pre-crisis levels. Urea prices are likely to remain high because of market losses estimated at 2.5 to 3 million tonnes of product per year due to events in the Near East and Eastern Europe.

67. The shockwaves of the conflict will take some time to subside and the fertilizer markets will continue to be affected in the short and perhaps mid-term. A slowdown of capacity expansion in the Near East might tighten the supply and demand balance of nitrogen and to some extent, phosphate fertilizers.

68. Nitrogen availability was the most affected by the conflict. The Near East region plays an important role in the markets of both ammonia and urea. It accounted for about 13% of world ammonia trade and 17% of world urea trade in 1989. In the same years Kuwait and Iraq together accounted for about 3% of ammonia and 7% of world urea trade. These quantities are assumed to be lost to the market in the short term.

69. The effects of the oil price rise were also strongly felt by the nitrogen industry. Natural gas is the primary feedstock for ammonia production with over 80% of world production coming from gas-based plants. The price of natural gas in Western Europe is indexed to the price of fuel oil with a time lag of six months. In Eastern Europe, natural gas that used to be imported from the USSR at advantageous prices is now also linked to oil prices. In the developing countries the price of gas is not related to oil prices. The present gas surplus in the United States has driven gas prices for ammonia below its equivalent energy price if related to fuel oil. This surplus is, however, expected to disappear in the near future bringing gas prices in line with those of alternative fuels. Thus, the conflict caused a temporary change in competitiveness of ammonia producers in the various regions, generally weakening the position of the United States and European producers and favouring those based in the developing countries.

70. **Table 5** shows the evolution of selected fertilizer products and raw material prices from August 1990, the period of the invasion of Kuwait, to June 1991.

71. In a long-term perspective, the economic and political transformations under way in the USSR and Eastern Europe are likely to influence the world fertilizer supply-demand balance and the international fertilizer markets much more than the Near East crisis. One consequence of the problems faced by those countries has been a decline in fertilizer consumption and production with a reduction in exportable surpluses.

72. The most important factor that is affecting the fertilizer industry in the Eastern European countries is the increase in energy and feedstock prices resulting from the hard-currency market prices they now have to pay for oil and gas imported from the USSR, in contrast to the former favoured

Table 5. Selected Prices for Fertilizers and Raw Materials

Product (US$Tonne)	Jul.90	Aug.90	Sep.90	Oct.90	Nov.90	Dec.90	Jan.91	Feb.91	Mar.91	Apr.91	May.91	Jun.91
<u>Ammonia</u>												
fob US Gulf	87-90	110-115	125-130	125-131	129-131	129-131	129-131	124-128	100-105	95-100	88-90	95-100
fob Near East	90-95	100-105	110-115	115-130	115-130	85-115	n.m	130-130	115-130	115-125	105-125	105-113
c&d NW Europe	112-120	112-120	145-154	154-160	155-160	150-155	145-148	150-160	140-145	140-145	115-120	120-125
c&d Mediterranean	120-130	120-130	130-149	160-175	150-175	145-165	140-150	140-150	140-145	139-142	117-120	120-125
c&d SE Asia	142-151	169-174	174-193	193-205	190-193	179-185	179-199	183-199	175-180	175-180	144-164	144-153
<u>Urea</u>												
fob blk US Gulf	117-123	n.m.	160-165	160-165	160-165	160-165	160-165	160-165	160-165	160-165	147-155	140-145
fob blk Near East	120-122	130-135	145-155	150-160	155-160	150-160	155-165	170-175	165-170	160-165	150-155	148-154
fob bgd E Europe	120-125	130-135	145-155	148-155	157-162	176-181	162-167	165-170	158-162	155-162	148-155	140-150
<u>DAP</u>												
fob blk US Gulf	176-179	171-178	182-186	188-191	186-188	176-179	181-183	184-186	179-182	177-179	173-175	183-185
fob blk N Africa	190-195	195-197	197-202	205-210	208-212	220-222	208-211	206-208	206-208	206-208	205-208	193-200
fob blk Jordan	190-195	190-195	190-200	198-200	198-200	198-200	198-200	200-210	205-210	200-210	200-210	198-200
<u>TSP</u>												
fob blk US Gulf	130-132	135-145	141-150	150-155	150-155	147-151	150-155	150-155	145-150	140-145	129-130	129-130
fob blk N Africa	140-145	145-150	150-155	155-163	160-163	160-163	157-163	157-160	157-162	160-162	143-145	140-143
<u>Potassium Chloride</u>												
fob blk N America	90-98	90-98	90-98	100-104	100-104	100-104	95-104	95-104	95-112	95-112	95-112	95-112
fob blk W Europe	100-105	100-105	100-105	100-105	100-102	100-102	100-102	100-102	100-110	100-110	100-110	105-110

Source: FAO.

prices in non-convertible currencies. It is also reported that future oil and gas supplies would be limited in volume.

73. The uncertain prospects for agriculture in the region are aggravated by higher fertilizer prices, that have to be aligned with new production costs, the removal of subsidies to fertilizers and the reduced product availability caused by lower plant operating rates.

74. As regards the USSR, the transition to market economy will take some time before transmitting positive signals to the agricultural sector. Until such time, farmers will have no incentive to use more fertilizers, and the cut in fertilizer subsidies will only depress demand further. Meanwhile, the transportation and distribution system in the USSR needs to be overhauled to allow efficient movement of fertilizers and agricultural products.

75. On the supply side, production will be constrained by the inefficiency of plants, problems related to plant maintenance, and political pressure from environmental protection groups to close, or reduce the activity of, polluting plants. However, the promotion of fertilizer exports remains a priority area in view of their importance as a source of foreign exchange.

C. AGRICULTURAL TRADE

Agricultural Trade in 1990[9]

76. Complete information on world agricultural trade in 1990 is not yet available and will be presented in the Supplement to this document. However, preliminary estimates suggest that agricultural trade showed considerable dynamism in developed countries, but was generally depressed in developing countries.

77. For developed countries, estimates may be derived from a sample of 21 countries which together account for 93% of total developed country agricultural exports and 75% of their imports. In 1990, the value of crop and livestock exports from these countries rose about 11%, and imports 13%, significantly above the average yearly growth of developed countries as a whole during the 1980s (3.5% for exports and 3.2% for imports). Such expansion would primarily arise from higher volumes of shipments and possibly higher value of processed product exports; indeed, primary commodity export prices of developed countries only rose moderately in the aggregate, with some of their main export commodities, notably wheat and skim milk powder, showing pronounced price declines (see following section).

78. The strong growth in crop and livestock exports was widespread among developed countries. Particularly sharp increases were recorded in European countries: about 20% in Denmark, Italy, Switzerland and Spain; and 13 to 17% in Austria, France, Germany, the Netherlands and Sweden. Booming exports were also recorded in Canada (+17%), their level exceeding

---

[9] Issues relating to agricultural trade, including the current status of the Uruguay Round of Multilateral Trade Negotiations, are discussed in Doc. C 91/18: International Agricultural Adjustment, Seventh Progress Report, Guidelines 7 and 8.

the peak of 1988. On the other hand, exports only rose 2.4% in the United States although this occurred after three years of strong expansion. Overall, only five countries failed to expand their agricultural exports in 1990 above the previous year's level: Australia, Finland, Iceland, New Zealand and Norway.

79. While the country sample is less representative on the side of imports - complete data for Japan, the second largest world importer of agricultural products being not yet available - it appears that developed countries also significantly expanded their crop and livestock imports in 1990. Most significant in terms of the amounts involved was the 21% increase in Germany's purchases of these products, which accounted for about one-fourth of the aggregate increase for the country sample. Other import rises significantly exceeding the average rates of the 1980s were those of France, Italy, the United Kingdom and Belgium-Luxembourg. While comparatively smaller, the increase in the United States (about 7%) also exceeded the average of the 1980s.

80. While information for developing countries is too limited for an overall quantitative estimate to be made, it appears that their agricultural trade in 1990 has been far less buoyant than that of developed countries. Unlike the latter, their commodity export prices were estimated to have fallen overall. Furthermore, for several of the developing countries' key export commodities, depressed prices combined with stagnating or declining export volumes. For example, the volume of cocoa exports sharply fell while prices only marginally increased in 1990; coffee prices collapsed and export volumes only slightly increased; and for both sugar and tea, export volumes are estimated to have declined slightly along with depressed prices.[10] Higher prices of meat, especially pigmeat, bananas (particularly in German markets), fibres and cotton are likely to have only partly compensated. Indeed, pig and poultry meat and bananas are among the few crop and livestock commodities for which a notable increase in the value of developing country exports may have occurred in 1990. On the other hand, export prices of fishery and forestry products, that account for a significant share of total agricultural exports of developing countries (about 10% in recent years), rose significantly in 1990.

81. As regards agricultural imports, food-deficit developing countries may be expected to significantly benefit from the pronounced decline in the prices of cereals, particularly wheat (this commodity representing about 10% of their total imports of agricultural, fishery and forestry products) and skim milk powder (2% of the total).

World Trade in Cereals in 1991/92

82. World trade in cereals in 1991/92 (July/June) is preliminarily forecast at 193 million tons, up from the estimated 187 million tons of 1990/91, but still the second lowest since 1987/88. Major uncertainty surrounds the volume of likely grain purchases by the USSR. The above estimate assumes that imports of wheat and coarse grains into the USSR in 1991/92 will rise to 29 million tons from 25 million tons in the

---

10 These four commodities - coffee, cocoa, tea and sugar - accounted for almost one-fifth of total developing countries' exports of agricultural, fisheries and forestry products in 1989. For Africa the share was 39% and for Latin America and the Caribbean 29%.

1990/91 season. The global forecast reflects an increase in total cereal imports by developing countries from 114.5 million tons to 120 million, and a marginal increase in developed countries from 72.5 to 73 million tons.

83. World imports of wheat are expected to increase from 91.5 million tons in 1990/91 (July/June) to 94 million tons in 1991/92. Larger imports are forecast for Asia and the USSR, although the forecast for the USSR in particular is highly tentative. Overall, wheat imports by developed countries should increase from 25.5 million tons in 1990/91 to 26.4 million tons in 1991/92, reflecting mainly a 2 million ton increase in the USSR and a 1 million ton decline in Eastern Europe. Total developing country imports are forecast to increase by 1.6 million tons to 67.6 million, as the net result of a 3.1 million ton increase in Asia and a 0.6 million ton increase in Latin America and the Caribbean, and a 1.9 million ton decline in Africa.

84. World trade in coarse grains in 1991/92 (July/June) is provisionally forecast at 87 million tons, 3.5 million tons above the level of 1990/91. The bulk of the increase would arise from rising imports by the USSR, reflecting the expectation that domestic production and state purchases will decline more than consumption. Imports into Eastern Europe are forecast to fall sharply for the second year in a row, mainly due to falling domestic consumption and declining competitiveness on international markets for livestock products which will reduce demand for grains for animal feeds. Imports into Western Europe are also forecast to decline in 1991/92. Among the developing regions, Asian imports are forecast to increase by 1.4 million tons, partly due to Iraq being expected to re-enter the international markets. A very slight increase is forecast in imports into Latin America and the Caribbean as well as Africa.

85. World rice imports in calendar year 1991 are forecast at 12.0 million tons as compared to 11.1 million tons in 1990. The increase reflects larger import demand expected from Asia, Latin America and the USSR.

Export Prices and Terms of Trade

86. International US dollar prices of the main traded commodities fell significantly in 1990 and the first months of 1991 (Fig. 9).[11] In particular, average prices of wheat in 1990 were 20% below the average levels of 1989 and those of skim milk powder 30% lower. For rice the decline was 9.5% and for maize 2%. Although wheat and maize prices strengthened during the first months of 1991, their level remained below that of a year earlier. Among tropical products the sharpest decline was

---

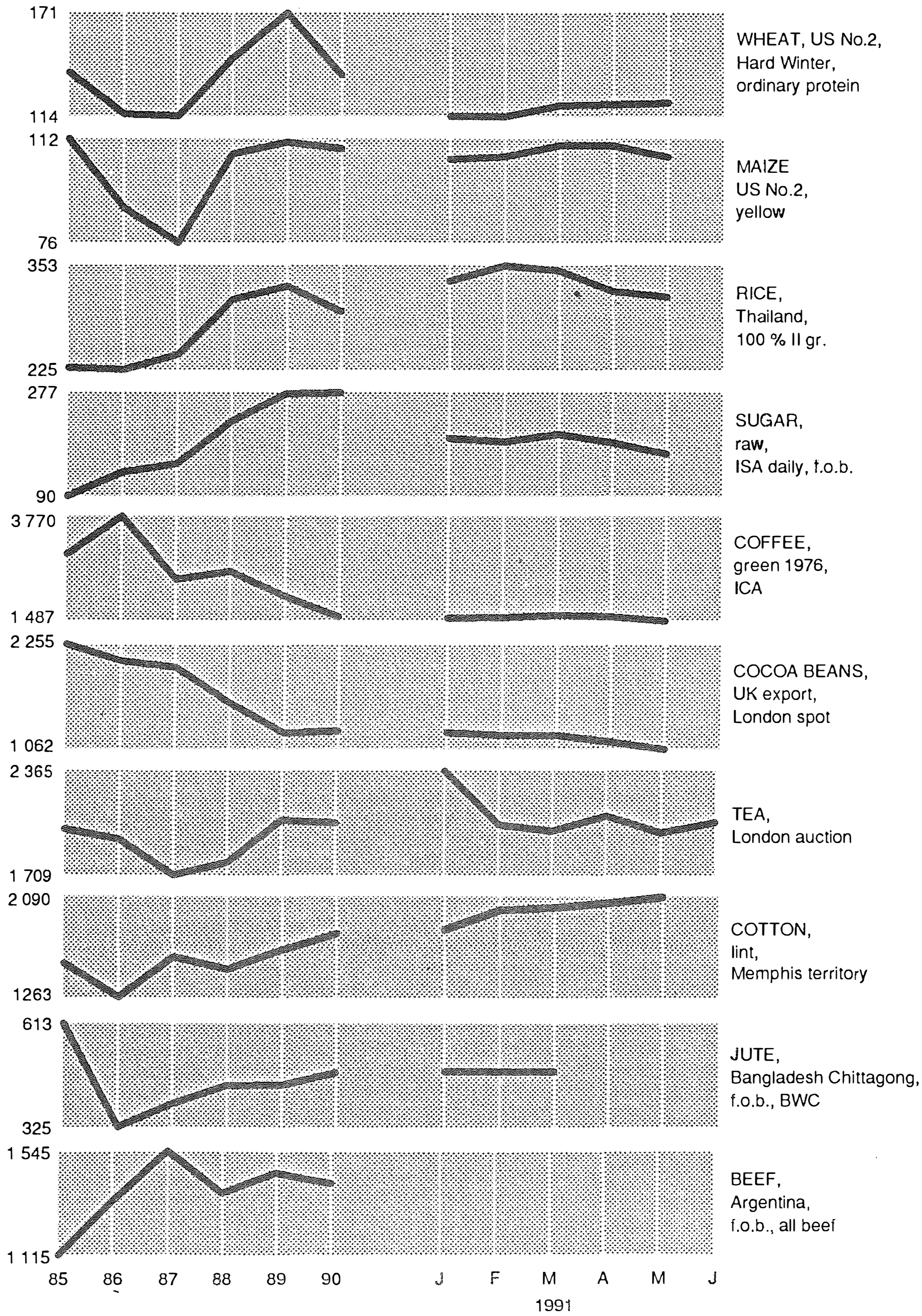
11 The decline in commodity prices denominated in US dollar was accentuated by the depreciation of the US dollar during the period reviewed. It began depreciating in the middle of 1989 but after falling to a low in February 1991, has tended to strengthen since. Between January and December 1990, however, the US dollar depreciated almost 8% against the SDR.

in coffee prices, which fell over 20%, and tended to further weaken in 1991. Overall, the UN export price index shows a 2.3% decline in developing countries' export prices of agricultural, fishery and forestry commodities in 1990 relative to 1989 levels; and a 2.9% increase in those of developed countries.

Figure 9

EXPORT PRICES OF SELECTED COMMODITIES, 1985-1990

(US$ per tonne)

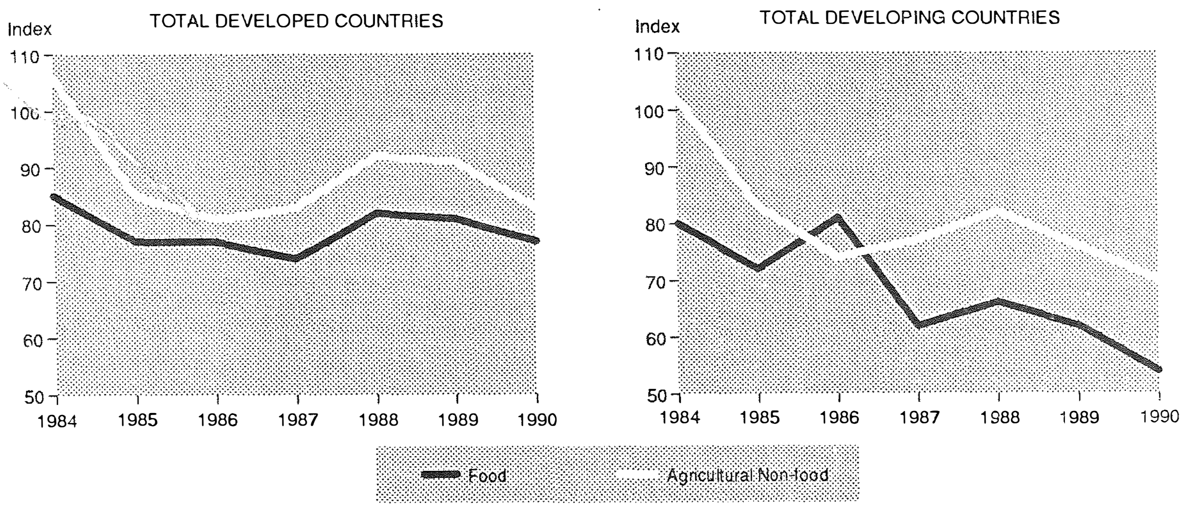


Source: FAO

87. Against such generally depressed agricultural commodity prices, the UN index shows sharp increases of 15% and 8% in the prices of crude petroleum and manufactured goods respectively in 1990. These developments led to a deterioration in the terms of trade of both food and agricultural non-food products in developed and developing countries, but more pronounced in the latter (**Fig. 10**).

Figure 10

NET BARTER TERMS OF TRADE OF AGRICULTURAL PRODUCTS, 1984-90
(Index Numbers, 1980 = 100)



Source: UN Monthly Bulletin of Statistics and FAO

88. The impact of this deterioration cannot yet be fully assessed in the absence of data on agricultural export volumes.[12] However, with expectations of less than buoyant export performances for developing countries in 1990, a significant decline may be expected in the purchasing capacity of their agricultural exports as well. For many of them such losses would represent the continuation of a disquieting trend. By 1989 Africa's earnings from agricultural exports had already fallen to levels that would enable their purchasing only 72% of the manufactures and crude petroleum they could finance in 1979-81. For Latin America and the Caribbean the equivalent figure was 82%.

D. EXTERNAL ASSISTANCE AND FOOD AID

Commitments of External Lending to Agriculture

89. Total commitments of external lending to agriculture were estimated at about US$14.7 billion in 1989, the latest year for which complete coverage is available.[13] At nominal prices this amount is 8% less than 1988 and only slightly higher than the 1986 and 1987 levels. If total

---

12 Estimates of 1990 changes in the purchasing power of agricultural exports in the different regions will be presented in the Supplement to this document.

13 For a more detailed discussion of external assistance to agriculture, see C 91/18: International Agriculture Adjustment, Seventh Progress Report, Guideline 12.

commitments are deflated by prices of manufactured goods, in real terms 1989 shows decreases of 8%, 5% and 15% in relation to 1988, 1987 and 1986, respectively (**Table 6**). During the last few years, however, there has been an increase in the share of grants in total commitments from 23% in 1986 to 30% in 1989.

90. From 1986 to 1988, total commitments to agriculture rose slightly, as increases in bilateral commitments from OECD's Development Assistance Committee (DAC) more than offset the declines in multilateral commitments. In part, Japan's efforts to raise its share of official development assistance helps to explain the increases in the bilateral commitments during this period, including the 27% rise in 1988. But in 1989, bilateral commitments fell by 13%. EEC lending decreased by about 20% in 1989 in relation to 1988.

91. For multilateral lending, estimates are available through 1990. With an estimate of US$7.2 billion in 1990, multilateral commitments of external assistance to agriculture fell by almost 18% from their 1986 levels. In 1990, World Bank lending increased by about 8%, however, reflecting a strong increase in soft-term IDA lending that more than offset a decline in IBRD commitments.

92. Overall, the regional banks' lending fell in 1990. The Asian Development Bank approved a very low level of commitments which contrasted with higher levels of commitments signed by the Inter-American Development Bank.

Disbursements of External Lending to Agriculture

93. Total disbursements of external lending to agriculture dropped to about US$12.3 billion in 1989. At nominal prices, this was 13% less than 1988 and 1% more than the 1987 levels. If total commitments are deflated by prices of manufactured goods, the 1989 level declined by 13%, 5% and 14% in relation to 1988, 1987 and 1986, respectively (**Table 7**). The share of grants in total disbursements increased from 34% in 1986 to 40% in 1989.

94. The increase of DAC bilateral assistance from 1986 to 1988 was followed by a decline in 1989 when bilateral assistance dropped by more than 7% compared to 1988. In 1989, Japan accounted for about 23% of total DAC disbursements.

95. For multilateral disbursements, estimates are available up to 1990. With an estimate of US$6.5 billion in 1990, multilateral disbursements of external assistance to agriculture fell by almost 14% from 1988. In 1990, IBRD disbursements increased by about 5%, and IDA disbursements by about 18%.

96. Regional Banks' lending in 1990 fell slightly, mainly reflecting the low level of disbursements of the African Development Fund and African Development Bank.

Table 6. Commitments of External Assistance to Agriculture (Broad Definition)

Donors	Total commitments 1986	1987	1988	1989	1990a/	Concessional commitments 1986	1987	1988	1989	1990a/	Non-concessional commitments 1986	1987	1988	1989	1990a/
	million $														
AT CURRENT PRICES															
TOTAL COMMITMENTS	14 405	14 491	15 997	14 720	...	8 057	10 191	12 172	10 954	...	6 348	4 300	3 825	3 766	...
of which grants	3 294	4 450	4 963	4 469	...	3 294	4 450	4 963	4 469	...	-	-	-		
Bilateral	5 683	6 757	8 592	7 488	...	5 497	6 411	8 187	7 297	...	186	346	405	191	...
of which grants	2 715	3 888	4 323	3 800	...	2 715	3 888	4 323	3 800	...	-	-	-	-	-
Multilateral	8 722	7 734	7 405	7 232	7 185	2 561	3 782	3 985	3 657	3 918	6 161	3 952	3 420	3 575	3 267
of which grants	579	562	640	669	670	579	562	640	669	670	-	-	-	-	-
World Bank	5 520	4 045	3 951	4 045	4 354	884	1 413	1 762	1 449	2 017	4 636	2 632	2 189	2 596	2 337
IBRD	4 636	2 632	2 189	2 596	2 337	-	-	-	-	-	4 636	2 632	2 189	2 596	2 337
IDA	884	1 413	1 762	1 449	2 017	884	1 413	1 762	1 449	2 017	-	-	-	-	-
IFAD	131	216	176	240	302	108	214	155	189	291	23	8	22	53	11
Regional development banks	2 091	2 663	2 483	2 077	1 792	748	1 393	1 334	1 182	913	1 344	1 271	1 149	894	879
OPEC multilateral	425	272	216	280	147	270	230	155	242	107	159	44	61	41	40
UNDP/FAO/CGIAR	551	530	578	590	590	551	530	578	590	590	-	-	-	-	-
AT CONSTANT 1985 PRICES b/															
TOTAL COMMITMENTS	12 004	10 734	11 109	10 222	...	6 714	7 549	8 453	7 607	...	5 290	3 185	2 656	2 615	...
of which grants	2 745	3 296	3 446	3 104	...	2 745	3 296	3 446	3 104		-	-	-	-	-
Bilateral	4 736	5 005	5 967	5 200	...	4 581	4 749	5 685	5 067	...	155	256	282	133	...
of which grants	2 262	2 880	3 002	2 639		2 262	2 880	3 002	2 639		-	-	-	-	-
Multilateral	7 268	5 729	5 142	5 022	4 519	2 134	2 801	2 767	2 540	2 464	5 134	2 928	2 375	2 482	2 054
of which grants	483	416	444	465	421	483	416	444	465	421	-	-	-	-	-

Note: ... Data not available.

a/ Preliminary data.

b/ Deflated by UN index of unit value of exports of manufactured goods, 1985 = 100.

Source: FAO, Statistics Division and OECD.

Table 7. Disbursements of External Assistance to Agriculture (Broad Definition)

Donors	Total disbursements					Concessional disbursements					Non-concessional disbursements				
	1986	1987	1988	1989	1990 a/	1986	1987	1988	1989	1990 a/	1986	1987	1988	1989	1990a/
	million $														
AT CURRENT PRICES															
TOTAL DISBURSEMENTS	11 934	12 206	14 187	12 360	...	7 873	8 270	9 960	8 634	...	4 061	3 936	4 227	3 726	...
of which grants	4 120	4 980	5 675	4 989	...	4 120	4 980	5 675	4 989	...	-	-	-	-	-
Bilateral	5 160	5 790	6 690	6 225	...	5 050	5 590	6 480	6 025	...	110	200	210	200	...
of which grants	3 550	4 430	5 070	4 360	...	3 550	4 430	5 070	4 360	...	-	-	-	-	-
Multilateral	6 774	6 416	7 496	6 135	6 460	2 823	2 680	3 480	2 609	3 008	3 950	3 736	4 016	3 526	3 452
of which grants	570	550	605	629	630	570	550	605	629	630	-	-	-	-	-
World Bank	4 163	3 882	4 749	3 380	3 716	1 379	1 350	1 806	1 176	1 392	2 784	2 532	2 943	2 204	2 324
IBRD	2 787	2 532	2 943	2 204	2 324	3	-	-	-	-	2 784	2 532	2 943	2 204	2 324
IDA	1 376	1 350	1 806	1 176	1 392	1 376	1 350	1 806	1 176	1 392	-	-	-	-	-
IFAD	244	234	203	194	198	234	218	195	184	184	11	16	8	10	14
Regional development banks	1 665	1 620	1 784	1 743	1 726	589	512	819	579	762	1 075	1 108	966	1 164	964
OPEC multilateral	150	150	180	228	230	70	70	80	80	80	80	80	100	100	100
UNDP/FAO/CGIAR	551	530	580	590	551	530	580	590	590	-	-	-	-	-	-
AT CONSTANT 1985 PRICES b/															
TOTAL DISBURSEMENTS	9 944	9 042	9 852	8 583	...	6 561	6 126	6 917	5 996	...	3 384	2 916	2 935	2 588	...
of which grants	3 433	3 689	3 941	3 465	...	3 433	3 689	3 941	3 465	...	-	-	-	-	-
Bilateral	4 300	4 289	4 646	4 323		4 208	4 141	4 500	4 184	...	92	148	146	139	...
of which grants	2 958	3 281	3 521	3 028	...	2 958	3 281	3 521	3 028	...	-	-	-	-	-
Multilateral	5 644	4 753	5 206	4 260	4 063	2 350	1 985	2 417	1 812	1 892	3 296	2 767	2 789	2 448	2 171
of which grants	475	407	420	437	396	475	407	420	437	396	-	-	-	-	-

Note: ... Data not available.

a/ Preliminary data.

b/ Deflated by UN index of unit value of exports of manufactured goods, 1985 = 100.

Source: FAO, Statistics Division and OECD.

Recent Developments in Agency Funding

97. During 1990, the IBRD reactivated its relationship with most East European countries. The Bank was also active in facilitating debt and debt service reduction agreements between Mexico, the Philippines, Costa Rica and Venezuela and their respective commercial creditors; and in launching programmes integrating poverty-reduction activities into country assistance strategies.

98. The European Bank for Reconstruction and Development (EBRD) was established in early 1991 with pledged capital funding of US$11.4 billion. The EBRD plans to provide support for a variety of programmes including strengthening infrastructure, reforming financial sectors, privatizing banks and state-owned enterprises, promoting small-scale enterprises, encouraging foreign investment, and cleaning up the environment.

99. The ninth replenishment of resources of the International Development Association (IDA) started on 1 July 1990 for a three-year period with a target amount of US$15 billion (SDR 11.68 billion). In addition, if repayment of earlier loans is taken into consideration, the total amount will rise to about US$17 billion. Priority areas for IDA funding are: poverty reduction, the promotion of sound macroeconomic and sectoral policies and programmes, and environmental programmes.

100. The International Fund for Agricultural Development (IFAD) third replenishment of resources was declared effective as of 24 December 1990 at a level of US$540 million for a three-year period.

101. The Inter-American Development Bank (IDB) seventh general increase in resources went into effect on 24 January 1990. It will enable the IDB to approve loans up to US$22.5 billion during the period 1990-1993.

102. Japan maintained its leading role in bilateral development cooperation programmes in 1989, although resources for these programmes sharply declined in relation to 1988.

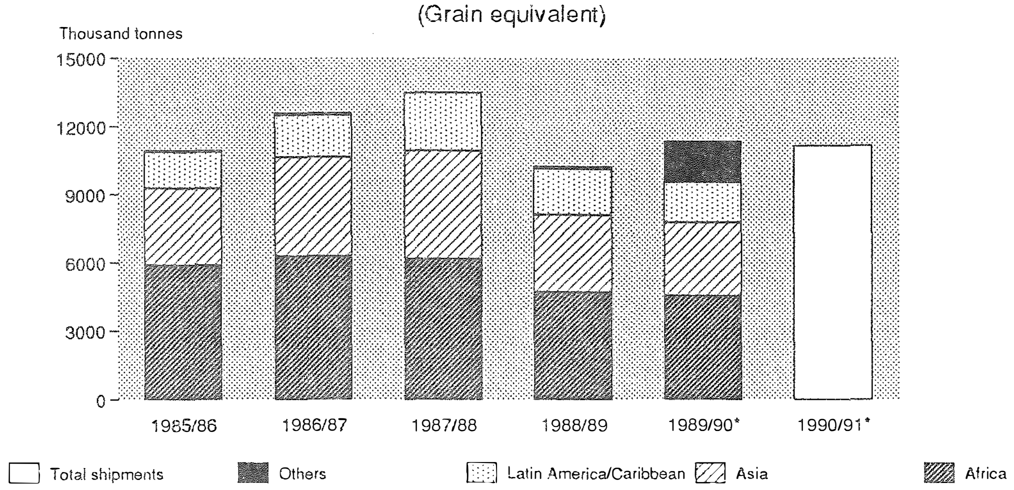
Food Aid[14]

103. Total shipments of food aid in cereals to be made available during 1990/91 (June/July) were estimated, as of June 1991, at 11.2 million tons, only slightly down from 11.4 million tons shipped in 1989/90. This figure is significantly above total shipments in 1988/89 of 10.2 million tons but well below the record shipments of 13.5 million tons in 1987/88. The increase in shipments in 1989/90 over the previous year, however, were entirely due to major quantities of food aid in cereals being supplied to Eastern European countries, while shipments to developing countries were reduced by more than 400 000 tons to 9.8 million tons. During 1990/91 small quantities of cereal food aid were shipped to Eastern European countries relating to earlier commitments (**Fig. 11**).

[14] See also document C 91/18: International Agricultural Adjustment, Seventh Progress Report, Guideline 11.

Figure 11

FOOD AID IN CEREALS
(Grain equivalent)



Source: FAO

* 1989/90: Preliminary - 1990/91: Estimates

104. Among important recent policy developments with implications for food aid, mention should be made of the new US Food, Agriculture, Conservation and Trade Act of 1990 which has brought about several important changes to US food aid policy and administration as established in Public Law 480 (see Developed Country section in Regional Review of the report). Overall, under the new US legislation a greater percentage of food aid would be provided in grant terms.

105. The Food Aid Convention, which is part of the International Wheat Agreement, 1986, was recently extended for two years to 30 June 1993.

E. FISHERIES

Production in 1989

106. In 1989, the increase in world fish production, which has been a regular feature of the sector since the early 1970s, slowed significantly. Although the world catch reached the record level of 99.5 million tons in 1989, it was only 0.8% more than the previous year (**Table 8**). The increase was almost entirely due to larger landings of small pelagic species in the southeastern Pacific and resulted in an overall rise in the developing countries' catch of almost 3.0 million tons, or 5.5%. Elsewhere, fish harvests, in general, either remained at about the same level as the previous year or showed a decline, most notably in the case of relatively high value cod and haddock.

107. For the first time since 1984, when aquaculture statistics have been separately collected by FAO, total production from aquaculture fell by 1%. The decline was wholly in the production of aquatic plants, which fell 350 000 tons, or 10%. Production of fish and shellfish increased about 2% to a record 11.1 million tons. In Africa, there was an encouraging increase of almost 25%, to 95 000 tons. Other than Oceania, Africa remains the region with the lowest production of farmed fish but the increase in 1989 was by far the largest recorded to date. The total

Table 8. Annual Changes in Catch and Culture of Fishery Products, 1986/1990 a/

	1986	1987	1988	1989	1990 b/	1986	1987	1988	1989	1990
	'000 mt					%				
World catch and culture of fish and shellfish	92 730	94 226	98 762	99 535	95 535	7.3	1.6	4.8	0.8	- 4.1
Catch and culture in inland waters	11 761	12 729	13 404	13 777	...	9.9	8.2	5.3	2.8	...
Catch and culture in marine waters	80 969	81 497	85 358	85 758	...	7.0	0.7	4.7	0.5	...
By principal producers:										
USSR	11 260	11 160	11 332	11 310	10 310	7.0	- 0.9	1.5	- 0.2	- 8.8
China	8 000	9 346	10 359	11 220	11 700	18.0	16.8	10.8	8.3	- 4.3
Japan	11 976	11 849	11 967	11 174	...	5.0	- 1.6	1.0	- 6.6	...
Peru	5 614	4 584	6 638	6 832	6 000	35.7	-18.3	44.8	2.9	-12.2
Chile	5 572	4 815	5 210	6 454	4 970	16.0	-13.6	8.2	23.9	-23.0
USA	5 167	5 986	5 937	5 744	5 650	4.4	15.8	- 0.8	- 3.3	- 1.6
By main group of species:										
Carps, barbels, etc.	3 902	4 431	4 895	4 974	...	19.8	13.6	10.5	1.6	...
Miscellaneous freshwater fishes	5 286	5 455	5 600	5 783	...	5.4	3.2	2.7	3.3	...
Cods, hakes, haddocks	13 556	13 785	13 641	12 831	...	8.7	1.7	- 1.0	- 5.9	...
Redfishes, basses, congers	5 956	5 694	5 646	5 907	...	14.4	- 4.4	- 0.8	4.6	...
Jacks, mullets, saurles	7 474	8 299	9 137	9 243	...	-10.1	11.0	10.1	1.2	...
Herrings, sardines, anchovies	23 955	22 314	24 113	24 574	...	13.5	- 6.9	8.1	1.9	...
Tunas, bonitos, billfishes	3 465	3 586	3 993	4 010	...	8.4	3.5	11.4	0.4	...
Mackerels, snoeks, cutlassfishes	4 010	3 644	3 846	3 826	...	4.7	- 9.1	5.5	- 0.5	...
Salmon, trouts, smelt	1 047	1 043	1 162	1 437	...	10.7	- 0.3	11.4	23.7	...
Miscellaneous marine fishes	9 168	9 563	10 036	10 129	...	7.3	4.3	4.9	0.9	...
Shrimps, prawns	2 233	2 364	2 518	2 443	...	4.6	5.9	6.5	- 3.0	...
Squid, cuttlefish, octopus	1 752	2 312	1 255	2 537	...	- 2.0	32.0	- 2.5	12.5	...
World production and culture of seaweeds	3 863	3 547	4 140	4 340	4 400	- 0.4	- 8.2	16.7	4.8	

a/ Including all aquatic organisms except aquatic mammals.
b/ Preliminary.

Source: FAO, Fishery Department.

production of aquaculture in Asia amounted to 8.7 million tons of fish andshellfish, and 3.0 million tons of aquatic plants overall representing 85% of the world's production from aquaculture. In 1989, the major share of the decline in aquatic plant production was mainly in Asia while the production in this region of fish and shellfish increased by less than 1%. Production in North America increased 7.6%, in Latin America 9.5%, and in Europe 6%. In the USSR, however, aquaculture production fell almost 3%, mostly in freshwater fish.

108. Catches of small pelagics in the southeastern Pacific, which had shown a strong recovery in 1988 after having been adversely affected by the change in the El Niño current in the previous year, showed a further increase of 1.4 million tons in 1989. The increase among countries was, however, uneven. Catches in Chile increased 24% to 6.4 million tons while Peruvian catches increased only 3% to 6.8 million tons because of a fishing ban in August and September and fishermen's strikes in October and November. In Ecuador, catches fell 6% to 724 000 tons.

109. Fish production in China increased substantially for the sixth consecutive year. At 11.2 million tons, China's production was at the same level of that of Japan. The other leading Asian fish producing countries showed virtually no change in their fish harvests, the only exception being India, where production rose by almost 500 000 tons or 15%.

110. Catches by African countries remained at about 3.8 million tons. In Morocco, catches declined almost 6% to 520 000 tons, mainly as a result of a fall in the catch of sardine. Production in other African countries generally showed little change from the previous year.

111. Fish production in the developed countries fell by over two million tons (5%) to 43.6 million tons. Major producing countries such as Japan and South Africa decreased their catches by nearly 7% to 11.2 million tons, and by over 32% to just below 880 000 tons, respectively. Almost all other developed countries experienced a fall of 3-5%, primarily as a result of lower catch rates and reduced quotas for the higher priced demersal species in the North Atlantic. A notable exception was Greenland where catches increased by a third to 162 000 tons. Norway was also able to increase its total production, despite a decline in cod, as a result of increased catches of shrimp and capelin, and farmed salmon. In Oceania, New Zealand recorded again an increase as has been the case since the 1960s; in 1989, however, the increase was only marginal (2%) to 514 000 tons. After two good years Australian catches fell 18% to 176 000 tons.

112. The quantity of fish used for direct human consumption increased in 1989 by almost half a million tons, or less than 1% (**Table 9**). The amount of fish used for meal and oil increased also by 1%, largely due to the increased catches of small pelagics in the southeastern Pacific where Chile again became the leading producer of fishmeal, with a record production of over 1.3 million tons compared with just under 1.1 million tons by Peru and by Norway. As a result, world fishmeal production increased by some 70 000 tons to a record output of nearly 6.9 million tons.

Trade in 1989

113. After a number of years in which there has been a sustained high growth rate in world trade in fishery products, 1989 showed an increase of only just above 1% as a result of falls in prices of a number of fishery products (Table 10). Nevertheless, the developing countries increased their exports by about 2% to US$15 billion.

114. The US maintained its position in 1989 as the world's leading exporter of fishery products and its export values increased about 4% to over US$2.5 billion, compared to an increase of almost a third in 1988. Of the other leading exporting countries, only Thailand was able to increase its exports, primarily of canned tuna, by 20%. However, Thailand's favourable balance of trade in fishery products increased by only 13%, due to its reliance on imported raw tuna for its canning industry. Canada, Denmark and Norway experienced setbacks in their exports due to lower cod catches in the North Atlantic. The value of exports from the Republic of Korea declined mainly because of lower shipments (-14%), while Taiwan, Province of China, exports were strongly influenced by lower shrimp prices. The combined exports of South American countries, which accounted for the greater part of their catches, increased by 12% to more than US$2.5 billion.

115. Almost all major importing countries increased the value of their imports in 1989 but, compared with recent years, the increases were small, mainly as a result of lower prices for most of the more important traded products.

116. Although imports by Japan declined 5% in 1989, they still accounted for 28% of world fish trade. The EEC accounted for 33%, including intra-Community trade. The USA, the third largest importer at US$5.8 billion, increased its imports by 7% in 1989 but even so its share of world trade in 1989 fell to 16% compared to 20% in the mid-1980s.

117. Prices were weak in 1989 for shrimp, yellowfin tuna, squid and octopus, fishmeal and fish oil and, for the first half of the year, skipjack tuna.

118. International trade in shrimp in 1989 was strongly influenced on the demand side by high cold storage holdings and a low level of demand in Japan and, on the supply side, by strong production from aquaculture. Yellowfin tuna prices fell to particularly low levels during the year, primarily as a result of an embargo by the United States on imports of tuna caught with dolphin. Squid prices were depressed because of high stocks carried over from the previous year and higher catches in the Southwest Atlantic, while octopus prices were under pressure because of the competition from low priced squid.

119. Prices of canned small pelagics showed an upward trend during the year. Developing country producers continued to take an increasing share of this market. Morocco remained the largest world supplier, accounting for over 17% of total world trade. Similarly, other developing country producers, notably Chile and to a lesser extent Peru, and some Southeast Asian countries increased their market shares, Thailand in particular. The developed countries' share, mainly Japan, declined.

Table 9. Disposition of World Catch, 1986-89

	1986	1987	1988	1989	1986-87	1987-88	1988-89
	'000 mt				%		
World catch	92 776	94 273	98 762	99 535	1.6	4.8	0.8
Human consumption	64 076	67 110	68 744	69 215	4.7	2.4	0.7
Fresh	19 565	21 960	22 613	21 744	12.2	3.0	-3.8
Freezing	22 565	22 692	23 497	23 784	0.6	3.5	1.2
Curing	10 276	10 676	10 621	10 975	3.9	-0.5	3.3
Canning	11 670	11 782	12 013	12 712	1.0	2.0	5.8
Other purposes	28 700	27 163	30 018	30 320	-5.4	10.5	1.0
Reduction	27 000	25 763	28 518	28 820	-4.6	10.7	1.1
Miscellaneous	1 700	1 400	1 500	1 500	-17.6	7.1	-

Source: FAO.

Table 10. Trade in Fisheries, 1986-89

	1986	1987	1988	1989	1986-87	1987-88	1988-89
	million US $				%		
World							
Exports	23 069	28 223	32 370	32 784	22.3	14.7	1.3
Imports	24 255	30 537	35 325	35 896	25.9	15.7	1.6
Total Developing Countries							
Exports	10 510	12 914	15 120	15 435	22.8	17.1	2.1
Imports	3 056	3 728	4 756	4 959	22.0	27.6	4.3
Total Developed Countries							
Exports	12 558	15 309	17 251	17 352	21.9	12.7	0.6
Imports	21 199	26 809	30 569	30 937	26.5	14.0	1.2
Major Exporters							
USA	1 481	1 825	2 441	2 532	23.2	33.7	3.7
Canada	1 752	2 092	2 207	2 051	19.4	5.5	-7.1
Thailand	1 012	1 261	1 631	1 959	24.6	29.3	20.1
Denmark	1 381	1 751	1 856	1 745	26.8	6.0	-6.0
China (Taiwan Province)	1 375	1 742	1 752	1 592	26.7	0.6	-9.1
Korea, Republic	1 171	1 540	1 784	1 538	31.5	15.8	-13.8
Norway	1 171	1 475	1 608	1 563	26.0	9.0	-2.8
Major Importers							
Japan	6 594	8 308	10 658	10 127	26.0	28.3	-5.0
USA	4 749	5 662	5 389	5 757	19.2	-4.8	6.8
France	1 510	2 022	2 244	2 194	33.9	11.0	-2.2
Italy	1 265	1 738	1 899	1 984	37.4	9.3	4.5
Spain	722	1 322	1 726	1 816	83.1	30.6	5.2
UK	1 216	1 387	1 577	1 612	14.1	13.7	2.2
Germany, F.R.	1 112	1 270	1 429	1 479	14.1	12.5	3.5
Exports as share of catches (%)	1985	1986	1987	1988			
Total Developing Countries	8.9	11.4	13.8	14.9			
Total Developed Countries	11.2	13.3	16.5	17.6			

Source: FAO.

120. Although the increase in fishmeal production was relatively small, prices fell from their 1988 peak, partly as a result of a reduction of stock levels but also reflecting the progressive substitution of fishmeal by soymeal, particularly in the US market. Aquaculture now contributes a significant part of the demand for fishmeal. It is estimated that currently the global use of fishmeal in fish feeds is approaching 15% of fishmeal production, mainly for the farming of prawns and salmonids. Fish oil prices continued their decline which had begun midway through the previous year, strongly influenced by ample supplies resulting from the high catches of small pelagics in the southeastern Pacific in the first half of the year. They staged a partial recovery in the latter part of 1989 but continued to be relatively depressed because of competition from vegetable oils.

Preliminary Estimates for 1990

121. Preliminary information shows that world fish production declined by over 4 million tons to 95.2 million in 1990, the first significant fall in world catches since 1972. The major contributory factors were a fall of some 2 million tons, or 25%, of shoaling pelagics in the southeastern Pacific, and a further decline of over a million tons of relatively highly priced demersal fish as a result of overfishing. Catches of cephalopods and tunas also declined. The decrease in fish production was also due partly to unforeseen economic difficulties affecting the USSR, as well as some East European countries.

122. In recent years many reports on the situation and outlook for world fisheries made by FAO and others, emphasize the fluctuating nature of stocks of small pelagic species and the threat of overfishing to a sustained level of production. In presentations of global fish production the significance of the latter has been masked by the increases which have taken place in recent years in catches of shoaling pelagics, particularly in the southeastern Pacific. The year 1990 is the first in which the fall in fish catches resulting from overfishing has coincided with a fall in the catches of shoaling pelagics.

F. FORESTRY

Production in 1990

123. In 1990 total world roundwood production reached 3 491 million m3, an increase of 0.8% above 1989, reflecting a 1.7% increase in production in developing countries and a 0.3% decrease in developed countries **(Table 11)**.

124. World production of fuelwood and charcoal increased by 1.3% in 1990, with a 2.0% increase in developing countries - where 85% of total production takes place - more than offsetting a 2.2% decline in developed countries. Fuelwood accounts for about 17% of total energy consumed in the developing countries, but in some rural areas this share is much higher, while in certain African countries the share of energy derived from fuelwood may reach 80-85%.

125. The rapid increase in population has often resulted in overcutting of the available fuelwood resources, thereby creating local shortages and undermining ecological stability. Although in recent years commercial

Table 11. **Output of Main Forest Products in Developed and Developing Countries, 1987-1990**

	1987	1988	1989	1990
	.... million m^3			
ROUNDWOOD	3 380	3 433	3 463	3 491
Developing	1 854	1 889	1 920	1 953
Developed	1 526	1 544	1 543	1 538
FUELWOOD AND CHARCOAL	1 736	1 760	1 786	1 810
Developing	1 459	1 488	1 518	1 548
Developed	277	272	268	262
INDUSTRIAL ROUNDWOOD	1 644	1 672	1 677	1 681
Developing	395	401	403	405
Developed	1 249	1 271	1 274	1 276
PROCESSED WOOD PRODUCTS				
SAWNWOOD AND SLEEPERS	505	506	501	490
Developing	112	113	114	115
Developed	393	393	387	375
WOOD PANELS	121	127	129	131
Developing	22	24	25	26
Developed	99	103	104	105
	.... million mt			
PAPER AND PAPERBOARD	213	225	231	235
Developing	32	35	36	37
Developed	181	191	195	198
PULP FOR PAPER	153	159	162	161
Developing	20	20	21	21
Developed	133	139	141	140

Source: FAO.

energy consumption of developing countries has grown at a much faster rate than fuelwood consumption, rural population still often has limited access to commercial energy products.

126. Industrial roundwood production virtually stagnated in 1990, increasing by only 0.2% over 1989. This was mainly the result of a stagnation in developed country production, as the slowdown of economic growth and of construction activities in some major countries led to a reduction of demand for wood. An unprecedented storm which hit Central Europe in early 1990 blew down about 100 million m3 of roundwood, of which 67 million were in Germany alone. This contributed to increased removals of logs in central Europe, offsetting the large production decreases occurring in North America and in Eastern Europe.

127. Production of <u>mechanical wood products</u> in 1990 declined markedly in the developed countries. The decrease was concentrated mainly in North America, Eastern Europe and Oceania while in Western Europe the situation varied among different countries. Production increased marginally in the developing countries, reflecting increasing demand from growing populations. Housing starts in the USA were at the level of 1 192 thousand units, the lowest since 1982. Canada's production of coniferous sawnwood, the third largest in the world, recorded a decrease of some 4% as a result of diminished domestic demand and the reduction of exports to the USA. In Eastern Europe and in the USSR the pattern of stagnant or declining production continued, and the situation is not likely to change unless these countries undertake major efforts to restructure their industries. Australia experienced a marked decrease in output, associated with economic recession and with a sharp drop in housing starts.

128. Production of mechanical wood products increased considerably in central Europe, fuelled by the strong performance of the building industry in Germany, and output rose also in Austria and France. The Scandinavian countries, on the other hand, experienced very modest growth as building activity in these countries was stagnant and exports to the UK decreased considerably.

129. A different picture emerged in 1990 for the <u>paper</u> sector. Increased production was again recorded across all products and most regions, continuing the uninterrupted growth which began in 1983. The rate of growth of output was slower, however, than in previous years and in the later part of 1990 further signs of a deceleration appeared. As in previous years, most of the growth was in the output of graphic grades, led by the dynamic performance of the communication and service sectors. Major production growth was experienced by countries in central Europe, in the US and in Japan, while in Canada and the Scandinavian countries growth was more constrained. Signs of stagnation were observed in certain developing countries where output had grown rapidly in recent years, such as China, the Rep. of Korea and Brazil.

130. Output of <u>pulp for paper</u> decreased marginally in 1990. The contraction in pulp production in parallel with expanding paper production, reflected an increasing trend in the utilization of recycled waste paper by the industry. Many firms were making substantial investments in waste paper recycling facilities, often supported by governmental subsidies on waste paper recovery or in response to restrictions requiring recycled fibre content in paper products. Production of mechanical wood pulp continued to increase more rapidly than that of chemical pulp with new additions to capacity for thermomechanical and chemi-thermomechanical pulp production.

<u>Trade and Prices</u>

131. Global trade in forest products decreased in 1990 compared to 1989, particularly in the later months of 1990 (Table 12). This largely reflected the economic slowdown in several major OECD countries. In the UK, Europe's largest importer, there was a marked decrease in the number of housing starts, which affected, most notably imports of coniferous sawnwood. Scandinavian exports were the main sufferers. In Germany, France and other central European countries, the expansion in consumption of

Table 12. Value of Exports of Main Forest Products, Developed and Developing Countries, 1987-1990

	1987	1988	1989	1990
	.... billion US $			
INDUSTRIAL ROUNDWOOD	7.34	8.47	8.92	8.88
Developing	2.51	2.55	2.64	2.65
Developed	4.84	5.92	6.28	6.23
SAWNWOOD AND SLEEPERS	13.67	15.67	17.42	17.66
Developing	2.25	2.62	3.21	2.99
Developed	11.42	13.05	14.21	14.67
WOOD BASED PANELS	7.27	8.34	9.35	9.32
Developing	3.21	3.74	4.24	4.14
Developed	4.06	4.64	5.11	5.18
WOOD PULP	12.48	15.35	17.31	16.85
Developing	0.84	1.18	1.18	1.22
Developed	11.64	14.17	16.13	15.63
PAPER AND PAPERBOARD	32.21	38.74	41.49	43.27
Developing	1.41	2.07	2.08	2.31
Developed	30.81	36.67	39.41	40.96

Source: FAO.

mechanical wood products was mainly met by increased domestic output. In North America, the downturn in the US housing industry affected Canadian exports, which are mainly oriented to that large market.

132. In Japan, the world's largest importer of wood and wood products, consumption in 1990 remained at the same level as in 1989 reflecting sustained activity in the construction industry. However during the year signs of a slowdown appeared in the economy. This had a marked impact on wood trade, as a tendency emerged to meet domestic needs by running down stocks and to reduce wood imports, including manufactured wood products, which had increased steadily over the previous four years.

133. Exports from tropical developing countries were negatively affected by the emerging recession in some of the major markets. In addition, exports were affected by the recent introduction by some major exporters such as Indonesia, the Philippines and Malaysia, of measures aimed at discouraging trade in primary wood products in order to encourage further domestic processing. Thus the high export levy imposed by Indonesia on sawnwood exports designed to stimulate further processing of sawnwood, has significantly limited sawnwood exports. In 1990, Peninsular Malaysia, the world's largest exporter of tropical sawnwood, announced the imposition of an export levy and export quotas on 22 sawnwood species. During the same year Ghana introduced a duty of 50% on the exports of certain species of logs and sawnwood.

134. In contrast to the constriction of trade in mechanical wood products, trade in paper grew further in 1990, although some signs of a slowdown appeared during the last months of the year. Canada saw a considerable reduction in its exports of newsprint because of a serious labour dispute, but other major exporters enjoyed generalized increases. Of particular relevance was the 18% growth of exports from the US, stimulated by the low exchange rate of the US dollar.

135. Trade in pulp on the contrary declined after several years of uninterrupted growth. During 1990 new capacity came on stream in a number of major producing countries, both developed and developing, but due to diminished demand, capacity utilization rates fell markedly and pulp inventories held by the major producers increased significantly. A factor behind the reduced demand for pulp is the utilization by some mills of larger shares of recycled fibres. This, on the other hand, increases trade in waste paper, and it is estimated that Western European and Asian imports of waste paper grew by some 15% in 1990.

136. Prices for major forest products in 1990 showed varying trends, according to the market situation for particular products or countries.

137. In the US the sharp downturn in the number of housing starts in 1990 led to a marked decrease in prices of wood products utilized by the building industry. Prices for mechanical wood products tended to be firmer in continental Western Europe, reflecting the good performance of the building and furniture industries in a number of countries. For wood pulp the development of excess production capacity, combined with slackening demand, led to prices experiencing a major setback in 1990, following four years of sustained increases.

<u>Tropical Forests</u>

138. The Tropical Forest Resource Assessment 1980 included, for the first time, an estimate of changes in forest areas. The importance of monitoring the state of forests is reflected in the current Forest Resource Assessment 1990. Preliminary results of the Tropical Assessment indicate that the loss of tropical forest in the 1980-90 period, may have averaged 1.2% per year.

139. International concern about the pervasive loss of tropical forest revealed earlier, led to the launching of the international initiative in 1985, the Tropical Forestry Action Plan (TFAP). In response to TFAP 83 developing countries have begun the formulation of national plans in cooperation with the international community of donor agencies and non-governmental organizations. Twenty countries have completed these plans and presented a portfolio of project proposals to the donor community.

Box

Non-Wood Forest Products

1. In addition to timber and fuelwood, forests also generate a large number of other valuable products, some of which enter the international market while others are consumed locally by the rural people. In recent years these products have received increasing attention for their potential to generate income and employment for local communities, or for the direct benefits they can provide to these communities.

2. Non-wood forest products entering the international market include: gums and resins, bamboos, various oils, rosin and turpentine, tanning materials, honey, seeds and spices, wildlife products, barks and tree leaves, medicinal plants. Some other products, such as bushmeat, cola nuts and palm wines, are traded at the regional level among some African countries.

3. Recently rattan has become an important export earner for some countries in Southeast Asia with strong demand on the international market being sustained by the furniture industry. Rattan exports from Malaysia, Indonesia and the Philippines in 1988 are estimated at some US$200 million. Indonesia has recently introduced measures to support local processing and manufacturing of rattan products by banning exports of unprocessed rattan.

4. Gum arabic, a product of the Acacia Senegal, is still an important export commodity for some arid African countries, particularly Sudan, which is the largest producer, and to a lesser extent Mali, Mauritania and Senegal. Total annual world trade in gum arabic is of the order of US$80 million.

5. Exports of cork, have traditionally been a significant source of foreign exchange earnings for Mediterranean countries, particularly Portugal and Morocco, but to some extent also Spain, Tunisia and Italy. Total exports of cork and derivatives are valued at some US$600 million.

6. A recent example of the development of economic exploitation of forestry resources is provided by the Republic of Korea, which through the implementation of community forestry programmes at the village level, has developed the cultivation of edible fungi as a viable economic activity. Production is mainly geared toward the international market, and mushroom exports are valued at some US$50 million.

7. Rural communities have always depended substantially on forests as providers of food, fuel, medicinal herbs and extractives, building material, material for handicrafts, animal fodder, perfumes, dyes, etc. Such products can be of particular importance to people living in remote forest areas with little or no access to products entering the urban or rural markets.

8. Forest wildlife also contributes directly to the food supply of rural communities. In tropical West Africa and Latin America it is a major food item in forested areas where substitutes are not available. In the Cameroonian forest zone, bushmeat is estimated to supply 70-80% of the animal protein consumed by local people. In an evaluation of a forestry project in Ghana it was found that 95% of the local rural population considered the worst impact of forest destruction to be the loss of bushmeat in the area.

9. Non-wood forest products are often collected and traded in local rural and urban markets, thus providing labour-intensive work and an additional source of income during the off-peak agricultural season. In India, for instance, tendu leaves are used as wrappers for beedies (indigenous cigarettes). Collecting and processing tendu leaves is a labour-intensive activity which offers many employment opportunities in some states of India. It is estimated that about half a million people are employed in the collecting and processing of tendu leaves for at least one month a year and about 200 hundred thousand are engaged in wrapping beedies throughout the year.

10. The role of women is particularly important in the collecting of non-wood forest products both for domestic use and for processing and sale in local markets. In many rural communities women carry the major burden of providing their families with food, medicines and some cash from sales derived from these products.

11. In many countries the collecting of non-wood forest products is the subject of established common property rights of local people. In other cases the collecting is regulated through systems of licensing. In certain cases the introduction of alternative ways of exploiting forests results in conflicts with these customary activities, and the clearing or felling of forests or the restriction of access may result in severe hardship to communities which depend on non-wood products for their livelihood.

12. Governments, however, can take special action to protect the interests of local communities. By creating what in the Amazon are termed "extractive reserves", as recently done by the Brazilian Government in the State of Acre, governments can offer long-term usufruct agreements to people who agree to live in harmony with the forest, taking from it only what is necessary for their livelihoods, and ensuring the rejuvenation of valuable species. This approach assumes that, by stimulating the sustainable utilization of a wider range of these extractive products, there will be a greater incentive for those who reside in and near forests to protect them from encroachment by outsiders, and to maintain forest productivity and biodiversity in the long term.

Box

Environmental Concerns and Trade in Forest Products

1. Recently, increasing environmental concerns have focused on tropical timber production, both in consuming and producing countries. Various types of trade-related action are being suggested in order to halt the process of deforestation. The motives behind these suggestions cover a wide spectrum, ranging from protecting the global environment (particularly reducing global warming), through maintaining the life-style of forest dwellers, to protecting the long-term flow of tropical timber to export markets.

2. Proposals include consumer boycotts of tropical timber; limiting timber purchases to wood from sustainably managed sources; differential tariff levels; and import surcharges to finance assistance to tropical forest management. Some of these are based on the rationale that a reduction of international trade in tropical wood products should reduce incentives to cut down tropical forests. Others consider trade levies as a means of raising funds for improved forest management.

3. As an example of action at the international level, member countries of the International Tropical Timber Organization, covering both consumers and producers, have supported an objective that all exports of tropical timber (logs, sawnwood and panels) should come from sustainably managed sources by the year 2000.

4. The likelihood of trade restrictions achieving the goal of reducing deforestation is, however, doubtful, since only 6% of all wood harvested in the developing countries enters international trade. By far the bulk of tropical wood production is used domestically. Furthermore, harvesting of timber either for fuelwood or commercial wood uses is only one cause of tropical deforestation. Clearing of land for agricultural settlement purposes is acknowledged to be of significant impact, although estimates vary as to its exact extent. Unless such causes are also addressed, any beneficial effects from measures realting to international trade in tropical timber may be relatively minor.

5. Environmental concerns are also affecting trade in forest products in temperate regions. In the US, for instance, wood harvesting in the States of Washington and Oregon is expected to decline because of moves to protect the habitat of endangered species such as the spotted owl. Concern over the supply of timber to domestic processors has also led to legislation that will substantially reduce softwood log exports from public lands in these two states. Canadian paper exports to the US are affected by the increasing demand by US newspaper publishers - often resulting from state environmental regulations in the US - that newsprint contains a proportion of recycled waste paper. This trend is requiring investment in appropriate processing capacity and is generating a new import trade in waste paper to the US.

II. REGIONAL REVIEW

Developing Country Regions

140. Following the approach introduced in last year's issue of The State of Food and Agriculture, the developing country review in this document focuses on selected countries in each region. For Africa, the discussion centres on two similar mineral-livestock economies, Namibia and Botswana, continuing the survey of Southern Africa begun last year. The accession to independence by Namibia in March 1990 marked an important step in the political evolution of Southern Africa. The Asian review examines the recent experience of Viet Nam and Laos, two countries that have undertaken bold economic, organizational and institutional reforms with far-reaching repercussions on agriculture. The Latin America and Caribbean review discusses the cases of three Andean countries, Bolivia, Ecuador and Peru, that exemplify the economic problems and disappointing policy experiences that have characterized the region during the 1980s, and the convergence of policy orientations in recent years. Algeria, Morocco and Tunisia, three Maghreb countries in the Near East region, are reviewed in the context of their economic and food security dependence on external influences, their varying experiences in introducing economic reform and their integration efforts.

G. AFRICA

SUB-SAHARAN AFRICA

Regional Overview

141. According to Economic Commission for Africa (ECA) estimates, sub-Saharan African economic growth in 1990 was 2.6%, down from 3.3% in 1989. With current population growth estimated at 3%, economic activity in 1990 therefore declined in per caput terms and the fragile economic recovery that took place in 1988-89 proved to be short-lived. Economic activity in 1991 is expected to grow at approximately the same pace as in 1990. Although IMF projects economic growth to accelerate in 1992, real per caput GDP would still remain at approximately the same level as 20 years earlier.

142. Meeting in Addis Ababa in May 1990, the ECA Conference of Ministers on the Review and Appraisal of the Lagos Plan of Action and the UN Programme of Action for African Economic Recovery and Development (UN-PAAERD), 1980-1990, drew attention to Africa's continuing deep socio-economic crisis, worsening economic infrastructure and marginalization in global trade. Its economic malaise of the 1970s had continued into the 1980s and on almost any development indicator, Africa performed worse in the 1980s than the other developing regions: Africa's per caput GDP fell from US$854 in 1978 to US$565 in 1988; its external debt rose from US$48 billion to US$423 billion during the same period; there were only 17 African Least Developed Countries (LDCs) in 1978, but 28 by 1988. Furthermore, by 1987, between 55-60% of Africa's rural population was considered to be absolutely poor, the highest share of all developing regions. Prospects for the 1990s also were bleak.

143. The poor economic performance of 1990 reflected an overall unfavourable agricultural year, and mixed results in the mining sector arising from the sharp increases in the price and production of oil. Apart from oil, the prices of the three categories of commodities of major importance to African countries - beverages, agricultural raw materials and minerals - declined. The difference in economic performance between the oil-importing and oil-exporting countries, which had been exceptionally narrow in 1989, reverted to its normal, wider disparity.

144. The year 1990 had initially presented promising conditions for African agriculture, with rainfall following near-normal patterns. This earlier optimism proved misplaced, however, as climatic conditions deteriorated in several countries particularly in the Sahel, Sudan, Ethiopia and some southern African countries. Such situations unfortunately coincided in several countries with wars and civil unrest that remain a major disruptive factor inhibiting Africa's economic and social progress. ECA estimates that agricultural value added in Africa stagnated in 1990 compared to growth of 3.6% in 1989, such poor performance having a depressing effect on the manufacturing sector.

145. Other estimates of agricultural performance in 1990 include:

- Agricultural production declined almost 1% in 1990, with 17 countries recording declines in production relative to the previous year. Particularly sharp production shortfalls were recorded in Liberia, Zambia and Senegal. On the other hand, Guinea and Congo staged significant recoveries after the heavy losses of the previous year.

- Food production fell almost 4% in per caput terms, the worst year-to-year decline since 1983. Only nine out of 45 sub-Saharan countries achieved some gain in per caput food production.

Namibia

146. Namibia gained its independence in March 1990 following more than 100 years of colonial or quasi-colonial rule or occupation. Its economy is one of striking contrasts. Aggregate GDP is about US$1 200 per capita, one of the highest in sub-Saharan Africa. Yet disparities in income are extreme with a minority enjoying per capita incomes comparable to those in Western Europe, while the great majority subsist in agriculture or informal occupations with average annual incomes estimated to be less than US$100. Namibia's agricultural sector also shows great contrasts, as will be described below.

147. The Namibian government is in the process of evolving a development strategy for its interim three-year development plan, based on its general policy statement "The Reconstruction and Development of Namibia", prepared for its first donor conference in June 1990. The overall policy aim is to revive and restructure the economy which suffered a protracted recession from the late 1970s to the mid-1980s due to a decline in mining, which still dominates Namibia's economy, and a severe drought which ended in 1986. Economic growth has been only moderate since. Nevertheless, Namibia has significant mineral resources, access to one of the world's richest fishing areas, major tourist attractions, a relatively well developed infrastructure and potential for the production of livestock and forest

products. Its economy, however, remains undiversified and exposed to the instability of international markets for primary products. A major issue is agriculture's contribution to future growth and rural development that will involve a restructuring of the rural economy. Access to land will be a further key but delicate issue in this process, which was addressed by a Land Conference held in June 1991.

Namibian Agriculture: Crop and Livestock Production

148. Although commercial agriculture currently contributes only about 11% to Namibia's GDP and approximately the same proportion of its merchandise exports, it employs about 19% of the formal work force and is the second most important sector of the Namibian economy, after mining. The agricultural sector directly or indirectly supports about 70% of a population estimated to be about 1.7 million, mostly at subsistence levels. Including agricultural subsistence production would add possibly an additional 2 to 3 percentage points to the sector's contribution to GDP.

149. Currently Namibia is about 50% self-sufficient in the cereal staples (pearl millet, sorghum, white maize and wheat). The favourable rains of the 1990/91 season, coupled with an apparent decline in demand which is probably linked to the reduction in the number of military personnel in the country following its Independence and the scaling down of military activities in neighbouring Angola, has increased the country's self-sufficiency in staple foods, particularly white maize. Namibia is entirely self-sufficient in beef. However, imports of processed food, almost entirely from the Republic of South Africa (RSA) and linked to the RSA-dominated food distribution system in urban areas, remain at high levels. Nevertheless, undernutrition is a common feature in rural households, particularly in the small farm, communal areas.

150. Livestock farming contributes a very large share of the value of commercial agricultural production, but is very susceptible to drought such as existed between 1978-1985. The national cattle herd declined by almost half between 1979 and 1984, from 2.5 to 1.3 million head, but it has since recovered to about 2 million and will continue to increase because of the favourable grazing conditions of 1990/91. Most cattle are shipped on-the-hoof to RSA for slaughter under quotas arranged between the respective meat boards. About 187 000 head were shipped in 1987 but the export quota for 1990 was reduced to 100 000. Namibia also has an annual quota of 13 000 tons with the EEC, equivalent to 65-70 000 head of cattle. RSA is also the main market for Namibia's exports of smallstock, primarily mutton sheep, with the 1990 quota being 500 000 head.

151. Namibia's agricultural sector has a dual structure composed of distinct commercial and communal sub-sectors. There is extreme inequality between the two in terms of access to resources, technology, inputs, services and markets.

152. The commercial sector consists of about 4 200 farmers on about 36 million ha of privately held land, with an average holding size of 8 600 ha. This export-oriented sector is well serviced, highly developed and capital intensive. Until recently, it had access to capital at favourable interest rates. Beef cattle and sheep skins (Karakul pelts) accounted for about 98% of the value of agricultural production in the late 1980s. The commercial sector's capital, infrastructure and skills

represents a valuable national asset. Nevertheless, despite some recent increases in crop production, the commercial sector has stagnated in recent years, mainly due to unfavourable weather and market prices, particularly for Karakul pelts.

153. The communal sector is subsistence-based, labour-intensive and uses little external inputs and advanced technology. Hence productivity is low. Nevertheless, the communal sector comprises about 120 thousand individual farmers (some 95% of the total) on 23 million ha of land. To underline the disparity in access to land, about 800 thousand people, or nearly 50% of the population estimated to be 1.7 million, are concentrated on about 2.3 million ha of farm land in the northern regions.[15] It also lacks access to markets, inputs and services and many of its communities are continuously engaged in a struggle for survival. There exists, however, considerable potential for increased production, given the current low levels of input use and technologies employed, a potential which, if achieved would fulfil important social objectives of raising incomes, mitigating poverty and improving food security.

154. Northeast Namibia contains valuable commercial timber species, mainly Kiaat and Rhodesian teak. Tree density is low, however, and the native forest declines from east to west with the declining rainfall. There is a forest reserve of 160 thousand ha in Caprivi. Current extraction of commercial timber is only a small fraction of estimated sustainable timber yields, although accurate data are lacking. Agriforestry remains a large but unexploited economic sector.

155. Namibia's fishing grounds are rich in pelagic fish such as pilchards and anchovies, as well as demersal species such as hake and other white fish. Several RSA consortia and companies have traditionally dominated pilchard canning, the production of fishmeal at Walvis Bay, and the processing of rock lobster at Luderitz. Foreign trawler fleets were active in the deep sea fishing areas, comprising the 17 member International Commission for Southeast Atlantic Fisheries (ICSEAF), based in Madrid. In 1988, ICSEAF members caught 630 thousand tons of mackerel and 309 thousand tons of hake in the three zones of the Namibian deep sea region, for which Namibia received no revenue at all. ICSEAF ended in mid-1990 when, following Independence, the Namibian government proclaimed a 200-mile exclusive economic zone (EEZ).

156. Estimates suggest that Namibia could earn up to US$1 billion annually in royalty payments from foreign fishing fleets and fish landed and processed by Namibian vessels. The fishery sector's current contribution to GDP is low, however, because of the exclusion of economic activity in the Walvis Bay enclave. Still being negotiated with RSA, Walvis Bay removes from Namibia's manufacturing, equivalent to about 5-10% of GDP.[16]

---

[15] 1.3 million is the official 1989 estimate. Unofficial estimates for 1991 make it nearer 1.7 million. A population census is being undertaken in September 1991.

[16] RSA purportedly annexed the port of Walvis Bay and a surrounding enclave of 969 km2 together with 13 offshore islands, by a special proclamation of September 1977, although these areas had been administered from Windhoek since 1922.

157. Notwithstanding this considerable potential, Namibia's agricultural sector still faces serious development constraints. Only about one-half of the land area can be used for agricultural activities. Moreover, low and erratic rainfall, which varies from 100 mm to more than 500 mm a year, combined with high rates of evaporation, limits arable farming to relatively small areas, primarily in the north of the country.

158. There are no internal perennial water systems and the rivers exist mainly along the country's international borders which seriously limit their management and use for the benefit of Namibia. Although there is groundwater, its exploitation is increasingly limited because of the lowering water table. There are also inadequate facilities to store surface water in the northern regions during the rains. Hence, limited surface and underground water, the high energy cost of water extraction, and high evaporation rates, act as a serious constraint on development of crop production.

159. The existing unbalanced land-tenure system is also a major constraint. It can be divided into three main groups:

- commercial land (44% of the total), characterized by exclusive ownership;

- communal land (41% of the total), characterized by customary and often insecure property rights allocated by individual communities, including grazing rights and access to water holes;

- state land (about 15% of the total), mostly national parks, the reserved mining areas and desert.

160. Institutional deficiencies in the provision of agricultural training and extension services, appropriate technologies and access to credit and inputs are particularly marked in the communal areas.[17] Agricultural product markets also are limited by the lack of effective demand, in turn derived from the low productivity of the rural economy. The severe budget restrictions imposed in 1991, make the task of addressing these problems still more difficult.

161. Livestock sector constraints include the lack of investment opportunities in the communal areas which leads to over-stocking and, with poorly defined property rights, to over-grazing, and the lack of a controllable border with Angola which greatly hampers the control of livestock diseases, particularly contagious bovine pleuro-pneumonia (CBPP). This lack of control is slowing the northwards shifting of the veterinary cordon fence - the so-called 'Red Line' designed to control the spread of infectious diseases of livestock - further into the communal areas. This shift is desirable on political and equity grounds to allow communal owned cattle to gain access to higher priced markets further South. Throughout the livestock area, poor management of the rangelands is contributing to bush encroachment and lower capacity to carry livestock.

---

[17] FAO is assisting the Namibian government in preparing a rural credit study.

162. In forestry, the main problem is the lack of a forestry policy and the means to control access to forests, leading to the uncontrolled felling of trees with potentially serious environmental consequences. Nevertheless, there are shortages of fuelwood and building poles.

163. In fisheries, a major difficulty is Namibia's inability to exercise its rightful control over access to the fishery resources of its EEZ, as well as the fact that RSA still retains economic control over the Walvis Bay enclave, the main centre of marine fishery activities.

164. The Namibian government recognizes the need to reduce the disparities between the communal and the commercial agricultural systems. It also recognizes that the country is far from being self-sufficient in its basic food requirements even though it has potential for reducing its dependency on external sources of food. Furthermore, while export trade remains a priority area, it also emphasizes the importance of increasing the domestic supply capacity of the agricultural sector as a means to promote small- and medium-scale rural industries, thereby increasing value added and employment. There is also the need to diversify production as a protection against declines in export markets, diseases, especially of livestock, or other natural disasters. Running through these objectives is the prime need to integrate the commercial and communal farming communities, contributing to social equity and the more rational management of the country's scarce natural resources, notably arable rainfed land, and water.

Botswana

165. Botswana, which has been independent for 25 years, has some similarities with Namibia. It too is a sparsely populated country of about 1.3 million, compared to Namibia's 1.7 million. Its economy is also dominated by mining but to an even greater extent than Namibia. It too has an agricultural economy dominated by livestock and with a highly skewed ownership of a major resource - cattle. It is estimated that 40% of the households do not own cattle, while less than 10% of the households, including those in traditional and commercial farming activities, own about 60% of the national cattle herd of some 2.5 million. The Botswana economy is open and fragile. Diamonds accounted for 80% of merchandise exports in 1990 and other minerals, such as copper and nickel, for another 8%. Beef exports, the sole agricultural export commodity, accounted for 4% of total exports.

166. Aware that diamond mining has a finite life, the Botswana government has recently undertaken a searching review of its agricultural sector. It has also undertaken an assessment of its environmental policies which, after several years of deliberations, has culminated in the National Conservation Strategy, approved by Parliament in December 1990.

167. The Agricultural Sector Assessment of 1988/89 provided the basis for a draft policy paper that was discussed at the Agricultural Consultative Policy Conference on 28 May to 1 June 1990. This National Conference was followed by 12 other consultative meetings held throughout the country. What emerged was "Botswana's Agricultural Policy: Critical Sectoral Issues and Future Strategy for Development". The resulting "White Paper" was approved by Parliament in February 1991 and will be incorporated in the Seventh National Development Plan, 1992-96, under preparation.

168. Although the crop sub-sector receives considerable government attention and resources, it is the livestock sub-sector which raises the most intractable issues regarding the use of natural resources.

169. The national cattle herd more than doubled from about 1.25 million head at Independence in 1966 (a low, drought-affected figure) to a maximum of 3 million in 1982 before drought conditions again set in. The number fell to 2.3 million in 1987 but has been climbing since and, given the excellent grazing conditions of 1991, is likely to continue rising. This progression was largely the result of considerable government intervention, particularly through animal disease control, provision of boreholes and credit and marketing facilities. Productivity has stagnated, however, with calving and offtake rates not only being significantly lower in the communal than in the commercial areas but remaining largely unchanged during the past two decades. For example, despite the major efforts at breed improvement, cold dressed weights (CDW) of slaughtered cattle were exactly the same in 1966-68 at 208 kg as they were 20 years later.

170. The national sheep and goat herd has also grown rapidly and is currently more than 2 million head. Numbers increased particularly rapidly during the drought years of 1982/83 to 1986/87 as sheep and goats were better able to survive the harsh conditions than cattle and producer prices were raised in 1984.

171. Poultry output also has greatly expanded despite the high cost of feed, but dairy output has stagnated, possibly because under the Financial Assistance Programme (FAP) that funded the purchase of dairy stock, non-nationals were not permitted to invest in fresh milk production.

172. The key policy issue in the livestock sub-sector is the sustainable size of the national livestock herd, given the highly variable grazing conditions which are linked to rainfall, the shortage and high cost of pumping groundwater and the alternative use of the range for wildlife and tourism. Under Lomé IV, Botswana has an annual beef quota of 18 916 tons, unchanged from Lomé III. Although on occasions this quota cannot be fulfilled because of inadequate supplies, it is a valuable market, providing 42% of the Botswana Meat Commission's (BMC) annual sales during the latter half of the 1980s. Furthermore, the remitted EEC levies to BMC make a significant contribution to the producer bonuses which accounted for nearly 20% of cattle producer returns during the late 1980s. EEC sales also account for a significant share of BMC throughput and therefore serve to hold down average processing costs.

173. Production in Botswana's arable sub-sector is dominated by cereals, about 70% of which is sorghum. Two factors influence the sub-sector's performance: the difficult climatic conditions over most of the land area with any potential for arable farming, and the presence of relatively cheap and, in most years, ample supplies of cereals and other food products from neighbouring RSA. Botswana is a member of the South African Customs Union which is designed to facilitate the easy flow of goods between the contracting partners. Nevertheless, Botswana controls the imports of some horticultural products through import licensing.

174. Planted areas have increased significantly since the mid-1960s, from about 200 000 to 240 000 ha to an average of 300 000 ha by the late 1980s, but yields remain very low, particularly in the communal areas, and

domestic production falls far short of consumption in most years. The deficit is made up by imports, including food aid in exceptionally difficult drought years.

175. One such drought period was from 1981/82 to 1986/87 when production of the major cereal crops averaged only 18 000 tons, while imports, including food aid, were 165 000 tons a year. As a result of the drought, the Botswana government introduced drought relief programmes largely funded from increased mining revenues, including rural works, and other programmes designed to raise food production such as the Accelerated Rainfed Agricultural Programme (ARAP) and the FAP, which also assisted livestock producers.

176. As a result of such government encouragement and the return of much more favourable weather conditions, production of cereals, and sorghum in particular, recovered dramatically in 1987/88. Consequently, stocks of sorghum built up rapidly and could only be disposed of at considerable financial loss: indeed some stocks still remain.

177. The critical policy issues are as follows:

- The efficiency of resource use. Following the Mid-Term Review of NDP VI in 1988 and the Agricultural Sector Assessment Study of the following year, there has been a shift in food policy from self-sufficiency to food security. The latter has not yet been articulated with precision but is based on targeted food subsidies, developing appropriate technologies, promoting human resource development, and introducing effective land-use planning.

- Low productivity in both the livestock and arable sub-sectors. It is hoped to raise productivity through technological development but the aim is also to diversify production away from cereals where average production costs are typically double those of imports. Livestock productivity is expected to increase through improved calving rates which are currently low, especially in communal areas. But this would not address the existing problem of excessive livestock numbers. The rising numbers of smallstock are of particular concern because they tend to be owned by those having no or less cattle, and markets are lacking. It is also hoped to raise range productivity by allowing ranchers, whether as individuals, groups or communities to fence grazing land, and to determine the size of ranches according to grazing quality and hence carrying capacity, rather than having a standard size of 6 400 ha as within the existing Tribal Grazing Land Programme dating from the mid-1970s. The main difficulty here is that individuals may take precedence over common property rights and worsen inequality in cattle ownership and increase the pressure on the remaining grazing 'commons'.

- Water development is another critical area because without irrigation crop production it is exposed to highly erratic rainfall and the lack of watering points concentrates livestock in certain and generally heavily over-grazed areas. Yet, the main sources of surface water are found mainly in the northwest of the country, around the Okavango Swamp which is an area rich in wildlife and a tourist attraction. The government is currently preparing a National Water Master Plan to consider this issue. A central part of the new policy appears to have agricultural users pay for water.

- Price incentives and subsidies. Farmers are free to sell their produce on the domestic markets at prices determined by supply and demand. The Botswana Agricultural Marketing Board (BAMB), however, serves as a buyer of last resort for cereals and oilseeds. Two recent studies have recommended import parity to guide BAMB support pricing for these products, and this has been accepted as government policy.[18] Nevertheless, Botswana's adoption of import parity pricing, having a large and relatively efficient cereal producer as a neighbour, and its exchange rate being over-valued, may serve to drive down domestic market prices of cereals and oilseeds with adverse consequences for producer returns.[19] The government also is determined to reduce the burden on the budget of production subsidies. It is proposed to focus them more precisely on controlling major animal diseases and pests where externalities lead to social gains from government interventions.

- The continued scarcity of skilled agricultural manpower has focused attention on the need for manpower development, with increased emphasis on in-service and continuing education. The government has taken the policy decision to train manpower for both the public and private sectors.

178. Finally, the government has clearly stated its policy concerning the appropriate roles of the public and private sectors in promoting agricultural development. It has carefully avoided the approach of undertaking direct production activities, intervening heavily in markets and providing inputs. The policy is to limit government intervention to those areas where the private sector is constrained by technical or financial resources. Nevertheless, the Botswana government has an array of parastatals - the National Development Bank, BAMB, BMC, the Botswana Livestock Development Corporation, the Botswana Cooperative Bank and the Botswana Development Corporation - which still enable it to intervene heavily in the agricultural sector.

179. The key policy issue remains the role of Botswana's agricultural sector, dependent on a geographically extensive but in fact limited and fragile natural resource base, in the country's development strategy. The recent publication of the National Conservation Strategy indicates the commitment of the Government to sustainable development balancing economic growth with resource conservation, involving the development of multiple, rather than single purpose, natural resource use, the diversification of the rural economy and balancing population growth with the supply of natural resources.

---

18 Agricultural Sector Assessment, op. cit. and Review of Subsidies and Price Incentives in Foodgrain Production and Marketing in Botswana, 1989.

19 The exchange rate of Botswana currency (the Pula) is driven up vis-à-vis its main trading partners, particularly the RSA's Rand, by its booming mining exports.

Box

Africa: UN-PAAERD and Economic Integration

1. An *Ad Hoc* Committee of the Whole of the UN General Assembly is holding a special two-week session (3 - 13 September) to review the UN Programme of Action for Africa's Economic Recovery and Development (UN-PAAERD), 1986-1990, and to propose measures to promote economic recovery and development. The African countries themselves, at the ECA Conference of Ministers, held in May 1991, called for a new international agenda for cooperation and support for Africa. They considered that UN-PAAERD had very little positive impact on Africa's economic performance during 1986-90 and had failed to mobilize adequate support from the international community. Indeed, fear was expressed that another programme such as UN-PAAERD, that treats Africa as a special case, might worsen Africa's marginalization from global trade and financial flows.

2. The main concerns expressed at the ECA meeting were for tangible signs of donor support, such as the cancellation of previous bilateral and export credit debt, a delinking of debt relief from structural adjustment conditionality, efforts to diversify African economies away from an over-reliance on a few primary commodities, and a "substantial" increase in financial assistance. It had been estimated in UN-PAAERD that Africa would require US$9.1 billion a year in addition to the net annual flows of resources existing in 1986 (ca. US$26 billion). In fact, total net resource flows to Africa declined during the Programme's five-year period, to an estimated annual US$22.6 billion. During this same period, Africa's terms of trade fell by one-third. There was increased support from multilateral institutions, but official development assistance (ODA) stagnated in real terms, private foreign direct investment (FDI) declined sharply, while debt servicing costs rose.

3. The disappointing record of UN-PAAERD achievements pointed to the need for African countries to explore alternative strategies to development. Among these, economic integration has received prominent attention. A significant development in this context was the adoption at the 1991 session of the OAU held in June in Abuja, Nigeria, of a new treaty establishing a timetable toward the creation of an African Economic Community by 2025. The treaty was adopted in the conviction that no African country could proceed alone in the world of the 1990s, and that economic integration was one way of solving the Continent's economic and social difficulties.

4. The treaty foresees the creation of the Community as a gradual process of six interlinked stages, each taking 2 to 10 years to implement. The six stages are: strengthening existing regional economic African groupings of which there are currently seven major examples with an overlapping membership (5 years); stabilizing tariffs and other barriers to intra-community trade and strengthening sectoral integration (8 years); setting up free trade areas (10 years); establishing an Africa-wide customs union (2 years); establishing an African Common Market (4 years); and finalizing the Community, leading to an African Monetary Union and a Pan-African Parliament (a further 5 years).

H. ASIA AND THE PACIFIC

Regional Overview

180. Despite the significant slowdown in economic activity worldwide, growth in 1990 was sustained in the Asia region as a whole. The impact of the Gulf crisis and slower growth of world import demand on Asia's economies was less severe than in other regions, although a number of

Asian countries experienced slower growth rates and widening budget and current account deficits. Prospects for the short and mid-term remain on the whole promising in view of the successful economic restructuring achieved by several countries, their increasingly diversified economic base, intensified exchanges and strengthening domestic markets. These achievements have enhanced the adaptability of Asian economies to changes in the overall economic environment. The following Asia Development Bank estimates show the general economic tendencies in the region:

- The average GDP growth rate for the region was estimated at 5.8% in 1990 (3.5% in per caput terms), about the same as that recorded in 1989. Growth is expected to continue at similar rates in 1991 and accelerate in 1992.

- Among the oil-importing countries, growth rates in Bangladesh, Republic of Korea, Pakistan, and Sri Lanka achieved improved growth rates over 1989. The other oil-importing countries experienced declines.

- The growth in export value remained strong in 1990 increasing by 10.4% compared to 11.5% in 1989. In China, exports increased by 18% and in India by 15%.

- The strongest growth rates in agricultural GDP growth in 1990 were recorded in China (6.9%), Bangladesh (7.7%), and Laos (6.3%). Sri Lanka, Myanmar, Malaysia, and Nepal achieved increases of between 3 and 5%.

- India, Pakistan, Indonesia, Viet Nam, and the Philippines recorded agricultural GDP growth rates between 1 and 2.7%. Thailand recorded a 2.5% decline in agricultural GDP, the only negative rate in the Asia region. Viet Nam, Thailand, Indonesia and the Philippines were all affected by poor weather, including typhoons in Viet Nam and the Philippines.

- Two-thirds of the countries in the region achieved gains in per caput food production in 1990. In particular, Sri Lanka's per caput food production rose over 4%, one of the country's best performances of the 1980s. Bhutan, China, Laos and Malaysia also recorded significant increases in per caput food production, the latter country for the seventh consecutive year. On the other hand, India, Korea Republic, Nepal and Thailand recorded sharp losses in per caput food production in 1990.

Viet Nam and Laos: Bold Strategies for Economic Reform

181. The successful market liberalization and export-led growth strategies followed by the NIEs and most Southeast Asian countries attracted the continuous attention of policy analysts during the 1980s.[20] The remarkable economic performance of these countries helped developing Asia to maintain its status as the fastest growing region in the world. Likewise, the past decade witnessed significant policy reforms in China, also resulting in impressive economic progress. In the late 1970s, China's

[20] The Newly Industrialized Economies (NIEs) include: Singapore; Republic of Korea; Taiwan, Province of China; and Hong Kong Territory.

reorganization of its agricultural sector included price reforms that allowed market mechanisms to operate legally for the first time in over 40 years.

182. Less noticed, however, were the broad and far-reaching economic, organizational and institutional reforms that began in the late 1980s in Laos and Viet Nam. Unlike the Southeast Asian countries, which adjusted policies within an existing economic system, and unlike China which implemented reforms partially and sequentially, Laos and Viet Nam completely restructured their economic systems. While important policy changes affecting the way Laos and Viet Nam managed their economies evolved steadily during the 1980s, the scope and pace of the reforms increased significantly in the later years of the decade. Known as the "New Economic Mechanism" in Laos, and the "Renovation" in Viet Nam, both countries began comprehensive market-oriented reforms after 1987 which included the following:

(i) most price controls and subsidies were eliminated;

(ii) multiple exchange rates were unified and maintained at competitive levels;

(iii) private sector activities were given an enlarged role and backed by appropriate legislation;

(iv) foreign investment was encouraged through legislation permitting profit and capital repatriation and guarantees against expropriation and nationalization; and

(v) banking systems were restructured with the capacity to foreclose on bad loans and maintain positive real interest rates.

183. Although both countries are attempting to transform their economies in much the same way, they are fundamentally very different. Viet Nam has a relatively large population of 66 million, a high population density of 195 inhabitants/sq km, several large urban centres (the population of Ho Chi Minh City is greater than that in all of Laos), and a long 3 200 kilometre coast. Laos is landlocked with a small population of 4.1 million and a population density of only 17 inhabitants/sq km (one of the lowest in the world).

184. There are also important differences between the agricultural sectors of the two countries. While both countries depend heavily on rice production, Viet Nam has nearly 30% of its cropland under irrigation, compared to only 2% in Laos. Most rice farmers in Viet Nam are accustomed to planting HYVs and to using fertilizers and pesticides. In addition, many Viet Namese farmers have experience in growing and marketing surplus production. Laos is a much more subsistence-oriented rural culture. HYVs, mineral fertilizers and pesticides are rarely used, and few farmers have experience with formal credit use or product markets. More than 35% of the rice crop in Laos is cultivated under slash and burn techniques on steep hillsides.

185. Over time, Viet Nam has developed a highly organized government sector, capable of marshalling resources throughout the country to take advantage of opportunities and to respond to problems. Laos has only

incipient public sector institutions and currently lacks the resources and capacity to carry out agricultural research and provide extension services efficiently. With most of the population living in remote areas, Laos is also constrained by an extremely limited transportation system and a shortage of other basic infrastructure.

186. What both countries had in common was a stagnating agricultural sector that prompted the first round of major policy changes in the early 1980s. These initial policy measures focused on reorganizing production units to improve management and incentive structures. In turn, various combinations of state farms, collectives, cooperatives, and household contract systems were used in an attempt to gain greater economies of scale and to improve administrative structures. Production units were reorganized, decision making decentralized, and new worker incentives created to increase output and capture additional surpluses.

187. During this early reform period, the state's primary mechanisms for obtaining agricultural commodities remained favourable prices and obligatory procurement quotas. Government interventions continued to control the farm labour systems, as well as access to land, credit and inputs. Furthermore, rigid market controls set the terms of trade between agriculture and the rest of the economy, and the relative prices of different crops.

188. This first cycle of reforms did not bring about the improvements required to raise rural incomes, increase agricultural exports, and absorb excess labour. In fact, in most years, domestic food requirements were not met. In both countries, per caput food production declined between 1983-87. During this same period, real agricultural GDP grew by less than 1% per year in Viet Nam and by only 2.5% per year in Laos.

189. Recognizing that a successful economic growth strategy depended on a strong agricultural performance, Viet Nam and Laos made agriculture the centrepiece of much more ambitious reform programmes. The 1988 agricultural policy reforms included eliminating compulsory production and delivery quotas, allowing markets to determine agricultural prices, making the farm household the basic production unit, and issuing to families inheritable, long-term property rights and the possibility of renting land.

190. Although it is still too early for a conclusive assessment, a more detailed picture of the scope of these reforms and their impact on the agricultural production systems is emerging.

Viet Nam: Agricultural Policy Trends and Performance

191. Viet Nam is predominately an agricultural economy based on paddy rice production.[21] Agriculture accounts for 50% of national income and 60% of total export value. More than 80% of the rural labour force and 60% of the total labour force are employed in agriculture.

---

21 The information on Viet Nam agriculture is drawn from official government sources; FAO's 1989 Agricultural Sector Review; the UNDP and the Viet Nam State Planning Committee's Report on the Economy of Viet Nam, Hanoi, December 1990; and Doi Moi: Economic Reforms and Development Policies in Viet Nam, SIDA, Stockholm 1990.

192. Agriculture occupies just over 20% (about 7 million ha) of Viet Nam's total land area. Some 25% of the country is still forested. An expanding agricultural base is the primary cause for deforestation. At present, over 2 million ha of land are irrigated. Studies suggest that an additional 2.8 million ha are potentially cultivable, of which 1 million could be irrigated.

193. Food grains and vegetables account for 55% of gross agricultural production; livestock production for about 25%; and various industrial crops - rubber, tea, coffee and fruit trees - for 20%. Rice is planted on 80% of the annual crop land. Over 70% of the rice is grown in two fertile and expansive river deltas, the Mekong Delta in the south, and the Red River Delta in the north. The Red River Delta is one of the most densely populated areas in the world, and can only produce enough food to meet local needs in good climate years. The other northern communities outside the Red River Delta are rice deficit areas. The Mekong Delta normally produces a large surplus, but transporting rice to the north remains a formidable task. The long distance and the poor roads through the narrow coastal strip in the middle of the country lead to high transportation costs.

194. During the 1988-1990 period, both total GDP and agricultural GDP registered a 4.5% annual growth rate. In 1989, Viet Nam produced a record rice harvest of 18.9 million tons, which made the country the world's third largest rice exporter for that year. Rice production increased again slightly in 1990, reaching 19.1 million tons. The total area planted to food grains expanded by 1%, but the lack of fertilizer and poor weather conditions reduced total production by 0.5% from the 1989 level.

195. Total agricultural exports increased from US$720 million in 1989 to US$800 million in 1990. The country exported 1.4 million tons of rice in 1989, earning US$316 million. While rice exports increased to 1.5 million tons in 1990, export earnings declined to an estimated US$300 million due to lower rice prices. Besides rice, important agricultural exports included rubber, tea, coffee, peanuts, shrimp and forest products.

196. The government credits the recent agricultural sector reforms for increasing farm production and exports. In addition, the broad economy-wide reforms are credited with reversing the substantial sectoral and regional imbalances that resulted from the long period of government priority to industry, centralized planning and administered prices.

197. At the same time, the market-oriented reforms, especially the decontrolling of prices and wages, resulted in extremely high inflation rates. The inflation rate was 310% in 1988; 76% in 1989; and 90% in 1990. This is a problem that continues to cause major difficulties.

198. It is now the Vietnamese farm household that controls production, investment, and marketing decisions. A fixed tax system has replaced crop procurements and contracts, and families have long-term property rights (up to 50 years). Many cooperatives are selling their equipment and machinery to private individuals employed under contract directly with the farmers. The cooperatives now concentrate more on providing financial services, input sales, product purchases, storage facilities, and related services. Cooperatives are also responsible for collecting taxes. The State farms' current role is to open up new lands and introduce new crops.

After the new land has been cleared, the State farms lease parcels to farmers, negotiating prices for land, seedlings and other inputs.

199. For the 1990s, agriculture is Viet Nam's top priority sector, with three areas of emphasis: food production to meet internal demand; agro-industrial development to create rural employment and increase export earnings; and expanded exports of traditional and non-traditional commodities. Government officials recognize, however, the formidable marketing, extension, communications, and transportation problems the country faces during its transition to a more market-oriented economy.

200. The changing economic relationship and trading pattern with the USSR and Eastern European countries are making the market transition even more difficult. For example, Viet Nam received 80% of its fertilizers on concessional terms from the USSR during the past decade. With the Soviet Union undergoing similar policy reforms, hard currency exchanges at world prices replaced subsidies and barter trade in 1990. While a ton of rice bought a ton of fertilizer in 1989, falling rice prices and increasing fertilizer prices meant that two tons of rice were required to buy a ton of fertilizer in 1990.

201. There are also regional and local level problems. For instance, in the Red River Delta, HYVs, fertilizers, and pesticides are commonly used but price and profit incentives for their wider distribution are lacking. Wholesalers, retailers, bankers, transporters, and the host of other private sector individuals necessary to build market institutions that can substitute for the existing systems are not yet in place.

202. In the South, where most farmers apparently resisted "cooperativization" after 1975, the development patterns may be completely different, but the basic distribution problem is the same. The government has directly provided most of the required inputs for the past decade. Developing new mechanisms for delivering inputs, credit, and services takes time. In addition, even though private investment opportunities exist, most farmers have too little savings and resources available other than labour, to take advantage of the opportunities.

203. Government planners have made a major effort to identify and address agricultural sector problems. Officials have identified the regions where aging and poor quality cash crops - tea, coffee, rubber and pineapple - are producing unsatisfactory yields and quality standards. For the 1990s, the challenge remains to develop appropriate market mechanisms and government programmes to promote agricultural investment.

Laos: Economic Overview, Policy Trends and Performance

204. Laos is one of the most subsistence-oriented economies in the world.[22] Rice is planted on over 85% of the cultivated area, mostly under rainfed conditions. Only 2% of the rice crop is irrigated, and average yields are among the lowest in Asia. Most rice consists of traditional glutinous varieties with nearly 40% produced on mountain slopes under shifting cultivation. Population pressure has led to shortened slash and

[22] The information for this section is based on official government sources; the FAO Country Information Brief for LAO PDR, April, 1991; and the UNDP Development Cooperation Report, August, 1990.

burn agricultural cycles (from 10 to 3 years), diminished forest areas and threatened wildlife. Each year, 100 000 ha of forests are cleared to plant rice and other annual crops.

205. Three-fourths of the country is mountainous, and many regions remain isolated with insufficient physical infrastructure. Nevertheless, Laos has great potential for developing a sustainable agricultural sector. Even though rice yields are low, the country is self-sufficient under favourable weather conditions. Abundant water resources are largely untapped and the country's uneven physiography provides numerous opportunities for small-scale irrigation projects and aquaculture.

206. Overall growth has been strong in the past two years and real GDP increased by 11% in 1989, and 9% in 1990. But, like Viet Nam, decontrolling wages and prices have had an inflationary impact on the economy. The inflation rate increased from 12% in 1988 to 68% in 1989. Restrictive monetary policies introduced in late 1989 helped to reduce inflation to 18% in 1990.

207. Total export value expanded by 15% in 1990, reaching US$63 million, but remained just less than 10% of GDP. Forest products and electricity are the two most important exports. Forest product exports expanded by 15% in 1990, and accounted for about 35% of export earnings. Partially replenished reservoirs allowed electricity exports to increase by 40% in 1990, representing 30% of total export earnings. Thailand is committed to purchase all the electricity produced by Laos that exceeds domestic demand. Coffee exports accounted for an additional 10% of total export revenue.

208. The industrial sector accounts for only about 16% of GDP and is directly linked to agriculture and forestry production. Agro-industrial activities represent one-half of manufactured products - beverages, tobacco and wood products.

209. The agricultural sector in Laos produces nearly 60% of the country's total output, employs over 80% of the labour force, and accounts for 50% of total exports. Agricultural GDP increased by 4.3% in 1989, and 6.3% in 1990. After a two-year drought that ended in 1988, rice production increased by 40% in 1989, and 6% in 1990. The 1990 paddy production was a record harvest at 1.5 million tons.

210. Besides being the largest export earner in Laos, forest products are an important source of food, jobs and income. One recent FAO report highlighted the importance of forests to local communities, documenting the gathering and hunting of more than 140 different types of forest products. Non-wood forest products offer additional export opportunities and include cardomon, benzoin, sticklac, and other resins. Most studies suggest that high-value timber exports can be maintained and expanded.

211. At present, the limited public resources available for research, extension and training are focused on improving forest management and providing hillside farmers with appropriate technical practices and additional land. With proper management practices, forest resources can provide an increasing amount of food, jobs, income and exports.

212. While recent agricultural policy reforms in Laos are similar to those in Viet Nam, there is an important difference in the general

intention of the reforms. In Laos, the transition is more one of subsistence agricultural sector to a market oriented and sustainable rural sector; rather than from a planned rural economy to a market economy as in Viet Nam. The "cooperativization" of agriculture in Laos peaked in the early 1980s, and never reached more than one-half the farm families. Because transportation, storage, and financial services are so limited, and because the majority of the farm households produce at subsistence levels, many of the prior government regulations affecting rice trade and prices had little meaning.

213. The current development strategy allows markets to determine input and product prices, while government programmes focus on expanding research and extension programmes, providing technical support for farmer-owned irrigation systems, improving livestock disease prevention programmes, and providing support for community efforts to manage forests.

I. LATIN AMERICA AND THE CARIBBEAN

Regional Overview

214. The recessionary situation that characterized most countries in the region during the 1980s persisted in 1990, a year of major difficulties in containing inflation and of efforts to restrict aggregate demand. Argentina, Brazil, Nicaragua and Peru confronted hyperinflation and recession, while most other countries faced lower inflationary pressures than in 1989 but continuing depressed growth. Progress on the debt front remained limited and debt servicing continued to absorb much of the considerable trade surplus of the region. The increase in oil prices during the second half of the year also had negative repercussions on most countries. In such depressed economic background, overall food and agricultural performances were particularly poor in several of the largest producing countries and in the Andean region. Economic prospects for 1991 appear somewhat brighter, however, as growth is expected to resume and possibly strengthen its pace in 1992. Noteworthy developments in 1990 were:

- Regional GDP declined nearly 3% in per caput terms, bringing the cumulative decline for 1981-1990 to almost 10%.

- Apart from a few countries, including Bolivia, Panama, Haiti and Trinidad and Tobago, inflation rates remained a major problem and reached extremely high levels in several countries.

- Debt servicing represented about 29% of total exports.

- Despite a positive trade balance of US$29.2 billion in 1989 and US$26.5 billion in 1990, the current account deficit rose from US$8.4 billion in 1989 to US$12 billion in 1990.

- Food and agricultural production in the region as a whole rose by less than 1% in 1990, falling well below population growth. Per caput production of staple food (cereals, pulses and roots and tubers) fell in 1990 for the third consecutive year, mainly reflecting particularly unfavourable trends for cereals.

- Only a few countries including Mexico, Trinidad and Tobago and Chile achieved significant increases in per caput food production in 1990. Except in Chile, however, these gains followed heavy production shortfalls the previous year. Overall, the region only recorded a marginal gain in per caput food production between 1981-1990.

Andean Countries - The Cases of Bolivia, Ecuador and Peru

215. Despite geographic proximity and historic, ethnic and cultural ties, the Andean countries present wide socio-economic contrasts. This diversity also applies, though to a lesser extent, to the three Andean countries considered in this section - Bolivia, Ecuador and Peru. Per caput GDP ranges from about US$1 500 in Peru to US$600 in Bolivia. Industry and service sectors account for about 86% of GDP in Ecuador and Peru compared to 77% in Bolivia. The share of agricultural population to total population is 43% in Bolivia compared to about 37% in the other two countries.

216. These three countries also present wide variations in agricultural resource endowments, infrastructure and levels of technology. For instance, Peru's irrigation network is fairly intensive by regional standards but Bolivia's is very undeveloped. Fertilizer use is well below the regional average in all three countries but is rapidly expanding in Ecuador.

217. Beyond these diversities, however, their economies and agricultural sectors have shared similar experiences since the early 1980s: particularly poor economic performances, except for a few short-lived recoveries such as that in Ecuador in 1988; an inconclusive search during the 1980s for an appropriate policy, leading in some cases to adverse experiences that also affected agriculture; and, more recently, a convergence of general policy orientations. At present, all three countries are committed to liberalizing markets and reducing government intervention. Bolivia and Peru have introduced rigorous adjustment strategies, while Ecuador has pursued a more gradual approach. Bolivia and Ecuador have achieved a remarkable degree of stabilization, but growth has not yet followed. In Peru, both stabilization and growth remain elusive goals. The following review summarizes recent policy developments in each country.

Bolivia

218. The general principles of the New Economic Policy (NEP) introduced in 1986 have continued to be applied by the new government elected in 1990. These principles include exposure to international and domestic market forces; maintaining a market determined exchange rate; removing most price controls and subsidies; controlling public sector wages; and maintaining rigorous discipline in fiscal accounting and management of nationalized institutions. Recently, the Government further reduced trade barriers, enacted new investment laws to attract foreign capital and privatized State enterprises.

219. The economic stabilization achieved since 1987 was generally consolidated. Inflation remained moderate (18% in 1990), a remarkable feat considering the pre-NEP situation and the hyperinflation in some of Bolivia's main trading partners. Inflation rates tended to lag behind

nominal currency devaluation (5.9% and 6.8% respectively during January/July 1990), although a sharp rise in petrol prices in mid-1990 accentuated inflationary pressure. The public sector deficit remained relatively low, at 3.5% of GDP. Debt servicing absorbed 30% of exports in 1989, and 26% in 1990, compared to an average 42% during the 1982-88 period. Successful debt renegotiation with industrialized country creditors under the Toronto terms, and with Argentina and Brazil, enabled Bolivia to reallocate significant resources to more productive activities.[23] Despite such positive developments, GDP growth has been officially estimated at about 2.5% yearly since 1987, barely enough to keep pace with population growth.[24] Sluggish capital formation, particularly in the private sector, has inhibited recovery. Private investment has remained well below the US$250/300 million annual rate that the Government estimates is required for an economic 'take-off'.

220. Agricultural performance has also been poor not only in relation to domestic requirements, but also relative to what could be expected from the country's rich and varied resource base. Per caput agricultural production stagnated during the 1980s and fell in both 1989 and 1990, years of severe drought, by a cumulative 3%. Export crops, particularly soybeans, fared generally better than domestic food crops, the latter being dampened by the effects of austerity measures on incomes and hence food demand.

221. On the supply side, serious structural problems remain. Although Bolivia was one of the pioneers of agrarian reform in the region, its land tenure system remains far from equitable. The campesino sector - which contributes 80% of the country's agricultural production, and virtually all of its food - has only marginal access to inputs, credit and technology, although it is recognized to be a highly efficient user of its meagre resources. Modern agriculture, mainly associated with the export sector, is increasingly concentrated in the tropical lowland zones. The agricultural export sector showed considerable dynamism during the 1980s, but the economic importance of agricultural exports tended to decline.[25] Furthermore, gains from expanded agricultural export volumes have been severely eroded by depressed prices.

222. Beyond its macroeconomic objectives, the NEP was also intended to reduce basic constraints to agricultural development. After an initial shock period, the NEP was expected to efficiently and equitably reallocate resources and stimulate a positive response from domestic supply. However, five years after the Programme began, the sector has been unable to recover from the shock. Already precariously poised, the domestic farm economy found itself largely deprived of official support and exposed to competition from abroad. Imported food, in many cases subsidized by the

---

[23] Agriculture may significantly benefit from additional resources. The budget of the Ministry of Agriculture and Campesino Affairs was increased by 285% in real terms in 1990 increasing its share of the total national budget from 1.4% in 1989 to 3.34% in 1990.

[24] Real growth performances are difficult to assess in view of the importance of the coca-based informal economy which may be at least as large as the formal one.

[25] Export earnings from agriculture covered about 10% of total imports in recent years compared to 12-15% between 1975-1980.

exporting country and benefiting from artificial differentials in exchange rates, freely entered the country, further depressing domestic production. At the same time, the abolishment of price supports and input subsidies squeezed the domestic farm economy. Price liberalization failed to translate into incentives for farmers, because of depressed domestic demand. There was a striking deterioration in agriculture terms of trade since 1987[26], particularly its traditional component, vis-à-vis other sectors. In other words, while the strategy was highly efficient in reducing macroeconomic imbalances, its effects on agriculture appear disappointing so far.

223. This situation called for compensatory support to agriculture, particularly the peasant sector. The recent document 'Agricultural Policy Outlines'[27], contains general policy guidelines for the short and mid-terms, emphasizes the importance of the traditional peasant economy and the need to support strongly its revival and transformation. The document also recognizes the limitations of recent macroeconomic policies in addressing the problems of agriculture. While the need to pursue stabilization efforts is not questioned, a number of measures are contemplated to introduce greater flexibility in macroeconomic policies and counter their negative impact on domestic agriculture. A number of directions for specific support to the sector are also outlined, that would strike a balance between the non-interventionist principles of the NEP and the need to reactivate a critically depressed agricultural economy.

Ecuador

224. Economic stabilization, a priority goal of the Ecuadorian government, made significant progress in 1990: a sizeable trade surplus was achieved (with another one expected in 1991); the current account deficit fell to about 2% of GDP; inflation rates fell from their previously very high levels, although estimates for 1990 pointed to still high rates of 40 to 50%; and the fiscal deficit continued its downward trend of earlier years. The cost of this effort has been high in terms of foregone growth, however. Real GDP stagnated in 1989 and increased only 1.3% in 1990, despite the increase in international oil prices. Also, despite improvements over the previous two years, interest payments on external debt still accounted for about one-third of the value of exports in 1990. Improved external conditions and less restrictive fiscal and monetary policies were expected to boost economic growth to 3.5% in 1991.

225. There is some uncertainty on the future course of macroeconomic policies. Some analysts point to the need for, and the ability of the socio-political system to sustain, further price and trade liberalization and a more detailed reform of labour laws. On the other hand, pressure continues for a policy line favouring price freezes on consumer goods and a softer policy approach toward containing expenditures and wages. The Government remains opposed to a 'shock' approach and prefers adhering to gradual reforms to promote foreign trade and investment. The increase in oil prices following the Gulf war, as well as the recent reduction in

---

26 Project MACA/FAO/UNDP Bol/88/021.

27 'Lineamientos de Política Agraria'. This document, adopted by the Government as a framework for future action, was prepared with the assistance of FAO/UNDP and issued in October 1990.

interest rates in creditor countries, especially the US, have greatly helped the economy and its adjustment effort.[28]

226. There are many uncertainties in longer-term perspective, however. Ecuador must face the fact that its oil reserves may be exhausted by the turn of the century. The need to develop alternatives to oil is one reason why the principle of Andean integration gained relevance (see Box). Ecuador's ability to compete with some of its more efficient neighbours has been an area of intense debate and concern, but the prevailing opinion is that a larger and more integrated market offers far more economic benefits than risks. Ecuador enjoys a number of comparative advantages in resources and labour costs.

227. The uncertainties surrounding economic policies also apply to agriculture. There was some price liberalization in 1989 and 1990, but plans to intensify the process encountered resistance. For instance, palm oil prices were freed in early 1990, but prospects for liberalizing cereal and soybean prices were still uncertain. Price liberalization on a piece-meal basis involves obvious risks of distorting relative price relationships and production and consumption patterns. However, pricing and marketing of staples, particularly rice, are particularly sensitive issues.

228. Recent policy developments include a major reform of the import tariff, under which rates of duty will be gradually reduced within a three-year period ending 1992. Duties for 'primary necessity' food products are already low, but imports are subject to quotas. It has been contemplated also to reduce quantitative restrictions on wheat and vegetable oil, in view of Ecuador's relatively low dependence on imported food.[29]

Box

The Shrimp Economy in Ecuador

1. Despite a recent decline in its aquaculture industry, shrimp is Ecuador's third largest export behind oil and bananas and accounts for approximately 12.5% of total primary exports. In 1990, an estimated 71 000 tons of frozen shrimp worth US$328.6 million were exported. The industry employs approximately 200 000 people.

2. Shrimps have been one of the most dynamic economic sectors of the country over the past decade. From a minor presence in world markets in the early 1980s, Ecuador has become the fourth largest world producer after China, Indonesia and Thailand. The country enjoys waters with a particularly rich organic content and favourable climate conditions allowing repetition of the 120-150-day cultivation cycle all year round.

---

[28] One percent change in LIBOR implies a change of about US$70 million in Ecuador's yearly interest payments.

[29] Ecuador's food imports account for approximately 8% of the country's total imports compared to 12% for Latin America and the Caribbean as a whole.

3. The shrimp industry suffered a slump in 1989, due to a decline in international prices, rising shipping costs and climatic changes. Restrictive monetary policies also played a role, to the extent that they discouraged investment and reduced profits. While shrimp exporters recognize the benefits of the Government export-drive strategy, they claim that inadequate support is provided to the industry, while excessive support is geared toward smaller non-traditional exports. The Government is currently considering a shrimp industry request to fund research and technology programmes, as well as provide incentives to encourage private investment. In particular, debt conversion over a period of several years is being considered.

4. Although the potential net benefits of support are difficult to evaluate, the industry estimates that productivity gains from improved technology could easily double current export levels in the mid-term. Problems with intensive production methods are that they have resulted in environmental damage through degradation of mangrove dominated habitats and are susceptible to disease losses. Although Ecuador's methods are less intensive than those of other large producers, it has already faced such problems.

5. The main limitations to a further large expansion of the industry may be on the side of demand, however. There are increasing signs of saturation in world markets, particularly in the United States, where 90% of Ecuador's shrimp are shipped. Therefore, the country's industry is aiming at diversifying markets, particularly toward Europe. Ecuador is already the main supplier of shrimp to Spain and, together with other Andean countries affected by the drug trade, is benefiting from a four-year tariff elimination for its agricultural and fishery exports to the EEC.

229. Official lending rates for agricultural loans have been brought closer to market rates, in line with the prescriptions of international lending agencies, but agricultural credit remains significantly subsidized. The current objective is to provide subsidized credit for medium- and long-term investment that attracts private sector participation, rather than as direct agricultural production support.

230. Despite the budgetary stringency involved in stabilization/ adjustment, the government has maintained an important programme of rural development. A major national programme of integrated rural development is under way, the resources allocated representing 1.3% of total and 23% of agricultural public investment during 1989/92. Approximately 400 000 families were expected to benefit directly or indirectly from this programme.

Peru

231. Among the many regional experiences of economic and social regression in recent years, Peru's is one of the most critical. The major economic imbalances that had developed during the years of a domestic demand-led growth model proved too difficult to redress when, in 1988/89, the government turned to more orthodox policies. Inflationary expectations and pressures on the exchange rate and on demand had by then reached the point where decontrolling prices and devaluating the currency could not have any counteracting impact. On the contrary, GDP fell 8% in 1988, 11% in 1989 and 5% in 1990. Rather than abating, increases in consumer prices soared 1 700% to 2 800% and 8 300% a year during the same period. Despite

positive trade balances in 1989 and 1990, deficits on external accounts remained considerable. The debt/service ratio fluctuated around 31% since 1983. Social indicators also show grave deteriorations. For instance, minimum real wages in Lima are estimated to be less than one-quarter what they were in 1980.

232. The recently elected Government has introduced bold stabilization measures in order to restore minimum conditions for economic revival and reinsert the country into the international financial system. These included decontrolling prices, abolishing tax exemptions, freeing interest rates, controlling fiscal expenditures, wage freezes, tariff reductions and accelerated currency devaluations. These measures contributed to a slowdown in inflation since August 1990, to a yearly rate estimated at about 210% in June 1991; a doubling in tax collection from 4% to 8% of GDP; and a replenishment in international currency reserves. The country has also begun servicing part of its external debt. Recent months have also witnessed large capital repatriations and a replenishment in dollar bank deposits, suggesting a revival in investor's confidence.

233. Despite the heavy social sacrifice imposed by austerity measures, a certain acceptance appears to emerge as to their inescapable necessity - provided the 'shock' treatment is reasonably short in duration and compensations are provided in the form of employment creation and assistance to the most vulnerable population groups. The Social Emergency Programme is an initiative in that direction.

234. Against this background, agriculture has made a disappointing economic contribution in recent years. Production of nearly all products for domestic consumption has tended to fall in per caput terms - the few exceptions include rice, strongly protected until recently, and some products linked to the agro-industry. The export sector is facing serious difficulties, with earnings from coffee stagnating, those from cotton falling, fishmeal exports subject to fluctuations and uncertainty, and sugar ceasing to be a net export product. On the other hand, while domestic producer prices of food have been falling in real terms, those of imported food have become increasingly competitive in domestic markets.

235. This situation has resulted from a complex set of structural, temporal and international market problems, but it is recognized that policies have played a determinant role. As in many other countries, much of the problem is now seen to be an excessive presence of the State in marketing and pricing. Agricultural support policies have lacked coherence and continuity. For instance, the generous lines of agricultural credit, input subsidies and guaranteed prices introduced in 1986-88, strongly boosted production in those years. This policy proved, however, unaffordable; with budgetary resources running short, credit was sharply reduced and input costs soared; unsurprisingly, agricultural production fell 4% in 1989 and further 6% in 1990 (although these were also years of severe drought and locust infestations).

236. Among the adjustment measures recently adopted, the following have an important bearing on agriculture:

- The abolishment of the so-called 'MUC' (Mercado Unico Cambiario) - a heavily overvalued official exchange rate applied for all exports and priority imports (including food). This official rate came to be less than one-tenth the parallel rate, severely penalizing agricultural exports, implicitly subsidizing food imports and causing illegal trafficking of agricultural products and inputs with Bolivia and Ecuador.

- Greatly reducing the role of the State in marketing and pricing. The official marketing agency lost its monopoly for food imports, and its procurement and price guarantee operations, except for specific regions and purposes (in particular, to prevent farmers from shifting to coca in the selva region). All direct and indirect subsidies to agriculture were abolished and a major reform of food marketing systems is under study.

- Food and input imports were freed, subject to duties and taxes on sales.

237. Being part of a strategy that can only be expected to bear fruit in the mid- and long term, these measures have initially made conditions more difficult for food and agriculture, and the economy at large. However, with over half of the country's population, and an even higher rate of rural populations already living in extreme poverty, little margin remains for further, and in the short run, unrewarded sacrifice. The recent cholera outbreaks were a manifestation of the levels of destitution to which large segments of population had fallen; another one is growing civil unrest. Thus, fundamental policy challenges are to maintain the momentum of reform long enough for its benefits to be widely felt; and to find the resources and appropriate mechanisms for compensatory measures during the transitional phase.

Box

Andean Integration and Agriculture

1. The Andean Pact agreement, signed in 1969 in Cartagena (Colombia), provided the original framework for integration efforts in the area.[30] During the following 21 years, however, several factors have contributed to a generally disappointing lack of achievements. These included limited economic complementarity except for some countries, border disputes and other conflicts, differences in political regimes and economic policy approaches, wide disparities in wealth and resources, long distances and natural trade barriers. Despite the considerable size of the potential market within the five member countries, intra-Andean trade by the late 1980s accounted for less than 4% of their exports and 5% of their imports.

2. The process of intra-Andean integration has gained momentum and credibility in recent years, however. Significant events were the 'Quito Protocol' which entered into effect in May 1988 and made major amendments to the original Cartagena agreement; and the Heads of States Summit in Galapagos (Ecuador) in December 1989, a benchmark in the history of the Pact. The Galapagos meeting approved a **Strategic Design** containing policy guidelines for consolidating the integration process. The fifth Summit, held in Caracas in May 1991 set 31 December 1991, as the deadline for formalizing agreement on the timetable for a Common External Tariff (CET) and for rules on a free trade zone. Colombia, Peru

[30] Members of the Andean Pact are Bolivia, Colombia, Ecuador, Peru and, since 1973, Venezuela. Chile was a member country until 1976.

and Venezuela committed themselves to enforcing a CET by end-1993, and Bolivia and Ecuador would do so by 1995. The bulk of intra-Andean trade is already tariff-free although, in the case of agriculture, 216 items representing 50% of the value of intra-Andean agricultural trade are still subject to tariffs and restrictions. The general objective is to form a common market of 90 million inhabitants by 1995.

3. One important factor that prompted this renewed emphasis on Andean integration was the convergence in the general objectives and principles of economic policies in recent years. While there is still considerable discrepancy among Andean countries in inflation rates, macroeconomic imbalances and the severity of stabilization and adjustment measures, their policies have generally moved toward export orientation and deregulation as well as greater opening to foreign investment. Another influence has been the strengthening or emergence of other free or preferential trading arrangements. Those recently emerging within the region include the Economic Action Plan for Central America (PAECA) signed in June 1990; the August 1990 agreement among CARICOM countries to create a free trade zone; the April 1991 Treaty of Asunción, whereby Argentina, Brazil, Paraguay and Uruguay created the framework for a southern cone common market (Mercosur) by 1994; and the announcement by Mexico, Colombia and Venezuela of a plan to establish a free trade zone by July 1994.

4. An important element in the Strategic Design is the commitment toward a **common agricultural policy** that (i) permits Andean countries to better confront the distortions in world agricultural markets; (ii) promotes harmonization of agricultural policies in consideration of competitive relationships, through jointly formulated programmes by groups of agricultural and agro-industrial products, with emphasis on food; and (iii) permits member countries to adopt common positions in international negotiations relating to agriculture. General objectives are to enlarge and consolidate the sub-regional market, reduce dependency on external food and promote agricultural exports.

5. In the area of agricultural trade, common policies are to be introduced between 1991 and 1993 for imports and exports of agricultural products, inputs and machinery. These would include the elimination of subsidies on extra-Andean imports and preferential exchange rates; a common regime for food aid that avoids its possible distortive effects on internal prices; the coordination of export promotion mechanisms; the definition of common positions with regard to international commodity agreements, particularly the future of the International Coffee Agreement; and the study of alternative mechanisms for stabilizing prices of food imports from non-Andean countries.

6. These initiatives may be expected to yield considerable benefits by expanding markets, improving competitiveness and resource allocation, creating a more stable and coordinated policy framework for agricultural development, and placing the sub-region in a stronger competitive and negotiating position in a global context. While prospects for significantly reducing the sub-region's dependence on extra-Andean food imports appear limited in the short and medium term, there is ample scope for expanding and diversifying internal trade. Intra-Andean agricultural imports barely accounted for 5% of total agricultural imports of Andean group countries in recent years. Furthermore, such trade is strongly concentrated in a limited number of products and markets in neighbouring countries. Cotton and beef represent almost 70% of intra-Andean trade in crop and livestock products, and 30% of total intra-trade in agricultural and agro-industry products. In Colombia, the largest agricultural market in the group, imports of fishery products from Ecuador account for over 70% of the value of total agricultural imports from Andean countries; in turn, cotton imports from Colombia account for over half of total intra-regional agricultural imports of Ecuador and for two-thirds those of Venezuela; and the bulk of Bolivia's agricultural imports from the sub-region come from Peru, mainly canned sardines and chewing-gum. Encouraging examples of dynamic expansion and diversification in intra-regional trade have been recorded in recent

years, however, such as processed fishery and non-traditional tropical products, beverages and wool manufactures and textiles. Such trade will benefit from the ongoing programme of liberalization that aims at completely removing the 'exception lists' to free agricultural trade.

J. NEAR EAST AND NORTH AFRICA

Regional Overview

238. The Gulf conflict had strong negative repercussions on the economic and agricultural systems of most countries in Near East and North Africa in a number of ways. The sharp, if temporary, increase in oil prices reduced significantly the resources available for development in oil-importing countries and worsened inflationary pressure. In addition, large amounts of remittances from migrant workers were lost; and trade, factor flows and tourism were seriously disrupted. The following IMF estimates illustrate the overall economic impact of these influences:

- GDP growth for the region as a whole is expected to decline from 3.2% in 1989 to -3.8 in 1990 and -3.3% in 1991 mainly reflecting a sharp downturn in economic activity in Iraq, Kuwait and Jordan;

- losses of worker's remittances, tourism receipts and export earnings in Egypt, Jordan, Syria and Turkey are estimated at US$2 billion in 1990 and US$6.5 billion for 1991;

- inflation is expected to stabilize at about 14% in 1991-92 in the region as a whole;

- the overall current account position of the region is estimated to move from a surplus in 1990, caused by higher oil prices, to deficits of about US$50 billion in 1991 and US$25 billion in 1992, due mainly to reconstruction costs.

239. Agricultural performances present a mixed picture:

- agricultural production rose almost 7% in 1990, partially recovering from the 9% production shortfall the previous year. Cereal production increased 19% from the severely drought-stricken 1989 crop year, but remained below the record 1988 level;

- livestock production rose 2% in 1990, with both meat and milk production continuing the sluggish growth trend of the 1980s;

- per caput production rose 4.3% in 1990, the second best year-to-year performance of the 1980s. This increase was inadequate to compensate for the sharp food production shortfall in 1989, however. The overall gain in per caput production in 1990 mainly reflected improved crop conditions in Syria and Turkey and the continuation of a generally upward trend in Lebanon. On the other hand, per caput food production fell in Yemen and Libyan Arab Jamahirya, for the third consecutive year in the latter country.

Maghreb Countries - The Cases of Algeria, Tunisia and Morocco

240. In spite of middle-income status, Algeria, Tunisia and Morocco present significant disparities in income levels. These range from an estimated per caput GNP in 1988 of US$830 in Morocco, to US$1 230 in Tunisia and US$2 360 in Algeria. Total population ranges from approximately 8 million in Tunisia to about 25 million in both Algeria and Morocco.

241. All three countries experienced a significant slowdown in economic growth during the 1980s. GDP growth averaged approximately 3.7% yearly during the 1980s in both Morocco and Tunisia and 3.3% yearly in Algeria - down from 5.2%, 6.6% and 7.5%, respectively during 1965-1980. Declining terms of trade of mineral products during much of the 1980s were largely responsible for the slowdown in output growth. Indeed, mineral resources - mainly hydrocarbons in the case of Algeria, phosphates in the case of Morocco and hydrocarbons and phosphates in the case of Tunisia - account for a large share of their GDP and export earnings. This feature is more accentuated in the case of Algeria which relies on the hydrocarbon sector for about 13% of its GDP and 95% of its export earnings.

242. Of the three countries, Morocco is the most agriculturally oriented, with agriculture, forestry and fisheries accounting for about 40% of total employment and 20% of GDP. For Algeria and Tunisia these shares are about 25% of total employment and 10-15% of GDP. Unlike other sectors, agricultural growth significantly accelerated in all three countries during the 1980s in relation to previous decades - although in Tunisia it still barely matched population growth. Thus, all three agricultural sectors, an already important source of employment, tended to gain in relative importance as a contributor to GDP.

243. All three countries face a problem of rapidly growing populations - 2.7% yearly in Morocco and Tunisia and 3.1% in Algeria. Domestic food production has been inadequate to satisfy the resulting growth in food demand and the three countries have experienced declining food self-sufficiency levels.

244. Their agricultural production, mostly dependent on rainfed areas, is subject to wide fluctuations caused by erratic climatic conditions. Thus in Tunisia, bumper cereal harvests were recorded in 1985 and 1987, years of adequate rainfall, but production collapsed in 1986 and even more markedly in 1988. Fluctuations in Algeria are also pronounced, but somewhat less so in Morocco, partly reflecting the differences in irrigation intensity in the three countries.[31]

245. Policies in all three countries are presently geared toward liberalizing their market, pricing and trade regimes. The policy shift was less radical for Morocco and Tunisia than for Algeria, the latter formerly being a centrally planned socialist economy. The new orientation focuses, in the case of agriculture, on market mechanisms to enhance efficiency in agricultural production, reduce the competitiveness of, and dependence on, imported food and promote exports.

---

[31] Irrigated land area only covers 5% of total arable land in Tunisia and Algeria, compared to 15% in Morocco.

246. In their external relations, the three countries strongly rely on the EEC market for exports and imports. For instance, 56% of Tunisia's total exports go to three countries: France, Italy and Germany. Although such concentration is less pronounced in Algeria and Morocco, the EEC also accounts for the bulk of their total trade. The perceived difficulties that these countries might encounter after 1992 with the complete economic integration of the EC has been one of the main forces leading to the creation in February 1989 of the Arab Maghreb Union (AMU) **(see Box)**.

<u>Algeria</u>

247. The Algerian economy has confronted severe difficulties in recent years. A burdensome debt, external payment problems and a lack of progress in implementing market-oriented reforms, combined to depress economic growth. After declining 1.2% in 1988, real GDP only rose 2.8% in 1990 and 2.4% in 1990 - still below population growth. However, the increase in oil prices following the Gulf conflict gave a welcome respite to the economy. Despite the subsequent decline in oil prices, prospects for the energy sector remain favourable and GDP is expected to rise nearly 5% in 1991. Agriculture is also estimated to have expanded significantly during the 1990/91 growing season, resuming the generally robust growth rate of the past decade. About 4 million tons of cereal imports may still be needed to satisfy domestic food requirements in 1991. Indeed, food deficits even in favourable harvest years have turned into a major structural problem over the past three decades.

248. With population growing above 3% per year and agricultural production increasing only 1-2% per year during the 1960s and 1970s, Algeria has become one of the six largest food importers in the developing world. Growth in total food production accelerated to over 4% yearly during the 1980s but the self-sufficiency ratio for cereals declined from 90% at Independence in 1962 to about 25% in recent years. The value of food imports has increased from about 11% of total imports in the early 1970s to more than 20% in 1988. By contrast, the share of agricultural exports on total exports has slipped dramatically from about 12% to less than 1% during the same period, reflecting the growing relative importance of hydrocarbon exports, but also a slow and uneven expansion of export earnings from agriculture.

249. The last few years have seen a major shift in agricultural policies. The general economic objective prior to the market-oriented reforms of the late 1980s was rapid industrialization by means of central planning and major public involvement in manufacturing and services. High growth rates were achieved by maintaining a ratio of investments to GDP among the highest in the world, made possible by the growth of hydrocarbon exports. During the 1980s, some adjustments to the centralized economic strategy occurred, but the pressure for reform accentuated with the 1986 decline in oil prices and the consequent deterioration in current accounts and rise in debt service costs. Fundamental market-oriented economic reforms have been undertaken since 1987, of which agricultural reform is a cornerstone. A central objective of the reform is to improve the performance of the agricultural sector, to reduce dependence on food imports and to stem rural-urban migration by increasing farm incomes.

250. Prior to the reforms, Algerian agriculture consisted of large-scale and capital-intensive collective or state farms, and small private farms. The socialist farm sector received priority in the distribution of inputs, equipment and credit, accounted for the bulk of tractor use and included the best land. Nevertheless, the private sector demonstrated greater dynamism and efficiency. Cereal yields in the socialist farm sector stagnated during 1973-1986, whereas those in the private farms increased by an average 2.8% per year. As a result, the productivity gap in the two sectors narrowed significantly. Despite access to better quality land and other resources, the socialist farm sector only produced 39% of total cereal output, on 35% of the total area planted to cereals. Furthermore, farms in the socialist sector generally ran major financial losses.

251. Despite efforts to reform socialist farming during the 1980s, the problems of inadequate resource use and low cost efficiency remained unsolved and in 1987 it was decided to dismantle the socialist farm sector. In a relatively short time during 1987-88, the large farms were divided into smaller units of private farms operated by a minimum of three individuals and, in some cases, further subdivided into individual farm units. Farmers were granted usufruct rights, transferable in the event of death.

252. Experience since then is still too short to allow the impact of reform on production to be fully assessed. Also, the two cropping seasons following the reform were badly affected by drought, which added to the complex problems of adjustment to the new landownership structure. Furthermore, the reform did not completely eliminate the dual nature of Algerian agriculture. The farming units created by the dismantling of state farms are on average five times larger than the traditional small-scale private farms, in addition to being more modern and capital-intensive. The future development of the agricultural sector depends on the success of government policies to redress years of neglect of the traditional small-scale sector, as well as how the new private farms respond to market challenges and incentives.

Tunisia

253. The Tunisian economy staged a remarkable recovery from the depressed growth performance of 1988. Real GDP rose 3.5% in 1989 and 6.5% in 1990 due in particular to expanded exports and favourable harvests. However, earlier expectations of a 4.5% increase in GDP in 1991 are not likely to materialize given the repercussions of the Gulf crisis. Current estimates now point to a figure of 3%. The benefits from temporary higher oil prices and export revenues following the conflict were largely offset by lower incomes from tourism, losses of export market in Kuwait and Iraq and a fall in remittances from Tunisian workers in the Gulf.

254. While Tunisia's agricultural and fisheries sector represents only about 14% of total GDP, agriculture has been a fast-growing sector over the long term. The current value added in agriculture rose over six-fold during 1970 and 1987, almost twice as fast as the average for low- and middle-income developing countries as a whole. However, such overall expansion has taken place amidst pronounced annual variations that make it difficult to assess performance. Despite improvements in irrigation, cereal production, which covers more than one-third of the total cultivated area, has shown widening fluctuations. Indeed, swings of unprecedented magnitude have been recorded during the past decade: a

bumper cereal harvest of about 2.1 million tons in 1985 and a drought stricken 295 000 tons harvest in 1988 - the highest and lowest yearly production levels since the early 1950s. Such unpredictable production performances have confronted strong population growth, accelerating rural-urban migration, particularly to the capital Tunis, and strongly expanding food demand.[32] The result has been a growing dependence on food imports, despite a slowdown in their growth during the 1980s caused by financial constraints. The volume of food imports rose 10% annually during the 1970s and 6% during the 1980s. Unlike previous decades, these imports have tended to absorb a greater share of total export earnings during the 1980s. The ratio of food imports/total exports declined from about 40% in the 1970s to 23% in the early 1980s, but rose again to about 28% in the late 1980s.

255. Agricultural exports currently represent about 8% of total merchandise exports, compared to 6% in the early 1980s and 3% in the early 1970s. Both the volume and value of agricultural exports increased at an average annual rate of about 7% during the 1980s. Unlike the 1970s when export prices had strongly increased - mainly reflecting the prices of phosphatic fertilizers - export unit values remained relatively constant during the 1980s.

256. The fisheries sub-sector has gained considerable economic importance during the past two decades. Marine fish catches rose on average 8% yearly during the 1980s, enabling the sub-sector to double its share in total agricultural exports from 20% in the early 1980s to over 40% in recent years. However, signs of over-exploitation have been emerging, with the growth of catches slowing down and catches for certain species actually declining.

257. Since 1986 Tunisia has introduced economic reform programmes aimed at making the economy more outward-oriented and increasing the role of the private sector. The reform process, induced by the widening macroeconomic imbalances during the first half of the 1980s, included decontrol of domestic prices, removal of import restrictions, and reform of the tax system and the financial sector.

258. Agricultural reform has been pursued with the assistance of World Bank loans, in the context of agricultural adjustment programmes. Objectives of the programmes include:

- increasing incentives to producers by liberalizing or adjusting producer prices;

- eliminating input and credit subsidies;

- rationalizing government intervention by transferring production and marketing activities to the private sector, while strengthening government efforts in support, control and regulatory activities;

- improving the efficiency of government spending and investment;

---

[32] Total population increased 2.6%, but agricultural population declined 1.3%, annually, during the 1980s.

- rationalizing use of natural resources (soil conservation, water use, forestry, fisheries resources);

- strengthening the analytic capacity of the Ministry of Agriculture and the follow-up of sector performance.

259. Particular attention is being paid to four areas fundamental for agricultural development:

- the land tenure system and in particular excessive fragmentation of land holdings;

- soil conservation and halting desertification;

- water resource conservation;

- fisheries development.

260. Land holding fragmentation is seen as a basic constraint to agricultural development. The number of farms is reported to have increased from 320 000 at independence to 400 000 in recent years. The declining size of land holdings is limiting the introduction of more modern farming methods, new seed varieties and irrigation expansion. Recent measures to counter this process include specific credits to young farmers for buying landholdings falling to co-inheritors.

261. In the field of soil conservation, a 10-year reforestation plan, policies to arrest desertification and a soil protection programme were launched in 1990.

262. The importance of intensifying efforts to improve the conservation and management of scarce water resources and expand irrigated areas has been underlined by the catastrophic 1988-89 drought. Investment in water resource and related projects accounted for an estimated 40% of total investment in agriculture, fishery and forestry during the 1987-1991 Plan period and this share is expected to be at least maintained in the coming years. Major investment in water management infrastructure, dams, artificial lakes and wells is under way. Overall, new investment in agriculture in 1990 was reported to have approximately doubled relative to the amount of the previous year.

263. In the area of fishery development, the Government is confronting the double challenge of expanding and modernizing the industry, while ensuring sustainable use of marine fish stocks. Since 1985, a major effort has been pursued to expand the port capacity and subsidies and favourable credit conditions are provided to develop and modernize the fisheries fleet. Exploratory studies suggest that exploitable fish stocks are 200 000 tons per year. A more rational exploitation of fishery resources is sought through a better fleet distribution between different fishing zones.

264. Another area with considerable development potential, aquaculture, is attracting increasing attention and support. The agricultural and fisheries investment code has been amended and necessary regulations and policies introduced to promote investment in aquaculture. Subsidized credit will be provided to the same end. Three large-scale projects are

operating, while others are being planned. The objective is to reach a production level of 10 000 tons by the year 2000.

Morocco

265. The Moroccan economy has been under serious strain following higher oil prices, social and political instability and tourism losses caused by the Gulf conflict. Despite severe reductions in Government spending the fiscal deficit remains high and inflation is worsening. A favourable debt rescheduling agreement reached in 1990 has still not provided needed relief. GDP growth was only 2.4% in 1990 and is likely to remain low in 1991. In a longer term perspective, GDP growth has tended to fluctuate highly, due mainly to unstable agricultural performances, and changing conditions in international prices of phosphate. A major problem facing the Moroccan economy is the high degree of dependence on primary sectors subject to variable external influences.

266. The Moroccan agricultural sector employs about 40% of the workforce. Exports of foodstuffs are an important source of foreign exchange, and account for almost one-fourth of total exports. Morocco is the third largest cereal producer in continental developing Africa, but remains highly dependent on food imports (in particular wheat) which in 1988 accounted for about 11% of total imports. The country does produce virtually all its domestic meat requirements. Agricultural performances have been mostly favourable during the 1980s with cereal, pulses and oilcrop production approximately doubling in volume between 1979-1981 and 1989. The fisheries sector has also expanded rapidly despite reduced catches and difficulties in the fish processing industry in recent years. The fisheries sector provides employment to 110 000 people and contributes about 10% to total export earnings, compared to only 5% in the early 1980s.

267. Like the other two countries, Morocco is pursuing policies aimed at liberalizing the economy and reducing the role of government. Under the 1988-1992 five-year plan, reform of the public sector is being carried out involving the privatization of a number of state companies as well as various liberalization measures aimed at encouraging private sector investment. These objectives are also pursued in the context of a new structural adjustment programme launched in 1989, which included debt-restructuring, liberalization of foreign trade, administrative and taxation reform and reductions in government expenditure.

268. In the area of agriculture, the central objectives of the Moroccan government are enhancing agricultural production and self-sufficiency through the expansion of modern irrigated agricultural production; and developing the export potential of agro-industry, dairying and fisheries.

269. Insights on the way such general objectives are translated into specific priorities may be gained from government investment expenditure in 1990 and planned allocations for 1991.[33] The Ministry of Agriculture, which has the third largest investment budget among all Ministries, has shared in the general budgetary restrictions introduced to restore fiscal balance. In 1990, a revised budget was passed that reduced total

---

[33] These are outlined in the document Projet de Loi de Finances 1991, under consideration by Parliament.

investment appropriations by 15% relative to the original 1990 budget, with those for the Ministry of Agriculture curtailed by 17%. The 1991 budget envisages only a small increase of 1-2% in total investment expenditure over the revised 1990 budget, but the increase for the Ministry of Agriculture is 14% and for the Ministry of Public Works (responsible i.e. for large-scale dam construction), 9%. The agricultural budget is to be channelled primarily to land reclamation, water resource and irrigation projects, reforestation of 60 000 ha, and projects for strengthening food self-sufficiency and livestock development. The budget for public works provides for the completion of four large-scale dam projects and the launching of a new one. In addition to its direct involvement in agricultural-related capital formation, the Government intends to strengthen the participation of local communities in investment expenditure.

270. Relatively smaller provisions are made for Government investment in the fisheries sector. However, the sector is benefiting from considerable private investment flows which in 1991 were estimated to triple those for the previous year. A large proportion is expected to be for the acquisition of 78 vessels for high-sea fishing.

271. As regards the external sector, the liberalization of the trade regime and currency devaluation, as effected in particular in May 1990, had a beneficial impact on agricultural exports. Other recent measures included a doubling in the air freight capacity of the national air line and a 50% reduction in air freight rates in order to encourage perishable agricultural exports to Europe and Canada. Morocco also concluded a number of bilateral trade agreements, particularly with Algeria for the sale of citrus fruit. However, a major concern is the possible loss of its competitive position in EEC markets to Spain and Portugal, major competitors with Morocco's citrus fruits, vegetables, fish products and processed food. Access to the EEC market is of major importance for Morocco (in 1989 the EEC imported around 73% of Morocco's export of citrus fruits). A trade protocol concluded in 1988 provided for the dismantling of customs duties for traditional Moroccan exports at the same pace as the dismantling of tariffs for identical Spanish and Portuguese exports toward their EC partners. However, various fresh and prepared fruits and vegetables, fresh flowers and wine are subject to quota arrangements or seasonal tariffs.

Box

The Arab Maghreb Union

1. In February 1989, Algeria, Libya, Mauritania, Morocco and Tunisia, established the Arab Maghreb Union (AMU). The AMU set up a council of heads of State with a rotating presidency, a council of ministers, a secretariat and a parliament of 20 deputies from each country. The general objectives of the AMU include: integrating the economies of the five member states; eliminating barriers to the free movement of goods, people, services and capital; and providing a framework for addressing political, economic and social issues of common interest. This new regional country grouping also intends to provide a framework for jointly dealing with problems and issues associated with the completion of the EEC internal market by 1993. Whereas the EC presently absorbs about 70% of exports from the Maghreb countries, trade among these countries so far remains only of marginal importance.

2. Among the measures already introduced toward economic integration, agreements have been reached on a free trade area as well as on the creation of a joint investment bank. A formal agreement has also been reached on the creation of a customs union by 1995.

3. Discussions are also being pursued on cooperation in other fields such as the operational implementation of an already adopted Maghreb Charter for Environmental Protection, plans for a Maghreb convention onsocial security, and judicial and legal cooperation between the member countries. Other issues being discussed include the free movement of persons, a common identity card, a coordinated fight against drug abuse and cooperation in the areas of education and infrastructure.

4. The AMU has also established contacts with the EEC. The first joint meeting of ministers of foreign affairs of the EC and the AMU held in November 1990. The agenda included such issues as immigration, financial initiatives and debt.

5. Although too early to assess the long-term viability and impact of the new integration scheme, its prospects for consolidation appear promising in view of the progress already achieved. Furthermore, the integration efforts have been pursued even amidst grave uncertainties and frictions during the Gulf war, underscoring the importance attached by governments in the Maghreb to develop common positions and shift from national to region-wide development strategies.

Developed Countries

K. EASTERN EUROPE AND THE USSR

272. The process of reform toward market-based economies has intensified during 1990/91 in Eastern Europe, particularly in Poland, Hungary and Czechoslovakia and has also been pursued, albeit at a slower pace, in the USSR. Bulgaria and Romania, however, have not yet entered into an integrated policy effort toward market-oriented reform. All the main areas of institutional and structural reform have directly or indirectly affected agriculture: efforts to develop a competitive private sector; the liberalization of financial markets; the deregulation of labour markets; and the abandonment of traditional trade structures among CMEA countries, together with a reorientation of trade toward the convertible currency area. In particular, two reform programmes have had far-reaching and immediate effects on agriculture - price liberalization and land tenure reforms. As seen below, price liberalization has made considerable progress in most Eastern European countries, where only a few of the key food items and agricultural inputs, as well as public utilities, remain controlled. Most countries have also eliminated state procurement and food subsidies, and have reduced farm gate intervention to only a few commodities. However, price reform has been pursued far less vigorously in the USSR, where prices of only a few farm products are determined through negotiated contracts.

273. The other major area of policy reform - land tenure - also gained momentum during 1990 and early 1991. Hungary, Czechoslovakia, Bulgaria, Romania and the USSR all passed land reform laws. While the procedures for transferring ownership rights vary greatly in the different countries, private landownership has progressed steadily, particularly in Eastern Europe.

Country Overviews

274. Poland removed nearly all government price controls and subsidies by January 1990. Subsidies to production and consumption were reduced from over 50% of the budget and 15% of the GDP in 1989 to 15% of the budget and 5% of GDP in 1991. Most prices, including agricultural prices, are now determined by markets - indeed, price adjustments are seen to be still needed only for a few products such as natural gas and electricity. Poland still maintains control over wheat prices, however, and a small stabilization fund was established to support some agricultural prices. The Government purchases grain on the principle of future deliveries although procurement operations have been constrained inter alia by the lack of storage facilities.

275. The elimination of subsidies on consumer prices and most farm inputs and products resulted in lower domestic demand as prices increased and real incomes declined. Indeed, food shortages disappeared shortly after price liberalization in early 1990. There is presently ample supply of food in retail markets.

276. Inflation has remained a very difficult problem despite a rapid decline from the very high rates of early 1990. Although consumer prices picked up again later in the year - largely because of higher oil prices - forecasts for 1991 indicate some slowing down.

277. Internal convertibility of the zloty was introduced in January 1990, and the government continues to introduce other policies to liberalize trade. The exchange rate, fixed against the dollar, has remained stable. In addition to duty-free or low tariff rates applying to imports of most bulk farm commodities, subsidies and quantitative restrictions were abolished on most exports. However, exports of some farm products are controlled to ensure adequate domestic supplies of food. On the other hand, some subsidies were paid on exports of sugar in 1990. Private enterprises are free to compete with the former trading state monopolies.

278. Only about 25% of Poland's farmland had ever been nationalized and organized into state farms, the remaining being family owned and operated by 2.7 million private farms. The state farms are now being treated as other state enterprises under the privatization law passed in July 1990. This law allows for joint-stock companies, a voucher system for Polish nationals, commercialization, and direct foreign investment. The voucher system permits workers from a state farm to purchase up to 20% of the available shares at 50% of the market value and more at 100% of the market value.

279. Under a current programme, about 2 400 rural cooperatives are to become member-owned, market-oriented institutions providing crop-marketing, credit and other services to farmers and businesses.

280. Hungary widened the scope of its reform in 1990, from the production to the marketing and trading stages. Virtually all producer prices were freed in January 1990. Consumer prices increased by 29% in 1990 as most consumer subsidies were phased out. However, the government retained the authority to set consumer prices and started compensation schemes to help offset some of the impact of rising prices. Projections for 1991 indicate inflation rates around 31-37%, while compensation

benefits are planned to increase only 20%, implying a decline in real income.

281. Hungary's currency, the forint, was devalued 15% against western currencies in January 1991, the first devaluation since February 1990. However, no official plans to introduce convertibility have yet been announced. The state foreign trade monopoly having been abolished in November 1990, any private entity can undertake foreign trade operations after registering with the Ministry of Trade. Although trade restrictions were abolished on 85% of all products, licences are still necessary for food imports and permits are required for exports of major foods. While Hungary's foreign trade sector is not completely open, most trade barriers are now transparent.

282. In 1990, Hungary established the State Property Agency (SPA) to carry out privatization programmes. Two types of privatization programmes affect agricultural land: a self-initiated programme, whereby a firm proposes plans of its own to the State Property Agency (SPA); and a state programme whereby SPA invites tenders for groups of enterprises in a phased process. Hungary's phased privatization programme started in September 1990, but actual sales from this first phase are expected to occur in mid-1991. The goal is to privatize enterprises producing more than 30% of GDP within 3 years using both the self-initiated and the SPA tender approach. Hungary's privatization programme does not provide for restitution of enterprises or land to former owners. Instead the emphasis is on compensation of former owners for assets lost. Much of Hungary's agricultural land is already privately owned by individual cooperative members. Land may be withdrawn from cooperatives to operate as a private farm if desired.

283. Hungarian producers faced numerous and conflicting influences arising from price reform. For example, eliminating fertilizer subsidies increased farm costs directly while eliminating consumer subsidies and reducing export subsidies affected product prices. As the domestic market and traditional export markets to other Eastern European markets and the USSR continue to adjust, Hungarian producers are increasingly looking to Western European markets.

284. Czechoslovakia took significant steps from mid-1990 toward becoming a market-based economy by removing subsidies and freeing most prices. The farmgate intervention programme was replaced with a price guarantee regime, establishing minimum prices for wheat, rye, beet, milk and potatoes. Following three rounds of administrative price increases in 1990, prices were freed in January 1991, leaving only 12-15% of products subject to some price control. Inflation in 1990 was estimated at 20% and was expected to reach 30% in the first six months of 1991, but stabilize thereafter. The price liberalization law provided the government with significant potential to intervene in price setting if necessary. Many agricultural products, such as feed grain, sugar, pork, poultry and milk face price ceilings imposed by the government.

285. Internal convertibility, with some restrictions, was also announced at the beginning of 1991 and the koruna was devalued by 15%. The foreign trade regime was decentralized in 1989 when legislation was passed allowing enterprises to directly engage in foreign trade and the former state trade monopolies were diversified. Trade barriers are now more transparent as import quotas were replaced by duties, surcharges, and

licences. Export restrictions remain on some livestock products, poultry meat, hops and flour.

286. The government also introduced a Farm Support Programme to promote and assist farmers with the reform process. The programme is aimed at a wide range of agricultural sector activities such as the farmland privatization, agro-industrial activities, research and training, and environmental issues including support to organic farming. For example, eligible participants who apply to the privatization programme may receive long-term credit with a 50% reduction in interest rates and free extension services for five years.

287. A land law passed in May 1991 allows private ownership of farmland and permits farmland, which had been collectivized after 1948, to be returned to its original owners or descendants.

288. Bulgaria freed prices of almost all goods and services on 1 February 1991. Prices for essential food items were subject to government limits to prevent excessive increases. Supply problems did emerge, however, when producers, uncertain about inflation, withheld commodities in expectation of higher prices. Thus, the expected flood of products onto domestic markets upon price liberalization has not yet occurred.

289. A law legalizing limited private ownership of land was passed in late February 1991. The new law imposes a maximum ownership of 20 ha but no limits are established on use of leased land. Owners of the land nationalized after 1946 are eligible for the return of their land or compensation. In January 1991 the government agreed to pursue small-scale privatization as part of an agreement with the IMF.

290. The state monopoly on foreign trade was removed in 1989 and firms may engage directly in foreign trade, but all import and export transactions must be registered with the Ministry of Foreign Economic Relations. Licensing is required for most transactions.

291. Romania also began a price liberalization programme as part of a gradual transformation of the economy. The first stage of the price reform occurred in November 1990 and covered a large number of manufactured products. On that occasion, the government announced its intention to suppress producer subsidies. The second stage took effect on 1 April 1991 and covered numerous food products. Prices were doubled or trebled by all state dealers. Private retailers can settle their own prices but have to comply with some maximum rates of increase. Steps were taken at the second stage to ease its impact: wage earners and pensioners would receive some fixed sum of money as compensation in addition to their income.

292. In early 1991, the Romanian legislature was debating an agricultural land law providing property rights to former land owners. Restrictions included limiting claims to 100 ha, and in order to obtain and retain the title to the land, active farming would be required. Even without the current land law, decrees in early 1990 returned land rights to farm workers and increased private agriculture's share of production from 8% in 1989 to nearly 30% in 1990. Privatization of state-owned enterprises was still being debated in early 1991, and efforts to sell off enterprises is not scheduled to begin until July 1991. Initial

expectations are that at least 50% of the country's capital stock will be privatized within 3 years.

293. The Romanian currency was devalued 40% on 1 November 1990, and starting 1 January 1991 internal convertibility was to be introduced gradually through hard currency open auctions. In early 1990 monopoly trading rights for state trading organizations were removed and currently small companies are participating in foreign trade transactions.

294. By mid-1990 the former <u>German Democratic Republic</u> (GDR) unified with the Federal Republic of Germany (FRG) and attempted to make the most rapid transformation from a planned to a market economy. As of July 1990 GDR agriculture began operating under the EC's Common Agricultural Policy (CAP). All other prices are market determined. Privatization is being actively pursued, though progress is slower than many expected. Many western firms are hesitant to invest in former East German enterprises because of potential legal liabilities over precommunist ownership and for past attitudes regarding the environment. The poor condition of East German capital stock and infrastructure are other significant impediments to western investment.

295. The <u>USSR</u> economic reform programme has proceeded at a slower pace than in other countries in Eastern Europe. State orders continue to play a significant role in determining farm output and the government sets virtually all output and input prices. Although between October 1990 and April 1991 a number of reform programmes outlined a gradual approach to price liberalization, most input and output prices remain determined by the government. Prices of milk, meat, eggs, bread, sugar, tea, fish, vegetable oils, salt and tobacco are all controlled. In addition, food subsidies continue to be provided on meat, milk, fish and some other products.

296. Because of administered prices and state subsidies, domestic price structures often differ dramatically from those existing on world markets. Establishing a market determined exchange rates for the domestic currency is also a priority, but initial steps have centred on devaluing the ruble while still setting the exchange rate. State-owned enterprises have operated in a highly protected economy with little need to respond to domestic or international market forces. Continuing enterprise losses and the concomitant government subsidies have led to inefficient resource use and inflationary monetary growth. For reforms to be effective these enterprises must be self-financing, be responsible for any losses and responsive to market forces. In an effort to progress toward these three goals, discussions on reform continue to focus on the privatization and demonopolization of enterprises. More open foreign trade is also viewed as a method for bringing domestic prices in line with world prices. The former opaque nature of the state monopoly trade organizations is now being replaced by explicit tariffs, quotas or licensing requirements. While the new trade policies are more transparent some trade distorting measures are likely to remain in place to provide some protection to enterprises thought to be especially vulnerable during the transition period.

297. In early 1990, the USSR adopted a new land law which attempted to provide a framework for the land laws of the various republics. Under the new law, a form of private ownership is permitted, and overall rights to determine landownership issues are transferred to the republics and local

political authorities. Since then, land laws have been established in all republics. In most cases, the republics have gone beyond the framework regarding private ownership outlined in the 1990 land law. Nevertheless, all the republics did limit land market activity for a specified time period in an effort to discourage speculation. In the Russian Federation, the final version of the land law limited land size, banned land selling for 10 years, and permitted land to be sold only to the local council of deputies. The Russian law did establish a land bank and granted rights to use hired labour.

298. A great deal of uncertainty remains concerning the implications of these new land laws. In effect, private farmers can only lease land without full ownership rights. They would still be dependent on state and collective farms for machine services, input supplies and, to a large extent, marketing of produce.

L. NORTH AMERICA AND THE EEC

The United States: The 1990 US Farm Bill

299. In 1990, US government legislation established the agricultural policy framework for export, food assistance and domestic farm programmes for the 1991-95 period. The Food, Agriculture, Conservation and Trade Act of 1990 (FACT) continued the transition begun in 1985 legislation of moving US agriculture toward a more market-oriented basis. In addition to commodity-related programmes, FACT addressed a wide range of agricultural issues including forestry, conservation, agricultural trade, organic food standards, agricultural credit, research, extension and global climate change.

300. The FACT's emphasis on greater market orientation and provisions concerning stock policies are likely to have important implications on the stability of world agricultural prices and food security. In the future, US farmers should be able to respond more quickly to changing world supply and demand conditions because of the greater planting flexibility mandated by the Act. Farmers participating in commodity programmes are now permitted to grow a wide variety of crops on up to 25% of their traditional planted area. Thus, world market prices will influence production decisions for a greater proportion of their crops. The purpose of this provision is to help increase production of crops in scarce supply and decrease production of surplus crops, contributing to smoother world price adjustments over the next few years. An important consequence of the FACT is that the US Government will likely accumulate smaller stocks of grains than it has in the past, and thus likely hold a smaller proportion of the world's grain reserves. This raises questions about the future distribution of world grain stocks and about their adequacy in years of extreme production shortfalls around the world. The outcome of multilateral efforts to achieve greater agricultural trade liberalization will affect how far the US moves toward greater market orientation.

301. Specific provisions in the FACT that have important implications for the world food and agricultural situation include the following:

- The FACT substantially revised food aid legislation (Public Law 480) by creating a new Title III, Food for Development Programme. Title III provides for bilateral agricultural commodity grants to the least developed countries. The commodities may be used for direct feeding programmes, development of emergency food reserves, or sale by the recipient governments with proceeds devoted to development purposes.

- The 4-million ton Food Security Wheat Reserve supporting US food aid was reauthorized. A new requirement states that the reserve must be replenished within 18 months after wheat has been released for use in external aid programmes.

- The Export Enhancement Programme (EEP) was reauthorized with the intent of providing export subsidies to counter perceived unfair trade practices. The FACT calls for minimum funding of at least US$500 million annually, but its actual funding level and those of other trade programmes depends upon annual appropriations. The export-credit guarantee programme was also renewed. A new Market Programme broadens the former Targeted Export Assistance that was targeted exclusively to countering perceived unfair trade practices. While encompassing general export promotion activities, it will give high priority to markets where unfair trade practices are considered to exist.

- If the US has not entered into Uruguay Round agricultural trade agreement by 30 June 1992, the level of export promotion programmes authorized by the FACT may be increased by US$1 billion during 1994 and 1995. In addition, marketing loans may be authorized for 1993-95 wheat and feed grain crops, and minimum acreage-reduction requirements may be waived for any 1993-95 crop programme. This authority terminates, however, if the US President certifies that the failure to enter into an agreement resulted, in part or in whole, because the 'fast track' authority was unavailable. In the eventuality that a Uruguay Round agreement has not entered into force by June 1993, provisions requiring reductions in agricultural spending may be waived and funding for trade programmes increased.

- The acreage reduction programmes are now based on ratios of stocks to use rather than projected carryover stock levels as in the past. This change should allow acreage reduction programmes to reflect market signals more accurately.

Canada

302. In December 1989, at a national agri-food policy conference, the Canadian federal government launched a major review of agricultural policies which constitutes the most comprehensive policy review in the history of Canadian agriculture. This review, which is expected to form the basis for designing future agricultural and food policies in Canada, has involved both federal and provincial governments, as well as the farming industry. It involved the creation of a number of specific task forces and committees to develop policy options and prepare reports for federal and provincial agricultural ministers' consideration. Task forces or committees were established to review the following areas:

- safety nets;
- transportation;

- competitiveness;
- environmental sustainability;
- research and technology;
- farm finance and management;
- supply managed commodities (poultry and dairy);
- pesticides registration;
- food safety.

303. The policy review is still ongoing and is now gradually moving from a phase of problem identification and development of policy options into a decision phase. The first major operative result of the policy review has been in the field of safety nets, where a new type of farm safety net programme has already been introduced. The new safety net programme is an innovative approach to income stabilization in the agricultural sector and is composed of two elements: a Gross Revenue Insurance Plan (GRIP) and a Net Income Stabilization Account (NISA) programme.

304. The GRIP consists of a crop insurance plan, which is similar to a previously existing programme, and a new revenue protection component. The revenue protection component offers complete revenue protection when combined with the crop insurance component.

305. Premiums for the programme are shared between the federal government, provincial government and farmers. The programme should deliver benefits to a farmer, whenever market revenue falls short of a guaranteed target revenue. The target revenue is calculated by crop on the basis of historic yields and a 15-year moving average of prices. Target revenues are thus based on long-term market trends. The GRIP programme is available for the crop year 1991-92 to grain and oilseed farmers and could be extended to other crops in the future.

306. The NISA programme enables farmers to set aside money in an individual account together with contributions from both the federal and provincial governments. Farmers can make withdrawals from the accounts when their income falls below their five-year average returns after costs, or when their taxable income falls below a pre-determined level. Farmers are eligible for NISA beginning with the 1990 tax year. For 1990, the programme applies to cereals and oilseeds, including farm-fed grain, and to edible horticultural crops not included under other stabilization programmes.

307. The new safety net programmes constitute the first major specific result of the agri-food policy review, but the review is still continuing. The next important step is the annual conference of federal and provincial ministers of agriculture in July 1991.

Recent Developments in the EEC: CAP Reform and German Unification

308. The Common Agricultural Policy (CAP) reform measures introduced in 1988, combined with a rise in world commodity prices in 1988 and 1989, contributed to a certain easing in the commodity surplus situation of the EEC and allowed it to remain comfortably within the financial guidelines limiting the growth in agricultural spending set out in 1988.

309. However, EEC agricultural market disequilibria worsened again during the second half of 1990 and in 1991. Stocks from farmers in the former GDR added to EEC stocks, further aggravating the surplus problem.

By the end of January 1991, grain stocks offered to intervention totalled 18.6 million tons, beef stocks exceeded 700 000 tons, while butter and skim milk powder stocks grew to 253 000 tons and 333 000 tons, respectively.

310. The European Commission estimated that if corrective action were not taken, budgetary expenditure on agricultural support in 1991 would rise by almost a third to a record 33.4 billion ECU, with another substantial increase likely in 1992. This would push agricultural support spending 880 million ECU above the budgetary guideline of 32.5 billion ECU set for 1991 according to the rules laid down in February 1988.

311. The Commission issued its farm price proposals for the 1991/92 marketing year on 1 March 1991. To keep the price package debate from prejudicing debate on CAP reform, it proposed a basic carryover of 1990/91 policy measures with some adjustments for those sectors with the most pressing surpluses.

312. The agreement on the 1991/92 price package finally reached in late May by EEC ministers of agriculture, had considerably softened the cuts contained in the original proposal.

313. Main elements of the agreed package are:

- for cereals the co-responsibility levy paid by farmers (for sales off farm) will be increased from 3 to 5%, but with an exemption from the levy for farmers taking 15% of their land out of production in 1992;

- for oilseeds and protein crops prices will be cut by 1.5% and the quality bonus for rapeseed reduced by 50%;

- for tobacco, prices and premiums will be unchanged or reduced by 6% or 13%, depending on the variety;

- milk quotas will be cut by 2%, while future intervention buying-in prices for butter will be fixed by the EC Commission, but should not be below 90% of the intervention price;

- for beef, the level was lowered to which prices will have to fall in order to trigger intervention buying-in;

- the support price for sheepmeat will be cut by 2%, but this will be offset in less favoured areas by an increase in the ewe premium from 1.5 to 4 ECUs per head;

- the agreement also contained changes for the agri-monetary system (used to convert policy prices from ECU to national currencies) in line with a policy established in 1988 to reduce or eliminate the differences between market exchange rates and the special "green" agricultural exchange rates, thus furthering the goal of harmonizing support prices across member state borders.

314. In almost all the above areas, the agreed cuts are weaker than the Commission's original proposals. Furthermore the proposed price cuts for sugar and for wine were completely rejected by the Council of Ministers.

315. The Commission's original proposals were designed so as to keep budgetary expenditure on the CAP within the budgetary guideline for 1991. According to the Commission the various concessions accorded in the final agreement were expected to cost an extra 800 million ECUs, which would be met through savings on export subsidies due to the rising US dollar, from slowing down payments and from management economies.

316. Deliberations on more fundamental CAP reforms are to be resumed later in 1991. These are to consider reform proposals put forward by the EC Commission in late June 1991, containing large cuts in price support with compensation to farmers. Some of the main elements of the reform proposals, according to early indications, include:

- subsidized cereal prices would be cut by some 35% over 3 years with compensation to be given to farmers;

- set-aside provisions, modulated according to farm size, would be introduced, with higher percentage set-aside requirements for larger farms and total exemption for the smallest farms;

- milk quotas would be cut and, in order to promote grass-fed cattle farming on large areas, an extensification premium of 75 ECU a head for the first 40 cows would be introduced for extensive farmers raising 2 head per hectare;

- a scheme would be introduced for farmers abandoning dairy farming;

- beef prices would be cut by 15% (but 2/3 of this should be covered by the lower feed prices) and, as for dairy farming, an extensification premium of 60 ECU a head for the first 90 cows would be introduced, as well as special premiums for slaughtering or exporting calves;

- for sheep, quotas would be introduced in order to freeze herds at the 1990 level.

317. Some of the accompanying structural measures would include:

- grants to farmers using farmland for forestry purposes;

- more financial resources for farmers cutting fertilizer use or for looking after the countryside as in environmentally sensitive areas;

- a new early retirement scheme for farmers between 55 and 65.

318. The increased expenditure deriving from these measures should be made possible by expected major savings on export subsidies and intervention stocks.

319. If approved by the member states, the proposed reform should become operational by 1993. During 1993-96, a period of phasing in of the reform,

it should lead to a temporary increase in agricultural expenditure. By 1997, expenditure should be some 4 billion ECU less than projected expenditure extrapolated from the trend of the last decade.

320. The extent to which the proposals will be followed will become clearer later in 1991. In any case, unless more fundamental reforms are put in place, the Commission forecasts that cereal output could reach 173 million tons by 1996, with supply exceeding demand by 40 million tons.[34]

German Unification: Implications for Agriculture

321. The unification of Germany has brought together two greatly different agricultural sectors. A unified Germany and the European Community (EC) face numerous challenges in integrating East German agriculture into the Common Agricultural Policy (CAP).

322. The agricultural economies of the original German Bundesländer and the five new Länder were shaped by their political and economic systems. In the west, the development of agriculture in the post-war period was influenced by the CAP, and the structure of agriculture was determined by traditional landownership patterns. In the former German Democratic Republic (GDR), the policy of collectivization produced large-scale, intensive production units, and the nearly complete separation of livestock and crop farming. The former regime's policy goal of self-sufficiency succeeded in the livestock and dairy sectors, but the former GDR was deficit in grains.

323. Agriculture in the five new Bundesländer is characterized by very large collective and state farms, whose average size (1 354 hectares) contrasts sharply with those of West Germany (18 ha) and the EC (13 ha). Important nonfarm functions, including schools and community organizations, machine repair and food services, were integrated into the collectives. Agricultural labour accounts for a larger share of the civilian working population in the East than in the West (10% as compared to 5.4%), and a larger proportion of the East's total land area is devoted to agriculture. In spite of its better soils, eastern Germany had lower crop yields per acre than western Germany. West and East Germany had different food consumption patterns, the latter having a more limited selection of foods.

324. The integration of the East's agriculture into the CAP began on 1 July 1990 with the economic and monetary union between the two German states, when EC prices for farm goods were introduced. When unification occurred on 3 October 1990, European Community law became applicable in the territory of the former GDR. Germany, however, has been granted a number of derogations for former East Germany during a transition period, and will be authorized to provide substantial national subsidies for agriculture in the East.

325. EC intervention mechanisms now operate in former East Germany, and producers there have begun to adapt themselves to farming under the CAP. The EC has maintained existing Maximum Guaranteed Quantities (MGQs) for

---

[34] Commission of the European Communities, *The Agricultural Situation in the Community, 1990 Report*, 1991.

cereals and oilseeds for the 1990/91 marketing year, but East German production is not included in the total. Neither will East German production be counted toward the MGQs for sheep or tobacco; but East German producers will face the same price cuts or increases in coresponsibility levies that result from exceeding the MGQs.

326. Separate milk and sugar production quotas have been established for former East Germany. The milk quota has been set at 6.59 million tons. This represents 80 percent of current production and will require a significant reduction in dairy cow numbers of approximately 300 000 animals. East German dairies will be compensated for this production cut with a one-time payment. In order to facilitate the rationalization of East German dairying, the quotas will be tradable within East Germany through 1991. The sugar quota, however, has been set at 847 000 tons, somewhat higher than current production levels.

327. For East German "less favoured areas" (denomination for disadvantaged areas which are eligible for receiving EC development funding), a maximum EC contribution of 280 000 ECU per holding has been established. Germany is authorized to provide special national aids to farms in less favoured areas through 1991.

328. The existing EC set-aside programme is expected to play an important role in removing marginal areas from agricultural production in former East Germany. Approximately 400 000 hectares (nearly 9 percent of east German land devoted to crops) were withdrawn from production for 1991, four times the area withdrawn in the West. Special measures governing the set-aside programme in the East require a smaller minimum acreage to be withdrawn on large farms, offer a smaller per hectare payment, and allow land planted to non-market regime crops such as potatoes to qualify for the set-aside.

329. Although the GDR was a net importer of food and agricultural products, the former regime's policy of self-sufficiency, coupled with foreign exchange constraints, limited trade in agricultural products. Where most of West Germany's agricultural imports come from its EC partners, the GDR could not turn for most of its food purchases to its partners in the Committee for Mutual Economic Assistance (CMEA), many of which are also food-deficit countries. The major part of its imports of livestock and meat, dairy products and eggs, and cereals came from Western, rather than Eastern, Europe. Fruits and vegetables, by contrast, were supplied primarily by Eastern Europe.

330. In its trade with West Germany, the GDR had been an importer of processed food products and an exporter of raw agricultural goods. When trade restrictions between East and West Germany, and between East Germany and the EC, were abolished after Monetary Union, consumers in the East demonstrated a definite preference for Western goods. It is expected that this preference will weaken eventually, but eastern Germany will not resume its former trade patterns. Imports of tropical products, fruits and vegetables, animal feed ingredients and high value food products are likely to grow, and sources of supply will shift and diversify.

331. Unification presents Germany and the EC with a host of challenges for agriculture. The agricultural sector and the food processing industry in eastern Germany suffer from inadequate and outdated machinery and infrastructure. Significant investment will be required to modernize and

improve farms and processing plants. East German agricultural production is now supported by the EC budget, as is the structural adjustment in the region. West German farmers will face increased competition as farmers of eastern Germany improve their productivity and the quality of their products, and the increased supply may lead to increasing budgetary costs of the EC Common Agricultural Policy, thus increasing the pressure for reform of the CAP. The EC may also experience tensions from its competitors when increased surplus supplies are being disposed of on international markets by means of export subsidies.

332. The unification is expected to have major repercussions on the structure of the whole agricultural sector in East Germany, through adjustment in farm size and structure and landownership patterns. A significant number of farmers in eastern Germany may be forced or choose to leave the sector. It is furthermore possible that individuals whose land was confiscated by the East German government after 1949 will be allowed to reclaim their farms. However, as long as uncertainty over the ultimate ownership of the land persists, this may very well act as a brake on development of the sector.

333. Finally, an area that will pose great challenge for the united Germany is environmental improvement in the former GDR. Germany plans to enforce EC air and water standards by 1996.