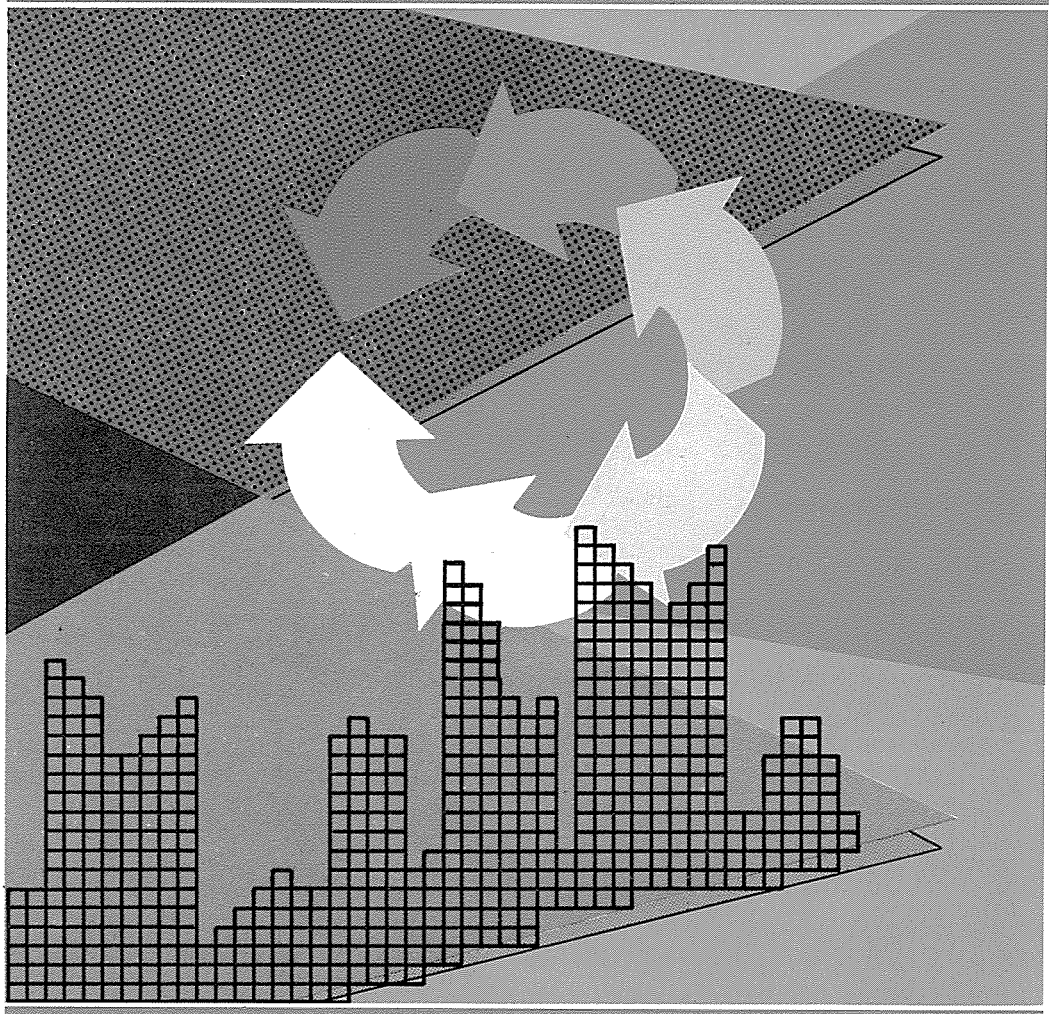
THE STATE OF FOOD AND AGRICULTURE



40 YEARS OF SERVICE

World review: the ten years since the World Food Conference

Urbanization, agriculture and food systems

1984

SPECIAL CHAPTERS

In addition to the usual review of the recent world food and agriculture situation, each issue of this report from 1957 has included one or more special studies of problems of longer-term interest. Special chapters in earlier issues have covered the following subjects:

1957 Factors influencing the trend of food consumption
Postwar changes in some institutional factors affecting agriculture

1958 Food and agricultural developments in Africa south of the Sahara
The growth of forest industries and their impact on the world's forests

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1978 Problems and strategies in developing regions

1979 Forestry and rural development

1980 Marine fisheries in the new era of national jurisdiction

1981 Rural poverty in developing countries and means of poverty alleviation

1982 Livestock production: a world perspective

1983 Women in developing agriculture

THE STATE OF FOOD AND AGRICULTURE 1984

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the state of food and agriculture 1984

World review: the ten years since the World Food Conference
Urbanization, agriculture and food systems

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
ROME 1985

The statistical material in this publication has been prepared from the information available to FAO up to 1 March 1985.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations concerning the legal status of any country, territory, city or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries. In some tables, the designations "developed" and "developing" economies are intended for statistical convenience and do not necessarily express a judgement about the stage reached by a particular country or area in the development process.

Chapter 2, Urbanization: a growing challenge to agriculture and food systems in developing countries was prepared by the Policy Analysis Division in collaboration with the Agricultural Services Division, the Food Policy and Nutrition Division, the Statistics Division and members of the Population Programme of FAO.

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Foreword

We marked in 1984 the 10th Anniversary of the World Food Conference, which was convened to cope with the global shortage of cereals that erupted in the early 1970s. It was inevitable that on the anniversary, we should recall the Conference's brave, well-intentioned pledge that by 1984, "no man, woman or child should go to bed hungry". We note grimly, however, how far that pledge has yet to be met, in that in 1984 well over 30 million men, women and children, in 21 African countries, were directly threatened by starvation.

Paradoxically, 1984 was also a year of agricultural abundance. World production of cereals rose between 9% and 10%, boosting estimated supplies, at the beginning of the 1984/85 season, to an all-time record level, while the skeletal figures of starvation victims in Africa became a recurring feature on television screens.

More than ever before, it was obvious that increased global production alone would not automatically secure access to available food for those in greatest need.

In terms of human anguish and the prospects of famine-sparked instability, Africa continued to be the focus of world attention in 1984. As early as mid-1983, FAO's Global Information and Early Warning System had issued its first alert, calling attention to the initial signs of an emerging crisis in Africa.

It was then that I promptly established a FAO/World Food Programme task force, to carry out surveillance, to provide regular reports, and to help in the mobilization of the necessary resources and assistance.

In the course of the year, the worst drought of the century reached its peak, searing 21 countries, mostly in the Sahel, southern and eastern Africa. In some cases, the disruptions caused by crop failures were exacerbated by civil strife. Famine engulfed an estimated 20% of the population of Ethiopia, and entire ways of traditional living, which had endured for centuries in the Sahel, were on the verge of collapse.

Hundreds of thousands of people died in these countries. The precise number will never be known. Those who survived formed lines of destitute refugees that made their way to feeding camps pitched on what were once fertile farms. Meanwhile, the world registered the largest production increases in coarse grains, edible oil and root crops, and warehouses were crammed with surplus sugar and dairy products.

Faced with this situation, I urgently addressed appeals to the international community at the FAO Conference, at the United Nations' General Assembly and elsewhere, using every available occasion to draw the attention of donors to the desperate plight of the African farmers and their families.

The response has been generous. We saw, in 1984, an historically unprecedented outpouring of food aid to stricken areas. If aid deliveries are now falling short of needs, it is due in many cases to problems of logistics and administration, at the ports and in inland transport.

The hard, costly lessons of the 1984 emergency are now better appreciated. Food supplies must be procured early. They must be pre-positioned, so they can be shipped rapidly. Recipient countries must clear logistical bottlenecks to ensure prompt delivery of food aid. Early and thorough action is needed on these and other measures to find and speed food to the hungry.

The world community's response and the lessons of the emergency prompted me to propose the adoption of a World Food Security Compact by FAO member countries. This statement of principles would articulate the spirit of a civilized community rededicating itself to the ideal of a world freed from hunger. The thrust of the compact is to make every effort to uproot the causes of hunger. This has special relevance to the food crisis in Africa, where neglect of agriculture for too long, as well as external factors, now threaten the economic and political integrity of many countries of the continent. If this crisis is to be defused, agriculture must be rebuilt.

At the FAO Regional Conference on Africa, held in September 1984, African ministers responsible for food, agriculture and rural development issued the Harare Declaration. In this important document, they accepted the basic responsibility for adopting the difficult policy decisions needed to build the productive capacity of their devastated food and agricultural sectors. This move towards self-reliance lays a foundation for practical measures of internal reforms to prevent future famines.

Yet the acceptance of responsibility for the necessary policy decisions can achieve little without adequate resources. FAO has striven to make a contribution to this resource mobilization, not merely through exhortation to donors and preparing concrete projects for them to finance, but also by refocusing part of its modest Regular Programme and devoting savings in support of efforts aimed at rehabilitating Africa's agricultural sector. In March 1985, FAO prepared a package of 108 projects for donors to help African countries restart agricultural production.

FAO is also undertaking, for consideration at the 1986 FAO Regional Conference for Africa, an in-depth review of long-term development to remedy Africa's agricultural and food problems. The Organization continues to execute its large extra-budgetary investment and development programmes for that continent, as well as for other developing regions where the precarious balance between population and food production growth does not permit any sparing of effort.

The magnitude of this crisis and its implications for the future may be appreciated better if seen in the context of the state of food and agriculture world-wide.

In terms of output, 1984 proved a better year for agriculture than 1983. Global food production in 1984 recovered from the setback of the previous year by achieving an overall increase of more than 4%--one of the best performances in recent years. Record cereal crops were produced in much of Europe; production recovered well in North America; and Asia consolidated the remarkable progress in grain production it had made in the previous year.

Weak demand failed, however, to match the rich harvests, as the lingering effects of the recession, combined with widespread poverty, held back increases in purchasing power. The economic recession, the worst in 50 years, reduced the capacity of people to pay for the food they needed, in many cases for their sheer survival. The trend towards increased protectionism also inhibited trade flows. As a consequence, stocks of several major food products rose while many went hungry.

Prices fell, at least in terms of the strengthening U.S. dollar. Interest rates remained relatively high in real terms and financial distress spread rapidly among farmers, particularly in the United States, and among developing countries struggling to service burdens of external debt.

The recession also eroded export earnings. And in many countries, it led to budgetary cutbacks for essential programmes aimed at alleviating rural poverty and redressing social inequities.

Development assistance, needed precisely at a time of economic stress, continued to shrink. Available data shows that concessional multilateral assistance to agriculture, which can build food security and reduce reliance on food aid, suffered a sharp reduction of more than 15% in 1983.

Partly in response to the starvation in Africa, food aid and emergency food assistance expanded. Large stocks of cereals and other foods, and their relatively low prices, helped this expansion.

Technically, the recession ended in 1984, with economic growth resuming strongly in some developed countries. But it dealt such harsh blows to low-income countries struggling to raise the living standards of their people above the poverty level, that it will take considerable time for countries to recover from the setback to their development programmes.

The strains appearing at the international level, such as difficulties in maintaining the flows of multilateral assistance to agriculture and overcoming protectionism in trade, will require collaborative efforts in the years ahead to design and implement practical measures that will reinforce the world community. Alleviation of hunger offers a universally accepted common ground for this task.

The paradox of hunger festering in the midst of abundance prompted the State of Food and Agriculture 1984 to mark the 10th Anniversary of the World Food Conference by devoting a part of its World Review chapter to an analysis of trends and developments in global food supplies during the past decade.

The review shows that there had been heartening progress in many developing countries in their efforts to increase food supplies, but there were also worrying setbacks. In fact, in the early 1980s, there were 28 countries with a total of more than 350 million people where per caput food supplies deteriorated during the previous decade.

The review also shows that food supplies increased most frequently in countries that achieved the most rapid rates of economic growth, either through their own production or through increased capacity to finance imports of food. However, increased availability of food supplies needed more than ever to be equitably distributed.

In some ways, institutional developments since the World Food Conference have increased global food security. Commitments under the Food Aid Convention have risen to 7.6 million tons of cereals, providing a greater volume of food aid. The 10-year old International Emergency Food Reserve has exceeded the minimum target replenishment of 500 000 tons of cereals for the last two years. The International Monetary Fund's food facility has provided a safety net for some countries confronted by balance of payment problems due to food imports, although its conditions have restricted its wider use.

The Undertaking on Plant Genetic Resources will help to conserve and better utilize the productive base for increasing agricultural output by the next century. Another FAO initiative--the International Code of Conduct on the Distribution and Use of Pesticides--will ensure that future abundance is not purchased at the cost of a poisoned environment.

At national levels, 1984 saw more countries adopting cereal stock policies and national food security systems; while innovative regional arrangements have evolved to cover emergency food needs. Still, much remains to be done.

FAO's broadened concept of World Food Security defines the complex interrelated tasks that challenge our international community and is committed to ensure that famines will ultimately become historical footnotes. The basic elements of the concept are to ensure adequate food production, maximize stability of food supplies, and secure access to these supplies for those who need them most. In the years ahead, achievement of these objectives will demand our utmost attention and dedication.

Reshaping the global system of fisheries, embodied in the United Nations Convention on Law of the Sea, will also have an impact on achieving food security. Thus, the FAO World Conference on Fisheries Management and Development, organized by FAO in Rome in mid-1984, endorsed a strategy and an integrated package of five practical Programmes of Action to assist developing countries boost the productivity and lives of fishermen and thus make a vital contribution to the battle against malnutrition.

The United Nations Conference on Population in Mexico drew attention to the need of world agriculture to feed a population set to increase to over six billion by the year 2000. The State of Food and Agriculture 1984 includes a special chapter on one of the serious consequences of this population growth--the effects of urbanization on agriculture in developing countries.

Urbanization may have been seen in the past as a desirable manifestation of overall economic development. But now it is realised that rapid urbanization, particularly the high concentration of population in huge, ill-prepared, ill-serviced cities, also poses serious challenges to the means of producing, marketing and distributing adequate supplies of food.

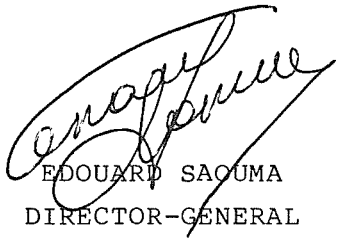
In far too many cities, the food supply lines today are no longer rooted in the hinterland. Instead, they stretch across oceans to suppliers of staples that the consuming countries traditionally cannot or do not grow.

A resurgent agriculture can help slow down and reverse the flow of people fleeing the desperate poverty of rural areas for the equally desperate penury of urban slums.

SOFA's chapter examines measures that planners and policymakers can take to help pace urbanization with other development objectives and help food systems adjust to the increasing burdens.

We are faced with enormous problems and challenges. Hunger can, however, be conquered through in-depth internal reform within developing countries, and international reforms in the major sectors of indebtedness and trade. A global approach is required.

It is my hope that this document will contribute to the creation of the necessary measures to break the vicious circle in which the economies of developing countries are caught up and to resolve the grim paradox of our day--intractable food surpluses confronting unprecedented hunger and malnutrition.



EDOUARD SAOUMA
DIRECTOR-GENERAL

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Glossary of abbreviations and terms

ABEDA	Arab Bank for Economic Development in Africa
ACP	African, Caribbean and Pacific States
ACPE	Asian Centrally Planned Economies
ADB	African Development Bank [also: AfDB]
ADF	African Development Fund
AFESD	Arab Fund for Economic and Social Development
AGRHYMET	Programme for Meteorological Forecasting in the Sahel
AsDB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
CAP	Common Agricultural Policy (EEC)
CASAR	Committee for Action on Regional Food Security (of SELA)
CFA	Committee on Food Aid Policies and Programmes
CGIAR	Consultative Group on International Agricultural Research
CMEA	Council for Mutual Economic Assistance
COFO	Committee on Forestry
DAC	Development Assistance Committee (OECD)
DES	Dietary Energy Supplies
ECU	European Currency Unit
EEC	European Economic Community
ECOWAS	Economic Community of West African States
EEZ	Exclusive Economic Zones
FAC	Food Aid Convention
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GNP	Gross National Product
IBRD	International Bank for Reconstruction and Development
ICARA	International Conference on Assistance to Refugees in Africa
IDA	International Development Association
IDB	Islamic Development Bank [also: IsDB)
IEFR	International Emergency Food Reserve
IFAD	International Fund for Agricultural Development
IFS	International Fertilizer Scheme
IIASA	International Institute for Applied Systems Ananlysis
IMF	International Monetary Fund
INFOFISH	Market Information Service for Fishery Products in the Asia and Pacific Region
INFOPESCA	Market Information Service for Fishery Products in the Latin American Region

LDCs	Least Developed Countries
MCA	Monetary Compensatory Amount
OAU	Organization of African Unity
OCA	Official Commitments to Agriculture
ODA	Official Development Assistance
OECD	Organization for Economic Cooperation and Development
OFID	OPEC Fund for International Development
OPEC	Organization of Petroleum Exporting Countries
PCE	Private Consumption Expenditure
PIK	Payment-in-Kind (U.S. programme)
PSC	Population Supporting Capacity
SADCC	Southern Africa Development Coordination Conference
SDR	Special Drawing Rights
SELA	Sistema Economico Latino Americano
SITC	Standard International Trade Classification
SOFA	State of Food and Agriculture
TCDC/ECDC	Technical/Economic Cooperation Among Developing Countries
TCP	Technical Cooperation Programme
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNEO	United Nations Emergency Operation
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
WCARRD	World Conference on Agrarian Reform and Rural Development
WFC	World Food Council
WFP	World Food Programme
WMO	World Meteorological Organization

Explanatory note

The following symbols are used in statistical tables:

- none, or negligible
... not available

"1981/81" signifies a crop, marketing or fiscal year running from one calendar year to the next; "1979-81" signifies the average for three calendar years.

Figures in statistical tables may not add up because of rounding. Annual changes and rates of change have been calculated from unrounded figures. Unless otherwise indicated, the metric system is used throughout. The dollar sign ($) refers to U.S. dollars.

PRODUCTION INDEX NUMBERS 1/

The FAO index numbers have 1974-76 as the base period. The production data refer to primary commodities (for example, sugar cane and sugar beet instead of sugar) and national average producer prices are used as weights. The indices for food products exclude tobacco, coffee, tea, inedible oilseeds, animal and vegetable fibres, and rubber. They are based on production data presented on a calendar-year basis.

TRADE INDEX NUMBERS 2/

The indices of trade in agricultural products also are based on 1974-76. They include all the commodities and countries shown in the 1983 issue of the FAO Trade Yearbook. Indices of total food products include those edible products generally classified as "food".

All indices represent the changes in the current values of export (f.o.b.) and imports (c.i.f.), all expressed in U.S. dollars. If some countries report imports valued at f.o.b., these are adjusted to approximate c.i.f. values. This method of estimation shows a discrepancy whenever the trend of insurance and freight diverges from that of the commodity unit values.

Volumes and unit value indices represent the changes in the price-weighted sum of quantities and of the quantity-weighted unit values of products traded between countries. The weights are respectively the price and quantity averages of 1974-76, which is the base reference period used for all the index number series currently computed by FAO. The Laspeyres formula is used in the construction of the index numbers.

1/ For full details, see FAO Production Yearbook 1983, Rome, 1984.
2/ For full details, see FAO Trade Yearbook 1983, Rome, 1984.

REGIONAL COVERAGE

The regional groupings used in Chapter 1 follow the "FAO country classification for statistical purposes." The coverage of the groupings is in most cases self-explanatory. The term "developed countries" is used to cover both the developed market economies and the centrally planned economies of Eastern Europe and the USSR, and "developing countries" to cover both the developing market economies and the Asian centrally planned economies. Israel, Japan and South Africa are included in the totals for "developed market economies." Western Europe includes Yugoslavia, and the Near East is defined as extending from Cyprus and Turkey in the northwest to Afghanistan in the east, and including from the African continent, Egypt, Libya and the Sudan. Totals for developed and developing market economies include countries not elsewhere specified by region.

In Chapter 2, the regional groupings used are based on the UN, Estimates and Projections of Urban, Rural and City Populations, 1950-2025: The 1980 Assessment, New York, 1982 (see Annex 2-1).

DEFINITIONS OF "NARROW" AND "BROAD"

The OECD definitions of agriculture are generally used in reporting on external assistance to agriculture. The "narrow" definition of agriculture now referred to as "directly to sector" includes the following items:

appraisal of natural resources
development and management of natural resources
research
supply of production inputs
fertilizers
agricultural services
training and extension
crop production
livestock development
fisheries
agriculture, sub-sector unallocated

The "broad" definition includes, in addition to the above items, activities that are defined as "indirectly to sector". These activities are:

forestry
manufacturing of inputs
agro-industries
rural infrastructure
rural development
regional development
river development

INTRODUCTION

In late 1974, the World Food Conference marked international recognition of a series of events that became known as the world food crisis. Attention was focused during the crisis on fears that the world had entered into a phase that would be marked by periodic surpluses and shortages, and high volatility of world food supplies and prices. There was widespread concern that the demand of developing countries for food would far outstrip their domestic production capacities. Concerted action was sought at both national and international levels to expand food production, particularly in developing countries, to enhance food security, and to strengthen international support for the domestic efforts of developing countries.

This year's State of Food and Agriculture reviews some of the developments that have occurred since the early 1970s as a background for its yearly assessment of the current food and agricultural situation. It focuses on selected issues that have evolved from the time of the food crisis of the early 1970s, with particular reference to the food situation in developing countries.

Although the economic recovery continued to gain momentum in industrial countries in 1984, it was unevenly distributed. Its beneficial effects on agriculture have yet to be determined. Agricultural trade did not recover in 1983 and remained well below the levels of 1981.

Flows of external assistance to agriculture continued to be affected by budgetary stringency in donor countries, and their concessional element appears to have declined in 1983. World agricultural production in 1984 was, however, reasonably good, this being particularly true for cereals in North America and Europe. Confronting rather weak demand, a consequence of the economic recession, these high levels of cereal production have resulted in increased stocks. Although these stock levels are not exceptionally high in relation to consumption, they have led to depressed world market prices in recent months. The continued strength of the U.S. dollar against most other currencies also has contributed to low market prices in dollar terms. The gain in agricultural output in developing countries in 1984 was less than the average for the previous five-year period (1980-84), but exceeded population growth. Regional progress was uneven and differences in output gains were less than in 1983.

Despite some improvement in the food situation in some West African countries, a large number continue to face food emergencies in 1985, particularly in East Africa and the Sahel. The situation in Ethiopia and Chad assumed critical proportions in 1984. Emergency assistance will continue to be required if catastrophic famine is to be averted.

Turning to long-term developments, global progress has been made in agricultural and rural development since the early 1970s. Per caput dietary energy supplies (DES) have improved in two-thirds of the 90 developing countries reviewed. Yet food production increases in developing countries have failed to meet the production targets established at the time of the World Food Conference. Regional performances have been very uneven. Asia has shown improvement, but Africa, in particular, has slipped back. There is an even more marked polarization among countries in the average availability of food.

A major feature in the evolution of food supply patterns is that food imports have provided the major share of the additional calorie availability in those countries where significant nutritional improvements have been achieved.

Relatively high-income developing countries have accounted for most of the increase in food imports. Nevertheless, it is in low-income countries that food imports represent a higher proportion of per caput incomes. A majority of developing countries have been spending an increasing amount of their export earnings on food imports since the early 1970s, and many of them simply cannot afford to import more food on commercial terms.

The dilemma facing many food policymakers is that the demand for food, fuelled by population and income growth, may exceed the domestic capacity to satisfy it. Unless food imports are allowed to rise in these situations, people's food needs will not be met. Yet rising food imports may be detrimental to domestic food production and foreign exchange balances.

The experience of the 1970s has underlined the growing interdependence of food production and trade and the international policies affecting them. Institutional developments that reflect this greater interdependence, have taken place since the food crisis. For example, the Food Aid Convention (FAC) has been enlarged; the International Emergency Food Reserve (IEFR) and the International Monetary Fund (IMF) cereal import facility has been established; the importance of international action in supporting and strengthening equitable rights for people in agriculture recognized by the World Conference on Agrarian Reform (WCARRD); the New Law of the Sea put into operation; and a programme of action on new and renewable sources of energy prepared.

While achievements are only modest relative to needs, they do at least demonstrate wider recognition of the need for international negotiation and action related to food and agriculture. One major challenge is the articulation of a coherent vision of how to promote and sustain equitable growth and welfare. Another is how to muster the political will to face the necessary costs of fulfilling this vision domestically and internationally. The mustering of political will, in particular, has been made more difficult by the economic and financial difficulties that have beset developed as well as developing countries.

A special chapter in The State of Food and Agriculture 1984 focuses on the implications of urbanization trends and rural-urban migration on food production and marketing. Urbanization and associated rural-urban migration pose a challenge to agriculture, forcing it to adjust to new market conditions under changing systems of production. In so doing, it creates both opportunities and problems. Furthermore, it is not a self-adjusting process, and measures may be needed to adjust the rate of urbanization to allow other socio-economic objectives to be achieved.

Urbanization, agriculture and rural development are interdependent, and policies covering a wide range of areas such as health care, education, transport, food and agriculture, must be integrated. More direct actions are also possible. First, planners can modify the rate of rural-urban migration, perhaps most effectively by making living in rural areas more worthwhile. Second, they can help food systems--production and marketing--to adjust to the opportunities and challenges created by urbanization. Third, they can affect the balance of competition for water and other natural resources by ensuring that consumers bear the cost of using them.

It is appropriate that this long-term assessment by The State of Food and Agriculture should address these important issues because 1984 also marked the occasion of the United Nations World Population Conference held in Mexico.

CHAPTER 1 WORLD REVIEW

1. THE ECONOMIC, FINANCIAL AND TRADE ENVIRONMENT

Developments in the Last Decade

The early 1970s introduced a period of economic and financial turbulence and a slower growth in economic activity (Table 1-1). With the collapse of the Bretton Woods system of fixed exchange rates in 1971, rapid shifts in the competitive position of trading countries occurred that introduced an element of uncertainty into international transactions. The 1972-74 food crisis and the surge in commodity prices, particularly the 1973-74 quadrupling of oil prices, contributed to a short but deep recession in 1974-75. After an adjustment in the world economy the following three years, there entered another, more prolonged period of recession in 1979-80. This caused a faltering growth in production and trade combined with strong inflation, unusually volatile exchange and interest rates, and a massive international debt problem. By 1984 the external debt of developing countries had reached $827 000 million and was expected to expand further to $863 000 million in 1985.

For most developing countries, the consequences of these events, particularly the post-1979 recession, were severe economic blows. Although their actual experience depended on how well their economies were able to adjust to the changing economic situation, many faced serious repayment problems because of the decline in export earnings and a sharp increase in interest rates. The external debt of non-oil developing countries rose to a peak of 150% of export earnings in 1983, and this share was expected to decline only moderately in 1984 and 1985. As a result, debt issues have dominated the international economic and financial scene as well as North-South economic relations. A rescheduling of official and private debts has been concluded by several debtor countries with their creditors. Rescheduling operations were accompanied by the implementation of economic adjustment programmes aimed at redressing the economies of debtor countries. These programmes introduced serious austerity measures and included policy reforms as well as cuts in public expenditure, consumption and imports.

External financial resources available to developing countries declined drastically. New lending on commercial terms to developing countries was at an annual rate of only $10 000 million in the first nine months of 1983, only one-fifth of the amount for 1981. As a consequence, in 1983 there was an unprecedented net outflow from developing countries estimated at $11 000 million. Total official development assistance (ODA) also declined in real terms since 1981, after an annual growth of over 5% in the 1970s. This development has been particularly damaging to low-income developing countries that rely heavily on ODA to maintain their investment levels and is thus jeopardizing their future economic growth.

The Agricultural Sector

Nor have these events left the agricultural sector untouched. Agriculture was adversely affected by low commodity prices and weak markets that have characterized the recent years, while it benefited from the commodity price boom of 1977-78. Marked downturns in prices have had a serious impact on farm incomes in many countries. Incomes also have been affected by a weakening of agriculture's productive capacity by a slackening of rural investment from commercial and official sources. Agriculture had to adjust to rapidly rising costs of inputs such as fuel, fertilizer (at times), and interest rates on capital. In some cases, supplies of inputs have faltered because foreign exchange has not always been available to import them.

TABLE 1-1. ANNUAL CHANGES IN SELECTED ECONOMIC AND FINANCIAL INDICATORS, 1973-84

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
	..... %											
OUTPUT												
Industrial countries	6.1	0.5	-0.6	5.0	3.9	4.1	3.5	1.3	1.6	-0.2	2.6	4.9
Oil-exporting countries	10.7	8.0	-0.3	12.3	6.3	2.3	3.7	-2.1	-4.1	-4.2	-0.8	3.8
Non-oil developing countries	...	...	...	...	5.8	6.4	5.0	5.0	3.1	1.7	1.8	3.7
CONSUMER PRICES												
Industrial countries	7.7	13.1	11.1	8.3	8.4	7.2	9.0	11.8	9.9	7.4	4.9	4.9
Oil-exporting countries	11.3	17.1	18.8	16.8	15.2	12.0	10.9	13.2	13.2	8.1	10.0	10.8
Non-oil developing countries	...	...	...	...	23.6	20.8	24.8	31.4	30.1	30.3	41.4	44.5
EXPORT VOLUMES												
Industrial countries	13.2	7.0	-4.2	10.6	5.3	6.2	7.6	3.9	3.3	-2.3	2.6	8.6
Oil-exporting countries	14.2	-1.6	-11.7	14.3	0.4	-3.2	1.6	-12.2	-15.2	-18.5	-7.5	6.0
Non-oil developing countries	9.3	-0.1	-0.3	11.3	4.2	9.7	8.1	9.0	7.7	1.7	5.8	9.1
IMPORT VOLUMES												
Industrial countries	11.5	1.4	-8.1	13.3	4.4	5.2	8.6	-1.5	-2.2	-0.6	4.4	11.9
Oil-exporting countries	20.6	38.5	41.4	20.6	16.7	3.4	-8.5	12.4	21.3	5.9	-10.9	-2.7
Non-oil developing countries	11.5	7.6	-4.1	4.5	7.4	8.6	10.6	7.3	3.1	-8.2	-1.8	6.4
TERMS OF TRADE												
Industrial countries	-1.8	-10.6	2.5	-1.0	-1.2	2.8	-3.5	-6.9	-1.6	2.0	2.2	0.3
Oil-exporting countries	13.3	140.0	-5.1	5.8	1.1	-10.2	28.3	43.4	11.3	-0.3	-9.3	-2.3
Non-oil developing countries	5.3	-5.9	-8.5	5.9	6.7	-4.1	0.7	-3.8	-5.1	-3.3	0.8	1.7
US REAL INTEREST RATES												
Money market rates	8.7	10.5	5.8	5.1	5.5	7.9	11.2	13.4	16.4	12.3	9.1	10.5 a/
Inflation rates	6.2	11.0	9.1	5.8	6.5	7.6	11.3	13.5	10.4	6.2	3.2	4.3 a/
Real interest rates	2.5	-0.5	-3.3	-0.7	-1.0	0.3	-0.1	-0.1	6.0	6.1	5.9	6.2 a/
EXTERNAL DEBT RATIO (as % of exports goods & services)												
Non-oil developing countries	...	...	...	...	129.5	131.0	119.5	113.1	125.0	148.3	154.4	147.4

a/ Based on three-quarters of 1984.

Sources: IMF, World Economic Outlook, 1984 and IMF, Financial Statistics, various issues.

Protectionism in Agricultural Markets

Another consequence of the major economic shifts that took place after 1974 was the increase in trade protectionism. While protectionism has become a permanent feature of agricultural trade, pressures intensified considerably with the two major economic downturns of 1974-75 and particularly 1980-82. Faced with the problems posed by growing pressures for agricultural adjustment, deteriorating farm incomes and limited opportunities for alternative jobs outside agriculture, many major trading countries resorted to more market intervention and import restrictions. High interest rates and depressed world market prices, particularly between 1980 and 1983, resulted in heavy financial losses in rural areas and intensified domestic calls for agricultural protection. Exchange rate uncertainties compounded the difficulties of planning long-run sectoral adjustments. Wide exchange rate fluctuations also had the side-effect of rendering the practical results of painfully negotiated tariff concessions often irrelevant.

The effects of these factors on agricultural trade are difficult to quantify. The evidence does support, however, the claim that agricultural protectionism in the major trading zones has remained generally high. 1/ Moreover, the economic recovery under way does not offer much encouragement, at least in the short run. In many large trading countries, highly protected agriculture has permanently lost its competitiveness and the ongoing economic recovery is not expected to alleviate the problems of excess agricultural capacity in the near future. Agricultural trade policies in many major importing countries have become inextricably linked to domestic policies developed in response to internal socio-economic problems. Experience has also shown that protection measures, such as export subsidies and restraints on imports, cannot be easily dismantled once they have been introduced.

The accentuation of agricultural support and trade-restricting measures has not been limited to the major importing countries. Many developing countries adopted tighter restrictions on trade as an inevitable reaction to formidable debt-servicing problems, difficulties of market access for their exports and a limited capacity to introduce adjustment measures and austerity programmes. The losers to agricultural protectionism have not been confined to developing countries with agricultural export potential or to traditional developed country exporters. Indeed, the fact that the developed countries have become increasingly dependent on export markets as outlets for excess supplies of food products has exposed them more to the effects of trade protectionism in agriculture. A willingness to discuss these measures has therefore become more pronounced.

Present Situation and Outlook

According to estimates by the IMF and the Organization for Economic Cooperation and Development (OECD), the world economy made better progress in 1983 and 1984 than it had in the several preceding years. GNP in the OECD increased by 2.6% in 1983 and by 4%-5% in 1984, with increasing employment and a reduction in inflation rates to their lowest average level in 15 years in the seven largest economies. The output of OECD countries is expected to decelerate, however, in 1985 and early 1986. Inflation was forecast to increase slightly in the United States and Japan, but to decline further in Europe. The increase in the volume of world trade, around 2% in 1983, accelerated to more than 6% in 1984.

1/ See FAO, The State of Food and Agriculture 1982; and Protectionism in Agricultural Trade: Review of Action Taken on Conference Resolution 2/79, Rome, CCP 83/19, August 1983.

The economic recovery, though hesitant, has provided some relief to developing countries. The export prices of some major commodities have increased but not strongly nor uniformly, and interest rates have eased compared with peak levels, even though they remain high in real terms.

Developing countries as a whole, however, continued to face slow economic growth in 1983 (between 1% and 2% average growth in non-oil developing countries). Accelerated economic expansion in industrial countries, increased trade and lower oil prices were expected to favourably influence the economic performance of most developing countries in 1984. Their per caput incomes are likely to have increased again in 1984, having stagnated in 1983 and declined in 1982.

Although the current account deficit of non-oil developing countries is being reduced significantly (from a peak of $108 000 million in 1981 to $52 600 million in 1983, and possibly $45 000 million in 1984 and 1985), it is at the cost of severe economic adjustments and emergency financing arrangements. Unlike industrial nations, developing countries generally have failed to reduce price inflation. Among regions, only Asia has had reduced inflation rates.

As recovery proceeded in 1984, growth spread to most industrial countries, inflationary pressures eased and some progress was achieved in reducing unemployment. However, the recovery is still vulnerable and many uncertainties remain. Prospects for sustained growth depend very much on the overall macro-economic policies of developed countries and on the ability of developing countries to benefit from a continuing and broadening economic recovery in the industrialized countries.

Two examples quantify this developed-developing country interdependence. According to the IMF:

- An increase of 1 percentage point in the average annual rate of economic growth of industrial countries between 1984 and 1986 could result in an increase of about 3% in the average annual growth rate in the value of exports of non-oil developing countries, equivalent to $35 000 million by 1986.

- Each increase of 1 percentage point in world interest rates adds $3 500 million to $4 000 million to the cost of servicing the debt of non-oil developing countries.

Developing countries need to expand their exports not only to service their debt, but also to earn the foreign exchange necessary for the import of capital goods and production inputs. Therefore, it is of utmost importance that the access of their export commodities and products to developed country markets be assured, if they are to benefit from and contribute to the world economic recovery. Trade liberalization is indeed an important factor for growth and development of both developed and developing countries. The efforts being made to check protectionism and eliminate other trade distortions and restrictions could lead to the expansion of agricultural trade and create favourable conditions for sustained and dynamic economic growth.

Developing countries have been diverting considerable resources to service their burgeoning debt, with the result that the investment necessary to expand or at least maintain a productive base has been reduced, in some cases very drastically. Soaring interest rates and the strengthening of the U.S. dollar (the currency in which most international debt is denominated) against their currencies have contributed to increasing their debt-servicing burden and to diverting resources from productive sectors such as agriculture. This situation has worsened since commercial lending to developing countries has been reduced drastically, primarily because of the decline in the credit-worthiness of developing countries. Indeed, the

over indebtedness of these countries impedes any further large-scale borrowing on commercial terms. What is needed in the short term is a large transfer of resources under concessional terms to rehabilitate the productive sectors of developing countries and to enable them to participate in the economic recovery that is under way.

The prospects for increased concessional assistance are bleak, however, if recent events in this area continue. Total external assistance of official commitments to agriculture (OCA) decreased in 1983 in current and constant prices. The International Development Association's (IDA) seventh replenishment was limited to $9 000 million rather than the $12 000 million expected or the $16 000 million hoped for. The proposed supplementary funding arrangement for IDA has not materialized. The replenishment of the International Fund for Agricultural Development (IFAD) for 1985-87 also has faced serious difficulties. It is hoped that some progress will be made on these issues as well as the special financing facility established by the World Bank to address developmental and financial needs of sub-Saharan Africa.

Few significant recent policy measures can be reported for major trading countries in the area of price support or export subsidization that would lead to less restricted trade, such as the proposed cuts in U.S. government support to farm prices under the 1985 Farm Bill, which is under active discussion. In the field of multilateral negotiations, some results in checking tariff escalation have continued to be made under the follow-up to the Tokyo Round negotiations. However, little progress can be recorded in the far more evasive non-tariff front beyond the establishment of 'codes of conduct' for trading partners. Some expectations arise from work under way by the GATT Committee on Trade in Agriculture, which aims, among other things, at bringing export subsidies and other forms of export assistance within the purview of strengthened and more operationally effective GATT rules and disciplines. As regards preferential treatment to developing country exports, the narrow agricultural coverage of existing schemes in relation to that for industrial products, remains. Moreover, the trend in industrial countries has been to impose low quotas on competitive suppliers and extend more liberal treatment to those countries that are less able to benefit from it.

2. CURRENT SITUATION AND OUTLOOK

Food and Agricultural Production

Estimates for 1984 indicate that world food and agricultural production was more than 4% higher than in 1983, thus recovering from the setback suffered in 1983 (Table 1-2). The 4.5% increase in agricultural production is the highest registered since the 4.8% increase of 1973. World crop production is expected to increase by more than 6%, one of the best results achieved in the last decade. However, livestock production will increase by less than 2% because of less favourable conditions and incentives for milk production, and cyclical and demand factors affecting meat production.

Agricultural output of developing countries increased by 2.9%, less than the average of the last five years (1980-84) during which the annual growth was 3.6%, but above a population growth of about 2%. In Asia the large production increase of 1983 was consolidated; the combined increase of 1983 and 1984 was between 9% and 10%. Latin America and the Near East had more favourable weather and production recovered somewhat. Some recovery in food and agricultural production was also recorded in Africa, but this was owing mainly to improved production in the coastal countries of western Africa.

TABLE 1-2. ANNUAL CHANGES IN WORLD AND REGIONAL FOOD, AGRICULTURAL, CROP AND LIVESTOCK PRODUCTION

	Food		Agriculture		Crops		Livestock	
	1982 to 1983	1983 to 1984	1982 to 1983	1983 to 1984	1982 to 1983	1983 to 1984	1982 to 1983	1983 to 1984
	..... %							
Developing market economies	2.5	2.4	2.7	2.4	2.6	2.9	2.3	1.9
Africa	-3.7	3.6	-3.4	3.4	-5.5	4.0	2.3	1.1
Far East	8.2	1.7	7.6	1.9	8.4	1.8	4.4	2.6
Latin America	-0.9	3.1	0.6	2.9	0.2	5.7	-	1.3
Near East	0.2	1.7	0.7	1.7	-1.5	0.8	3.8	2.7
Asian centrally planned economies (ACPE)	6.5	3.1	6.4	4.2	7.2	4.6	5.1	4.7
Developing countries	3.6	2.6	3.8	2.9	4.1	3.5	3.0	2.6
Developed market economies	-6.3	7.6	-6.7	8.1	-12.8	14.3	2.0	-0.1
North America	-16.6	14.4	-17.3	15.8	-25.8	25.4	2.9	-1.2
Southwest Pacific	28.0	-7.3	21.4	-5.3	53.2	-6.5	1.2	-3.6
Western Europe	-1.2	4.5	-1.2	4.6	-6.0	9.4	1.5	0.4
Others	-3.3	7.2	-3.1	6.7	-2.6	6.8	1.6	2.7
Eastern Europe and USSR	3.0	1.9	2.7	2.0	1.2	-0.1	4.4	4.0
Developed countries	-3.2	5.6	-3.5	5.9	-8.2	9.1	2.9	1.5
World	-0.2	4.2	-0.2	4.5	-2.0	6.1	2.9	1.8

Source: FAO, Statistics Division

Many countries in southern and eastern Africa were afflicted by drought. Fifteen countries that were already affected in 1983/84 are again facing serious food supply problems in 1984/85, and food supplies in another six countries are threatened. The problems are most acute in Chad, Ethiopia, Mali, Mauritania, Mozambique, Niger and Sudan.

In developed countries food and agricultural production has gone up between 5% and 5.5%. Much of this increase is a consequence of the North American recovery from the sharp decline of 1983, reflecting both increased plantings and favourable weather. Western Europe also had exceptionally good harvests of cereals, and some progress was made in the USSR and Eastern Europe. Crop production in the Southwest Pacific fell back a little from the very good results achieved in 1983.

Cereal production, including rice in paddy equivalent, is estimated to have achieved a new record of at least 1 780 million tons in 1984, an increase of 138 million tons, or more than 8% (Table 1-3). Production of oil-bearing crops is expected to have increased by nearly 10%, but those of sugar and pulses by only very small amounts. Among non-food crops, cotton lint production should have gone up by 20% and tea by nearly 7%. Tobacco output is estimated to have been between 4% and 5% higher than in 1983, while coffee production is likely to have declined by more than 3%.

Outlook for Cereals in 1984/85

Large supplies of cereals in exporting countries resulting from record levels of production in 1984 are not expected to be completely absorbed by domestic and export demands. As a result, world cereal stocks at the end of 1984/85 are expected to recover significantly from the sharp fall of 1983/84. At a level of 295 million tons, cereal carry-over stocks are forecast to be 28 million tons (10%) larger than in 1983/84. This volume of stocks represents 18% of expected world consumption compared with 17% in 1983/84.

Cereal stocks by the close of 1984/85 are expected to be composed of the following commodities:

Wheat:	142 million tons, nearly 8% more than the year's beginning stocks
Course grains:	105 million tons, nearly 17% more
Rice (milled):	47 million tons, 7% more.

As of early March 1985, the world imports of cereals in 1984/85 are forecast to be 211 million tons, 11 million more than in 1983/84 and a quantity exceeded only in 1981/82 (212 million tons):

Wheat:	103 million tons, 4% more than in 1983/84
Coarse grains:	96 million tons, 8% more than in 1983/84
Rice:	12 million tons, no change from 1983.

Imports of wheat by developing countries in 1984/85 are forecast at 64 million tons, less than 1 million tons above the previous year's level. However, excluding China and India where domestic supplies are abundant, wheat imports by developing countries are expected to increase by almost 3 million tons, all of which would be in low-income food-deficit countries, mainly in Africa. Developed countries are expected to increase their wheat imports by 3 million tons to 39 million tons, reflecting record imports by the USSR (24 million tons).

Imports of course grains are expected to increase by 11% to 61 million tons in developed countries, again reflecting larger shipments to the USSR (at least 21 million tons), while those by developing countries may increase a little having remained almost unchanged in the two previous

TABLE 1-3. AGRICULTURAL PRODUCTION, BY COMMODITY

	Developed countries			Developing countries			World		
	1983	1984a/	Change 1983-84	1983	1984a/	Change 1983-84	1983	1984a/	Change 1983-84
	(million tons)		(%)	(million tons)		(%)	(million tons)		(%)
Total cereals b/	752.6	869.4	15.5	889.8	910.6	2.3	1642.4	1780.0	8.4
Wheat	301.0	312.6	3.9	195.7	199.5	1.9	496.7	512.1	3.1
Rice	22.2	26.1	17.7	427.9	438.4	2.4	450.1	464.5	3.2
Coarse grains	429.4	530.7	23.6	266.1	272.8	2.5	695.5	803.4	15.5
Root crops	203.5	215.4	5.8	351.2	369.8	5.3	554.7	585.2	5.5
Pulses	11.2	11.6	3.4	33.5	33.4	-0.4	44.8	45.0	0.5
Oil-bearing crops c/									
Oil content	19.3	22.6	17.2	34.3	36.3	5.7	53.6	58.9	9.8
Oil cake content	52.8	62.1	17.7	56.4	60.4	7.0	109.2	122.5	12.2
Sugar, centrifugal (raw)	38.8	40.7	4.8	58.8	57.3	-2.4	97.6	98.0	0.4
Cocoa beans	-	-	-	1.6	1.6	1.6	1.6	1.6	1.6
Coffee	-	-	-	5.6	5.4	-3.4	5.6	5.4	-3.4
Tea	0.3	0.3	4.0	1.8	2.0	7.2	2.1	2.2	6.8
Cotton lint	4.7	6.1	30.4	9.7	11.2	14.9	14.4	17.3	20.0
Tobacco	2.1	2.2	6.7	3.9	4.0	3.3	6.0	6.3	4.5
Total meat	92.3	93.8	1.7	48.0	49.2	2.5	140.3	143.0	1.9
Total milk	381.3	381.9	0.2	113.5	115.7	1.9	494.8	497.6	0.6
Hen eggs	18.4	18.6	0.9	10.5	10.9	4.1	28.9	29.5	2.1

a/ Preliminary.
b/ Including rice in terms of paddy.
c/ Total harvested production.

Source: FAO, Statistics Division.

years. The overall increase is expected to be nearly 8% (96 million tons). Imports in Western Europe are forecast to be sharply lower owing to record barley crops and are expected to decline a little also in Eastern Europe. Japanese purchases, however, are expected to be larger (21 million tons). The drought-affected production of South Africa will again have to be supplemented by imports of coarse grain and feed wheat.

On 14 September 1984, the U.S. government published its acreage reduction programmes for 1985. A minimum 30% acreage reduction has been introduced for wheat. For feed grain, because its projected carry-over for 1984 was below a trigger level of 1 100 million bushels (just under 30 million tons), a much more modest 10% acreage reduction programme has been put in force. This action should ensure greater continuity of supplies of coarse grains in 1985/86. There will be no 'payment-in-kind' (PIK) provision for either wheat or feed grains in 1985.

Fertilizer Prices

The downward trend in the export prices of major fertilizers that started in 1980 was reversed from mid-1983. Particularly pronounced price rises affected urea and Western European ammonium sulphate (around 40%) and potassium chloride (around 15%) between October 1983 and 1984. The prices of diammonium phosphate and triple superphosphate rose strongly through 1983 only to fall back in the first-quarter of 1984. By October 1984, following another recovery, the prices of these two materials were 11% below or approximately equal, respectively, to the prices of the preceeding year.

Prices in the last months of 1984 were relatively stable because, although demand was strong, supplies were relatively abundant. However, most importing countries will be paying significantly more for fertilizers in 1985 because the U.S. dollar has strengthened considerably--about 9%-10%--against the currencies of its major trading partners during 1984.

Fertilizer Consumption and Production

World consumption of the three primary nutrients--nitrogen (N), phosphate (P) and potash (K)--combined declined for the second consecutive year in 1982/83 to nearly 115 million tons. However, the latest decline was only marginal compared with that of 1981/82 (Table 1-4). The fall in consumption was mainly accounted for by the developed market economies (particularly the United States) where consumption declined by about 12% in the three years 1980/81 to 1982/83 and by the latter year was below the level of 1977/78. Overall consumption resumed its upward trend in the developing market economies and recovered in the centrally planned economies, although the rates of increase recorded were well below those of the previous five years.

The fall in consumption in the Unitd States in 1981/82 and 1982/83 was a reflection of ample stocks of several products (especially cereals), weak product prices, the implementation of policies designed to reduce output and save production costs, and high interest rates. Drought also affected consumption in Australia.

In developing countries the declines in fertilizer consumption (15% in Latin America in 1981/82 and 10% in Africa in 1982/83), or the rather low rates of growth in consumption (in Asia) were due to a variety of factors such as poor weather, low product prices, problems with balance of payments and hence, restrictions on imports and, in Latin America particularly, changes in credit and pricing policies.

Production of the three major nutrients increased a little in 1982/83 to reach 121 million tons, but still failed to regain the level of 1980/81 (125 million tons). The modest increase of about 1% was due to a

considerable expansion in the developing market economies, mainly those in the Near and Far East regions. Production declined by 3%-4% in the developed market economies, however.

Preliminary estimates indicate that fertilizer consumption recovered in 1983/84, but mainly in North America and the centrally planned economies. There were only slight increases in Africa and Asia and a further decline in Latin America.

Meeting in February 1985, the Commission on Fertilizers noted with concern that the present growth rate in fertilizer use in developing countries was far below what was required to achieve self-reliance in food and food security. An appeal was made for increased bilateral and fertilizer aid channeled through the International Fertilizer Supply Scheme (IFS). The commission also expressed concern that the reduction in the rate of expansion in additional manufacturing capacity for nitrogenous fertilizers in the developed market economies would result in a possible deficit between supply and demand by the late 1980s.

Outlook for Fertilizer, Supply and Demand

The supply-demand balance for nitrogenous fertilizer was rather tight in 1983/84 (which explains the rapid strengthening of prices since mid-1983), but the situation is tending toward a small surplus for the next two to three years and, as indicated above, will possibly revert to excess demand by the late 1980s. The situation for phosphatic and potassic materials appears to be more toward a continuing excess supply although the surplus balances at the global level could be reduced toward the late 1980s.

TABLE 1-4. FERTILIZER CONSUMPTION, BY MAJOR NUTRIENTS, 1981-83

				Change		Annual rate of change
	1981	1982	1983	1981 to 1982	1982 to 1983	1979 to 1983
	.... million tons			..... %		
Developed countries						
Nitrogen	22.97	22.21	20.97	-3.3	-5.6	-0.4
Phosphate	13.53	12.75	12.03	-5.8	-5.6	-3.5
Potash	12.32	11.67	11.14	-5.3	-4.5	-2.5
Total nutrients	48.82	46.63	44.13	-4.5	-5.4	-1.8
Developing countries						
Nitrogen	12.19	12.79	13.32	4.9	4.1	5.4
Phosphate	6.64	6.10	6.39	-8.1	4.8	2.6
Potash	3.44	3.01	3.06	-12.5	1.7	1.1
Total nutrients	22.28	21.90	22.76	-1.7	3.9	4.0
Africa	1.43	1.50	1.35	4.9	-10.0	4.1
Far East	10.08	10.77	11.16	6.8	3.6	5.4
L. America	7.51	6.37	6.44	-15.2	1.1	0.6
Near East	3.24	3.23	3.80	-0.3	17.6	6.6
ACPE	16.30	16.22	16.99	-0.5	4.7	7.2
World						
Nitrogen	60.73	60.31	61.02	-0.7	1.2	2.5
Phosphate	31.61	30.88	30.83	-2.3	-0.2	0.6
Potash	24.23	23.75	22.84	-2.0	-3.4	-1.4
Total nutrients	116.56	114.93	114.70	-1.4	-0.2	1.2

Source: FAO, Land and Water Development Division.

BOX 1-1. ABNORMAL FOOD SHORTAGES AND EMERGENCY FOOD AID

By the end of 1984, 34 countries were reported to be experiencing abnormal food shortages, 26 in Africa, five in Asia and three in Latin America.* The situation had changed little from 1983 when 35 countries faced food shortages, 24 of them in Africa. At that time, in both years, 16 countries were reported as having unfavourable crop conditions.

The steadily rising amount of emergency food aid in recent years is shown in the table below. The IEFR has made increasing contributions to meet these needs, enabling allocations from the World Food Programme's (WFP) regular resources for such emergencies to be limited to $45 million annually. In 1982 less than one-half this amount had been allocated, freeing a corresponding amount for WFP's development programme. However, in 1984 the rising costs of funding 63 emergency operations meant an allocation of over $54 million to supplement the IEFR, despite record contributions to the reserve. It is estimated that currently about one-quarter of total food assistance is used for emergency needs.

In 1984, commitments to IEFR were 648 000 tons, comprising 608 000 tons of cereals and 40 000 tons of other food products, such as milk powder and vegetable oil. In 1983, the figures were 501 000 tons and 36 000 tons for cereals and other food products, respectively. These past two years have been the only ones when the IEFR annual replenishment target of 500 000 tons of cereal equivalent has been surpassed. The increase in 1984 was due partly to additional contributions of 64 000 tons made by a number of countries in response to a special appeal by the Director-General of FAO for emergency assistance to Africa.

* The countries listed in Section 2, "Food Situation in Africa," (24 or 21 depending on the date referred to) are those suffering from severe drought in 1983 and 1984 and are included in the list of countries receiving assistance to rehabilitate their food and agricultural sectors.

WFP EMERGENCY OPERATIONS APPROVED ANNUALLY, 1981-84 a/

Year	No. of operations	No. of countries	WFP regular resources	ICARA b/	IEFR	Total
	No.	No.	.....$ million.....			
1981	53	30	44.4	1.0	132.9	178.3
1982	68	37	19.7	1.3	172.2	193.2
1983	68	36	45.0	-	155.3	200.3
1984	63	40	54.2	-	178.2	232.4

a/ Commitments as approved at the end of each year, including insurance funds.
b/ International Conference on Assistance to Refugees in Africa.

Sources: UN/FAO, Annual Report of the Executive Director on the Development of the Emergency Programme, 1982, WFP/CFA, (15/4, April 1983); and WFP, Resource Management Division.

Agricultural Trade

Main features in 1983 and 1984. According to GATT estimates, the volume of world merchandise trade in 1983 recovered by about 2% and regained the level of 1980-81. At least half of this growth in world trade in 1983 was accounted for by the increased import demand by the United States. Indeed, the seven largest economies of the OECD increased the volume of their imports by more than 6% in 1983, having reduced this volume in each of the years 1980-82. This increase is close to the annual average for the 1970s, but far below the increase of nearly 15% recorded in 1976 following the recession of 1974-75. Although there has appeared to be an acceleration in the volume and value of world trade since the last quarter of 1983 (GATT was expecting an increase in the volume of trade of 5%-6% in 1984), the overall response of world trade to the current recovery has been thus far relatively weak.

While manufactured goods recovered by more than 4% in volume terms in 1983, agricultural trade rose only 1%, far below the average rates of growth of the 1960s and 1970s. In value terms, world trade in agricultural products in 1983 failed to recover from the sharp downturn of the previous year. Exports of agricultural, fishery and forestry products declined further by approximately 1% in 1983, resulting in an overall 10% reduction in the value of these exports since 1981 (Table 1-5).

The reduction in agricultural trade in 1983, at a time of ample international supplies, reflected a number of economic and market factors:

- Improved domestic supply conditions and reduced import requirements in such large importing countries as the USSR, China, Brazil and Saudi Arabia;

- Inability to finance food import costs in many import developing countries facing balance of payment and debt problems; and

- A reduction in demand caused by the appreciation of the U.S. dollar, which implied for many importing countries higher prices in their own currencies.2/

The overall decline in world agricultural trade in 1983 reflected a reduction of about 2% in the export value of crop and livestock products, which account for over three-quarters of the total trade in agricultural, fishery and forestry products. There was a moderate increase in the trade of fishery products, which brought the value of world exports back to the 1981 level. Exports of forestry products rose by 2%, representing a partial recovery from the 9% decline of the previous year.

Trade in food products in 1983 was more depressed than that of other main groups of agricultural commodities (Table 1-6). World food exports stagnated at the previous year's level in volume terms. Cereal trade increased only marginally. In terms of value, food exports in 1983 were 3% smaller than the previous year and 15% smaller than in 1981. The increase in export earnings from raw materials and beverages, of major importance to many developing countries, was insufficient to compensate for the losses incurred in recent years.

2/ For a fuller discussion of agricultural commodity trade, see FAO, Commodity Review and Outlook 1984-85, Rome, 1985.

TABLE 1-5. VALUE OF WORLD EXPORTS OF AGRICULTURAL (CROP AND LIVESTOCK), FISHERY AND FOREST PRODUCTS AT CURRENT PRICES

	1981	1982	1983 a/	Change 1981 to 1982	Annual rate of change 1982 to 1983	1979 to 1983
	...000 million $..			..... %		
AGRICULTURAL PRODUCTS	232.5	212.1	207.5	-8.8	-2.2	-0.6
Developing market economies	66.0	59.5	61.7	-9.8	3.7	-1.2
ACPE	4.4	4.4	4.0	..	-9.1	-0.2
All developing countries	70.4	63.9	65.7	-9.2	2.8	-1.2
Developed market economies	152.5	139.1	133.6	-8.8	-4.0	-0.1
Eastern Europe and USSR	9.6	9.1	8.2	-5.2	-9.9	-3.9
All developed countries	162.1	148.2	141.8	-8.6	-4.3	-0.3
FISHERY PRODUCTS	16.0	15.6	16.0	-2.5	2.6	2.6
Developing market economies	5.7	5.9	6.0	3.5	1.7	5.5
ACPE	1.0	0.9	1.0	10.0	11.1	4.6
All developing countries	6.7	6.8	7.0	1.5	2.9	5.3
Developed market economies	9.0	8.4	8.6	-6.7	2.4	0.7
Eastern Europe and USSR	0.3	0.4	0.5	33.3	25.0	4.6
All developed countries	9.3	8.8	9.1	-5.4	3.4	0.9
FOREST PRODUCTS	51.2	46.8	47.7	-8.6	1.9	-2.3
Developing market economies	7.0	6.7	6.8	-4.3	1.5	-5.5
ACPE	0.6	0.5	0.5	-16.7	..	-3.6
All developing countries	7.6	7.2	7.3	-5.3	1.4	-5.5
Developed market economies	39.9	36.0	36.7	-9.8	1.9	-1.8
Eastern Europe and USSR	3.8	3.7	3.7	-2.6	..	-0.8
All developed countries	43.7	39.7	40.4	-9.2	1.8	-1.7
TOTAL	299.8	274.6	271.2	-8.4	-1.2	-0.7
Developing market economies	78.7	72.1	74.4	-8.4	3.2	-1.2
ACPE	6.0	5.8	5.5	-3.3	-5.2	..
All developing countries	84.7	77.9	79.9	-8.0	2.6	-1.2
Developed market economies	201.4	183.5	178.9	-8.9	-2.5	-0.4
Eastern Europe and USSR	13.7	13.2	12.4	-3.6	-6.1	-2.8
All developed countries	215.1	196.7	191.3	-8.6	-2.7	-0.6
	.....%.....					
Share of developing countries	28	28	29			

a/ Preliminary.

Source: FAO, Statistics Division.

TABLE 1-6. FAO INDEX NUMBERS OF VOLUME, VALUE AND UNIT VALUE OF WORLD EXPORTS OF CROP AND LIVESTOCK PRODUCTS, BY MAJOR COMMODITY GROUPS

	1981	1982	1983a/	Change 1981 to 1982	Change 1982 to 1983	Annual rate of change 1979 to 1983
	...1974-76=100...			.....%		
VOLUME						
Crops and livestock, total	137	136	137	-0.7	0.7	2.5
Food	142	141	141	-0.7	-	2.7
Cereals	149	142	143	-4.7	0.7	2.7
Feed	178	185	196	3.9	5.9	7.7
Raw materials	108	107	108	-0.9	0.9	-0.4
Beverages b/	117	120	123	2.6	2.5	1.9
VALUE						
Crops and livestock, total	180	162	159	-10.0	-1.9	-0.7
Food	183	161	156	-12.0	-3.1	-0.2
Cereals	179	147	145	-17.9	-1.4	1.9
Feed	251	232	257	-7.6	10.8	6.3
Raw materials	155	138	141	-11.0	2.2	-2.5
Beverages b/	169	174	177	3.0	1.7	-5.2
UNIT VALUE						
Crops and livestock, total	135	122	119	-9.6	-2.5	-3.1
Food	131	118	113	-9.9	-4.2	-2.8
Cereals	122	107	104	-12.3	-2.8	-1.0
Feed	142	128	131	-9.9	2.3	-0.7
Raw materials	142	129	131	-9.2	1.6	-1.8
Beverages b/	147	147	147	-	-	-7.0

a/ Preliminary.
b/ Excluding cocoa, which is included under food.

Source: FAO, Statistics Division.

The reversal in the net trade position of developing regions was a significant development in the regional pattern of agricultural trade in 1983. After having shown a net trade deficit for the first time in 1981 and further in 1982, developing countries as a whole emerged again as net agricultural exporters in 1983, but by a very slender margin (Table 1-7). However, this resulted from a further decline in their imports of agricultural products, which were 13% below the level of 1981 and only a 3% increase in their agricultural exports. Imports declined in China, several large importing countries in the Near East, including Saudi Arabia, Iran, Iraq, and some countries in Africa.

The improvement in the agricultural trade balances of developing countries appeared, therefore, precarious and narrow-based. The modest increase in their agricultural export earnings in 1983 only partially offset the heavy losses of 1982. Moreover, most of the increase was concentrated in a few large exporting countries in Latin America (Argentina, Brazil, Cuba and Mexico).

TABLE 1-7. VALUE OF WORLD AGRICULTURAL TRADE (CROPS AND LIVESTOCK) AT CURRENT PRICES AND VOLUME, BY REGION

	1981	1982	1983	Change 1981 to 1982	Change 1982 to 1983	Annual rate of change 1979 to 1983 Current prices	Annual rate of change 1979 to 1983 Volume a/
	...000 million $..			.....%			
Developing market economies							
Export	66.0	59.5	61.7	-9.8	3.7	-1.2	3.6
Import	65.9	58.8	57.9	-10.8	-1.5	4.4	5.0
Africa							
Export	8.9	8.3	8.2	-6.7	-1.2	-6.9	1.2
Import	11.0	10.2	9.3	-7.3	-8.8	3.1	6.1
Far East							
Export	19.6	17.5	17.6	-10.7	0.6	-0.4	4.9
Import	17.9	16.1	16.7	-10.1	3.7	4.3	5.8
Latin America							
Export	31.2	27.6	29.9	-11.5	8.3	-0.8	2.9
Import	14.5	11.5	11.8	-20.7	2.6	0.3	-0.7
Near East							
Export	5.8	5.7	5.5	-1.7	-3.5	4.8	5.9
Import	21.8	20.3	19.4	-6.9	-4.4	8.1	6.7
ACPE							
Export	4.4	4.4	4.0	-	-9.1	-0.2	0.8
Import	8.7	8.3	6.9	-4.6	-16.9	-0.3	0.1
All developing countries							
Export	70.4	63.9	65.7	-9.2	2.8	-1.2	3.4
Import	74.7	67.1	64.8	-10.2	-3.4	3.8	4.3
Developed market economies							
Export	152.5	139.1	133.6	-8.8	-4.0	-0.1	2.0
Import	147.1	139.3	137.4	-5.3	-1.4	-2.6	1.8
Eastern Europe and USSR							
Export	9.6	9.1	8.2	-5.2	-9.9	-3.9	-1.0
Import	31.8	27.7	26.2	-12.9	-5.4	1.6	4.2
All developed countries							
Export	162.1	148.2	141.8	-8.6	-4.3	-0.3	2.0
Import	178.9	167.0	163.6	-6.7	-2.0	-1.9	2.1
World							
Export	232.5	212.1	207.5	-8.8	-2.2	-0.6	2.6
Import	253.5	234.1	228.4	-7.7	-2.4	-0.5	2.7
Share of developing countries in world agric.trade	.....%						
Export	30	30	32				
Import	29	29	28				

a/ Obtained by deflating current values of trade with the indices (1974-76 = 100) of export and import unit values of agricultural products. Exports are valued fob and imports cif.

Source: FAO, Statistics Division.

World agricultural trade is expected to be boosted in 1984/85, in particular by the increased import requirements of the USSR, although Western Europe, normally a large importer, has ample domestic supplies of cereals this year. Export earnings from the principal agricultural products of developing countries may improve only moderately in 1984 following the poor export performances of 1982 and 1983, judging from preliminary indications of trade. Export earnings from fats and oils are estimated to have increased over their levels of 1983 because of higher prices. While trade in tea is up only moderately because India has curbed its exports caused by high domestic demand and prices, world market prices are exceptionally high. Cocoa bean shipments were depressed in 1983/84 because of supply constraints. Coffee trade expanded in 1983 and prices remained firm, mostly within the range of the International Coffee Agreement. Banana trade was at a rather low level, the result of supply losses due to poor weather. Trade prospects are poor for sugar as demand and prices are low, and competition from alternative sweeteners remains keen. Jute trade has been below normal because of low production in Bangladesh and strong competition from synthetic fibres.

Agricultural export prices. International U.S. dollar prices of most agricultural commodities showed a substantial upward trend during much of 1983 and the first-quarter of 1984, but have tended to slacken more recently. 3/ Between the third-quarter of 1983 and the third-quarter of 1984, export prices of food declined by 7% and those of non-food agricultural products by 2% (Fig. 1-1).

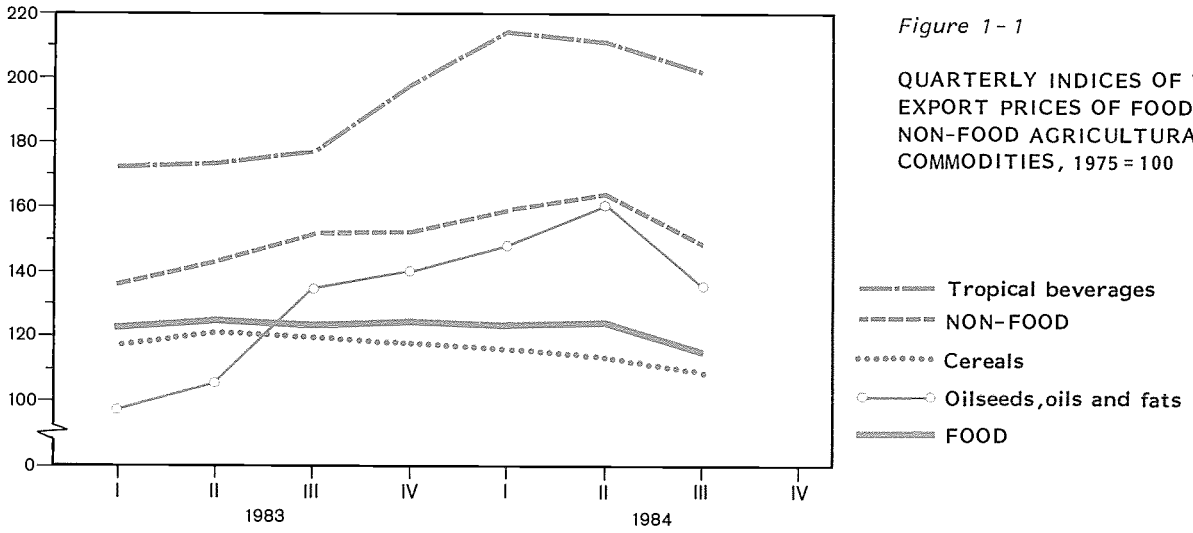

Figure 1-1

QUARTERLY INDICES OF WORLD EXPORT PRICES OF FOOD AND NON-FOOD AGRICULTURAL COMMODITIES, 1975 = 100

Source: UN, Monthly Bulletin of Statistics, December 1984.

Prices of the main groups of commodities exported primarily by developed countries (cereals and livestock products) stagnated or declined throughout most of 1983 and 1984. By the third-quarter of 1984 the prices of cereals as a whole were approximately 8% lower than a year earlier. The prices of cereals have tended to slacken further recently reflecting: large market supplies (particularly in the United States and the EEC); the

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3/ Changes in dollar prices should be considered in the light of the continous strengthening of the U.S. dollar against most currencies (See Box 1-2).

prospects of a suspension of the long-term grain import agreements by China, which entered the market as a maize exporter; and the continued strengthening of the U.S. dollar (Table 1-8). These factors have largely offset price-raising influences, in particular, the large grain purchases by the USSR. The decline was less pronounced in the case of wheat, the quotations of which remained relatively stable throughout 1984. As regards livestock products, the prices of both dairy products and meat generally remained depressed.

Prices of non-food commodities and many food products exported by developing countries increased steadily throughout 1983 and into the first- and second-quarters of 1984. Subsequently, they have tended to fall back. Price increases between early 1983 and early 1984 were particularly pronounced for tropical beverages (24%), although they have declined markedly since then. Sugar prices declined further in 1984 to their lowest level in 13 years, reflecting a continuing situation of world oversupply. By late 1984, sugar prices were less than one-half of those prevailing a year earlier. There was a boom in prices of most vegetable oils, with the notable exception of olive oil, reflecting a change from a period of ample supplies in the second-half of 1981 and 1982, to a situation of supply tightness during 1983 and the first-half of 1984. Prices of palm, coconut, palm kernel, groundnut, rapeseed, sunflower and soybean oils more than doubled. However, in anticipation of more adequate supplies in 1984/85, prices have tended to fall since July 1984, particularly of palm oil and soybeans. Soybean prices in the last months of 1984 had returned to the depressed levels of early 1983.

Quotations for natural fibres also rose considerably in 1983: cotton by 17% and jute by over 62%, reversing a period of several years of depression. However, while prices of jute continued to strengthen throughout 1984, those of cotton lint weakened, particularly during the second-half of the year.

TABLE 1-8. EXPORT PRICES OF SELECTED CROPS

	Wheat US No.2 hard Ord. Prot.	Coffee green, 1976 ICA composite price	Maize US No.2 yellow	Rice 5% f.o.b. Thailand	Soybeans US No. 2 yellow	Sugar raw ISA Caribbean
	.....	.....	$/ton	.....	.....	.....
1983 - September	159	2 800	148	298	323	208
October	154	2 998	148	286	311	214
November	153	3 042	147	283	311	184
December	154	3 086	143	273	298	168
1984 - April	158	3 175	148	255	300	133
May	154	3 263	146	253	321	123
June	150	3 197	147	256	293	121
July	149	3 108	143	273	253	107
August	155	3 153	139	272	248	90
September	157	3 108	131	254	238	90
October	155	2 998	122	251	239	102
November	155	3 039	117	231	234	96
December	151	2 974	114	224	221	78
1985 - January	149	3 015	119	224	220	80
February	148	2 959	120	220	217	81

Source: FAO, Commodities and Trade Division.

BOX 1-2. PRICES OF COMMODITIES AND VALUE OF TRADE IN TERMS OF THE U.S. DOLLAR AND ECU

The U.S. dollar is the most widely used currency for international market transactions. The pronounced overall appreciation of the U.S. dollar against most other currencies since 1980 distorts any assessment of real change in commodity prices and the value of trade that have taken place since that time. Other things being equal, an appreciation of the U.S. dollar implies an equivalent increase in the price of a given commodity in terms of those currencies that experience a relative depreciation. Therefore, changes in the export performance of a given country, as measured in U.S. dollars, may appear grossly undervalued. For a commodity-exporting country, an appreciated U.S. dollar means larger export earnings in terms of the local currency price, and eventually, downward pressures on the U.S. dollar price of the commodity itself. Conversely, a food-deficit country may be facing far greater difficulties in financing imports than figures denominated in U.S. dollars suggest.

A more stable measurement of changes in international prices and in trade values is provided by Special Drawing Rights (SDRs). At the moment, however, the heavy dollar component of this 'basket' of currencies limits its validity as a deflator of U.S. dollar denominated prices and values for the purposes of comparison over time and between countries.

The European currency unit (ECU) provides an alternative. It comprises a basket of currencies of EEC members with weights determined by the relative economic sizes of the countries. Since the basket comprises strong currencies like the deutsche mark, as well as relatively weak ones, pronounced exchange rate fluctuations are greatly reduced.

The chart given here shows the strengthening of the U.S. dollar against the ECU since January 1983. The U.S. currency appreciated by 17% compared to the ECU during 1983 and by a further 13% during 1984.

CHANGES IN INTERNATIONAL EXPORT PRICES OF SELECTED AGRICULTURAL COMMODITIES IN TERMS OF THE U.S. DOLLAR AND ECU, 1983-84

	1983 January - December		1984 January - September	
	US$	ECU	US$	ECU
	..... %			
Wheat	-7	+10	+1	+10
Rice, milled	+5	+22	-2	+7
Maize	+31	+48	-8	+1
Sugar, raw	+26	+43	-39	-30
Beef a/	-8	+9	+11	+20
Butter	-3	+14	+13	+22
Cocoa beans	+46	+63	-20	-11
Coffee	+6	+23	-3	+6

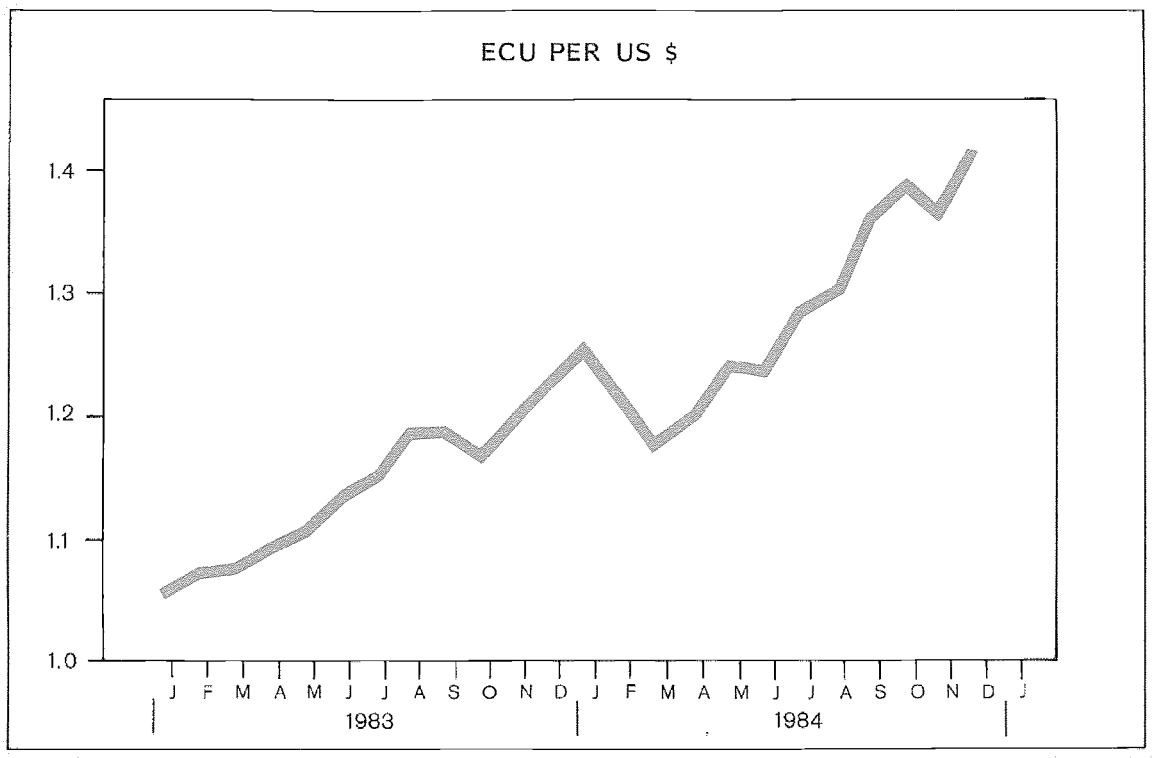
a/ August price 1984.

Sources: FAO, Statistics Division and Eurostat.

At the world level, the export value of agricultural products, which declined by nearly 1% a year in dollar terms between 1979 and 1983, actually increased by over 12% a year in ECUs.

The variations in export prices of selected commodities may also be compared in U.S. dollar and ECU terms (see table). It underlines the caution that should be used in interpreting the decline in dollar prices of many commodities that have taken place during much of 1984. While recent price declines have occurred in both U.S. dollar and ECUs for several commodities, including sorghum, sugar, soybeans and cocoa, the stagnation or decline in the U.S. dollar price of commodities such as wheat, maize, rice and coffee did not necessarily imply relief for importers. Although the appreciation of the U.S. dollar has exerted a depressing effect on U.S. dollar prices in international commodity markets, such effect is difficult to assess in view of such factors as the inflation differential among countries, taxes, subsidies, and the large weight of the United States in international trade.

Profound repercussions of the strengthening of the U.S. dollar for individual exporting countries can be illustrated by the example of two coffee-exporting countries, the Ivory Coast and Colombia. The U.S. dollar appreciated by 20% and 24% against their respective national currencies between January and December 1983. The dollar prices of coffee also increased by 9%-10% during this period, so that coffee prices, expressed in national currencies, rose by 29%-34%. Even allowing for the effects of domestic rates of inflation during this 12-month period, about 6% in the Ivory Coast and nearly 20% in Colombia, it appears that the prices of coffee rose appreciably in terms of the currencies of these exporting countries.



Source: EUROSTAT.

Terms of trade. Terms of trade of agricultural products in international markets improved in 1983. Developing countries were the main beneficiaries of the improvement, with dollar prices of manufactured goods declining by 4% and those of crude petroleum by 12%. Their agricultural exports appreciated in real terms by over 12% in 1983 (Table 1-9).

The benefits of higher real export prices of agricultural products were supplemented by the larger volumes of exports (4%) of developing countries. On balance, export earnings from agriculture in 1983 should have enabled them to purchase 16% more manufactured goods and petroleum than in the previous year.

TABLE 1-9. NET BARTER AND INCOME TERMS OF TRADE OF AGRICULTURAL EXPORTS FOR MANUFACTURED GOODS AND CRUDE PETROLEUM

	1979	1980	1981	1982	1983
	.....1974-76=100.....				
NET BARTER TERMS OF TRADE					
Developed market economies	83	69	68	66	68
Developing market economies	93	78	69	65	73
Africa	118	91	74	72	78
Far East	90	74	69	60	69
Latin America	87	76	68	64	71
Near East	85	70	70	66	75
INCOME TERMS OF TRADE					
Developed market economies	109	101	102	98	100
Developing market economies	107	90	84	81	94
Africa	103	79	65	65	69
Far East	112	98	96	88	97
Latin America	108	90	88	81	99
Near East	79	66	77	78	94

Note: The index of net barter terms of trade is defined here as the true ratio of the index of export unit values of agricultural products to the index of world export prices of manufactured goods and crude petroleum. The index of income terms of trade is obtained by multiplying the index of net barter terms of trade (as defined above) by the index of export volumes of agricultural products.

Sources: FAO, Statistics Division and Policy Analysis Division.

Information available for the first nine months of 1984 shows a further improvement of about 5% in the terms of trade of developing country exports of food and nearly 12% for their exports of non-food agricultural commodities. The terms of trade of developed country agricultural exports declined by nearly 3% for food but improved by 10% for non-food commodities.

However welcome the recent improvements in the agricultural terms of trade of developing countries, they are subject to important reservations. First, the improvement comes after several years of deterioration and only partly compensates for the losses incurred since 1979. Second, they have mainly benefited large exporting countries in Latin America and the Far East. In Africa, where the purchasing power of agricultural exports has deteriorated most in recent years, the improvement in 1983 was minor. Third, the current sluggishness and uncertainties surrounding agricultural markets suggest that the improvement may be short-lived.

External Assistance to Agriculture

Total and concessional commitments in 1983. The most recent information available on external assistance to agriculture indicates a decline in 1983 in the levels of official commitments to agriculture (OCA) (narrow definition). This decline reflects budgetary constraints in major donor countries in the early 1980s. The decline in official development assistance (ODA) or the concessional part is of particular concern because it affects the low-income countries that rely heavily on such external assistance for expanding their investments in agriculture.

Commitments of multilateral and bilateral concessional assistance to agriculture, in current prices, decreased by more than 20% and by about 8%, respectively, between 1982 and 1983 (Table 1-10). As a result, the share of bilateral concessional assistance in total assistance to agriculture increased.

TABLE 1-10. TOTAL AND CONCESSIONAL COMMITMENTS OF EXTERNAL ASSISTANCE TO AGRICULTURE a/

	Total Commitments				Concessional Commitments			
	1980	1981	1982	1983	1980	1981	1982	1983
	..... million $							
Total commitments at current prices	8 189	7 349	8 288	7 938	6 013	4 972	5 842	4 992
Bilateral	3 296	2 734	3 249	2 983	3 268	2 661	3 154	2 873
Multilateral	4 883	4 615	5 039	4 955	2 745	2 311	2 688	2 119
World Bank	3 090	2 864	2 987	3 233	1 350	1 149	1 428	949
IBRD	1 740	1 715	1 559	2 284	-	-	-	-
IDA	1 350	1 149	1 428	949	1 350	1 149	1 428	949
IFAD	284	144	368	186	284	144	355	186
Regional development banks	964	1 024	1 172	947	566	453	393	488
OPEC multilateral	108	116	41	121	108	98	41	28
UNDP b/	204	200	190	160	204	200	190	160
FAO (TF/TCP)	113	136	137	143	113	136	137	143
CGIAR c/	120	131	144	165	120	131	144	165
Total commitments at 1980 prices	8 189	7 818	9 009	9 020	6 013	5 289	6 350	5 673

a/ Agriculture includes all the purposes in the narrow definition plus forestry.
b/ United Nations Development Programme expenditure.
c/ Commitments to the Consultative Group on International Agriculture Research (CGIAR).

Sources: FAO, Policy Analysis Division and OECD.

While multilateral concessional lending to agriculture has declined, non-concessional multilateral commitments increased from $2 351 million in 1982 to $2 836 million in 1983, indicating an overall hardening in terms of official lending to agriculture. This is due mainly to an increase of nearly 50% in commitments of the IBRD to agriculture in 1983. However, the share of lending to agriculture by regional development banks that was non-concessional decreased, except for the African Development Bank (ADB).

A similar picture appears to be developing with regard to multilateral and bilateral OCA (broad definition) (Table 1-11). Up to 1982, the pace of the expansion of these resources in current prices slackened,

with increases in 1982 of less than 5% and 2%, respectively, compared with increases of nearly 12% in 1980 and 8% in 1981.

- There was an abrupt decline in bilateral commitments in 1983 (more than 20%) following a recovery in these flows since 1980.

- There was also a marked slowdown of multilateral commitments between 1979 and 1983. After an expansion of nearly 30% in 1980, increases in 1981, 1982, and 1983 were only 6%, 3%, and less than 2%, respectively.

- There has been a steady decline in multilateral concessional commitments from 1980 to 1983 amounting to almost 22%, but a corresponding increase in non-concessional commitments of 50%. Therefore, between 1980 and 1983, the terms of multilateral commitments (broad definition) have significantly hardened: the concessional component falling from 54% to 38%. As this has been accompanied by a decline in bilateral commitments, most of which are concessional, the hardening of the terms of total commitments has been severe between 1980 and 1983, with the concessional share falling from 72% to 56%.

TABLE 1-11. OFFICIAL COMMITMENTS OF EXTERNAL ASSISTANCE TO AGRICULTURE (BROAD DEFINITION), 1979-83

	1979	1980	1981	1982	1983a/
	..... million $				
TOTAL OCA					
Mulitlateral b/	5 157	6 674	7 060	7 280	7 423
Bilateral	4 942	4 627	5 152	5 506	4 359
Total at current prices	10 099	11 301	12 212	12 786	11 782
Total at 1980 prices	11 221	11 301	12 991	13 898	13 389
CONCESSIONAL OCA					
Multilateral	2 759	3 607	3 424	3 241	2 825
Bilateral	4 529	4 357	4 583	4 875	3 801
Total at current prices	7 288	7 964	8 007	8 116	6 626
Total at 1980 prices	8 098	7 964	8 518	8 822	7 529
NON-CONCESSIONAL OCA					
Multilateral	2 398	3 067	3 636	4 039	4 598
Bilateral	413	270	569	631	558
Total at current prices	2 811	3 337	4 205	4 670	5 156
Total at 1980 prices	3 123	3 337	4 473	5 076	5 859

a/ Preliminary.
b/ Including World Bank (IBRD/IDA), IFAD, IDB, AsDB, ADB/ADF, OFID, AFESD, ABEDA, IDB, UNDP, FAO (TCP/trust funds) and commitments to CGIAR (see Glossary of Abbreviations and Terms).
c/ Deflated by the UN unit value index of the export of manufactured goods.

Sources: FAO, Policy Analysis Division, and OECD.

Most of the decline in multilateral concessional assistance in 1983 is accounted for by delays in replenishing IDA and reductions in its funding. The seventh replenishment of IDA ($9 000 million) is much smaller than its sixth (1979) replenishment. Under these circumstances, and because IDA assigns a major share of its resources to agriculture (40% in the early 1980s, equivalent to 20% of all concessional assistance to agriculture), it seems unlikely that IDA will be able to sustain the growth of its assistance to agriculture achieved since the late 1970s. Unless more resources are made available to this important lending institution, the disbursements of multilateral concessional assistance to the agricultural sectors of low-income countries will soon begin to flag.

The IDA is not the only concessional lending institution that has been forced to cut back its programmes. Commitments of IFAD also decreased in 1983. This situation reflected difficulties encountered in the negotiating of its first replenishment. The second replenishment of IFAD for 1985-87 also faced difficulties and negotiations that took place at the end of February 1985, while ensuring the fund's continued operation, were short of its first replenishment that covered 1981-84. On the other hand, regional development banks as a group increased their concessional commitments to agriculture by one-quarter between 1982 and 1983. Only the ADB decreased its concessional assistance to agriculture.

The impact of this reduction in multilateral concessional commitments has been particularly severe for the Asia and Pacific and African regions. They received 23% and 28% less, respectively, in 1983 than in 1980-82. However, on average, the Asia and Pacific region receives almost two-thirds of such commitments; thus, its absolute loss was greater--about $300 million. The decline for Africa was less than one-half this amount.

Food aid. Shipments of food aid in cereals are estimated to have been more than 9.8 million tons in 1983/84 compared with 9.2 million tons in 1982/83 (Table 1-12). It is expected that nearly 12 million tons will be provided in 1984/85, the largest quantity since 1971/72 and greater than the target of 10 million tons set by the World Food Conference.

TABLE 1-12. SHIPMENTS OF FOOD AID IN CEREALS, 1981-85

	1981	1982	1983	1984	1985 a/
	.....000 tons, grain equivalent.....				
Total	8 943	9 140	9 200	9 827	11 640
	.....%.....				
Proportion of food aid shipments in cereals made by the three largest donors: USA, Canada and EEC	79	82	85	85	88
Share of total to low-income food-deficit countries	80	82	84	89	89
Proportion of cereal imports by low-income food-deficit countries represented by food aid	16	15	15	18	21

a/ Estimated.

Source: FAO, Commodities and Trade Division.

Currently over 80% of shipments are consigned to low-income food-deficit countries and cover about 19% of these countries' estimated cereal imports, proportions that have not radically changed since 1979/80. 4/ The increase in shipments mainly reflect international concern over the serious food situation in sub-Saharan Africa.

As of the end of December 1984, pledges to the regular resources of the WFP for its 1983-84 biennium amounted to $982 million, or 82% of the pledging target of $1 200 million. Pledges for the 1985-86 biennium totalled almost $1 000 million or 74% of the new biennium's target of $1 350 million.

At its 18th session held in late October-early November 1984, the Committee on Food Aid Policies and Programmes (CFA) agreed that on an exceptional and ad hoc basis, $10 million in addition to the usual $45 million allocation, should be made to the 1984 emergency budget from the programme's regular resources. This decision was taken in light of the exceptional circumstances prevailing in Africa, the rapid utilization of IEFR's resources, and the regular allocation from WFP's regular resources for emergency needs.

Regional Highlights of Production and Trade, 1979-84

The current situation and outlook for some key aspects of agriculture have been examined. A following section examines long-term trends and issues, sometimes on the basis of unconventional country groupings. This linking section provides a summary of developments in food and agricultural production and trade in the medium term, according to more conventional, geographically based groups of countries (Table 1-13).

Developed countries as a whole achieved a moderate improvement in total agricultural and per caput food production. All developed regions except North America shared in this improvement. Larger food and agricultural supplies were, however, a mixed blessing for some developed countries already troubled by the excess capacity of their agricultural sectors. The problems of oversupply were made worse by the trade-depressing effects of a world recession. The dynamism that had characterized agricultural exports by developed countries during most of the 1970s gave way to a period of stagnation in terms of the U.S. dollar, with both Western and Eastern Europe actually experiencing a reduction in the dollar value of their exports between 1980 and 1984. The purchasing power of agricultural exports declined substantially during this period of depressed commodity prices, though to a lesser extent and with less critical consequences than in developing regions. There was also a marked reduction in the rate of growth of food imports compared to earlier periods.

As regards developing regions, aggregate food supplies increased substantially, with food production growth exceeding population growth and per caput food imports increasing by nearly 3% annually in volume terms. Larger supplies resulted in a sizable improvement in per caput calorie supplies, which had marginally exceeded minimum requirements in 1979-81. Agricultural export performances were on the whole less satisfactory, both in terms of absolute dollar values and in relation to purchasing power.

There were, however, wide regional divergences behind these aggregate figures. Improvements in domestic food supplies were concentrated in the regions of the Far East and ACPEs, the only developing areas that achieved

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4/ Includes all food-deficit countries with per caput income below the level used by the World Bank to determine eligibility for IDA assistance ($805 in 1982) that, in accordance with the guidelines and criteria agreed to by the CFA, should be given priority in the allocation of food aid.

TABLE 1-13. SOME INDICATORS OF PRODUCTION AND TRADE

	Total agricultural production		Per caput food production		Export values of agric. products		Per caput food import volume	Income terms of trade		Food imports as % of total exports
	1980-84	1984	1980-84	1984	1979-83	1983	1979-83	1979-83	1983	1981-83
	(%/yr)	Index	(%/yr)	Index	(%/yr)	Index	(%/yr)	(%/yr)	Index	(%/yr)
World	2.4	122	0.6	105	-0.6	166	0.6	-2.9	96	8.6
All developed countries	1.4	114	0.8	107	-0.3	170	0.2	-2.4	97	7.9
North America	-0.7	118	-1.5	109	1.1	169	-2.0	-1.0	97	4.4
Southwest Pacific	3.7	117	3.1	106	1.0	147	7.3	-0.1	86	2.5
Western Europe	1.7	118	1.4	115	-0.7	186	-0.1	-2.4	109	8.5
Eastern Europe and USSR	2.4	111	1.7	103	-3.8	116	2.1	-5.7	67	12.4
All developing countries	3.6	133	1.3	111	-1.2	158	2.8	-3.9	91	10.5
Africa	1.0	116	-1.2	89	-6.9	116	3.2	-9.5	69	16.0
Far East	3.7	136	1.7	113	-0.4	178	2.0	-3.9	97	9.2
Latin America	1.6	127	-0.6	104	-0.7	168	-1.8	-2.8	99	9.8
Near East	2.2	121	-0.5	97	4.7	157	5.6	5.3	94	9.6
ACPE	6.2	149	4.2	127	-0.3	131	1.3	-3.1	68	11.9

Note: Index Numbers are based on 1974-76=100.

Sources: FAO, Policy Analysis Division and Statistics Division.

substantial growth rates in per caput food production. At the same time, they reduced further their already moderate dependence on food imports. Although the purchasing power of regional agricultural exports declined, particularly in ACPEs, this was compensated by greater export earnings from other sectors. As a result, food imports accounted for a considerably smaller share of the total value of merchandise exports than in the mid-1970s.

The economic difficulties that affected most Latin American countries during the early 1980s did not spare food and agriculture. Poor weather conditions and weather-related factors also had a depressing effect. Food output, which had barely kept pace with population growth during 1974-84, declined in per caput terms in the early 1980s. Stagnation and slow growth in production characterized most of this latter period, with the exception of 1981. At the same time, many heavily indebted countries in the region faced increasing difficulty in maintaining adequate levels of food imports. The annual increase in per caput food imports in volume terms decelerated from 6.5% during 1974-83 to less than 2% during 1979-83. This reduction in the pace of imports did not bring about any major improvements in the balance of payments, the proportion of total export earnings absorbed by food imports having remained practically unchanged at around 10%. External account imbalances were further aggravated by a significant erosion of the purchasing capacity of agricultural export earnings.

The agricultural situation in Africa appears even more serious. Agricultural production rose at insignificant rates, food production declined by over 1% a year in per caput terms, and nutritional standards remained well below minimum requirements, despite an increasing dependence on food imports and external aid. Not only did food imports absorb a high proportion of total export earnings--16% during 1981-83--but agricultural exports, critical for the economies of most countries in the region, were losing almost 10% of their purchasing power every year during 1979-83.

Though less critically dependent on agriculture, the Near East also suffered from sluggish production performances and declining per caput output during the early 1980s. Food imports continued to grow at very high rates, however, contributing to a major improvement in per caput calorie supplies. Although such an increase in food imports coincided with reduced export earnings, particularly from crude petroleum, food imports still absorbed a smaller share of total export earnings than in other developing regions. Unlike other regions, the Near East achieved fast growth rates in agricultural exports and a considerable improvement in the purchasing power of agricultural export earnings. However, this improvement was based on relatively few factors (e.g., the sharp increase in the volume of cotton exports by Egypt) and was of very limited significance for most economies of the region.

Food Situation in Africa

The Sixth Report of the Joint FAO/WFP Task Force, established in April 1983 to monitor the deteriorating food situation in nearly half the countries of Africa, was published in late October 1984. It showed that the aggregate cereal production in 1983 of the 24 countries in Africa identified by FAO as facing exceptional food needs in 1983/84 was 16.9 million tons, 9% below the poor crop level of the previous year and 15% less than the previous normal crop of 1981. The cereal import requirements of the 24 countries in 1983/84 were estimated at 5.3 million tons, some 2.1 million tons higher than the previous year. Of this total of 5.3 million tons, 2.9 million tons represented food aid requirements and 2.4 million tons the estimated commercial import capacity. This compared with actual food aid receipts of about 1.5 million tons and 1.8 million tons of commercial imports in 1982/83.

Although by late 1984, the cereal food aid pledged by donors was over 1 million tons more than shipped to the same 24 countries in 1982/83, there was still a shortfall of approximately 200 000 tons of cereals against the estimated food aid requirements of 2.9 million tons. The levels of commercial imports by these countries also increased by some 600 000 tons compared to 1983.

The situation in 1984/85. The African food emergency has continued into 1985. Poor main season crops of 1984 were harvested in a number of countries in southern, eastern and northern Africa, while most Sahelian countries harvested crops that were seriously reduced by drought. However, with the coastal countries of West Africa experiencing improved conditions, the number of seriously affected countries have been reduced to 21.

In eastern Africa the food supply situation deteriorated sharply in Ethiopia, following a poor main season harvest in 1983 and the failure of the secondary 'belg' harvest in early 1984. Moreover, the main cereal and pulse crops of 1984, the harvesting of which began late in the year, were also poor (about one-third below the 1980-82 average), so the food supply position will remain serious throughout the end of 1985. According to the Relief and Rehabilitation Commission of Ethiopia, 7.7 million people, or about one-fifth of Ethiopia's total population, are affected.

In Kenya, as a result of the worst drought in many years, the main cereal crop harvest of 1984 is estimated to have been some 30% below the previous year's level, resulting in cereal import needs of about 950 000 tons for 1984/85.

FAO estimates that in the eastern subregion, seven countries (Burundi, Ethiopia, Kenya, Rwanda, Somalia, Sudan and Tanzania) are facing exceptional food supply problems in 1984/85, with aggregate food production more than 20% below the average for 1979-83 and with food aid requirements of 3.8 million tons, 150% more than the aid received in 1983/84.

For the third consecutive year in most southern African countries, drought affected the main season's harvests (April/May) of 1984. Poor crops were again harvested in Angola, Botswana, Lesotho, Mozambique, Zambia and Zimbabwe. The 1984/85 cereal import requirements of these six countries were estimated by FAO at 2.1 million tons and their food aid requirements at 1.1 million tons, some 0.5 million tons higher than the previous year. The condition of crops to be harvested in 1985 is more favourable in most countries, but still depends crucially on the progress of the rains.

In West Africa, the main season's harvests of 1984 were much better than in 1983 in the countries bordering the Gulf of Guinea. The aggregate food supply position was considered to be back to normal in Ghana, Guinea, Guinea Bissau, Benin and Togo. However, harvests were again poor in 1984 in the Sahelian countries of the subregion. In the northern areas of these countries, widespread crop failures were reported and the final output was even worse than the drought-reduced crop of 1983. In the Sudanian zones of the same countries, the outcome was more mixed, particularly in Burkina Faso and Mali, but aggregate output was expected to be worse than 1983, leading to a continued need for substantial cereal imports and external assistance. Seven countries faced exceptional problems of food supply in 1984/85 (Burkina Faso, Cape Verde, Chad, Mali, Mauritania, Niger and Senegal). Their aggregate production was 25% below the annual average for 1979-83 and food aid needs for 1984/85, at 1.7 million tons, were double the level of 1983/84. Severe drought-affected crops in Morocco in 1984 for the second consecutive year, also requiring about 400 000 tons for emergency relief for that country.

In light of these developments, the aggregate cereal import requirements of the 21 drought-affected countries of Africa in 1984/85 were expected to exceed 12 million tons by February 1985 compared with actual imports of 7.1 million tons in 1983/84. Food aid needs at over 7 million were more than twice the amount donated in 1983/84. By late February 1985, only 40% of the known pledges of food aid to the affected countries (5.1 million tons) had been delivered.

By the end of February 1985 the food situation in Africa raised three issues of immediate concern:

- There remained an aggregate uncovered requirement of food aid of almost 2 million tons;
- Only about 40% of the known pledges of food aid had been delivered; and
- Logistical constraints, particularly in some land-locked countries, required special financial and technical assistance programmes.

Logistical problems. The problem of ensuring that people deprived of their normal sources of food have access to emergency food supplies is not solved by the identification of alternative sources of food, whether they are provided by donors or obtained through commercial channels. Most African countries are not well equipped with transport facilities and a substantial number of them are land-locked. Therefore logistical problems, always important in Africa, assume added significance when relatively large quantities of food supplies have to be moved quickly and reliably to people afflicted by famine.

The passage of bulk and bagged cereals, the most critical commodities, from ports overseas even to main distribution centres in affected countries face several potential bottlenecks.5/ Ports are frequently congested, and the unloading of ships can be delayed. Warehouses at ports are often full and open-air storage is therefore necessary with a likelihood of spoilage. For example, Mombasa will have to handle more than 1 million tons of imported food commodities in 1984/85 to meet Kenya's needs, as well as the food aid needs of Rwanda, amounting to another 65 000 tons. Both road and rail transport facilities are likely to be inadequate. The problems up-country may be even more daunting with poor road networks and a transport system suffering from a lack of fuel and maintenance.

Donors have responded generously to these challenges and, looking beyond the immediate provision of food, longer term remedial measures frequently include additional trucks or spare parts, port handling and storage facilities and other means of alleviating logistical constraints. However, the provision of additional equipment is not enough; improved logistical management is needed as well, such as the better scheduling of shipments to match the handling capacities of ports and the corresponding matching of port off-take rates with shipments up-country by different transport modes.

Bilateral external assistance for the procurement, transport and distribution of emergency food supplies includes EEC assistance amounting to the equivalent of nearly $6 million, the main recipients being Chad, Ghana and Senegal. Examples of multilateral logistical support is that provided by UNICEF to Burkina Faso, Cape Verde and Mali; by FAO to Chad; and by WFP (logistics officers posted to some major entry ports). FAO

5/ See The Critical Social and Economic Situation in Africa: Report by the UN Secretary-General, prepared for the 39th Session of the UN General Assembly, 1984.

also provides silos, vehicles, and management skills and training in staple food storage, handling and preservation through its Food Security Assistance Scheme. In the area of logistics management, FAO collaborates with UNDP and WFP on a project in Botswana.

Recovery and rehabilitation. While the provision of emergency food needs must take precedence over all other measures, steps to promote the rapid recovery and rehabilitation of affected zones also need attention. The 86th session of the FAO Council in November 1984 approved the allocation of $5 million of FAO's budget for 1984/85 to support such rehabilitation measures in Africa. The three areas of action focused on were: (1) improvements in food early warning systems, (2) seed supply, and (3) livestock.

(1) Extensions and improvements in food early warning systems and other components of preparedness

African governments need to establish or strengthen early warning systems related to weather, crop and pasture conditions. The system, usually based on agrometeorological information, can also monitor indicators describing the emerging food supply situation such as the stock situation and food prices in various markets.

FAO is continuing to assist many African countries in establishing and developing such systems at national and regional levels. The original AGRHYMET programme for meteorological forecasting in the Sahel is being supplemented by FAO in cooperation with the World Meteorological Organization (WMO) by similar projects for SADCC (Southern African Development Coordination Conference) countries as well as national projects for Sudan, Kenya, Rwanda, Ethiopia and Guinea Bissau. Requests for assistance have been made by several other African countries.

Countries exposed to acute and large-scale food shortages can make themselves better prepared to meet such emergencies by preparing contingency plans for food relief and planning the logistics of famine relief distribution. FAO is providing technical support in this area by arranging a programme of workshops for countries trying to develop such plans.

(2) Seed supply

Seed, almost invariably reserved by farmers from their own harvests in those African countries most frequently affected by drought, is often the only input to the production of basic food crops. Yet people afflicted by famine may be forced to consume their seed stocks before the new planting season begins. Poor, drought-affected crops may also result in poor seed quality and replanting needs may call for additional supplies of seed not easily available. Therefore, the following actions have to be supported:

- Ensuring the timely arrival of emergency food supplies so that seed is not consumed;

- Identifying, procuring, testing, storing and treating seed; and

- Holding emergency stocks of seed, possibly at the subregional level, to meet the situation where seed is unobtainable locally.

A number of countries have requested FAO to organize missions to assess their agricultural situations, including the supply and quality of seeds. Such missions are scheduled for Mali, Niger, Chad and Ethiopia.

Among international organizations, FAO and the United Nations Emergency Operation (UNEO) Trust Fund have been particularly active in

seed-supply activities in Botswana, Burkina Faso, Ghana, Gambia, Tanzania and Zambia. Chad has benefited from the joint support of several donors for the purchase of 3 500 tons of food crop seeds. Similarly, about 2 800 tons of food crop seeds have been procured in Ethiopia with the assistance of the EEC.

(3) Livestock

When drought strikes, the main problems facing livestock are shortages of forage and water. The latter two are linked because forage may be available but cannot be grazed because it lacks water, and watering points are almost certainly surrounded by overgrazed areas. In this situation, the livestock owner is doubly exposed because of losses in stock numbers and also because there are few or no buyers for livestock unless a government buying agency is at hand. Disease problems are worsened because of the animals' weakened condition and the greater movement of livestock.

International and technical support is needed in the form of programmes of disease control; animal nutrition to safeguard breeding stock; additional water sources to enable distant forage sources to be accessed; and in facilitating destocking through the funding of emergency buying operations.

Ongoing livestock programmes with external support include FAO's assistance in rinderpest control in Burkina Faso, the Central African Republic, the Gambia, Guinea, Mauritania, Togo and Zambia. The UNEO Trust Fund has also been involved in a large number of livestock protection programmes, including pasture and fodder crop production and vaccine supply. Other livestock protection operations are also being carried out on a bilateral basis, particularly with the participation of northern European countries.

Long-term situation. 6/ While FAO has recorded food emergencies in as many as 20-30 African countries each year since 1977, a group of 15 countries has recurrently suffered acute food shortages. These countries are listed in Table 1-14, together with some indicators of their food supply situation. The combined population of these countries represents 31% of the total for developing Africa.

In this group of countries, chronic food insecurity has resulted from a wide variety of factors. These include a poor endowment of agricultural resources, adverse weather conditions, civil disturbances and wars, and deteriorating export markets. Inappropriate government policies resulting in an inefficient use of resources have also played a role. A review of some of these factors reveals some common features of these countries:

- All but five countries of the group are low-income countries, with a per caput GNP of less than $410 in 1982. In all but one of these low-income countries, per caput incomes stagnated or declined during 1970-82.

- In all but three countries, the average per caput DES is below minimum nutritional requirements. Although DES improved in eight countries during the 1970s, this was achieved in most cases because in-

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6/ Several papers have been prepared recently by FAO addressing the long-term deterioration in the food and agricultural situation in Africa and indicating possible measures to improve it. These papers include: Interim Report on Constraints on Food Production in Low-Income Food-Deficit Countries of Africa, CFS 83/6, February 1983; The State of Food and Agriculture 1983; and Delivery Systems for Small Farmers in Africa, CFS 84/5, January 1984.

TABLE 1-14. SELECTED INDICATORS OF THE FOOD SITUATION IN AFRICAN COUNTRIES RECURRENTLY AFFECTED BY FOOD SHORTAGES, 1977-84

	DES a/ as % of requirements		GNP per caput		PSC ratio b/	Annual change in per caput food production		Annual change in per caput food import volume		Cereal output per caput	Cereal import per caput	Cereal food aid per caput	Years of abnormal climatic conditions	Years of civil strife (incl. refugee problems)
	1981	Change 1969-71 to 1979-81	1982	Annual change 1970-82	1975	1979-83	1971-80	1979-83	1971-80	1980-82	1980-82	1980-82		
	%	%	$			%				kg				
Cape Verde	119.9	39.4	350	5.5	0.01	-1.9	1.6	-2.4	2.5	16	180	120	1979-83	-
Lesotho	105.9	19.0	510	4.4	0.46	-3.4	1.8	-2.5	10.6	119	86	26	1982-84	-
Botswana	104.7	8.1	900	7.7	1.27	0.7	-6.2	-4.2	11.7	46	75	15	1981-83	-
Angola	97.5	14.3	490	...	8.57	-1.9	-2.0	-7.5	21.1	51	41	10	-	1976-84
Comoros	96.7	...	340	-2.4	0.42	-1.7	-0.3	1.9	-0.9	52	52	12	...	...
Zambia	95.3	2.6	640	-2.2	10.17	-2.8	-0.7	-5.4	-5.1	160	62	20	1982-84	1983
Mauritania	94.4	2.1	470	-0.3	0.35	-3.2	-1.0	6.3	4.9	39	93	43	1979-83	-
Ethiopia	92.9	5.1	140	0.2	0.59	-0.3	-0.1	-3.6	21.5	184	9	6	1978-84	1976-84
Somalia	89.9	-10.6	290	1.0	0.40	-2.8	-4.7	12.3	5.7	72	71	45	-	1976-84
Burkina F.	86.8	2.0	210	1.4	0.90	-2.0	-	-9.0	5.9	166	9	8	1983-84	-
Ghana	83.2	-5.5	360	-3.5	2.04	-6.5	-4.8	0.4	-3.9	53	19	7	1982-83	1983
Tanzania	82.3	-0.9	280	0.6	2.29	-0.4	0.9	12.2	-1.2	150	18	11	1981-84	-
Mozambique	78.8	-10.5	290	...	4.14	-6.4	-4.1	-5.7	7.4	46	30	14	1982-84	-
Chad	75.7	-12.0	80	-4.6	3.15	-1.7	0.4	19.9	-14.6	120	8	4	1979-83	1983-84
Uganda	73.4	-21.6	230	-4.2	0.97	0.5	-1.0	-24.4	-10.7	85	4	3	1982-84	1976-80
Africa c/	96.2	2.7	...	...	2.95	-1.4	-0.9	3.2	7.1	127	39	6		

a/ DES - Dietary energy supplies.

b/ PSC - Population supporting capacity or potential capacity of land to support the country's population. A figure of less than 1 shows that the country's land resources could not produce sufficient food to support the population at a low level of input use in 1975 (see FAO, Land, Food and Population, C 83/8 August 1983).

c/ Developing countries in Africa, excluding Egypt, Libya and Sudan. However, the PSC ratio includes these three countries.

Sources: FAO, IIASA, UNFPA, World Bank.

creased volumes of food imports more than offset declining domestic food output. On the other hand, six countries experienced large declines in DES. This reflects declines in both per caput food output and imports.

- In all countries food production per caput has either stagnated or declined throughout the 1970s. Production performances deteriorated further in recent years.

Poor production performances have been related to: a) poor resource endowments--in eight countries the productive potential of land has been inadequate to support the countries' populations at low levels of input use; b) unfavourable climatic conditions--many countries having suffered, in particular, from several consecutive years of drought; and c) civil disturbances or wars in some countries otherwise relatively well endowed for agriculture (Angola, Mozambique and Chad). In others (Ethiopia, Somalia and Uganda), the food crisis has been the result of a combination of all of the reasons cited.

All countries in the group are net food importers and have received increasing quantities of food aid in recent years. The volume of food imports rose considerably during the 1970s in most countries. In the case of cereals, they reached on average 52 kg per caput by the early 1980s, 60% more than the average for the other African countries. The increasing dependence on food imports is indicated by the growing import content of total calorie consumption in all countries of the group. Imported food accounted for 16% of total calorie supplies in the late 1970s compared with 11% in 1969-71. The shares for Africa as a whole were 6% in 1969-71 and 13% in 1979-81. Though remaining generally high, food imports declined significantly in a number of countries, particularly since the late 1970s. Countries where food imports declined were by and large those with a decreasing per caput GNP, underlining the importance of overall economic performance in determining the level of food imports.

External payment problems, exacerbated by a growing imbalance in merchandise trade and the weakening of national currencies against the U.S. dollar, have been factors limiting food imports.7/ Nevertheless such imports have remained considerable in relation to the countries' purchasing capacity. With the exceptions of Chad, Uganda and Zambia, food imports have absorbed a large share of total merchandise export earnings.

Food aid has therefore constituted an invaluable, if precarious, supplement to domestic food supplies and commercial imports. Food aid in cereals in 1982 represented at least 20% of the domestic output of cereals in eight countries of the group and 20%-90% of the total cereal imports in 1980-82 in all 15 countries covered.

The Southern African Development Coordination Conference (SADCC): Agricultural Perspectives to 2000

SADCC is composed of Angola, Botswana, Lesotho, Malawi, Mozambique, Swaziland, Tanzania, Zambia and Zimbabwe. It was established in Lusaka in April 1980 and pursues the following four main goals: a) reduction of external dependence; b) progressive regional integration; c) the mobilization of resources; and d) joint action to secure international understanding and support for the SADCC development strategy.

7/ The external debt of 12 countries of the group for which data were available represented, on average, nearly half of their GNP in 1982.

At its highest executive level, the organization functions through an annual summit meeting of heads of state or governments of member states and a council of ministers to supervise the SADCC programme. A small permanent secretariat has operated in Gaborone (Botswana) since October 1982.

Programme development within SADCC is the responsibility of partner states. Each SADCC state is delegated responsibility for coordinating and implementating one or more sectors of the Lusaka Plan of Action. On agricultural matters, food security is handled by Zimbabwe; soil conservation and land utilization by Lesotho; agricultural research and animal disease control by Botswana; and fisheries, wildlife and forestry by Malawi.

The SADCC region is currently going through an extremely difficult period. Eight of the nine SADCC countries are on FAO's list of 24 African nations that faced acute food crises in 1983/84. While the current drought, world recession and, in some countries, civil and military strife are major reasons for the immediate difficulties facing the agricultural sector, the real causes lie much deeper. They are associated with long-term constraints such as deficiencies of infrastructure and the lack of a trained work-force and policies unattuned to promoting rural development. Corrective policies are needed without delay, but they should be conceived in a long-term perspective that leads to more adequate resources for agriculture and recognizes the long gestation period of many agricultural development activities.

In order to facilitate this action, FAO has prepared a perspective study, SADCC Agriculture: Toward 2000, which examines what would happen in the region in food and agriculture if past trends are allowed to continue and, alternatively, if well-planned and concerted efforts are made to rectify the situation.

The study indicates that a continuation of past trends would clearly spell disaster: negative growth rates in per caput agricultural production, a worsening situation in food crop supplies in both aggregate and per caput terms and a trade imbalance virtually impossible to finance. The cereal imports of SADCC countries, for example, would increase five-fold, from 1.5 million tons in 1979-81 to over 8 million tons in 2000, and would require (at 1980 prices) almost $4 000 million in foreign exchange. Even with these large imports, the nutritional situation in the region would continue to deteriorate. The study shows, through 'improved performance' (IP) and 'high performance' (HP) scenarios, that alternatives exist. Under the IP scenario, agricultural production would grow at 3.2% annually. The demand for basic foods would still exceed the projected supply, but the trend away from food self-sufficiency would be reversed. Under the HP scenario self-sufficiency in all food products would further increase except for livestock products. The SADCC region would remain a net exporter of agricultural commodities with a doubling of the export availability of non-food commodities and with manageable imports in the food sector.

The IP scenario and especially the HP scenario imply large efforts by national governments, requiring a massive concentration of human, financial and capital resources in agricultural development. The total gross investment in agriculture (narrow definition) by 2000 would amount to $2 400 million a year under the IP scenario and $4 000 million a year under the HP scenario (at 1980 prices). The requirements of external assistance under the IP scenario are estimated at $600 million annually (at 1980 prices) by the year 2000 or about 25% of the gross investment in agriculture. Accomplishment of this estimated requirement implies more than doubling, in real terms, the annual commitments made to SADCC countries in 1980-82.

FAO Regional Conferences in 1984

Every two years FAO holds its round of regional conferences that provide forums to discuss issues of regional interest or to give regional perspectives on more general topics. These discussions also help shape FAO's work programme at the regional and constituent country levels. While discussions in the 1984 sessions focused on topics of regional interest, themes common to all conferences were reviewed such as agricultural pricing policies, training and education.

The Regional Conference for Africa (Harare, Zimbabwe, July 1984) was held against a grim background of food shortages and the imminent starvation of millions of its people. Political strife, war, refugees, drought and debt problems complicated an already serious food and agricultural situation in sub-Saharan Africa. With these problems in mind, African ministers at the conference agreed that objectives set in the 1980 Lagos Plan of Action regarding food production and food losses had not been met. Responsibilities for this failure were accepted and pledges to correct the situation were included in the Harare Declaration.

Through this declaration, all members of the conference pledged to accord the necessary priority to agriculture in order to meet food problems and to monitor the progress of agricultural development. Emphasis was placed on the monitoring component that is considered essential to ensuring progress toward stated goals.

Conference members also recognized the responsibility placed on them by their countries to solve food problems and reaffirmed their determination for their countries to become more self-reliant by accepting the burden of developing their agriculture.

Significant attention was paid in the declaration to the importance of training and education in agricultural development as well as of agricultural price policies. It urged international bodies to provide technical assistance in these areas and exhorted African governments to use training institutions and personnel already available more effectively, both at national and regional levels, since large disparities exist among countries in the availability of training facilities. Workshops in management techniques were necessary in addition to short courses and seminars on technical matters.

The declaration also emphasized the need to intensify training for women at all levels since they have been and would continue to be responsible for a large share of food and agricultural production in the region.

Although the importance of the complex roles played by price policies were recognized, it was noted that improvements in Africa's food situation depended not only on prices but also on social, economic, technical, geographical and political factors influencing both production and consumption.

In reference to the role played by food aid, the conference pointed out that food aid could introduce distortions and fluctuations in prices and production and warned of a possible dependence on staple foods that could not be grown in Africa.

Emphasizing the importance of systems for monitoring agricultural progress, the conference recommended that member governments establish a monitoring system on the basis of appropriate socio-economic indicators for each country. FAO was requested to assist in the implementation of such monitoring systems as well as to provide guidance at national and regional levels.

Even though it was realized that African governments needed international and bilateral assistance to achieve agricultural and rural development, the conference pointed out that the major task was to be undertaken by the governments and the people of Africa.

The principal topic discussed at the Regional Conference for Latin America (Buenos Aires, Argentina, August 1984) was the debt problem that ultimately lead to the adoption of the Buenos Aires Declaration. This declaration called for the continued support of a new international economic order that would redress the economic grievances of developing countries. The conference, through the declaration, deplored the high interest rates that deprived the public and private sectors of these countries of the funds needed to import food and farm inputs to alleviate problems of food in security and malnutrition.

The declaration went on to point out the dangers of rising protectionism in agricultural trade that undermined developing countries' attempts to increase exports in order to service their debt and to finance imports needed for development. It also noted the cost to developing countries of the economic recovery of developed countries. This, it was pointed out, was mainly due to a deterioration in the terms of trade of developing countries, especially for agricultural products that resulted from trade protectionism and export subsidization by developed countries.

In reference to specific technical matters, the declaration agreed with FAO on the need to undertake a review of present rural education and training programmes in individual countries, to be followed by an exchange of findings and suggestions to improve programmes of basic education and training for peasants. Programmes should be implemented in coordination with a national development policy and strategy that should include economic, social, cultural and ethnic aspects so that living conditions in the countryside may be improved.

The declaration concluded with a plea for international financial institutions to take appropriate measures to ease the financial crisis of developing countries and with a request for developed countries to facilitate negotiations for new commodity agreements. The agricultural ministers at the meeting also pledged to give the food and agricultural sector the highest priority in their development programmes.

The Regional Conference for the Near East (Aden, Democratic Yemen, March 1984) focused on development issues in the region. It reviewed the consequences of policy formulation and implementation, forms of market interventions, consumer programmes and the role of FAO in the region.

The conference recognized the major role played by agricultural price policies in both agricultural and overall development. Thus, for effective policy formulation, it recommended that member governments take into consideration the limitations and linkages of agricultural price polices within the economy as a whole. At the same time, it suggested that each country should establish bodies at a high level to monitor and evaluate the impact of such policies.

Recognizing the need for more training, member countries were advised to improve education through practical courses and by raising the standard of teaching staff performance and student participation.

Member governments were urged to give high priority to agricultural investments selected according to national priorities, the availability of funds and the capacity for implementation. Moreover, if a country faced a serious debt problem, priority should be toward rehabilitation and the maintenance of the existing productive capacity.

The conference requested continuing support from FAO and other international bodies for the overall development of the region as well as for the full cooperation from member governments with these organizations.

By and large the major economic and financial problems that have assailed other developing regions were less serious in the Asia and Pacific region (Asia and Pacific Regional Conference, Islamabad, Pakistan, May 1984).

The main issue raised during the discussion of agricultural pricing policies was the need to integrate the agricultural policy fully and coherently with national plans and overall development strategies. Other issues discussed were whether it was necessary to raise price incentives to farmers, and, if necessary, in what ways.

The conference recognized the need for more effective marketing systems given that urbanization would continue and agriculture in the region would therefore become more market-oriented.

Concerning consumer programmes, it was noted that the food consumption of the poorest people must be protected by welfare schemes if producer prices are to be kept sufficiently high to act as production incentives.

Referring to policy implementation, it was stated that the confidence, continuity and credibility of programmes were essential. For this to be achieved, there is vital need for institutional coordination and data, as well as the availability of trained management and administrative personnel.

Adjustments in Agricultural Policies in Europe 8/

Agricultural policy reforms have been applied in both Eastern and Western Europe to reflect economic and social goals and conditions. The institutional bodies that have principal responsibility for coordinating or setting agricultural policies, the ten-member European Economic Community (EEC) in Western Europe and the seven-member Council for Mutual Economic Assistance (CMEA) in Eastern Europe, both share the goals of increasing farm income and food self-sufficiency.

Western Europe

The Common Agricultural Policy (CAP) of the EEC is being reformed for the first time since its inception over 20 years ago. High farm prices over the years have resulted in increasing budget deficits. Farm price supports accounted for 95% of the agricultural budget in 1983 and internal farm prices were considerably higher than world prices. For example, butter was 50% over the world price and wheat 33%, a situation relieved more recently by the strengthening of the U.S. dollar. Supply exceeds demand to the point where the cost of export subsidies and the storage of surplus commodities (7.5 million tons of grains and 1 million tons of butter) had to be reduced. Domestic agricultural prices were so high that imported grains had been substituted for domestic grains, which then had to be stored or exported with subsidy payments.

While reforms to the CAP introduced in 1984 were not severe, they did get to the heart of the problem: high prices and the overproduction of milk, grain and wine, and the ability of member countries to insulate

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8/ This section draws on papers prepared for the 14th FAO Regional Conference for Europe (Reykjavik, 13-21, September 1984).

domestic producer prices from foreign exchange fluctuations. Production quotas for milk and grain were adopted, agricultural prices were cut by 5%, new vine planting was banned until 1990, and the agricultural monetary system was further integrated.

The production quota for milk is a significant step in controlling production in that over 103 million tons of milk were produced in 1983, but the 1984 quota was set at 99.2 million tons. From 1985 onwards, the quota will be 98.4 million tons. Member countries are free to allocate their quota among domestic producers as they see fit. However, in some instances there have been delays in introducing the quotas.

The quota on cereals is not as important since production has not yet reached the quota level, but lower prices should have an effect on production in the long run. In addition, the Monetary Compensatory Amount (MCA), a system of border taxes that allow member countries to maintain farm prices in the face of foreign exchange fluctations, will be phased out over a period of four years.

If the reforms are implemented, the EEC will not produce such large surpluses, thus relieving the downward price pressure on some commodities such as wheat and dairy products. On the other hand, lower internal EEC prices may result in a higher consumption of domestic grains, thus leading to greater imports and a smaller supply of feed grains in the world market.

The post-war push in Europe to high levels of agricultural production in order to increase self-sufficiency ratios and farm incomes was largely achieved through policies designed to reduce the number of farmers and consolidate land holdings. Price policies in particular led to increased yields and an intensified use of inputs. These policies have been so effective that the reverse problem now exists. Increasing total production is not the goal now. Rather, the emphasis is on adopting less intensive methods of production and use of inputs in order to decrease unit costs, becoming more competitive in world markets and alleviating environmental problems.

However, social and environmental concerns are likely to raise production costs. Unemployment in Western Europe is at historically high post-war levels so that a release of farm labour at former rates is not likely. Furthermore, large-scale mechanical and intensive farming methods are coming under increasing attack from environmental and consumer organizations. Many people feel that pollution and potential health problems resulting from the heavy use of pesticides and biological chemicals to increase crop and livestock growth have surpassed acceptable levels. Food quality is also questioned in that the taste and quality of products are not as appealing to many consumers as they were formerly.

Other concerns have also arisen such as the welfare of animals in large scale livestock agro-industrial production systems and the conservation of soil as a result of intensive growing methods. Thus opinion is gathering among scientists and the public to mitigate such problems by maintaining smaller farms that absorb more labour and use less capital intensive methods. The outcome is that unit production costs could increase, thus squeezing farm profits and raising consumer prices.

The agenda for agricultural research in EEC countries will have to shift to reflect these concerns. Ways will have to be pursued to decrease input use and cost while maintaining production at desirable levels and meeting social and environmental concerns as far as possible.

Eastern Europe

The goals of the socialist countries of Eastern Europe continue to be to increase the supply of agricultural products, to improve living standards for people in agriculture, and to improve the contribution of agriculture to their national economies. Agricultural production goals of the latest five-year plan have not been met by CMEA member countries and the high prices of industrial inputs to agriculture combined with low prices for agricultural products have squeezed farm incomes.

Adjustments in agricultural policy designed to meet goals generally centred on making agriculture more efficient. The central thrusts of the adjustments are to specialize production further based on the natural advantage of different regions and to improve incentives at all levels of the food chain. Special emphasis will also be directed to reduce wastage between the farm and the consumer.

Relatively higher producer prices will be granted to those regions where the production potential is low in order to distribute income more equally without jeopardizing production gains. Estate and collective farms are also being directed to provide inputs to private and household plots in order to increase production on these relatively efficient users of land. The private plots granted to workers in the USSR are particularly important as they provide nearly one-third of total perishable products.

Research efforts in Eastern European agriculture are directed toward exploiting the opportunities offered by improved plant breeding and introducing genetic characteristics adapted for the short growing season in the grain areas. Research has also shown that forage crops should replace cereals in some regions of the USSR since forage crops grow better, prevent erosion, and lessen food dependence on imported animal feeds. Underlining this latter trend, the USSR has again entered the world grain market in 1984 with large purchases of grain to meet the deficit created by low production.

3. LONG-TERM TRENDS AND ISSUES

Food Availability and Utilization

As measured by dietary energy supplies (DES), there has been an improvement in overall food availability in developing countries since the world food crisis of the early 1970s (Fig. 1-2). This overall dietary improvement (from 2 140 to 2 350 calories a day per caput) reflects the fact that, on the whole, food supplies have more than kept pace with population growth. However, this has not been universal. In 28 countries, with a total population of 357 million in 1980, supply availability and dietary levels have declined.

The reasons for the widely varying positive and negative experiences of developing countries are to be found in a complex interrelationship of supply and demand factors. In the following analysis, such factors are briefly reviewed for two groups of countries that were selected from a total of 90 developing countries on the basis of their experiences in changing their food situation. 9/

At one extreme, 28 countries with a population representing 16% of the 90 countries' total population showed declines in their DES between 1969-71 and 1979-81. Most of these are low-income countries and 11 of them are in Africa. At the other extreme, 27 countries (accounting for almost one-quarter of the 90 countries' total population) attained a

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9/ The same group of countries as in FAO, Agriculture: Toward 2000. (China is excluded from this group).

significant improvement in DES of 10% or more during the same periods. Only three of these are low-income countries, but 11 are in Africa.

Supply factors. As might be expected, changes in domestic food production played a major role in the changes in DES (Table 1-15). In the group of countries with improving DES, per caput food production (calorie weighted) rose by 0.3% a year, while in the other group with worsening DES it declined by 1% a year.10/ Between 1969-71 and 1979-81, this represented a supplement of approximately 65 calories a day to the average per caput DES of countries in the first group, and a loss of about 230 calories a day in the second one.

The impact of food production on DES was limited by the difficulties encountered by a majority of countries in expanding rapidly food production as measured in calories. Most countries achieving a high rate of food production have increased their production of livestock products, which have a relatively low-calorie content, at even higher rates.

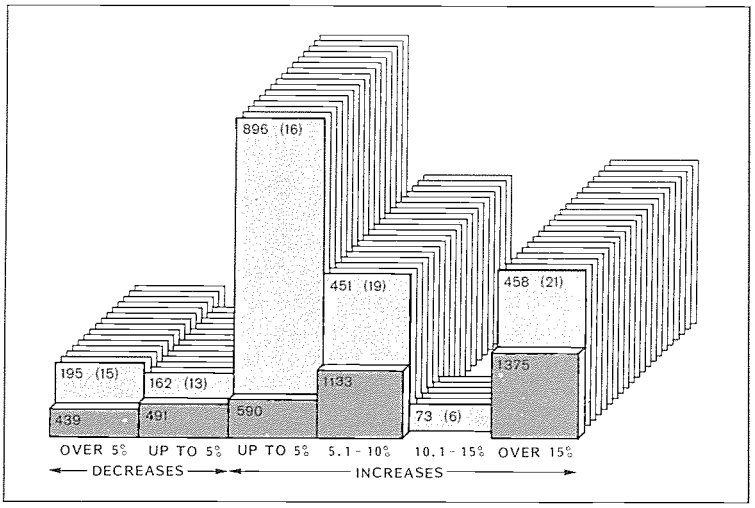

Figure 1 - 2

POPULATION, NUMBER AND PER CAPUT GDP OF 90 DEVELOPING COUNTRIES, BY CHANGES IN DIETARY ENERGY SUPPLY (CALORIES PER PERSON PER DAY) BETWEEN 1969 - 71 AND 1979 - 81

195 Population in millions

(16) No. of countries

491 Per caput GDP (1982 $) : not available for all countries in 10.1 - 15% increase group.

Source: FAO, Statistics Division.

Examples of these countries are Indonesia, the Philippines, Korea DPR and Rwanda but, except for Korea DPR, this accomplishment was also associated with rising food imports. In fact, improvements in DES were largely associated with the countries' capacity to import food. Between 1969-71 and 1979-81, the import share of DES of countries with increasing DES rose from 19% to 31%, whereas it went from 5% to only 9% in countries with decreasing DES countries. 11/ Such an increase resulted in an addition of 400 imported calories a day per caput in 'successful' countries and 70 calories in the other group. In other words, imports contributed approximately 80%-90% of the net increase in average per caput DES in the group of countries with increasing DES and compensated by nearly one-third for the losses incurred from reduced output in the other group.

10/ These preliminary estimates have been derived from the background work for the FAO, Fifth World Food Survey (forthcoming) and are subject to change.

11/ For developing countries as a whole, gross food imports represented nearly 8% of total food supplies (in calorie equivalents) in 1979-81, almost twice as much as ten years earlier.

TABLE 1-15. PER CAPUT FOOD AVAILABILITY INDICATORS, SELECTED DEVELOPING COUNTRIES, 1970s

		27 countries increasing DES a/	28 countries decreasing DES b/
Annual change in per caput food production, calorie weighted	(%)	0.3	-1.0
Population 1979-81	(millions)	531	358
Share of population of 90 countries	(%)	23	16
Annual change in volume of per caput food imports	(%)	7.5	0.6
Annual change in volume of per caput food imports, in caloric terms	(%)	8.5	3.5
Per caput DES suplies:			
- 1969/71 calories/day		2 214	2 209
- 1979/81 calories/day		2 689	2 050
Imported DES supplies as proportion of total DES:			
- 1969/71	(%)	19.4	5.1
- 1979/81	(%)	31.2	8.9
Growth of per caput GDP 1970/80	(%)	3.0	0.2
GNP per caput 1981	($)	1 235	326

a/ Countries with dietary energy supplies (DES) increasing by 10% or more during the 1970s.
b/ Countries with decreasing DES during the 1970s.

Sources: FAO, Statistics Division and World Bank.

Such improvements in DES from external sources imply for some countries a potentially untenable dependence on imported food. For the group of countries that significantly raised their DES, rapid increases in imports usually have been associated with the capacity to finance them. However, for the countries with declining levels of DES, the increasing dependence on imports has represented a financially burdensome way to compensate for inadequate production performances. Food imports occupy a higher share of total export earnings in this comparatively poor group despite its much slower increase of food imports in absolute terms.

There is doubt that past levels of imports can be maintained, given current levels of indebtedness and capacity to earn foreign exchange. In the two groups of countries considered, debt servicing absorbed a substantial and increasing share of export earnings (11% and 14% in 1981 in the countries with significantly increasing and decreasing DES, respectively). The increase in the debt service ratio since 1973 was lower in the group of countries with increasing DES (22%) than in the other group (33%).

Income and price factors. Changes in DES appear to be strongly related to demand factors: per caput GDP (as an indicator of the capacity to purchase domestic and imported food) and the price of food relative to wage rates (as a measure of the real price of food).

The group of countries that significantly increased DES, a group that includes many oil exporters and newly industrializing countries, had much higher and more rapidly growing levels of per caput GDP than the countries with decreasing DES (Table 1-15).

Many countries have increased their DES through food imports that seem to be highly correlated with income levels; those countries that increased their DES had a per caput income growth rate of 3% annually from 1970 to 1980 compared with 0.2% for those countries that were unsuccessful in raising their DES (Table 1-15).

Changes in the consumer prices of food are also important factors in determining the structure of food demand and changes in nutritional levels. In a group of 25 developing countries (9 African, 10 Latir American and 6 Asian) selected on the basis of data availability, extremely wide variations were found in levels of consumer food prices. However, a close correspondence was evident between food price changes and levels of DES. The real price of food (as deflated by average wage rates) declined in 12 countries, all of which recorded improvements (on average 8%) in DES between 1971-73 and 1979-81. For example, Nigeria, El Salvador, Mexico, India and Republic of Korea, where particularly positive results were achieved in reducing food prices relative to wages, recorded increases from 9% to over 40% in their levels of DES. On the other hand, the group of 13 countries with rising real prices of food showed a stagnating nutritional situation during the same period.

Feed utilization. At the time of the World Food Conference there was some discussion on the use of what were, at times, scarce food supplies to feed livestock rather than hungry humans. This was in response to a greatly increased use of cereal as livestock feed by developed countries during the 1960s. However, from the early 1970s the increase has tended to level off. It is now in the developing countries, particularly those with higher incomes, where pressures for more livestock feed are strongest to sustain national livestock development plans.

Between 1969-71 and 1979-81 the global utilization of food commodities for livestock feed rose by 4% when measured in terms of calories a day per caput. A decline in feed use in some developed countries (mainly in North America and the Southwest Pacific) was more than offset by increases in developing countries (Africa 17%, Latin America 10%, Near East 36%, Far East 17% and ACPEs 100%). However, developing countries were still using only one-tenth as many calories from food used as livestock feed as developed countries by 1979-81.

On the whole, increasing feed use has resulted in an improvement in nutritional levels of developing countries, as measured by daily intake of animal protein. Again, however, wide differences among countries are found. Taking the two groups of countries described in Table 1-15, those with significantly increasing DES achieved an increase of 27% in daily intake of animal protein per caput during the 1970s, at the cost of increasing by 182% the calories used in livestock feed (Table 1-16). In contrast, those countries with decreasing DES hardly increased the use of calories for feed, but their per caput daily intake of animal protein declined.

TABLE 1-16. COMPARISON OF FEED USE, LIVESTOCK PRODUCTION AND CONSUMPTION OF ANIMAL PROTEIN, SELECTED COUNTRIES, 1970s

	Average increase in calories used in livestock feed	Average annual change in livestock production	Average change in intake of animal protein per day
	..... %		
25 countries with decreasing DES	1	2.3	-2
19 countries with significantly increasing DES	182	4.4	+27

Note: The number of countries in each group differs from those in Table 1-15 because of data limitations.

Sources: FAO, Statistics Division and Policy Analysis Division.

Some aspects of food aid. One of the more serious aspects of the food crisis of the early 1970s was the decline in shipments of food aid precisely at the time when they were most needed (Fig. 1-3). The volume of food aid was reduced by one-half during 1972-74 although, with rising food prices, its value remained broadly unchanged. As a consequence of this reduced volume, the share of cereal imports of low-income food-deficit countries covered by food aid plunged by more than one-half to 13%. This share recovered for a few years as the level of food aid regained 9 million tons a year by 1976/77, but by the early 1980s it again approached the low level of 1973/74. The increase of commitments to the Food Aid Convention to a minimum of 7.6 million tons in 1980 from the 4.2 million ton level of 1973/74, while still below the objective set by the World Food Conference of 10 million tons, nevertheless provides some cushion against drastic reductions in food aid shipments.

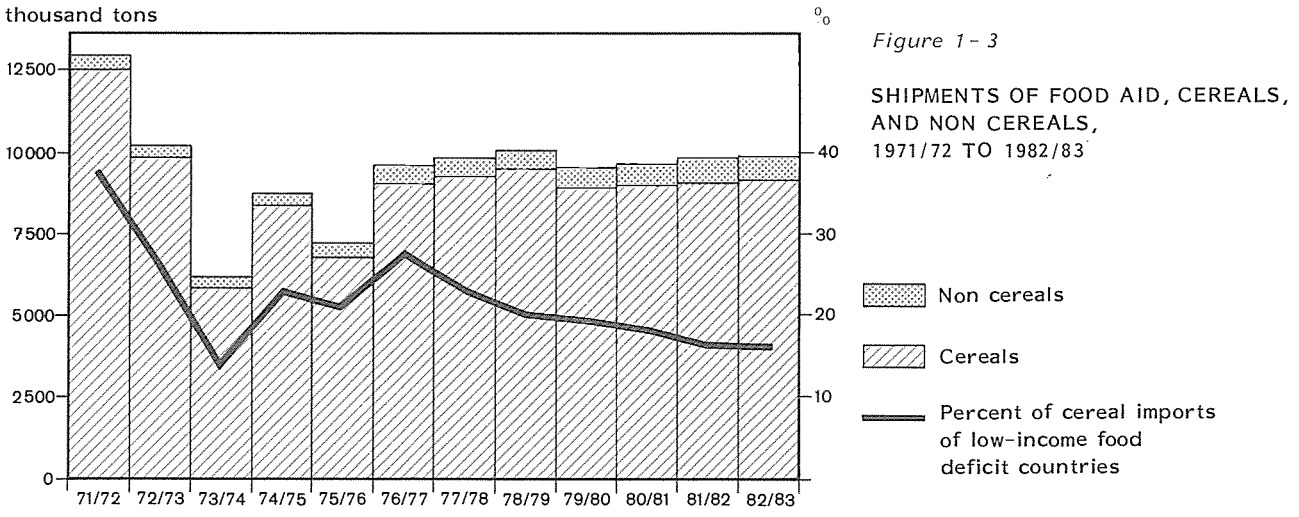

Figure 1-3

SHIPMENTS OF FOOD AID, CEREALS, AND NON CEREALS, 1971/72 TO 1982/83

Source: FAO, Commodities and Trade Division.

Food aid does not contribute greatly to overall calorie supply, but it is important for many individual countries. Low-income, food-deficit countries imported about 13% of their food supplies in terms of calories in 1979-81. Food aid covered approximately one-fifth of these countries' imports, so that the overall proportion of calories from food aid was 2%-3%.

The main benefit of food aid is to lower the foreign exchange costs of food imports for nutritionally precarious low-income countries.12/ As incomes rise, as has been pointed out, food imports tend to increase rapidly and, in the majority of cases, food aid is phased out.

The emergency component of food aid was covered more adequately after the World Food Conference by the establishment of the International Emergency Food Reserve (IEFR) in 1975. Since 1976, emergency operations funded from its resources have risen from $12 million to $172 million in 1982, equivalent to 24% to 89%, respectively of the total cost of WFP emergency operations. However, in the early years of the IEFR, at a time when the cost of emergencies was rising fast, its funding was not reliable. Its replenishment target of 500 000 tons of cereals has been achieved only in 1981, 1983 and 1984. In view of the increasing requirements for emergency assistance, the need to put the IEFR on a more reliable footing remains.

Cereal stocks. The rapid decline in the level of global stocks of cereals was one of the more alarming features of the world food crisis. However, the decline occurred in stocks held by the main exporters; those held by others (mainly cereal importers, particularly the EEC) in fact tended to increase during 1972-74 (Fig 1-4). Since the late 1970s, stocks have tended to be more evenly shared among the main exporters and others (mainly China and India), although recently cereals stocks have increased only in a few major exporting countries.

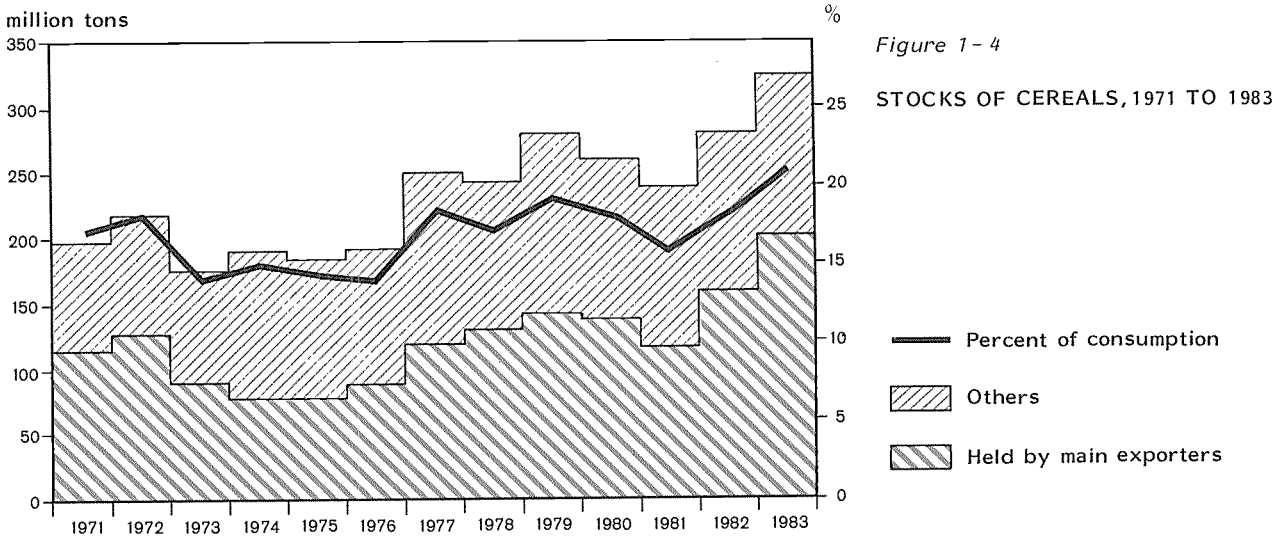

Figure 1-4

STOCKS OF CEREALS, 1971 TO 1983

Source: FAO, Commodities and Trade Division

12/ Barbara Huddleston, Closing the Cereals Gap with Trade and Food Aid, IFPRI Report No. 43, Washington D.C., January 1984.

BOX 1-3. CONSUMER FOOD PRICES AND WAGES

Changes in the consumer price of food are important factors in determining the structure of food demand and changes in nutritional levels. In a group of 25 developing countries (9 African, 10 Latin American and 6 Asian) selected on the basis of data availability, extremely wide variations were found in levels of consumer food prices. However, a close correspondence was evident between food price changes and levels of dietary energy supplies (DES). Real prices of food (as deflated by average wage rates) declined in 12 countries, all of which recorded improvements (on average 8%) in DES between 1971-73 and 1979-81. For example, Nigeria, El Salvador, Mexico, India, and the Republic of Korea, where particularly positive results were achieved in reducing food prices relative to wages, recorded increases from 9% to over 40% in their levels of DES. On the other hand, the group of 13 countries with rising real prices of food showed a stagnating nutritional situation during the same period.*

This analysis can be further expanded by examining the time of work required for low-wage earners (unskilled workers in urban areas) to purchase selected food products that are major components of their daily diets. Because of statistical shortcomings, this analysis is confined to only 18 developing countries.

Rice is a staple food in nine of the 18 developing countries covered. In these, the time of work required to purchase 1 kg of rice ranged from 12 to 212 minutes in the early 1970s and from 12 to 154 minutes ten years later. Despite its greater relative importance for Far Eastern countries, rice was much more costly in relation to wages of unskilled workers in this region in the early 1980s (79 minutes of work), than in Latin America (43 minutes).

Wheat and wheat products provided most of the total calorie supply in nine other developing countries. In the early 1970s, 6 to 32 minutes of unskilled work were required to purchase 1 kg of wheat in these countries, as against 10 to 54 minutes in 1980-82. Considering the 18 developing countries selected in the latter period, it took 34 minutes of such work to purchase 1 kg of wheat in the Latin American countries and 108 minutes in the Far Eastern ones.

In eight countries where beef meat was found to contribute significantly to the total animal protein supply, the purchase of 1 kg of this product involved 82 to 700 minutes of work in the early 1970s compared with 124 to 554 minutes in the early 1980s. As may be expected, costs of beef meat in Latin America, a major producer of this commodity, were noticeably lower than in other regions (257 minutes, one-third less than in the Far East). In the three African countries reviewed, the average was 627 minutes.

In seven countries, mainly in the Far East, fish contributes significantly to total annual protein supply. In these countries an unskilled worker had to work between 117 to 670 minutes to purchase 1 kg of fresh fish in the early 1970s; and 114 to 896 minutes in the early 1980s. In Far Eastern countries, the decreasing per caput supply of food fish has contributed to an increasing competition with beef. In the early 1980s, beef has become cheaper than fresh fish in all Far Eastern countries reviewed.

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* Wage and price data were those of ILO; food consumption patterns and calorie requirements were derived from FAO Food Balance Sheets 1979-81, 1984 and 1984 Country Tables.

The coordination of cereal stock-holding policies, in an attempt to stabilize global supplies, was a central element of FAO's International Undertaking on World Food Security endorsed by the World Food Conference. The conclusion of a new international wheat agreement with price and stocking provisions, which would be a major expression of support for the undertaking, has not yet been possible. Nevertheless, a few developing countries are beginning to hold larger stocks of cereals and use them for supply stabilization purposes. Furthermore, regional cooperation in the area of food security has been strengthened. Examples are the establishment of the Association of the Southeast Asian Nations' (ASEAN) Emergency Rice Reserve, the Southern Africa Development Coordination Committee (SADCC) in Africa, and the Committee for Action on Regional Food Security (CASAR) of SELA (Sistema Economico Latino Americano).

Food and Agricultural Production

Rates of increase in food production. From 1974--the year of the World Food Conference--to 1983, world food production, weighted by national prices, increased annually by 2.2%, nearly 0.5% above population growth (Table 1-17). In spite of their difficulties, developing countries (including China) expanded their food output at a rate approaching three times that of developed countries, but because of their much higher rate of population growth, the per caput growth rate was only a little more than double that of developed countries. Therefore, there has been an appreciable growth of over 10% in per caput food production of developing countries as a group since the World Food Conference.

The least developed countries (LDCs), most of which are in Africa, were a disappointing exception. Their per caput food production declined, and they remain a major cause for concern. Although food imports increased significantly during the 1970s, the importance of gains in domestic food production in sustaining dietary improvements in many developing countries, particularly the most populous among them, is clear.

TABLE 1-17. ANNUAL RATE OF CHANGE OF FOOD AND PER CAPUT FOOD PRODUCTION, BY COUNTRY GROUP, 1974-84

Country group	Food production	Per caput food production
	..... %	
World	2.2	0.4
All developed countries	1.3	0.6
All developing countries	3.3	1.2
Food aid priority countries	3.5	1.5
Developing oil exporters	3.4	0.6
Developing non-oil exporters	3.3	1.2
LDCs	2.1	-0.5
Low-income countries a/	3.6	1.6
Developing countries other than low-income	2.9	0.3

a/ As defined by the World Bank, with GNP per caput up to $410 in 1982.

Source: FAO, Statistics Division.

The majority of developing regions have failed to achieve the minimum indicative goals of food production increases discussed by the World Food Conference (Table 1-18).13/ Only Asia and the Far East accomplished the

13/ The conference did not specifically adopt these regional goals but rather the overall and higher annual growth rate of 4%. United Nations Resolution 1, Report of the World Food Conference, E/CONF. 65/20, New York 1975.

goal of 3.4%. Indeed, ACPE exceeded it, but entirely because of China's progress. Africa achieved only one-half of the region's goal (1.9% against 3.8%); the Near East about 65% of its goal (2.6% against 4.0%); and Latin America about 80% of its goal (3.0% against 3.6%). In all regions except Africa, population actually increased at lower rates than had been projected. The actual production shortfalls in relation to the conference's targets were nonetheless significant.

The overall performance of food production in developing countries also conceals widely differing rates of production gains by country in relation to population growth (Fig. 1-5). Since 1974 food output has been rising by more than 3% a year in 28 countries (including China) with a total population of approximately 2 600 million people, out of the total of 105 countries shown. Furthermore, for almost all of these 28 countries, food production growth was faster than that of population growth. On the other hand, food production did not keep pace with population growth in 50 countries, which had a total population of 566 million people.

The stability of food production. An important issue concerns the stability of food production. Has production become more or less stable since the early 1970s, and have the cases of improved food production performances been associated with greater instability? Using data from 38 developing countries that represent about 80% of food production of all developing countries, the following observations can be made:

- In 19 countries, food production was more stable in 1971-80 than it had been in 1961-70; in 17 it was less stable; and in two it was unchanged.

- Higher rates of increase in food production in the 1970s do not seem to be associated with greater instability compared with the 1960s. In the 1970s, 19 countries of the 38 achieved higher rates of increase in food production than in the 1960s. Of these, only eight showed higher average deviations from the trend.14/

Production of food and non-food products. Another important issue relates to the relationship between the domestic production of food and non-food agricultural products. Some analysts believe that since the two groups of products compete for land and other resources, a disappointing performance in food production stems in part from an overemphasis on non-food production. An opposing view is that the improved technologies and husbandry adopted for non-food agricultural products--often cash or export crops--spill over into food crops as well. Improved cash flows also can help intensify the input use for food crops.

The evidence provided by the same 38 countries for the period 1974-83 appears to question both views. There was no significant correlation, either negative (that would support the first opinion) or positive (that would support the second), between the growth rates of food and non-food agricultural production.

The changing pattern of food production. The final issue dealt with here concerns the changing pattern of food production, largely in response to shifts in food demand. Between 1974-75 and 1982-83 there have been quite significant changes in what is normally a slowly shifting pattern (Table 1-19). There has been a clear shift to livestock production (and

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14/ Other studies, for example, by the International Food Policy research Institute, which point to the increasing instability of production since the early 1970s, refer to cereals and not 'total' food.

TABLE 1-18. PROJECTIONS AND EXTRAPOLATIONS TO 1985 OF FOOD DEMAND AND PRODUCTION IN DEVELOPING COUNTRIES AND COMPARISON WITH ACTUAL TRENDS OF FOOD PRODUCTION AND POPULATION, 1974-84

	Food demand growth	Food production		Population	
	1974a/	Extrapolation to 1985	Actual trend 1974-84	Extrapolation to 1985	Actual trend 1974-84
	..... %				
Developing market economies	3.6	2.6	3.0	2.7	2.5
Africa	3.8	2.5	1.9	2.9	3.1
Far East	3.4	2.4	3.6	2.6	2.3
Latin America	3.6	2.9	3.0	2.8	2.4
Near East	4.0	3.1	2.6	2.9	2.7
ACPE	3.1	2.6	4.1	1.6	1.4
All developing countries	3.4	2.6	3.3	2.4	2.1

a/ World Food Conference projections, 1974.

Sources: UN World Food Conference, The World Food Problem, Rome, November 1974; FAO, Commodity and Trade Division, and Statistics Division.

Figure 1-5 ANNUAL RATE CHANGE OF FOOD (CROPS AND LIVESTOCK) PRODUCTION IN RELATION TO POPULATION GROWTH FOR 105 DEVELOPING COUNTRIES, 1974-1984 *

Rate of change of food output (%)	POPULATION GROWTH (%)						1984 Population (millions)
	1.5 and below	1.6 to 2.0	2.1 to 2.5	2.6 to 3.0	3.1 to 3.5	3.6 and above	
-3.0 and below	TRINIDAD AND TOBAGO					SAUDI ARABIA	11.9
-2.9 to -2.0			LESOTHO		GHANA		14.5
-1.9 to 0.1	KAMPUCHEA DOMINICA PUERTO RICO		GAMBIA YEMEN	PERU NAMIBIA NICARAGUA	ZIMBABWE ZAMBIA SENEGAL	BOTSWANA MOZAMBIQUE GUINEA-BISSAU	78.4
0.0 to 0.9	JAMAICA	MAURITIUS BURUNDI	CAMEROON HAITI GUYANA DEM. YEMEN GUINEA	BOLIVIA COSTA RICA	ANGOLA		49.3
1.0 to 1.5	GABON URUGUAY SAMOA AFGHANISTAN	SIERRA LEONE	CENTRAL AFRICAN REP. NEPAL DOMINICAN REP.	MADAGASCAR SUDAN TUNISIA			84.6
1.6 to 2.0	CYPRUS	CHILE BARBADOS	CHAD BURKINA FASO	ZAIRE EGYPT EL SALVADOR	MOROCCO UGANDA ALGERIA ECUADOR LIBERIA	KENYA SOMALIA	203.3
2.1 to 2.5	CAPE VERDE	REUNION	PANAMA CONGO ETHIOPIA MALI	BENIN PAPUA NEW GUINEA TOGO	VENEZUELA		76.1
2.6 to 3.0	KOREA REP.	ARGENTINA BHUTAN	TURKEY COLOMBIA	BANGLADESH GUATEMALA MALAWI MAURITANIA	IRAN NIGERIA	LIBYA	403.3
3.1 to 3.5	LEBANON		INDIA	MEXICO	TANZANIA PAKISTAN PARAGUAY		950.7
3.6 and above	CHINA CUBA SURINAME	SRI LANKA INDONESIA	BRAZIL BURMA KOREA, DPR MALAYSIA THAILAND VIETNAM	NIGER PHILIPPINES SWAZILAND JORDAN LAO	RWANDA SYRIA	BRUNEI HONDURAS IRAQ IVORY COAST	1655.0

Prod. > Population Prod. = Population Prod. < Population

Source: FAO, Statistics Division.

* The figure refers to net food production, which represents disposable production minus domestically produced and imported seed and feed. Differences between net and gross production can be considerable in the cases of countries importing large quantities of feed. For instance, gross food production in Saudi Arabia rose by 9.5% annually between 1974 and 1984, but declined by 5.5% in net terms during the same period because much of the increase in food production was in livestock products based on imported feeds.

within that, to meat). This would be expected as per caput incomes rise. Within crops, there appears to have been a reduction in the share of cereals except in the case of the developed countries, Latin America and the developing oil exporters. The relative shift in agricultural production in Africa away from cereals is particularly striking. It may reflect the prolonged droughts in parts of the region that reduced cereal output.

TABLE 1-19. SHARES OF SELECTED COMMODITY GROUPS IN TOTAL AGRICULTURAL OUTPUT IN 1982-83 AND PERCENTAGE CHANGE IN THE SHARES, 1974-75 TO 1982-83

	Shares in 1982-83		Changes in shares 1974-75 to 1982-83			
	Crops	Livestock	Crops	Cereals	Livestock	Meat
	.....		%	.....		
All developed countries	48.9	51.1	-0.4	1.4	0.4	0.7
All developing countries	75.3	24.7	-2.6	-0.3	8.8	9.4
Africa	73.3	26.7	-5.2	-8.3	17.6	13.8
Far East	82.0	18.0	-1.7	-2.0	8.4	11.1
Latin America	64.6	35.4	-2.4	1.8	4.7	6.2
Near East	65.4	34.6	-3.1	-5.4	6.5	5.0
ACPE	79.8	20.2	-3.2	-2.3	14.8	16.8
Developing oil exporters	71.1	28.9	-6.0	1.2	18.4	14.8
Low-income countries (up to $410 per caput GNP in 1982)	79.9	20.1	-2.4	-	11.0	17.8

Source: FAO, Statistics Division.

Fertilizers. "In the present state of agricultural technology chemical fertilizers constitute one of the most important single means to increase food production."15/ This statement introduced the fertilizer section in the document discussed by the World Food Conference and remains true today.

A physical shortage of fertilizers and high world prices for fertilizer materials characterized the fertilizer sector at the time of the 1972-74 world food crisis. Consumption levelled off in developing countries and declined in developed ones for the first time since the end of World War II (Figures 1-6 and 1-7). These high prices, however, generated large new investments in fertilizer capacity, prices fell and consumption continued to expand during the 1970s. Since 1980, however, consumption has again levelled off as a consequence of another surge in prices resulting from the second oil shock of 1979, the effects of the recession on the agriculture sector, and international debt payment problems that curtailed imports. The effect of price increases on consumption since 1979 would have been even more severe if domestic fertilizer prices at the farmgate had closely followed world market prices. By and large they do not because of subsidies or because governments set domestic prices that are not fully linked to world prices.

Since mid-1980, fertilizer prices (expressed in U.S. dollars) dropped on world markets and fears were expressed by the FAO Commission on Fertilizers in early 1983 that sufficient investment would not be forthcoming to maintain adequate capacity in the industry.

15/ UN, The World Food Problem: Proposals for National and International Action, E/CONF. 65/4, Rome, August 1974, para 110.

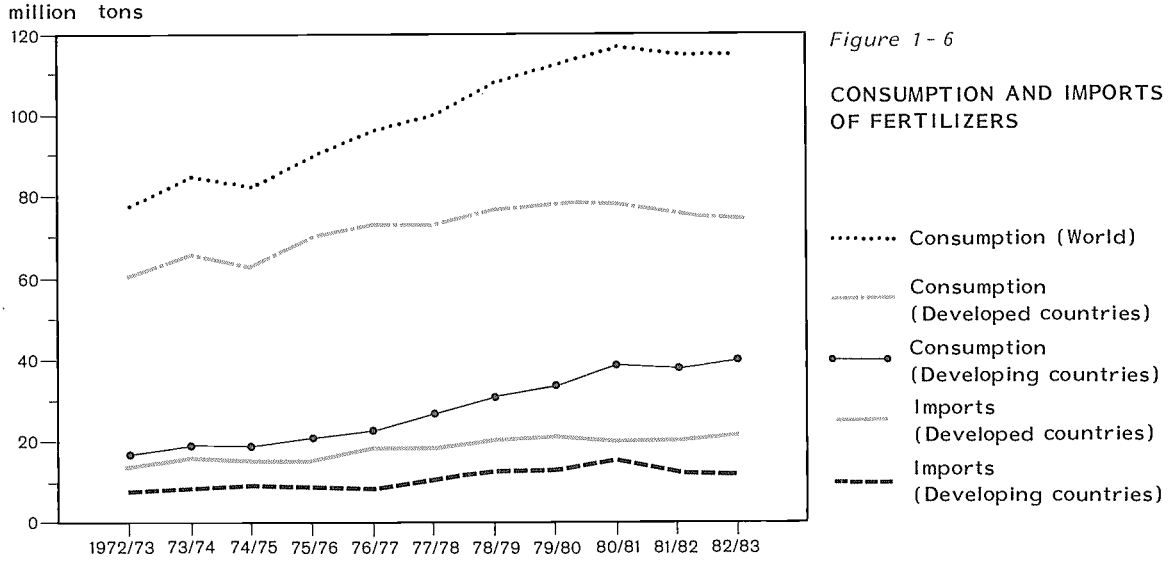


Figure 1 - 6

CONSUMPTION AND IMPORTS OF FERTILIZERS

Source: FAO, Statistics Division.

Two important current issues in the fertilizer sector are as follows:

a) Many developing countries, including some of those importing relatively large quantities of fertilizers, are facing severe debt financing problems. This situation, combined with low prices for agricultural commodities, has resulted in a decline in imports of fertilizers by developing countries. Only part of this decline can be explained by an expansion of their domestic fertilizer production capacity.

Nevertheless, for 21 of the 30 major developing country importers of manufactured fertilizers, expenditures on fertilizer imports constituted a declining share of total export earnings between 1974-75 and 1980-81. This share is relatively large in some countries such as Bangladesh, 16% in 1980-81, and 11%-12% for India and Pakistan. The means to allow such countries to maintain their supplies of fertilizers during periods of external payment problems have been considered, such as expanding the coverage of IMF's cereal import facility to include fertilizers. In some cases, the World Bank and regional development banks are financing fertilizer imports to maintain the impetus of agricultural development projects.

The International Fertilizer Supply Scheme (IFS) was established by the FAO Council in 1974 on the recommendation of the Commission on Fertilizers to channel fertilizer supplies to countries most seriously affected by the crisis of 1973-74. Unfortunately, its resources have dwindled in recent years, although contributions totalling over $5 million have been made by Italy, Ireland and Austria.

b) The supply-demand balance that has characterized the fertilizer sector in the past few years may deteriorate as a long-term result of low world dollar prices in 1982 and 1983 (for some kinds of fertilizers there was little increase in nominal terms in 10 years) and the consequent lack of investment in new fertilizer facilities.

Production of nitrogenous fertilizers involves high capital investment costs and depends on the availability and cost of natural gas, the preferred feedstock. Production of phosphatic and potassic fertilizers is less capital intensive, but depends more on the costs and location of raw materials.

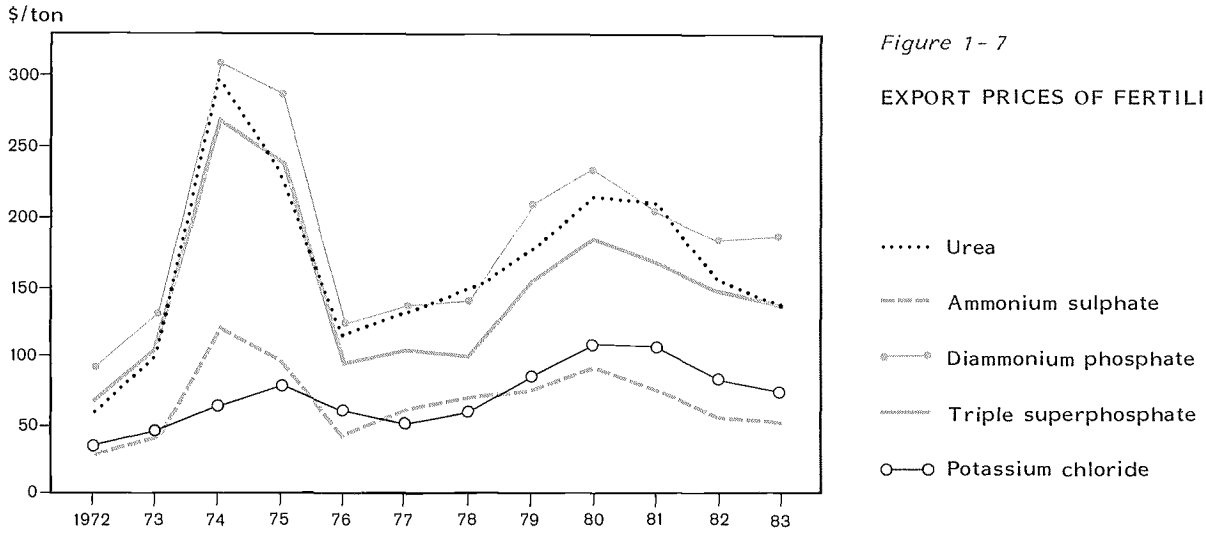


Figure 1-7

EXPORT PRICES OF FERTILIZERS

Source: FAO, Land and Water Development Division.

Taking these factors into consideration, the June 1984 forecast of the FAO/United Nations Industrial Development Organization (UNIDO)/World Bank Working Group on Fertilizers indicates a comfortable supply-demand balance for phosphatic and potassic fertilizers during the next five years. However, there is a potential supply constraint for nitrogenous fertilizers beyond this period unless the necessary investments are made soon. (See section on fertilizers in "Current Situation and Outlook").

Structural Changes in Agricultural Trade

The economic instability that characterized the international environment during the post-1973 period had profound repercussions on the magnitude, destination and composition of agricultural trade. 16/ The expansion in the volume of world merchandise trade slowed down from 8.5% in 1963-73 to 4% in 1973-80 and stagnated in 1981-82. While a small recovery was observed in 1983, it was only in 1984, when the recovery entered a more mature phase, that world trade regained its dynamism. In fact, GATT estimated that the volume of world trade in the first nine months of 1984 was 8.5% higher than the same period in 1983.

Declining role of agriculture in world trade. Despite the rapid increase in world agricultural exports (about 4.2% annually in constant value terms between 1970 and 1981 and significantly greater than the growth of world agricultural output of about 2.5%), the share of agriculture in total merchandise trade declined from 21% to 15%. The composition

16/ Unless otherwise stated, "agricultural trade" refers to trade in crops, livestock, fisheries and forestry products.

of world trade was radically altered by the emergence of petroleum as a major source of export earnings. The share of manufactures in world exports also declined, though less markedly than agriculture (Figure 1-8).

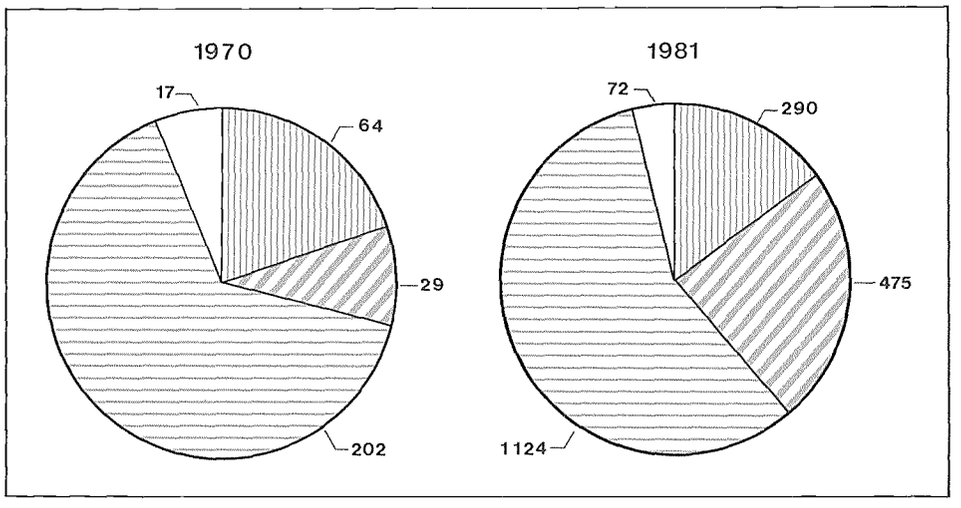


Figure 1-8

SECTORIAL STRUCTURE OF WORLD EXPORTS, 1970 AND 1981 (thousand million $)

Source: UN, Monthly Bulletin of Statistics, May 1983.

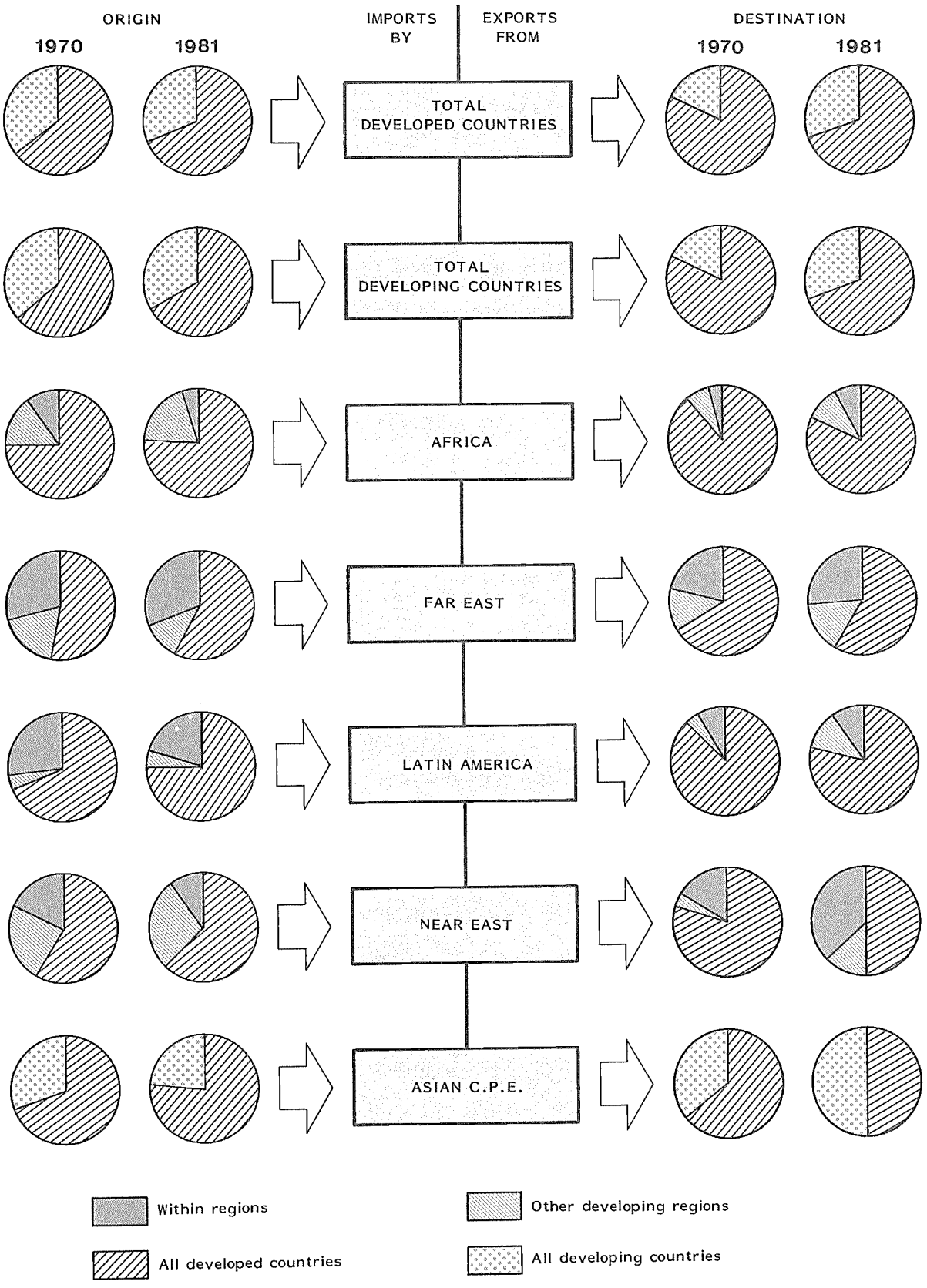
Agricultural trade flows. One major feature of the period reviewed was the change in the developing countries' position from net exporters to a net importers of crop and livestock products in 1981. Exports of developing countries rose 2.3% annually in constant value terms between 1970 and 1981, less than half the growth rate in developed countries. At the same time, agricultural imports of developing countries were expanding by nearly 9% annually in real terms, three times faster than imports developed countries.

On the side of agricultural imports, developed countries tended to rely more on supplies from other industrial areas. Among developing regions, only the Far East and Latin America succeeded in maintaining their shares of developed country total imports throughout the 1970s (about 9% and 14%, respectively). On the other hand, Africa's competitive position in developed country markets for agricultural products suffered a sharp deterioration, and its aggregate share of these markets declined from 8.5% in 1970 to only 3.7% in 1981.

The decline in the relative position of developing countries in world agricultural exports also reflected, to a large extent, the inability of Africa to capitalize on growing markets for agricultural commodities. With its agricultural exports declining by 2% a year in constant terms, Africa accounted for only 3% of the world total in 1981 compared to 8% in 1970. The other main exporting regions, the Far East and Latin America, maintained shares of around 12% and 10%, respectively.

The 1970s witnessed a gradual strengthening in the position of developed countries as world agricultural exporters and a growing diversification in their export markets. Agricultural exports from developed countries represented 71% of world exports in 1981, compared to 67% ten years earlier. The counterpart of this increase was a reduction in the respective shares of developing countries, where difficulties of access to markets in some developed countries largely offset the moderate expansion that took place in agricultural trade between and within developing regions (Figure 1-9).

Figure 1 - 9 AGRICULTURAL* TRADE OF DEVELOPED AND DEVELOPING REGIONS, PERCENT SHARES BY ORIGIN AND DESTINATION, 1970 AND 1981



Source: UN, Monthly Bulletin of Statistics, May 1983.

* The definition of "agriculture" includes the following categories of the Standard International Trade Classification (SITC): 0+1+2+4 -27 -28.

A growing penetration of developed country agricultural exports in developing country markets also was evident, to varying degrees, in all regions. Most striking was the fast growth of shipments to Africa and the Near East that emerged as agricultural outlets of comparable importance to developed countries as the Far East and Latin America. The share of exports to Africa in total developed country agricultural exports rose from 3.8% in 1970 to over 7% in 1981, and that of the Near East from 1.7% to 5.4%. By comparison, the far more populous Far East region absorbed 8.3% of the total in 1981 and Latin America 6.4%.

The importance of markets in developing countries for the developed country agricultural sector is shown by the fact that 11 OECD countries (out of a total of 24) are net agricultural exporters to developing countries, or 42% 17/ of OECD agricultural exports go to developing countries, and these exports are equivalent to 14% of OECD agricultural GDP.

An important factor behind the strengthening in import demand from developing countries was the emergence of oil-exporting countries as major markets for agricultural products. Agricultural imports by Near Eastern countries rose by nearly 14% a year in constant value terms between 1970 and 1981 compared with 9% for developing countries as a whole. The Near East accounted for over 7% of world agricultural imports in 1981 compared to only 2-3% in the early 1970s.

Agricultural trade between and within developing regions tended to intensify although industrial nations still remain by far the main recipients of developing country agricultural exports.

Trade in agricultural products between developing regions during the 1970s increased twice as fast as their agricultural exports to developed countries. As a result, the share of agricultural trade between developing regions of their total agricultural exports rose from 19% to 31% between 1970 and 1981. Latin America and the Far East showed increasing surpluses in their agricultural trade with the other developing regions, while the Near East and Africa were net importers. Latin American exports to other developing regions, almost negligible in 1970, exceeded trade within Latin America in 1981. Africa and the Near East became increasingly important outlets for Far Eastern and centrally planned countries.

The intensity of trade between developing regions varied considerably, but was on the whole smaller (by about one-third) than trade within regions. Latin America and the Far East relied primarily on their own regions for their agricultural imports, while purchases by the Near East and Africa were increasing from other regions.

Agricultural trade within economic integration groupings and clearing arrangements such as ASEAN remained relatively small. The share of intra-trade among the major 11 groupings covered by UNCTAD studies ranged from about 8% to one-quarter of their total agricultural exports in 1980. 18/ However, agricultural trade within such groupings and arrangements increased considerably faster than their total agricultural trade during the 1970s.

17/ This percentage differs from that shown in Fig. 1-9 for total developed countries. This is because OECD calculations are based on a more restrictive product coverage (in particular, they exclude forest products) than used here. Also, the statistical category "total developed countries" in Fig. 1-9 includes both OECD and centrally-planned developed countries.

18/ See Trade Flows Among Developing Countries Participating in Clearing Arrangements, UNCTAD/ECDC/129.

Commodity composition of agricultural trade (crops and livestock). The instability that has characterized international commodity markets is responsible for wide year-to-year changes in the relative weight of individual commodities in the value of agricultural trade. Taking as reference points the annual averages for the periods 1971-73 and 1980-82, the following overall features and trends can be observed in Fig. 1-10.

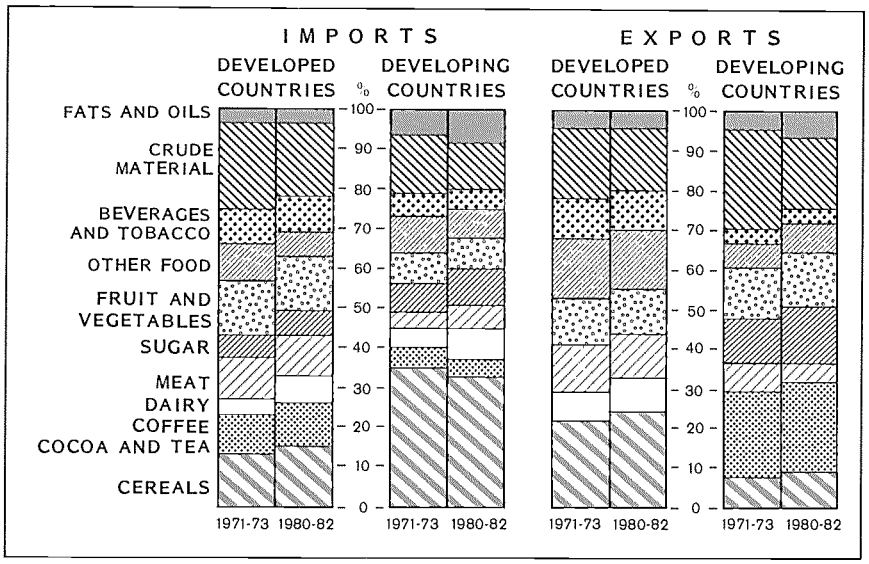


Figure 1-10

COMMODITY COMPOSITION OF AGRICULTURAL TRADE, DEVELOPED AND DEVELOPING COUNTRIES, 1971-73 AND 1980-82

Source: FAO, Stotistics Division.

Food products accounted for the greater part of total agricultural trade in both developed and developing countries. The share of food in total agricultural trade tended to increase, mainly at the expense of agricultural crude materials.

Cereals represented the largest group of agricultural export commodities, comprising nearly one-fourth of the total value of developed country agricultural exports and one-third of developing country agricultural imports.

Cereals and animal products accounted for nearly half of developed country agricultural exports. The relative importance of cereals and dairy products tended to increase while that of meat declined.

A high degree of concentration characterized the structure of developing country exports. Tropical beverages (coffee, cocoa and tea) provided nearly one-quarter of their agricultural exports during 1980-82 as against 21% during 1971-73. Nearly one-half of a group of 87 countries depended on these price-volatile commodities for 30% to over 90% of their total agricultural export earnings. 19/ Fruits, vegetables and sugar--the latter, another commodity with highly volatile free market prices--made up another quarter of developing country agricultural exports.

The declining role of crude materials in developing country exports was particularly striking: from one-fourth of the total to 17%. The decline was mostly because of smaller exports of textile fibres, although oil-seeds and natural rubber also lost ground.

19/ Developing country export earnings from tropical beverages fluctuated by 22%, on average, around their mean value from the mid-1960s to the late 1970s.

Developing countries imported significantly more meat, dairy products and sugar. The commodity composition of trade between developing countries was highlighted by the following:

- The share of trade between developing countries in relation to total trade rose in practically all commodity groups, with the notable exception of live animals.

- There was a high growth in trade of vegetable oils, fruits, and vegetables, sugar and animal feed, in contrast to the stable shares of more traditional exports, such as rice, tea, cotton, coffee, rubber and oil-seeds.

- Developing countries represented the main market for most processed foods exported by other developing countries, while most raw materials were exported to industrial countries.

Economic significance of food imports. For a large number of developing countries, food imports became an increasing and sometimes unbearable economic burden during the 1970s. In 60 of 111 countries, the food import-export ratio deteriorated. In both Africa and Latin America, the majority of countries showed adverse trends. In 21 countries food import expenditures represented half or more of total export earnings. Food imports were less of a burden for some countries (Seychelles, Comoros, Martinique) that rely primarily on non-merchandise transactions and remittances for earnings of foreign exchange, and for others (Egypt, Somalia, Jordan) where food aid has represented 20% to 25% of total food imports. However, in other mainly African countries (Benin, Gambia, Burkina Faso, Senegal), increasing recourse to food imports resulted in a decline in other imports crucial for development.

The situation appeared less unfavourable at an aggregate level. For developing countries as a whole, food imports during 1980-82 accounted for around 10% of total export receipts--down from 13% during 1971-73. However, the food import-export ratio ranged from 8% in the Near East to 16% in Africa. It tended to deteriorate in Africa but improve in Latin America and, more markedly, in the Far East. It remained stable in the Near East where food imports rose as rapidly as oil-based export earnings.

Agricultural and food imports in relation to income levels. Developing country agricultural imports, in the aggregate, are heavily concentrated in a small number of newly industrialized oil-exporting countries. In the populous Far East region, the Republic of Korea, Hong-Kong and Singapore, together accounted for nearly 60% of the region's total agricultural imports in the early 1980s. In Latin America, more than one-half of total imports were made by three of the highest income countries in the region--Brazil, Mexico and Venezuela--and in Africa, by Algeria, Morocco and Nigeria.

Taking food alone, the following features emerge about the relationship of food imports and per caput incomes (Table 1-20):

- Even though the absolute levels of per caput food imports in low-income countries ($4.20 in 1980-81) were minimal in relation to high-income developing and developed countries (nearly $58 and $100, respectively), they absorbed a comparatively larger proportion of per caput incomes in most of the periods considered.

- However, low-income countries appear to have encountered greater difficulties in bridging the food gap through imports. While per caput food imports rose faster than per caput incomes in all groups of countries, the increase in food imports was much smaller

in poorer countries where per caput income rose at half the rate of other income groups. As a consequence, there was an increasing gap between high- and low-income countries in the respective levels of both per caput income and per caput food imports.

TABLE 1-20. PER CAPUT FOOD IMPORTS, BY INCOME LEVELS, 1971-81

		1971-73	1974-76	1977-79	1980-81
DEVELOPING COUNTRIES					
Low-income a/					
Per caput income	($)	107	137	167	211
Per caput food imports	($)	1.90	3.90	3.20	4.20
Share of per caput income spent on imported food	(%)	1.8	2.9	2.3	2.0
Middle-income					
Per caput income	($)	262	440	626	788
Per caput food imports	($)	5.60	12.10	13.80	21.40
Share of per caput income spent on imported food	(%)	2.1	2.8	2.2	2.7
High-income					
Per caput income	($)	689	1 300	1 811	2 670
Per caput food imports	($)	11.00	24.70	34.80	57.70
Share of per caput income spent on imported food	(%)	1.6	1.9	1.9	2.2
DEVELOPED COUNTRIES					
Per caput income	($)	3 033	4 237	5 969	7 359
Per caput food imports	($)	35.30	61.30	78.60	99.50
Share of per caput income spent on imported food	(%)	1.2	1.5	1.3	1.4

a/ The 120 developing countries analysed were divided into three approximately equal groups with average per caput incomes as shown. Low-income countries are those with per caput income up to $410 in 1982.

Source: FAO, Policy Analysis Division.

TABLE 1-21. OFFICIAL TOTAL COMMITMENTS TO AGRICULTURE (BROAD DEFINITION), THREE-YEAR MOVING AVERAGES

	1974-76	1975-77	1976-78	1977-79	1978-80	1979-81	1980-82	1981-83
	..... $ millions							
Total at 1980 prices	8 219	9 138	10 044	10 994	11 326	11 825	12 730	13 426
Total at current prices	5 002	5 963	7 146	8 752	10 149	11 204	12 100	12 235
Multilateral sources	2 811	3 406	4 084	4 788	5 680	6 297	7 005	7 254
Bilateral sources	2 191	2 557	3 062	3 964	4 469	4 907	5 095	4 981
OFFICIAL CONCESSIONAL COMMITMENTS								
Total at current prices	3 244	3 816	4 682	5 935	7 049	7 753	8 029	7.583
Multilateral sources	1 355	1 553	1 945	2 300	2 939	3 263	3 424	3 163
Bilateral sources	1 889	2 264	2 736	3 635	4 110	4 490	4 605	4 420
OFFICIAL NON-CONCESSIONAL COMMITMENTS								
Total at current prices	1 757	2 147	2 465	2 417	3 100	3 451	4 071	4 651
Multilateral sources	1 456	1 854	2 139	2 488	2 741	3 034	3 581	4 091
Bilateral sources	301	293	326	329	359	417	490	561

Sources: FAO, Policy Analysis Division, and OECD.

Trends in External Assistance to Agriculture

Total and concessional commitments. The savings rate of developing countries (21% in 1981) is comparable to that of developed countries (22%). However, developing countries have had to rely much more on external sources of financing to maintain their faster growth of investment, which increased by 7.5% annually during 1970-81, compared to 1.7% for developed countries. Therefore, it is of particular concern that the momentum of flows of official development assistance, which characterized the mid and late 1970s, appears to be faltering. The rate of growth in official commitments to agriculture (OCA) (broad definition) 20/ has slackened since 1979 and concessional commitments actually declined between 5% and 6% during the three years centred on 1982 (Table 1-21). Non-concessional commitments have partially compensated for this decline, but add further to the debt problem of developing countries.

Commitments for the early 1980s were about 40% short of the internationally agreed estimate of annual requirements during the period 1975-80 of $8 300 million at 1975 prices (about $13 100 million at 1980 prices), an estimate that originated in documents prepared for the World Food Conference and then endorsed by it. OCA (narrow definition) increased by 10% annually in real terms during the late 1970s to reach $8 200 million in 1980 (Table 1-10). Even if this rate of growth of OCA had continued up to 1983, OCA would still have fallen short of the estimated annual requirement by more than $2 000 million. In fact, the rate of growth has been only 2.5% in the early 1980s. In this respect progress since the World Food Conference has been disappointing.

Regional distribution of commitments. Asia and the Pacific and the Africa regions increased their shares of concessional capital assistance to agriculture by 12% and 2% ,respectively from 1974-76 to 1980-82 (Fig.1-11). The regional shares of the of the Near East and Latin America

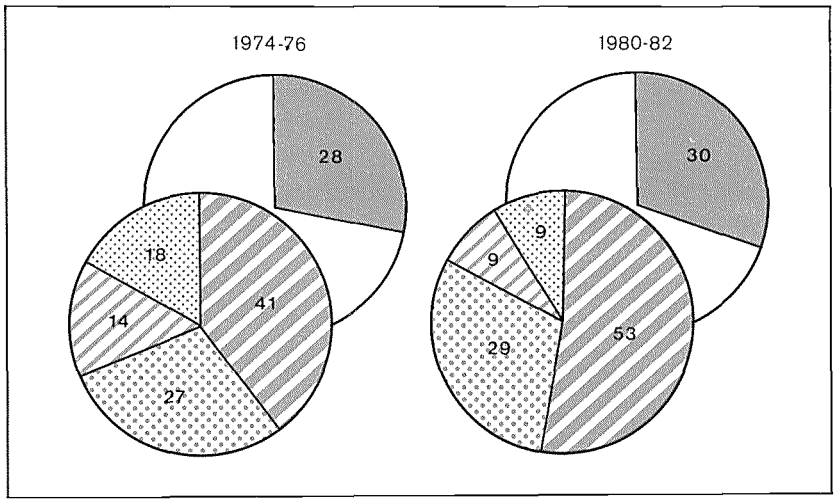


Figure 1-11

PERCENTAGE SHARES OF CONCESSIONAL CAPITAL COMMITMENTS TO AGRICULTURE IN THE FOUR DEVELOPING REGIONS AND LEAST DEVELOPED COUNTRIES

Source: FAO, Policy Analysis Division and OECD.

20/ The "broad definition" includes assistance directly to the agricultural sector, plus the following indirect activities: forestry, manufacturing of inputs, agro-industries, rural infrastructure and rural, regional or river development. The "narrow definition" corresponds to assistance directly to the sector. For complete definitions, see Explanatory Note or FAO, The State of Food and Agriculture 1981, p. 21.

decreased considerably in the same period. However, because of the great difference in regional populations, Africa receives more in per caput terms (Table 1-22). Indeed, the figures for Africa and the LDCs would be higher than those shown if technical assistance is taken into account because they receive the greater part of such assistance. However, a breakdown of technical assistance by recipient country is not available.

Allocation of capital assistance by purpose. Land and water development is the subsector receiving most of the capital assistance to agriculture in all regions except in Latin America, where the leading subsector is agricultural services. Over all regions, land and water received about 33% of all capital concessional assistance to agriculture (narrow definition) in 1980-82. This was followed by agricultural services (16%), inputs (14%) and crop production (13%). The share of research and training increased from less than 3% in 1974-76 to about 8% in 1980-82, but that of the livestock subsector fell to 4% in 1980-82 from 13% in 1974-76.

Although more capital concessional assistance went to fisheries and forestry in 1980-82 than in the mid-1970s, each still accounted for only 5%-6% of the total.

TABLE 1-22. CONCESSIONAL CAPITAL COMMITMENTS TO AGRICULTURE a/ IN FOUR DEVELOPING REGIONS AND IN LDCs,

	1974-76	1980-82	1974-76	1980-82
	... $ millions		... $ per caput ...	
Asia/Pacific (excluding China)	526	2 221	0.30	0.90
Africa	352	1 195	1.10	3.20
Near East	178	395	1.00	1.80
Latin America	232	390	0.70	1.00
Total b/	1 287	4 201	0.40	1.30
of which LDCs	365	1 258	1.50	4.30

a/ Agriculture includes all the purposes in the narrow definition, plus forestry.

b/ Total refers to capital commitments only, and therefore does not agree with the totals of Table 1-11 that cover all commitments, including technical assistance.

Sources: FAO, Policy Analysis Division, and OECD.

4. NATURAL RESOURCE SECTORS

Fisheries

Importance of fisheries. Fish is one of the most widely distributed food commodities in the world. It is generally less subject to social or religious restrictions on its consumption and probably less confined geographically in its production than many livestock products. It presently contributes about 6% of total protein supplies and, taking into account the indirect contribution of fishmeal fed to animals, about 24% of the world's animal protein supplies. Variations in the pattern of consumption are determined both by cultural factors--resting historically on availability--and on income levels. Thus the highest levels of consumption are found in Japan, Iceland, Norway and Denmark. However, the most vital nutritional impact of fish is in the developing countries of Asia and Africa where animal protein supplies are generally low, but where a high proportion are provided by fish.

For many developing countries, fish is an indispensable item of daily diets. About 60% of the population of the developing world derive 40% or more of their total annual protein supplies from fish. Fish and fish products are not only highly nutritious, with protein content varying between 15% and 20%, but their biochemistry and amino-acid characteristics make them particularly efficient in supplementing the cereal and tuber diets widely consumed in Asia and Africa.

Apart from its role as a provider of food, fishing is an important source of employment and also of income generation through the inducement it provides for the establishment of secondary industries. Present estimates suggest that throughout the world some 15 million people are engaged directly in fishing, but such global figures give little indication of the vital importance that fishing has for many small coastal communities that have little alternative employment opportunity. Taking into account dependents and those engaged in processing, marketing and ancillary activities, several hundred million people rely, either wholly or partly, on fisheries for their livelihood.

Fish is also an increasingly important source of foreign exchange earnings. World exports of the major fishery commodities now exceed $15 000 million annually, and while international trade in fish and fishery products is still dominated by the developed countries, developing countries are taking a larger share of this trade. Between 1974 and 1982 the volume of exports of fish and fishery products from developing countries doubled and their value trebled. The Republic of Korea, Mexico, Thailand, Peru, India, Chile, Indonesia, Mauritania, Senegal and Argentina are among those that have shown the most significant increases in fish exports.

Fisheries during 1973-1982. For fisheries, the last decade has been a period of far-reaching changes. The traditional concept of the freedom of the seas and the uncontrolled exploitation of fish stocks as a common property resource has been replaced, both in principle and as international and state practice, by recognition of the right of coastal states to national jurisdiction over the fish resources in zones extending typically 322 km (200 miles) from their shores. This new regime of the oceans is now embodied in the 1982 United Nations Convention on the Law of the Sea, and over 90% of the marine resources presently exploited now fall under national jurisdiction.

The new situation has evolved at a time when the nature of world fishing is undergoing a dramatic change. The rate of increase in the world fish catch has dropped sharply because many stocks of fish are either fully exploited or even overexploited. Whereas the total world catch grew by more than 6% annually from the late 1950s to 1970 from 28 million tons

to 62 million tons, since the early 1970s the average annual growth has been only 1.5%. A price-weighted output index shows a higher rate of growth than that of catch since 1970, although this rate is lower than it was previously (Fig 1-12). This was due mainly to a decline in catches of low-value species for fishmeal production and to higher prices for fish.

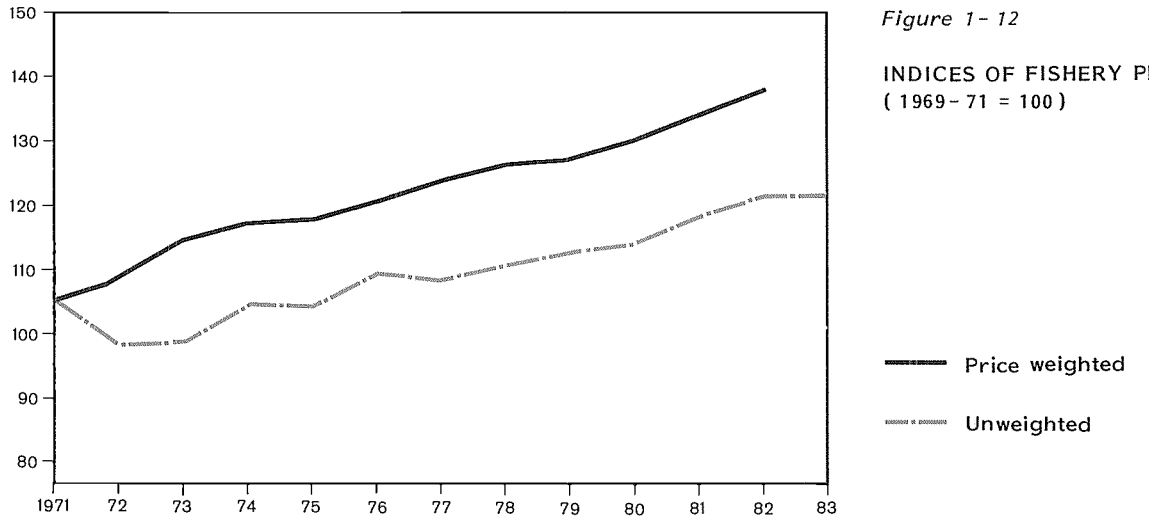


Figure 1-12

INDICES OF FISHERY PRODUCTION
(1969-71 = 100)

Source: FAO, Fishery Department.

World fish production in 1983-84. After increasing slowly but continuously for several years, the world fish catch in 1983, at 76.5 million tons, remained at about the level reached in the previous year (Table 1-23). The composition of catch changed, however, as the supply of food fish (compared with those destined for reduction to meal and oil) increased in 1983.

The developed countries, as a group, increased their catch for the fourth consecutive year by nearly 2% to 40 million tons. Most developing countries also increased their catch. However, as a group, their catch fell by 2% to 36.5 million tons. This decrease was mainly due to the fall of 2.3 million tons in the catches of Latin American countries. The principal factor contributing to this decline was the "El Niño" current, which adversely affected the small pelagic and tuna fisheries of Peru, Ecuador and Mexico. In Peru, landings declined by a massive 2 million tons--a 57% decline--while in Ecuador the catch also fell to less than one-half the level of 1982. However, Chile experienced an increase of 8% in landings and remained by a considerable margin Latin America's most important fishing nation, accounting for 44% of the region's total catch. In Mexico, the decline in landings of 250 000 tons was mainly in catches of sardines and anchovies.

Total fish production in Africa is estimated to have increased by some 280 000 tons, mainly due to higher catches by Namibia and Morocco that recorded increases of 70% and 23%, respectively. Some Asian countries also increased their catch: China (6%), Malaysia (9%), Indonesia (6%), India (8%), the Republic of Korea (5%), and Thailand (6%). The growth of production by the last two countries indicates that they were among those countries seriously affected by their exclusion from waters where they had traditionally fished.

TABLE 1-23. CATCH OF FISH, CRUSTACEANS AND MOLLUSCS, INCLUDING ALL AQUATIC ORGANISMS EXCEPT WHALES AND SEAWEEDS, COUNTRY GROUPS AND WORLD, 1974, 1981-83

	1974	1981	1982	1983	Change 1981 to 1982	Change 1982 to 1983	Annual rate of change 1974 to 1983	Annual rate of change 1979 to 1983
	million tons.				%			
Developing market economies	23.5	29.4	30.1	28.9	2.4	-3.9	3.2	1.6
Africa	4.0	3.3	3.3	3.6	0.3	8.7	-1.4	2.4
Far East	11.2	14.2	14.2	15.0	0.6	4.9	3.2	3.1
Latin America	7.4	10.5	11.3	9.0	7.8	-19.9	4.9	-0.6
Near East	0.7	1.0	1.0	1.1	2.8	8.0	6.2	5.1
Other developing market economies	0.3	0.4	0.2	0.2	-50.2	8.1	0.2	-16.8
ACPE	5.9	6.6	7.2	7.6	9.3	5.7	2.2	6.1
All developing countries	29.4	36.0	37.2	36.5	3.6	-2.0	3.0	2.5
Developed market economies	26.0	28.0	28.0	28.8	-0.2	2.9	1.1	1.5
North America	3.8	5.2	5.4	5.5	4.0	1.7	4.5	3.0
Oceania	0.2	0.3	0.3	0.3	12.0	8.4	5.9	8.9
Western Europe	11.3	11.3	10.9	11.1	-3.7	2.3	-0.5	-0.4
Other	10.7	11.3	11.4	11.9	1.0	3.9	1.2	2.6
Eastern Europe and USSR	10.6	10.8	11.2	11.2	4.1	-0.5	-	2.3
All developed countries	36.6	38.8	39.2	40.0	1.0	1.9	0.8	1.8
World	66.0	74.8	76.5	76.5	2.3	-	1.8	2.1

Source: FAO, Fisheries Department.

The increased catches of developed countries were largely due to the partial recovery of Norwegian and Icelandic stocks and to higher landings by the United States, Japan and Poland. On the other hand, such important fish-producing countries as Canada, Denmark, the United Kingdom, Spain and the USSR experienced lower landings in 1983.

Data for 1984 are still incomplete, but there is some evidence of a moderate increase in total catch. Landings at Japan's 51 major fishing ports, which account for about 55% of the country's total production, registered an increase of 7% in the first nine months of 1984, as compared to the corresponding period of 1983, due mainly to record sardine landings. However, much of the higher Latin American catch of small pelagics and the Japanese catch of sardines are being used for fishmeal production. In the food fish sector, increased supplies of herring (in Western Europe), Alaska pollack and shrimp were reported in 1984.

International trade in fish and fishery products in 1983-84. The new regime of the ocean is stimulating changes in the pattern of trade in fish and fishery products. In terms of access to raw materials, both developed and developing countries have lost freedom of access to grounds where they previously fished or now pay licensing or other fees. Obstacles, both tariff and non-tariff, still remain however, which prevent developing countries from reaping fuller benefits from international trade in fish products.

The total volume of fishery products entering international trade in 1983 stayed at the same level as in 1982, but its total value increased due to recovery in prices of many products as compared to 1982, when average prices were particularly low. Seven of the ten leading fish exporters are developed countries (Canada, the United States, Denmark, Japan, the Netherlands, Norway and Iceland) and three are developing countries (the Republic of Korea, Thailand and Mexico). Significant increases in food fish exports were reported in the United States (especially salmon), Norway (groundfish and shrimp) and Thailand (canned fish, particularly tuna). The major exporting nations reporting a significant fall in food fish exports were Japan (especially frozen and canned mackerel) and Mexico (tuna).

The global quantity of imports of fish did not change in 1983. However, there were changes in both directions, the most noticeable being a drop in fishmeal imports by developed and developing countries alike. Total value of world imports increased as a result of higher prices of some food fish products and fishmeal. Japan, the largest importer of fish products in the world, increased its share of world imports (13% in quantity and 24% in value) for the fourth consecutive year. Nearly half of the additional quantity of imports consisted of fishmeal. U.S. imports increased by 6% in quantity and 20% in value. However, EEC countries showed a decrease in imports by 7% in quantity and 5% in value.

Import data for developing countries indicate an overall marked fall of 15% in the quantity of fishery product imports, most notably of fishmeal. Developing countries as a group accounted for 23% of world imports of fishery products in quantity and 14% in value. On the basis of available data, imports of food fish fell for the second consecutive year by 5% in quantity, the African countries appearing to be especially affected.

The data available on international trade in fish and fish products indicate that in 1984 the volume of fish trade probably remained at the level of 1983, with a slight rise in value. Imports of low-value frozen and canned mackerel and canned sardines into developing countries continued their downward trend, while the United States imported greater quantities of high-value fish such as canned tuna and shrimp, partly due to the strength of the U.S. dollar. In the case of Japan, the major fish importer, 1984 imports of shrimp probably reached a new high level.

Developing countries appear to have continued to increase their share of world fish exports in 1984, possibly reaching 45% in import value terms, mainly because of increased exports of canned tuna and shrimp.

FAO World Conference on Fisheries Management and Development. This conference, held at FAO Headquarters from 27 June to 6 July 1984, was a unique and historic occasion in the evolution of the world's fisheries. It was unique in size and level of representation, being attended by 147 national delegations, many of them led by ministers, and representatives of over 60 international intergovernmental and non-governmental organizations. It was historic in scope and outcome, being the first time that nearly all nations of the world, large and small, came together to reach agreement on comprehensive action to confront the practical implications of the new ocean regime and to use fully the potential of fisheries as a vital source of food, employment and income.

The conference endorsed a comprehensive Strategy for Fisheries Management and Development, comprising guidelines and principles for consideration by governments and organizations when planning and implementing fisheries management and development. The strategy covers eight major elements: the contribution of fisheries to national economic, social and nutritional goals; improved national self-reliance in fisheries; the rational management and optimum use of fish resources; the special role and needs of small-scale fisheries; international trade in fish and fish products; investment in fisheries; economic and technical cooperation; and international collaboration in fisheries.

In order to assist developing countries in the implementation of this strategy, the conference also approved an integrated package of five action programmes, involving the estimated expenditures of $15 million over a five-year period and urged bilateral and international donor agencies to provide the necessary support:

(1) Fishery planning, management and development. The purpose of this programme is to provide countries with access to fisheries management and development skills through FAO technical advisory services and long-term training to strengthen national capabilities. Advisory services will include short-term, multidisciplinary missions to assist countries in the formulation of their national fishery policies, plans and projects. Assistance will cover such varied areas as identifying investment projects, harmonizing fisheries legislation, establishing control procedures for fishing operations within Exclusive Economic Zones (EEZs), and assessing the distribution and migration of shared stocks.

(2) Small-scale fisheries. This programme is designed to assist small-scale fishermen raise their standard of living through the integrated development of fishing communities, investment and credit support, improved training and extension services. The role of women in small-scale fish production, processing, marketing and family maintenance will be given special attention.

(3) Aquaculture. Aquaculture is a potentially excellent source of food supply, especially in poor, rural areas. The goal of this action programme is to give emphasis to the development of small-scale aquaculture as a source of protein supply, alternative employment, especially for women, and increased income. FAO's worldwide network of regional aquaculture development and research centres will be expanded and strengthened.

(4) International trade. To assist developing countries to benefit further from trade in fish and fishery products, specific efforts will be made to identify marketing opportunities, upgrade product quality and conclude more favourable trade agreements. This action programme will be based on the positive experiences of FAO's existing Market Information

Service for Fishery Products in Latin America (INFOPESCA) and the Asia-Pacific regions (INFOFISH). Similar information services are being established for African and Arab countries together with a computer-based world fish market indicator service. Studies will be made of the means of improving the structure of world fish trade and of the possibilities of creating a multilateral framework for consultations on international trade in fishery products.

(5) Fish as food. This programme aims at increasing food fish supplies to the poorest and weakest, through measures to improve utilization, handling and processing, to reduce post-harvest losses, to strengthen research into low-cost products and to include nutritional goals into national fishery policies.

The conference recognized the key, catalytic role of FAO in worldwide fisheries development and endorsed the delivery of subregional, regional and interregional development programmes through the network of technical support units associated with FAO regional bodies.

In addition to resolutions endorsing the strategy and approving the programmes of action, the conference adopted a resolution regarding the follow-up actions required to implement the strategy and action programmes. Six other resolutions dealing with various aspects of fisheries management and development were also adopted by the conference. These resolutions called for the greater use of fish and fish products in food aid programmes; for greater priority to fishery investment projects; requested intensifeid action to protect fish resources against pollution; proposed the proclamation of an International Year of the Fisherman; recommended increased support for the development of fisheries in land-locked countries; and called for the further promotion of technical/economic cooperation among developing countries (TCDC/ECDC) in fisheries.

Forestry

Roles of the forest. The forests of the world provide a renewable source of materials, energy and services for nations and communities, contributing to their social and economic well-being and forming a vital component of their environment.

Forests make up 4 100 million ha, or 30% of the world's land area. They are distributed between the temperate zone, with 2 050 million ha, of which about 1 650 million ha are closed forests; the tropical zone, which has some 1 200 million ha of closed forests and 550 million ha of open woodland; and the arid zone, which contains some 300 million ha of forests, mainly open woodland. There are, in addition, about 1 000 million ha of land classified under other uses than forest with some shrubs or woody vegetation.

Some 11 million ha of forests are lost each year as they are cleared for agriculture, destroyed or degraded by shifting cultivation, fuelwood gathering, overgrazing and burning. Total tree planting of 1 million ha a year in tropical countries makes up for only one-tenth of the area of forests annually cleared and destroyed. The uncontrolled destruction of forest in the humid tropics and arid zones is of major concern both for the future supply of forest products in these regions and for the maintenance of the forests' conservation functions. Solving this problem involves a complex series of issues, including improved technical understanding and the resolution of conflicting pressures for the use of land.

The annual production of roundwood from forests is around 3 000 million m^3. Nearly one-fifth of this quantity provides raw material for mechanically processed wood products as materials for housing, construction, furniture, packaging and communication, or for paper. About 80% of the 1 300 m^3 produced in developed countries is used for such industrial

BOX 1-4. 1985: INTERNATIONAL YEAR OF THE FOREST

At its Eighty-Sixth Session in November 1984, the FAO Council formally declared the year 1985 to be FAO's International Year of the Forest. The event will coincide with the United Nations' International Youth Year and FAO's 40th Anniversary (1945-1985). The annual World Food Day celebration will also emphasize the central role of the forest as a global concern as well as forestry's role in food security. One of the highlights of activities in 1985 will be the Ninth World Forestry Congress, to be held in Mexico City 1-12 July 1985, where the International Year is a central item on the agenda.

The main impetus for the designation of 1985 as the International Year of the Forest was the growing realization of the negative impact of deforestation that, in recent years, has been increasing at an alarming rate. According to FAO estimates, over 11 million ha of tropical forests are disappearing each year. Large expanses of forest in northern Europe and North America are being threatened by acid rain and by other forms of atmospheric pollution. Forest fires are causing extensive damage in the Mediterranean region. Deforestation in arid zones has hastened the advance of desertification.

In its declaration, the FAO Council expressed deep concern "at the lack of political awareness of the social, economic and environmental consequences of continued excessive deforestation and of neglect of the world's forest resources." One of the major goals, the Council said, was to ensure "that every possible measure should be taken urgently in every country to accelerate the process of heightening political awareness of the critical importance for the future of mankind of adequate attention being given to the world's tropical forests."

FAO will concentrate its efforts during 1985 on encouraging activities at the local, national, regional and international levels designed to raise such political awareness. A wide range of informational material is being prepared, including a poster, a fact sheet, news features, a leaflet, an information packet, a press kit, radio spots and various display material.

purposes. However, the same proportion of the wood cut in developing countries is used as fuel (1 377 million m^3 in 1983), with Africa depending for more than one-half of its total energy supply on fuelwood. Other forest products include fruits, gums, resins, fodder and the meat of wild animals.

The number of people with direct dependence on forest products may be illustrated by means of the estimate of 2 000 million rural people who depend on wood supplies for their domestic energy and the more than 200 million people living in the forests themselves. Protecting soil from erosion and enhancing water catchments are functions of forests important to agriculture and communities.

The problem of the status of forest ownership in many countries is a major issue threatening the ability of the forestry sector to continue to perform its multiple roles. With the growth of population, forests are often regarded as a form of common property. In many cases, the forest has degenerated into a degraded common, with everyone removing what they can, but no one being in a position to care for its future production. Such a problem can only be solved by a major reassessment involving both the local community and government agencies. This is because some functions of the forest, such as watershed protection and wildlife preservation, and hence, investment in reforestation, may not be in the obvious short-term interest of an individual.

Fuelwood and energy. Despite the massive increase in petroleum-based fuel prices during the 1970s, total consumption of energy in developing countries nearly doubled to 60 000 million gigajoules by 1980, an annual rate of increase of nearly 6%. 21/ Although the use of fuelwood in developing countries also expanded, its contribution to total energy declined, particularly in Asia. Africa remains the region depending most heavily on fuelwood for its energy supply, but even in this region, the contribution of fuelwood declined from two-thirds in 1980 to little more than one-half in 1980-82 (Table 1-24).

Rapidly rising prices for and consumption of energy by developing countries had major financial implications. In 1970, it is estimated that energy only absorbed about 2.5% of private consumption expenditure (PCE) of developing countries. By the late 1970s, however, this share had risen to 18%, with fuelwood accounting for between 4% and 5% of PCE. In Africa, the share of expenditure on fuelwood alone accounted for 10% of PCE, and for the LDCs of Africa, this share was double that or 20%.

However, fuelwood did serve to mitigate the rising cost burden of imported fuel. Developing country imports of fuel rose by 50% between 1970 and 1982. They represented 20% of these countries' total imports by the end of this period compared with only 6% at the beginning. This share rose the least in Africa where fuelwood makes the greatest contribution to energy.

In Latin America the costs of fuel imports rose during 1970-82 from less than 10% of total imports to over 35%. With the rising costs of oil-based energy, a new emphasis on traditional fuels has emerged at a time when their availability was reduced by widespread forest destruction and degradation. For the rural community this has represented both a challenge and an opportunity. Increased demand for fuelwood-based energy has enhanced the economics of growing wood for fuel. For example, the demand for fuelwood in Ougadougou, the capital of Burkina Faso, has provided an additional source of income to small-scale farmers in nearby accessible areas. However, the adequate management of this source of income calls for the allocation of increasing resources for investment in planting and conservation to ensure future supplies. The current level of investment is still low in comparison with that needed to sustain the supply potential of forests.

Trends in output, 1974 to 1983. The output of forest products increased rather slowly during the decade under review, most of the increase coming from increased production by developing countries and mostly for fuelwood (Table 1-25). The post-1979 recession in developed countries resulted in a sharp decline in housing construction and consequently a contraction in the demand for processed wood products and hence their production. Production of mechanically processed wood products was the most adversely affected by the recession, and their production by developed countries decreased from the late 1970s. However, output of pulp and paper products continued to grow slowly.

In developing countries, progress in economic development led to greater growth in the use of wood-based panels, sawnwood and paper. The demand for lumber and panels was stimulated in particular by urgent housing and other construction programmes created by the rapid growth of urban centres.

The early 1970s was a period when production of roundwood for export by developing countries expanded rapidly--the all time high of 50 million m^3 was reached in 1973. Levels at the beginning of the 1980s were 30% lower. This was a consequence of the policies of several developing countries to replace exports of unprocessed raw material with those of processed products, although the recession in the international timber market

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21/ 1 gigajoule = 1 000 million joules.

TABLE 1-24. PERCENTAGE SHARE OF ENERGY IMPORTS TO TOTAL IMPORTS, BY VALUE AND FUELWOOD CONSUMPTION TO TOTAL ENERGY CONSUMPTION AND INDEX OF ENERGY CONSUMPTION IN DEVELOPING COUNTRIES, 1970, 1975 AND 1982

	1970			1975			1982		
	Energy consumption index	Energy/ total imports	Fuelwood/ total energy	Energy consumption index	Energy/ total imports	Fuelwood/ total energy	Energy consumption index	Energy/ total imports	Fuelwood/ total energy
		..... %			..... %			..... %	
Africa	100	3.0	67.0	126	6.5	61.5	177	9.3	53.0
Asia and Far East	100	5.3	24.0	141	11.7	19.0	191	19.6	16.0
Latin America	100	9.7	21.0	133	24.4	18.0	180	53.3	16.0
Total developing countries	100	6.3	28.0	135	14.3	24.0	185	21.4	20.0

Source: FAO, Forestry Department.

TABLE 1-25. OUTPUT OF MAIN FOREST PRODUCTS, TOTAL DEVELOPING AND DEVELOPED COUNTRIES 1974, 1981-83

	1974	1981	1982	1983	Change 1981 to 1982	Change 1982 to 1983	Annual rate of change 1974 to 1983	Annual rate of change 1979 to 1983
	..... million m^3				..... %			
ROUNDWOOD	2 660	2 963	2 966	3 042	0.1	2.6	1.7	0.8
Total developing countries	1 381	1 631	1 662	1 686	1.9	1.4	2.3	1.6
Total developed countries	1 280	1 332	1 304	1 356	-2.1	4.0	1.0	-0.1
Fuelwood and charcoal	1 308	1 573	1 606	1 633	2.1	1.7	2.7	2.6
Total developing countries	1 139	1 321	1 351	1 377	2.3	1.9	2.1	2.1
Total developed countries	169	252	255	256	1.3	0.1	6.1	5.1
Industrial roundwood	1 352	1 390	1 360	1 409	-2.1	3.6	0.6	-1.0
Total developing countries	242	310	311	309	0.4	-0.9	3.1	-0.5
Total developed countries	1 111	1 080	1049	1 101	-2.9	5.0	-	-1.2
PROCESSED WOOD PRODUCTS								
Sawnwood and sleepers	425	423	413	451	-2.3	9.2	0.3	-0.7
Total developing countries	61	90	91	93	0.6	2.0	4.9	2.1
Total developed countries	364	332	322	359	-3.1	11.3	-0.7	-1.4
Wood-based panels	88	101	95	104	-5.5	9.1	1.6	-1.0
Total developing countries	8	15	15	16	5.1	6.2	7.6	5.6
Total developed countries	80	86	80	87	-7.3	9.7	0.7	-2.0
	..... million tons							
Pulp for paper	123	133	127	135	-4.0	5.8	1.7	0.2
Total developing countries	8	13	14	14	3.8	3.6	7.4	4.2
Total developed countries	115	119	113	120	-4.8	6.1	1.1	-0.3
Paper and paperboard	151	170	166	175	-2.3	4.9	2.5	0.4
Total developing countries	12	20	20	21	1.7	3.5	6.8	2.6
Total developed countries	138	151	147	154	-2.9	5.1	2.1	0.1

Source: FAO, Forestry Department.

was a contributory factor. A number of developing countries experienced sharp declines in their exports of forest products, especially in the period 1980-82.

Production in 1983. World production of all forest products was stimulated in 1983 by the economic recovery of developed countries, especially in the United States, which resulted in an increased demand for processed wood products. World production of sawnwood was 451 million m^3 in 1983, recovering the previous peak of 1979 after some years of depressed outputs. This was mainly due to an increase of 11% in sawnwood production by developed countries, while developing countries recorded a level of output of this commodity only 2% higher. Wood-based panels also recorded higher production levels in 1983 reaching, with 104 million m^3, the peak level also last achieved in 1979. This was mainly due to the major recoveries in production in the United States and Canada.

Fuelwood still accounts for more than half the world production of roundwood, about 83% of which is produced and consumed in developing countries. However, fuelwood production of developing countries increased in 1983 by less than 2% and so less than their population growth rates. Production of industrial roundwood in 1983 also was only slightly higher than production in 1982, but the production level of 1 409 million m^3 is still far below the peak levels reached in 1979 and 1980. Pulpwood production increased significantly in 1983, because of high levels of activity in the pulp and paper industry, particularly in North America and Europe.

Trade in forest products in 1983. International trade in forest products, after years of depression, improved in 1983 as a consequence of the more positive economic situation in developed countries (Table 1-26). The volume of trade for the major commodities increased by amounts of between 3% and 14%. The value of trade in dollar terms, however, remained stable at the 1982 level, mainly due to the strong U.S. dollar.

Processed wood products increased their share of total trade of forest products, rising from around 50% in the mid-1970s to 65% in 1983. This was largely the consequence of policies of some developing countries, traditionally exporters of tropical logs, so as to encourage domestic production of processed wood products. In fact, developing countries decreased the volume of their exports of industrial roundwood by more than 3% in 1983 while their exports of sawnwood and wood-based panels increased by 8.5% and 14.5%, respectively. Indonesia illustrates this trend very dramatically. In 1983 Indonesian exports of sawlogs and veneer logs were only 3 million m^3 as compared to a peak of 19 million m^3 in 1978. On the other hand, its exports of plywood reached some 1.7 million m^3 in 1983, as compared with only 70 thousand m^3 in 1978.

Future trends. Policy discussion in the 7th Session of the Committee on Forestry (COFO), held in Rome from 7 to 11 May 1984, concentrated on the subject, "Forestry Beyond 2000 - Potentials, Problems and Prospects," with special emphasis on forest policies for the temperate, tropical and arid regions and at the global level. COFO defined the main problems affecting forestry as being degradation and depletion of forests in the humid tropics, fires and desertification in the Savanna and arid zones, and acid rains and other atmospheric pollution in the temperate zones. The committee stressed the critical importance of the maintenance of the world's forests. It also underlined the need for giving priority to investment in the forestry sector to ensure the sector's contribution to environmental protection and the production of essential goods and services.

The pressures of population and urbanization and a limited land resource present an immense challenge to the forestry sector. Confronting these pressures requires the commitment of people and governments. Meeting the increasing need for products of the forest and securing its ecological functions in conserving soil and water also requires the training of people, the development of skills and the evolution of an appropriate institutional environment, as well as commensurate levels of investment.

TABLE 1-26. VOLUME OF EXPORTS OF MAIN FOREST PRODUCTS, TOTAL DEVELOPING AND DEVELOPED COUNTRIES, 1974, 1981-83

	1974	1981	1982	1983	Change 1981 to 1982	Change 1982 to 1983	Annual rate of change 1974 to 1983	Annual rate of change 1979 to 1983
	..... million m^3				..... %			
Industrial roundwood	108.4	99.7	97.8	100.5	-1.9	2.7	-0.8	-4.8
All developing countries	43.5	32.2	33.2	32.1	3.1	-3.3	-3.5	-9.0
All developed countries	64.9	67.5	64.7	68.4	-4.2	5.8	0.7	-2.2
Sawnwood and sleepers	61.9	72.7	73.3	83.6	0.8	14.1	3.5	-0.8
All developing countries	7.4	9.2	9.2	10.0	-	8.5	3.6	-5.3
All developed countries	54.4	63.5	64.1	73.6	0.9	16.0	3.5	-0.1
Wood based panels	13.0	16.7	15.2	16.4	-8.8	7.3	2.8	-1.1
All developing countries	3.7	5.4	5.2	5.9	-5.1	14.5	4.4	4.3
All developed countries	9.2	11.3	10.1	10.4	-10.6	3.7	2.0	-3.5
	..... million tons							
Pulp	19.4	20.4	18.7	21.0	-8.1	12.5	2.3	-0.7
All developing countries	0.6	1.7	1.6	1.8	-5.0	13.2	17.0	6.5
All developed countries	18.8	18.7	17.1	19.2	-8.4	12.4	1.5	-1.3
Paper and paperboard	30.1	35.4	33.7	36.5	-4.9	8.4	4.0	1.5
Developing countries	0.5	1.1	0.9	1.1	-16.9	21.3	11.6	10.9
Developed countries	29.6	34.3	32.8	35.4	-4.5	8.0	3.8	1.2

Source: FAO, Forestry Department.

ANNEX 1-1. MAJOR ECONOMIC, MARKET AND INSTITUTIONAL EVENTS RELATED TO AGRICULTURE, 1973-1984

	ECONOMIC AND MARKET EVENTS	INSTITUTIONAL DEVELOPMENTS: NATURAL & HUMAN RESOURCES	INSTITUTIONAL DEVELOPMENTS: TRADE & DEVELOPMENT	INSTITUTIONAL DEVELOPMENTS: FOOD SECURITY
1984	Economic recovery gathers pace but uneven and uncertain. Inflation rates stabilize but interest rates remain high. Debt problems remain acute. More optimistic outlook on world food production. Worsening food situation in eastern Africa and Sahel. Major Food crisis in Ethiopia.	FAO World Conference on Fisheries Management and Development. UN World Population Conference (Mexico City).	Third Lomé Convention negotiated between EEC and 64 ACP states.	Interim System of Food Reserves generally supported by the Committee on World Food Security (CFS).
1983	Slow economic recovery in terms of output and trade. Inflation falls to below 5% in industrial countries but quickens to 44% in non-oil developing. Sharp decline in agricultural output in developed countries. Cereal imports decline, stocks increase to 19% of consumption and cereal prices ease. Indebtedness problem of non-oil developing countries at its worse (debt-to-export ratio 150%). Widespread drought causes large number of food emergency situations in southern and western Africa.	First review of Programme of Action of World Conference on Agrarian Reform and Rural Development (WCARRD). FAO Expert Consultation on Women In Food Production.	UNCTAD VI; Addressed the problems of protectionism and structural adjustment in world trade.	Food Aid Convention is renewed. CFS revises food security concept. Considerable increases in food and pledges to disaster-striken African countries. FAO/World Food Programme (WFP) task force established to monitor food situation in African countries.
1982	Economic recession at its deepest (zero growth in industrial output and reduction in volume of trade). Continued easing in inflation, including developing countries. Growth in agricultural output reduced (2.6%) but above long-term average. Cereal imports of developing countries stagnate, cereal prices and stocks recover (18% of consumption). Indebtedness of developing countries sharply worsens.	Concluding Session of UN Conference on the Law of the Sea.	Versailles Summit aims at monetary stability. GATT sets up Committee on Trade in Agriculture.	FAO Council established Regional Commission on Food Security for Asia and the Pacific.

(Cont.)

	ECONOMIC AND MARKET EVENTS	NATURAL & HUMAN RESOURCES	TRADE & DEVELOPMENT	FOOD SECURITY
1981	Recession begins to affect developing country output. Inflation eases in developed (10%), but not in developing countries. Agricultural output recovers (3.8%) particularly in developed countries. Further but less marked increases in cereal trade and prices. Cereal stocks decline further to 16% of consumption.	UN Conference on New and Renewable Sources of Energy.	UN Conference on LDCs adopts a substantial new Programme of Action for 1980s. Cancun Conference devises base for future UN multilateral trade negotiations.	IMF's Compensatory Financing Facility for cereal imports begins operation; CFS adopts agenda for consultations and possible action to deal with acute and large scale food shortages.
1980	Pace of industrial output and volume of merchandise trade slows significantly but inflation rises. The onset of world economic recession. No increase in agricultural output (a decline of 1.6% in developed countries). Sharp increase in cereal trade and prices. Decline in cereal stocks.	World conservation strategy is launched. UN World Water Decade initiated. World Conference on the UN Decade for Women.	Interntional Development Strategy (IDS) for 3rd UN Development Decade.	OAU's Special Economic Summit adopts Lagos Plan of Action. Food Aid Convention is enlarged.
1979	Pace of industrial output slows but inflation quickens (9% in industrial countries). Increase in agricultural output sharply reduced to less than 1%. Cereal trade continues to expand but cereal stocks rise to 19% of consumption. Cereal prices rise and sharp increase in price of petroleum (second oil shock).	World Conference on Agrarian Reform and Rural Development.	UNCTAD V: Structural adjustments related to trade and protectionism discussed. Comprehensive new Programme of Action for LDCs set up. GATT Tokyo Round ends. Lomé II signed by EEC and 58 ACP states.	Five-Point Plan of Action of CFS; breakdown of negotiations on international grain agreement.
1978	Moderate increases in industrial output and volume of merchandise trade. Rate of inflation falls (7.2% in industrial countries). Agricultural growth sharply increases and stocks fall sharply. Cereal prices begin to rise. Developing country indebtedness in relation to exports reaches 1970s' peak.		African Regional Food Plan presented to the 10th FAO Regional Conference for Africa.	
1977	Expansion of industrial output and trade decelerates. Growth rate in agricultural production doubles (2.8%), cereal trade stagnates and stocks rise to 18% of consumption. Cereal prices fall. Overall inflation rates remain high (8.4% in industrial countries).	UN Conference on Desertification.	Brandt Commission Report on North-South relations.	International Fund for Agricultural Development (IFAD) is established.

(Cont.)

	ECONOMIC AND MARKET EVENTS	NATURAL & HUMAN RESOURCES	TRADE & DEVELOPMENT	FOOD SECURITY
1976	Sharp increases in industrial ouput and volume of merchandise trade (5% and 10%-11%, respectively). Growth in agriculture output only 1.4%. Cereal trade increases and stocks remain at 14% of consumption. Inflation eases (8% in deveoped countries).		UNTAD IV sets up the Integrated Programme for Commodities. UNCTAD establishes a committee on Economic Cooperation Among Developing countries (ECDC).	African ministers of agriculture produce "Freetown Declaration" toward a regional food plan. First Session of the CFS. Enlargement of WFP's Committee on Food Aid Policies and Programmes (CFA).
1975	Recession deepens and industrial output declines (by about 0.5%). Agricultural output recovers (2.8%) growth, especially in developing countries. Cereal trade stagnates (but cereal stocks decline again) and commodity prices ease. Inflation eases but still high (11% in industrial countries). Sharp rise in external debt of non oil-exporting developing countries.	World Conference for the International Women's Year.	First Lomé Convention between EEC and ACP states. Paris Conference on International Economic Cooperation. Lagos Treaty establishes the Economic Community of West African States (ECOWAS).	International Emergency Food Reserve (IEFR) is established. Establishment of World Food Council. FAO Conference and Council set up CFS.
1974	Sharp slowdown in increase in industrial output. Agricultural output expands by only 1.8%. Recession begins and inflation accelerates to 13% in industrial countries. Commodity prices reach peak levels. Petroleum prices quadruple. Cereal stocks recover a little (15% of consumption).	Second Session of the 3rd UN Conference on the Law of the Sea. UN World Population Conference adopts a World Population Plan of Action (Bucharest).	UN General Assembly calls for a New Internatiional Economic Order.	World Food Conference emphasizes food security and resolves to set up a Global Information and Early Warning System for Food and Agriculture (GIEWS).
1973	Industrial output continues to expand. World agricultural production falls (-0.3%) but trade increases by nearly 16%. Beginning of world food crisis. Disappearance of major fish stocks off Peru. Commodity prices begin to increase.	UN Environmental Programme (UNEP) created.	UNCTAD III discusses trade liberalization.	

CHAPTER 2 URBANIZATION: A GROWING CHALLENGE TO AGRICULTURE AND FOOD SYSTEMS IN DEVELOPING COUNTRIES

1. INTRODUCTION

The growth of urban areas has traditionally been associated with socio-economic development. An increasingly progressive agriculture has also historically accompanied the growth of cities. The link between urban growth and a more productive agricultural sector was necessary for the transfer of food, labour and capital to the growing cities, which in turn, supplied agriculture with industrially based inputs and a growing market for agricultural products.

Sustained urban growth then required a sophisticated system of commercial agricultural markets that enabled agricultural production to satisfy consumer needs. However, the links among cultural transformation, economic prosperity, the growth of metropolitan areas and agricultural modernization appear to have been weakened in many developing countries as evidenced by growing slums, rising unemployment and low growth rates in agricultural output.

Rapid population growth combined with slower urban-based industrial growth has made the urban areas of some countries repositories of a people unable to provide themselves with the minimum means for a decent existence, which includes access to food. The problems in the cities of some developing countries often merely reflect even worse conditions in the countryside. Food and agricultural output has stagnated or declined in some cases and burgeoning urban populations are becoming increasingly dependent on imported food contributing to worsening balance of payments and debt problems.

The purpose of this chapter is to examine the problems and opportunities created by urbanization in developing countries as they relate to the production and consumption of food, its marketing and distribution. The second section of the chapter shows how urban and rural populations are expected to grow and examines some of the causes of this growth. The third and fourth sections examine the consequences of urban growth for agricultural production and nutrition, while the fifth section analyses its implications for food marketing. Examples mainly from developing regions are given. The sixth and final section presents suggestions for pacing the rate of urbanization to achieve harmony with broader development objectives and examines approaches that have been used by various countries to alleviate the problems for agriculture created by rapid urbanization.

2. POPULATION, URBANIZATION AND MIGRATION TRENDS, 1980-2000

Developing countries constituted 75% of the world population in 1980, and they are projected to be the source of all net additions to the world rural population and 84% of the net additions to the world urban population between 1980 and 2000 (Table 2-1).1/ During this period, it is

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1/ Urban and rural definitions vary for each region and country. These definitions have been published in UN, Estimates and Projections of Urban, Rural and City Populations, 1950-2025: The 1980 Assessment, New York, 1982, pp. 15-27. The projections selected are the medium variant and are regularly revised.

TABLE 2-1. PROJECTED NET ADDITIONS AND PERCENTAGE OF CHANGE IN TOTAL, URBAN AND RURAL POPULATIONS, BY REGION, 1980-2000

Region a/	Net additions			Percentage of change		
	Total	Urban	Rural	Total	Urban	Rural
	.... millions			..... %		
World	1 687	1 310	377	38.1	71.9	14.5
Developed countries	141	205	-64	12.5	25.4	-19.6
Developing countries	1 546	1 105	441	46.8	108.8	19.3
Africa	383	226	157	81.5	166.7	46.9
East Asia	286	262	24	27.0	75.5	3.0
South Asia	671	422	249	47.8	121.4	23.6
Latin America	202	191	11	55.6	80.2	9.1

a/ Note that the regional groups shown conform to the UN definitions on which the projections are based.

Source: UN 1982a.

likely that nearly 500 million migrants will move from rural to urban areas in developing countries, helping to raise the percentage of the urban population from 31% to 44% of the total. Thus, two-thirds (1 105 million) of the net additions to the population of developing countries will reside in urban areas by 2000 (Table 2-1). Most will be without land to grow their own food. The remaining net additions to population in developing countries (441 million) will inhabit rural areas. Two out of three urban residents of the world and nine out of ten rural residents will be in the developing countries by 2000 (Figure 2-1).

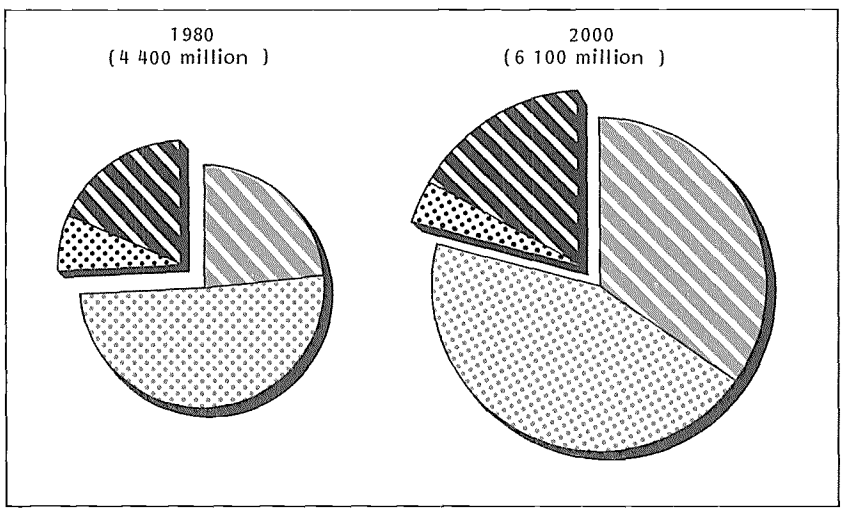

Figure 2-1

TOTAL, URBAN AND RURAL POPULATION PROJECTIONS IN DEVELOPED AND DEVELOPING COUNTRIES, 1980 AND 2000

Source: UN, Estimates and Projections of Urban, Rural and City Population, 1950-2025: The 1980 Assessment, New York, 1982.

The projected rate of urban growth in developing countries is particularly striking because there is no historical precedent for the sheer number of people being added to the urban sectors in these countries (Table 2-2). Yet high population growth rates in developing countries also mean that rural populations will increase further. It is projected that by 2000 over 2 700 million people in developing countries will be living in rural areas.

TABLE 2-2. TOTAL, URBAN AND RURAL POPULATION PROJECTIONS, BY DEVELOPING REGION, 1980-2000

Region	1980			2000		
	Total	Urban	Rural	Total	Urban	Rural
	..... million					
Africa	470	136	334	853	362	491
East Asia	1 058	294	765	1 346	557	789
South Asia	1 404	348	1 056	2 075	770	1 305
Latin America	364	238	126	566	428	138
Developing regions	3 296	1 016	2 281	4 840	2 117	2 723

Source: UN 1982a.

The Primate City Phenomenon

Not only will the world become increasingly urbanized, but United Nations' projections show that by 2000 a large part of the population of developing countries will be concentrated in major urban centres of growth called 'primate cities'.2/ By 1980 at least one in five of the population in Argentina, Iraq, Peru, Chile, Egypt, the Republic of Korea, Mexico and Venezuela lived in a primate city. Cities such as Lima, Bangkok, Baghdad and Buenos Aires already account for over 40% of the total urban population of their respective countries. Furthermore, it is projected that 21 of 25 of the world's largest cities will be in the developing countries by 2000, compared with 13 of 25 in 1970 (Table 2-3).

BOX 2-1. THE PRIMATE CITY: MEXICO CITY

The primate city phenomenon is most obvious in Latin America. Mexico City is an outstanding current example. Mexico City's population grew from one million in 1930 to three million in 1950, nine million in 1970, 15 million in 1980 and is projected to be over 25 million by 2000. During the 1960-70 decade alone nearly 1.8 million rural migrants settled in Mexico City, representing 48% of the growth for that period, while the natural population increase accounted for 46% and physical incorporation 6%. In 1977, it was estimated that over 50% of the population over 20 years of age in Mexico City were migrants.

Mexico City's credentials as a primate city are borne out by the following facts: it has 21% of the total Mexican population, 46% of the GDP, 53% of manufacturing labour, 42% of higher education institutions, 52% of the theatres, 76% of the radio stations and all five television stations. Much of this imbalance has been caused by favouring urban-based industrial development over rural development through credit and price policies and investment in infrastructure. Consequently, the inhabitants of the densely populated rural regions that surround the federal district and who are largely subsistence farmers view Mexico City as a place of opportunity for economic, cultural and educational advancement (Reig 1984).

2/ Primate cities are not necessarily the largest in terms of population. For example, other considerations are economic, political, cultural and infrastructure development.

TABLE 2-3. PROJECTED POPULATIONS OF THE 40 LARGEST METROPOLITAN AREAS BY 2000 AND THEIR 1970-80 GROWTH RATES

	Metropolitan area	1970	1980	2000	Annual rate of change 1970-80
		.... millions			%
1.	Mexico City	9.2	15.0	26.3	4.9
2.	São Paulo	7.2	9.2	24.0	4.4
3.	Tokyo/Yokohama	14.9	17.0	17.1	1.3
4.	Calcutta	7.1	9.5	16.6	3.0
5.	Bombay	5.9	8.5	16.0	3.6
6.	New York	16.3	15.6	15.5	-0.4
7.	Seoul	5.4	8.5	13.5	4.5
8.	Shanghai	11.4	11.8	13.5	0.3
9.	Delhi	3.6	5.9	13.3	4.9
10.	Rio de Janeiro	7.2	9.2	13.3	2.5
11.	Buenos Aires	8.5	10.1	13.2	1.6
12.	Cairo	5.4	7.3	13.2	3.0
13.	Jakarta	4.5	6.7	12.8	4.0
14.	Baghdad	2.5	5.7	12.8	8.6
15.	Teheran	3.3	5.6	12.7	5.4
16.	Karachi	3.1	5.2	12.2	5.1
17.	Istanbul	2.8	5.3	11.9	6.6
18.	Los Angeles/ Long Beach	8.4	9.5	11.3	1.2
19.	Dacca	1.5	3.4	11.2	8.5
20.	Manila	3.6	6.0	11.1	5.0
21.	Beijing	8.3	9.1	10.8	1.0
22.	Moscow	7.1	8.2	10.1	1.4
23.	Bangkok	3.3	4.6	9.5	3.5
24.	Tianjin	6.4	7.7	9.2	1.1
25.	Lima/Callao	2.9	4.6	9.1	4.5
26.	London	10.6	10.0	9.1	-0.5
27.	Paris	8.3	8.8	9.1	0.5
28.	Kinshasa	1.4	3.2	8.9	8.6
29.	Rhein-Ruhr	9.3	9.3	8.6	-
30.	Lagos	1.4	2.8	8.3	7.2
31.	Madras	3.1	4.4	8.2	3.6
32.	Bangalore	1.7	3.0	8.0	3.4
33.	Osaka/Kobe	7.6	8.0	7.7	0.5
34.	Milan	5.6	6.6	7.5	1.8
35.	Chicago	6.8	6.8	7.2	0.1
36.	Taipei	1.7	3.0	6.6	3.4
37.	Hong Kong	3.5	4.6	6.4	2.5
38.	Leningrad	4.0	4.7	6.0	1.7
39.	Madrid	3.3	4.6	5.9	3.2
40.	Philadelphia	4.0	4.1	4.5	0.2

Source: UN 1985.

While urban growth is a necessary component of economic development, the high concentration of population in a few major cities is considered undesirable by most developed countries because it has led to more pollution, slums, crime and higher per unit costs of providing services (Salas 1984). This is a widely held view although the proportion of the population and the degree of concentration that is urban differ widely among developing regions (Table 2-4). The growth of primate cities is also disturbing since administrative, service and political activities of a nation are centred in one localized area, often to the detriment of

other areas. This has occurred in developed countries as well, which in some cases have introduced measures to promote decentralization and the devolution of political power to secondary regional centres.

TABLE 2-4. PROJECTED POPULATIONS, PERCENTAGE OF TOTAL URBAN POPULATIONS AND NUMBER OF CITIES LARGER THAN FOUR MILLION, BY 2000

Region	1980			2000		
	Population (millions)	% of urban	No. of cities	Population (millions)	% of urban	No. of cities
World	305	16.7	38	681	21.7	79
Developed countries	130	16.1	15	167	16.5	20
Developing countries	175	17.2	23	514	24.2	59
Africa	7	5.4	1	74	20.4	12
East Asia	75	19.5	7	154	23.0	14
South Asia	66	19.1	11	199	25.8	23
Latin America	56	23.5	6	123	28.6	12

Source: UN 1982a.

The cost per unit of providing services in primate or other large cities are frequently higher than in much smaller cities. For example, the per caput expenditure for public services in Bogota, the capital of Colombia, with a population of about 3 million in the mid-1970s, was nearly seven times as great as the average per caput public expenditure of four other urban areas in that country with populations of between 50 000 and 90 000 (Linn 1983).

While these apparent diseconomies of size may seem to weigh the argument heavily in favour of slowing the pace of urban concentration, other points must also be considered. For instance, higher per unit costs may reflect better quality service that urban residents are willing to pay for in higher taxes. Furthermore, the amount of industrialization is much greater in urban than in rural areas.

For example, Rio de Janeiro and São Paulo accounted for over 50% of Brazil's total industrial production in the 1970s (Wadehn 1981). Hence, the provision of services such as water, sewerage and electricity often must be much higher in urban areas. But some public investments in urban areas benefit the rest of the country. Examples are ports, transport terminals, warehousing and government offices, which indicate the additional costs incurred in urban areas versus rural areas, but which benefit both. However, large cities often capture a disproportionate share of national expenditure for nutritional intervention, housing and other services.

The United Nations also projects that by the year 2000 there will be 59 cities with populations greater than four million in developing countries. By then, these 59 cities will account for nearly one-quarter of the entire urban population of the developing world (Table 2-4) and for 31% of its total urban growth. The 236 smaller cities projected to have populations between one million and four million are expected to account for only slightly over 20% of the urban population growth of developing countries.

Composition of Urban Population Growth

There appears to be an evolution in the composition of the growth of urban population as economic development proceeds. At low levels of economic development and urbanization, most urban growth results from rural-urban migration, while during the transition stage from a rural-based to an urban-based economy, when urban growth is the most rapid, natural increases add more to urban population than migration (UN 1984). The latter phenomenon is not due to higher birth rates, but to lower mortality rates (see Box 2-3) more infants and mothers survive childbirth and more children survive early childhood. Better medical services in urban areas underlie these trends and constitute one of the attractions of metropolitan areas. At high levels of economic development, urban birth rates drop to such a low level that urban growth again results more from rural-urban migration.

For most developing countries, migration accounts for 40%-50% of the population growth of metropolitan areas, although this figure may be higher or lower in some regions. The migrant contribution to urban growth is greater than would appear from the numbers of migrants alone, since most of them are in the critical childbearing age group (migrants account for 60% of the growth rate of the 15-29 year-old urban age group). Thus, migrants tend to have a higher birth rate than urban residents. However, the results of studies comparing the fertility rates of native urban residents and rural immigrants are inconclusive when the data are adjusted for other factors such as age, income and education (UN 1982b).

Children born of migrant parents generally account for around 5% of net additions to the urban population. There are also some rural areas in countries that have been reclassified as urban because of population growth. Therefore, migrants, children born of migrants, and reclassifications, are considered to account for about half of the net additions to the urban population in developing countries.

Rural-Urban Migration

The rural-urban migrant normally reaps private benefits from migrating, while urbanization creates opportunities to modernize the agricultural sector that would not otherwise exist. Consequently, rural-urban migration can raise rural incomes if the means to increase agricultural productivity exist. In turn, higher rural incomes create markets for urban-based industrial goods. In this way, urbanization is both an inevitable and desirable component of modernizing a primarily agricultural-based rural society.

However, it is the relatively young and educated people who migrate from rural to urban areas. The rural exodus thus tends to result in rural areas having a less educated population and relatively fewer people of working age. For example, in Indonesia the 1971 census showed that illiteracy was much lower for both male and female migrants than for rural non-migrants. A similar pattern was shown by the 1970 Population and Housing Census of the Republic of Korea and has been generally shown for all countries surveyed (UN/ESCAP 1980).

Projections by the United Nations reveal the consequence of selective migration. Since it is the relatively young (15-35 year-old) age group that is most likely to migrate, rural population projections in all regions of the world continue to be proportionally higher for the very young and elderly age groups compared to urban areas. However, the difference between the age structure of rural and urban populations is narrowing largely because birth rates are slowing down in most regions and because the proportion of women of childbearing age in urban areas is growing.

Rural-urban migration takes place because of:3/

Expectations of benefiting from employment opportunities of the urban sector and the widening gap between rural and urban incomes;

Modernization of agriculture with labour-replacing methods;

Land scarcity from either a lack of cultivable land in relation to a growing population or the maldistribution of land;

Failure to improve rural living conditions as fast as in cities;

Natural or man-made disasters that drive people to urban centres in search of food and security where they remain even after rural conditions improve; and

Location of institutions of higher education largely in major cities.

The most frequently discussed issue is the rural-urban income gap that stimulates rural out-migration. A study of migration in various countries estimated the elasticity of migration with respect to urban wage rates to be very high at between 1.5 and 2.9. That is, for every 10% rise in urban wages relative to rural wages, the rate of migration to urban areas increased by 15% to nearly 30%.

Not all migration from rural to urban areas is permanent, nor is it confined within a country's borders. There are major movements of people that are temporary, such as those made by seasonal migrant workers. In some places there are rural-rural movements of tenants and landless workers to replace smallholders who have gone to the cities. There are also urban-rural movements in developed as well as in developing countries, such as by urban workers who take up part-time farming, retired people going into farming activities, and government-sponsored resettlement programmes to relieve urban pressures.

International migratory movements are also important and have increased since the early 1970s, particularly because of job opportunities in developed countries and, more recently, in oil-exporting and other developing countries that have been experiencing rapid economic growth. Remittances from these migrants are an important source of foreign exchange for several developing countries such as Egypt, Mexico, Turkey and Pakistan. 4/

Urbanization Profile by Developing Region 5/

The very large differences among regions with respect to their degree of urbanization will have decreased by 2000. Nevertheless, the differences will remain large as Latin America is already close to urbanization levels of developed countries (Table 2-5). There are likely to continue to be regional differences in other facets of urbanization and rural-urban migration.

3/ There is a very large body of literature on the factors (sometimes known as 'push-pull' factors) determining migration, which are only briefly summarized here.

4/ For a recent discussion of the financial impact of these remittances, see UN, "The Impact of Workers' Remittances on the Balance of Payments," Supplement to World Economic Survey 1983, New York, 1983, pp. 31-40.

5/ See Annex 2-1 for list of countries.

Latin America. In 1980, two of every three people in Latin America were urban dwellers. By 2000, that figure is projected to reach and even exceed the level of some developed countries, when three out of four Latin Americans will live in urban areas. Even with the continuing high growth rate of cities, the rural population is expected to increase in Latin America. The overall population growth rate is expected to remain above 2% annually through 2000. However, because of the already relatively low percentage of rural residents in the total population and a relatively high rate of rural-urban migration, total net additions to the rural population are projected to increase by only 11 million during the 1980-2000 period.

Latin America's transformation to a mainly urbanized society was established earlier than in either Asia or Africa. Consequently, the primate city phenomenon is relatively more advanced and is projected to remain so. For example, by 2000 the projected population of Mexico City (26.3 million) will account for 30% of the total urban population of Mexico, and São Paulo (24 million) and Rio de Janeiro (13.3 million) together will account for one-fourth of the total urban population of Brazil. The next two largest cities in Latin America will be Buenos Aires (13.2 million) and Lima (9.1 million), which will account for 45% and 38% of the total urban population of Argentina and Peru, respectively, by 2000. Projections indicate that 12 cities in Latin America will have populations of over 4 million by 2000.

TABLE 2-5. PERCENTAGE OF POPULATION LIVING IN URBAN AREAS, BY REGION, 1960-2000

Region	1960	1980	2000
	..... %		
World	33.9	41.1	51.2
Developed countries	60.2	71.3	79.4
Developing countries	22.0	30.8	43.8
Africa	18.4	28.9	42.4
East Asia	19.3	27.8	41.4
South Asia	18.4	24.8	37.1
Latin America	49.1	65.4	75.7

Source: UN 1982a.

Over one-half to two-thirds of recent Latin American urban growth has been attributed to internal migration. For example, rural-urban migration accounted for 70% of urban growth in Mexico from 1940 to 1970. Numerous studies from the region show that the prime motive for migrating is the search for more productive employment.

In Latin America more women migrate than men. Most studies have shown that the male-female migratory ratio is around 0.7 or 0.8:1. The younger and more skilled or educated are more inclined to migrate than the older and less skilled or educated.

Africa. The annual population growth rate of Africa is projected to be about 3% from 1980 to 2000, which would result in an 82% increase in the total population during the period and increases of 167% and 47% in the urban and rural populations, respectively.

Africa's rapid population growth over the last three decades is the result of improved medical care and public health facilities, which increased live births and reduced death rates. For example, the rates of the natural population increase for Tanzania have been 2%, 2.7%, and 3% for the 1948-57, 1957-67, and 1967-78 periods, respectively.

During the last decade, permanent rural-urban migration has become prevalent in Africa. While this movement could have been considered a normal step in the traditional rural-urban-rural migration cycle of Africa, the majority of the rural-urban migrants are now making permanent moves.

In sub-Saharan Africa, migration is dominated by single, young, relatively well-educated males. For example, the male-female ratio for city migrants in Kinshasa was 1.72:1. Generally, migration is to obtain employment, a higher income, and to meet the desire for those amenities, services and facilities that exist in urban areas.

BOX 2-2. URBANIZATION IN EAST AFRICA

The accelerating rate of urbanization and urban population growth in Africa can be appreciated by the rapid growth of established cities and the formation of new cities in Tanzania. For example, Dar-es-Salaam grew from 5 000 people in 1886 to 18 000 in 1900 and to 24 000 in 1931. By 1948 the population was still only around 70 000 but increased to 130 000 in 1957, 273 000 in 1967, and 852 000 in 1978. Since 1967, Dodoma grew particularly fast because of the decision to make it the capital of Tanzania.

POPULATION OF SELECTED URBAN CENTRES IN MAINLAND TANZANIA, 1948-1978

Town	Census year			
	1948	1957	1967	1978
	..... 000			
Arusha	5 320	10 038	32 452	86 845
Bukoba	3 247	5 297	8 141	77 022
Dar-es-Salaam	69 227	128 742	272 821	851 522
Dodoma	9 414	13 435	23 559	158 577
Iringa	5 702	9 587	21 746	57 182
Kigoma-Ujiji	-	16 587	21 746	57 182
Mbeya	3 179	6 932	12 479	78 111
Morogoro	8 173	14 507	25 479	74 114
Moshi	8 048	13 726	26 864	52 223
Mtwara-Mikindani	-	10 459	20 413	48 510
Mwanza	11 296	19 877	34 861	169 660
Shinyanga a/	-	-	-	68 746
Singida a/	-	-	-	55 892
Songea a/	-	-	-	49 303
Sumbawanga a/	-	-	-	57 802
Tanga	22 317	38 053	61 058	143 878
Total urban population	170 230	317 521	610 801	2 226 855
% of country's population	2.3	3.6	5.1	13.0
Total population (millions)	7.4	8.7	12.0	17.0

a/ These towns were demarcated as urban districts, in the period after the 1967 census.

Source: Bureau of Statistics, Dar-es-Salaam.

Much of this growth--as much as two-thirds--was because of migration, predominantly from rural areas.

Urban population growth has also been spectacular in Kenya. Nairobi has increased ninefold in 40 years to approximately one million inhabitants today.

Rwanda and Benin appear to be exceptions to rapid urban growth and rural-urban migration phenomena. However, even in these countries, a large contingent of young men originally from rural areas are to be found in the cities searching for jobs and education.

In North Africa there is much international migration in addition to rural-urban migration. Egypt has an official policy to aid emigration in order to ease population pressures on its land and urban areas.

By the year 2000, 12 African cities are projected to have populations greater than four million compared with only one city of that size in 1980. These 12 cities will account for one-fifth of the entire urban population of Africa. The three largest cities in Africa by 2000 are projected to be Cairo (13.2 million) with 36% of Egypt's urban population; Kinshasa (8.9 million) with 32% of Zaire's urban population; and Lagos (8.3 million), with 17% of Nigeria's urban population.

East Asia. This region is dominated by China and the Republic of Korea that account for over 97% of its total population. East Asia is projected to have the lowest growth rate of both urban and rural populations than any other region in the developing world. This is largely owing to the relatively low birth rate in China. Nevertheless, because of its large population base, East Asia will have added 283 million people to its urban population between 1980 and 2000, nearly 12 times the number of net additions to its rural population. Indeed, the region is projected to begin losing its rural population by 1990.6/ All countries in the region, except Mongolia and the Democratic Republic of Korea, will show declines in their rural population by 2000.

The number of East Asian cities with populations greater than four million are projected to double from seven to 14 by the year 2000. By 2000 some of the world's largest cities will be in the Republic of Korea (Seoul, 13.5 million) and in China (Shanghai, 13.5 million and Beijing, 10.8 million). The migration from rural to urban areas is unpredictable in this region largely because demographic movement in China is highly sensitive to government programmes.

South Asia. South Asia is the developing world's most populous area, as it includes such countries as India, Pakistan, Bangladesh, Indonesia, the Philippines, Thailand, Burma, Viet Nam and Iran. Nearly 40% of the projected net additions to the world population between 1980 and 2000 will occur in this region. Therefore, this region is projected to make the greatest number of net additions to both the urban and rural populations of all regions, although its urban and rural growth rates are far below Africa's and the overall growth rate of its population is less than Latin America's.

The percentage of the total population living in urban areas is also the lowest of any developing region. In 1980, only one out of four people lived in urban areas, but it is projected that by 2000 the figure will reach 37%. This region is projected to account for 57% of the total net additions to the rural population of developing countries.

Projections indicate that 13 metropolitan areas in this region will have populations greater than eight million by 2000 and the region will have as many as 23 cities with populations of over four million. The five

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6/ This situation may become apparent even earlier if China's recently announced policy to abandon rural communes and establish townships is successfully implemented.

largest cities in India--Calcutta (16.6 million), Bombay (16.0 million), Delhi (13.3 million), Madras (8.2 million) and Bangalore (8.0 million)-- will account for only 19% of India's urban population by 2000, a significantly lower proportion than in Latin America or Africa. However, city size may well be a problem for those Indian states in which the largest cities are located. For example, the next largest city in the state of West Bengal, where Calcutta is located, has fewer than 250 000 residents.

The remaining eight largest cities in this region will account for from 22%-53% of the total urban population of their respective countries by 2000, indicating the existence of the primate city phenomenon. These cities are: Jakarta (12.8 million), Indonesia; Baghdad (12.8 million), Iraq; Teheran (12.7 million), Iran; Karachi (12.2 million), Pakistan; Istanbul (11.9 million), Turkey; Dacca (11.2 million), Bangladesh; Manila (11.1 million), the Philippines; and Bangkok (9.5 million), Thailand.

The Urban Policy Dilemma

The concentration of economic activity and administrative services in the primate city and other major urban areas, encourages migration that may also contribute to the deterioration of urban living standards as well as create food supply and distribution problems. The extension of services to squatters and migrants tends to further increase the attracting power of the primate city and other metropolitan areas. Yet not providing new residents with services creates unsanitary living conditions and political problems. Providing services requires increased government expenditure for a population that is economically unable to contribute taxes proportional to its demand for such services. As more services are extended in the largest cities, the cost per unit will eventually rise.

On the other hand, through rural-urban migration, the city also benefits from investments in human capital made by other regions. Migrants represent educational and medical investments made by other, mostly rural, communities, the benefits of which accrue to the recipient city. Given the age group of the migrants, they also represent a cheap source of labour because they are usually entering the labour force for the first time and cannot negotiate advantageous wage rates.

A major problem for city planners and policymakers in the developing world is the unpredictability of rural-urban migration flows, unlike the more predictable natural increases in the population of urban areas. The rate of rural-urban migration is much more difficult to predict since it is higly dependent on economic and social phenomena such as rural-urban income differentials, employment rates and the availability and quality of services. Hence, successful urban planning requires the capacity to anticipate future population increases due to changes in the factors determining rural-urban migration.

Many developing and developed countries have demonstrated an urban bias through various policies that reflect the demands of political pressure exerted by the urban population. One of the most outstanding general examples of urban bias is a food policy that keeps producer prices low in order to keep urban food costs down. When food is directly subsidized, the tax revenue in most cases will have to be raised by levying taxes on agriculture, the dominant sector. Alternatively, government procurement of food at low prices is, in effect, a tax on agriculture. However financed, a cheap food policy is likely to provoke more migration. Furthermore, once implemented a cheap food policy is difficult to retract, as recent events in Morocco and Tunisia have shown.

There are various reasons why an urban bias will be accentuated in the future. Migrants in developing countries will tend to intensify the pressure for a cheap food policy, as they generally have lower incomes

than established urban residents and are not able to grow their own food. Studies have shown that migrants are conscious and rational participants in the political process when in the city and once they have a voice, will exert pressure for their own benefit.

Since the political process is already more sensitive to urban political organizations than to a dispersed rural population mainly comprised of subsistence farmers, it would seem inevitable that an urban bias, if not already expressed, will find greater cause to intensify. However, the experience of developed countries demonstrates that the shift from subsistence to commercial agriculture accelerates the political power of farmers.

Parallel with greater political power in urban areas is the likelihood that urban tastes will change food production and import patterns. Changes in food demand patterns generally start in urban areas where incomes are relatively high. In the past, this has resulted in rising food imports and increasing pressure on the foreign exchange balance when the domestic agricultural and marketing systems have failed to satisfy consumer demands.

Migration, Economic Development and Rural-Urban Links

Economic development may be distinguished according to the contributions to employment of the principal economic sectors: agriculture, manufacturing and services. These shifts are also characterized by concurrent developments in population movement, food demand, marketing and nutrition (Figure 2-2).

At a low level of economic development, agriculture predominates as the major employer of labour. The process of economic growth entails a massive transfer of labour from the agricultural to the manufacturing sector that is usually located in or near major metropolitan areas. High levels of economic development are associated with the rising importance of the service sector as an employer relative to manufacturing and an absolute decline in the number of agricultural workers. Most developed countries have followed this employment pattern.

Many developing countries appear to be moving directly from the first to the third level without creating a solid industrial base and, with rapid population growth, the number of agricultural workers continues to grow (Salas 84). In this situation, the additions to urban population are faced with relatively fewer jobs in the industrial sector, with consequent high numbers of unemployed and underemployed in the cities and in the countryside.

FIGURE 2-2. EVOLUTION OF POPULATION, FOOD PRODUCTION, MARKETING AND NUTRITION WITH ECONOMIC DEVELOPMENT

	Level of Development I	Level of Development II	Level of Development III
Demographic Factors	Majority rural. High birth and mortality rates. Hence slow population growth. Rural-urban migration small in number and low in rate.	Transition from rural to urban population. Heavy rural-urban migration. High birth rates, declining mortality rates. Growth of large cities.	Majority urban with rural-urban migration continuing and expansion of metropolitan areas into rural zones. Low birth and low mortality rates resulting in low population growth.
Production Factors	Subsistence farming main productive activity. Low-level technology, low yields. Modern sector exports. Little rural-urban trade.	Introduction of modern inputs, mechanization, high yields and surplus sold in the market. Appearance of dual economy with commercial agriculture the leading economic force. Landless labourers become more numerous. Cooperative ventures among small farms. More livestock production.	Large commercial farms dominate production. Specialization of production with livestock production still increasing but slowly. Farmers become sophisticated business managers.
Marketing Factors	Few goods traded with few middlemen active. Farmers sell directly to consumers.	More food shipped to urban areas. More middlemen appear as more food is stored, transported and processed. Wholesalers a key link in food marketing chain. Vertical integration beginning to appear.	Vertical integration dominates marketing methods and wholesalers start disappearing. Contract farming and supermarkets become common. Marketing bill takes about 2/3 of consumer expenditure for food.
Nutrition and Food Demand	People grow own food and hunger mostly caused by natural factors. Animal protein consumption relatively low. Elasticity of demand for food high and food expenditures take majority of income.	More people depend on market for food. More animal protein consumed. Food shortages caused by weather and bad policies. Urban bias and lower demand change food tastes and production patterns. Imports increase.	Nutritional requirements fulfilled in both rural and urban areas. Protein nutritional requirements available. Income elasticity of demand for food low. Food expenditures take a relatively small share of disposable income.

BOX 2-3. RURAL AND URBAN FERTILITY AND MORTALITY DIFFERENTIALS

Fertility levels in rural areas are higher than urban areas except for a few countries, mostly in Africa. This fact holds even when fertility levels are standardized by education and age for rural and urban areas. Generally there is also a lower fertility rate for the major urban area of a country relative to other urban areas of a country. However, mortality rates are higher in rural areas so that the population growth rates of urban and rural areas are approximately equal when adjusted for age, income and education.

RURAL-URBAN TOTAL FERTILITY RATES AND RATIOS

Country	Total Fertility rates		Rural-urban ratios
	Rural	Urban	
Bangladesh	6.2	6.1	1.02
Colombia	6.6	3.5	1.89
Costa Rica	4.7	2.9	1.62
Dominican Republic	7.1	4.1	1.73
Egypt	6.4	4.8	1.33
India	4.6	3.1	1.48
Indonesia	4.8	4.6	1.04
Jordan	9.0	7.1	1.27
Korea, Republic of	5.1	3.7	1.38
Malawi	6.6	6.4	1.03
Mexico	7.3	4.8	1.52
Nepal	6.2	6.1	1.02
Pakistan	6.4	6.2	1.03
Panama	5.7	3.3	1.73
Philippines	6.0	3.9	1.54
Sri Lanka	3.8	3.2	1.19
Thailand	4.9	2.9	1.69

Sources: Rodriguez, German and John Cleland 1980; and Visaria 1981.

The difference is not difficult to comprehend. The basic causes for the difference between rural and urban fertility rates during these last two decades are income, educational opportunities and access to birth control technology. Family planning programmes are more cost-efficient in urban areas because the population is more concentrated and methods are more easily made available. Studies have shown that the use of contraceptives is consistently much higher in urban than in rural areas (UN 1984).

In rural areas children are seen as an addition to family labour and can relieve mothers of burdensome household duties. Children are also considered as a form of social security for parents in their old age. It has been suggested that raising the status of women in rural areas would thus affect their attitude toward limiting family size.

The higher infant mortality rate in rural areas also affects fertility. If a mother is sure of her children's survival, she is likely to have fewer children. Hence, improved medical care is likely to reduce fertility rates in rural areas in the long run.

3. EFFECTS OF URBANIZATION ON AGRICULTURAL PRODUCTION SYSTEMS

Urban growth influences agricultural production in the following principal ways:

- It accentuates the need to increase food production per agricultural worker because it increases the proportion of the population not producing its own food;
- It affects the composition of the agricultural and rural labour force because of the migration associated with urbanization;
- It causes the emergence of urban diets, and hence the changing pattern of food demand, which require similar adjustments in food production patterns; and
- It entails a conflict between urban and agricultural demands on natural resources--arable land, water and forests.

These issues have an important bearing on how much food must be produced per farmer, what food is to be produced, how it will be produced, by whom and where.

Unfortunately, as little research has focused on rural areas after migration, not much is really known about the impact of urban growth and rural out-migration on agricultural production and rural development.

The net economic effect of out-migration on the household, village, country or region can be positive or negative depending on migration patterns and many economic factors. There is a clear need for more research, particularly in Africa, on the relationship between a stagnating food and agricultural sector and high rates of migration.

Urban Growth, Food Demand and Agricultural Productivity

Rapid rates of urbanization can lead to dramatic shifts in the relative numbers of urban and rural residents. Most of the rural population of working age are food producers, but almost all of the urban residents will be consumers not producing their own food. Quite small changes or differences in growth rates in urban and rural populations are associated with large changes in the composition of the rural labour force, and hence, also in urban and rural dependency ratios (see Box 2-4).

From 1960 to 1980 there was almost a 1:1 ratio of net additions to urban and rural populations in developing countries. Projections for the period 1980-2000, however, indicate a ratio of urban-rural net additions of 2.5:1. The dimensions of the regional changes lying behind these average figures are striking (Table 2-6).

TABLE 2-6. URBAN-RURAL RATIO OF NET ADDITIONS TO POPULATION IN DEVELOPING COUNTRIES AND PERCENTAGE OF CHANGE IN RATIO

Region	1960-80	1980-2000	1960-80 to 1980-2000
	..... Ratio		... % ...
Africa	0.8	1.4	85
East Asia	0.7	4.1	483
South Asia	0.6	1.7	198
Latin America	8.3	17.3	109
Developing countries	0.9	2.5	190

Sources: FAO, Policy Analysis Division and UN 1982a.

These projected increases amount to approximately a doubling of the ratio in Africa and Latin America, but nearly a sixfold increase in East Asia.

Of course, these estimates understate the degree of urban-rural food dependency because proportionaly more of the rural population is younger or older than the urban population and is generally not employed in agriculture, while others are employed outside agriculture in rural areas. Adjusting the 1980-2000 figures to take account of age factors only (including the 15-59 age group) increases the urban-rural ratio of net additions mostly for Africa and South Asia, to 3.1:1. and 2.1:1, respectively, followed by East Asia with 4.7:1. The ratio for Latin America remains virtually unchanged at 17.4:1. Thus, rapid population growth--and hence an increasingly young population, particularly in Africa--and rural-urban migration cause radical changes in the numbers of urban food consumers per agricultural worker.

BOX 2-4. THE EFFECTS OF MIGRATION ON THE COMPOSITION OF THE LABOUR FORCE

Rural out-migration can have a profound effect on the age and sex composition of both rural and urban populations. The recent history of migration in different regions reflects significant differences in these compositions, as shown by the male-female ratios for urban and rural areas in selected age groups and regions in 1980.

Region		Age group in years 5-9	20-24	30-34	40-44
		... No. of males per 100 females ...			
Developed countries	- Urban	104.8	102.1	100.9	98.0
	Rural	105.3	109.1	102.7	97.6
Developing countries	- Urban	103.3	115.3	115.7	111.6
	Rural	104.5	97.2	99.7	100.4
Africa	- Urban	98.4	119.2	122.4	118.2
	Rural	101.8	91.3	87.5	87.7
Latin America	- Urban	101.4	96.9	96.4	94.8
	Rural	104.0	112.7	109.4	110.2
East Asia	- Urban	104.0	116.1	115.7	112.5
	Rural	104.2	96.1	103.6	106.7
South Asia	- Urban	106.3	123.6	121.9	115.8
	Rural	105.7	98.1	99.5	100.2

Source: UN 1982b.

The youngest age group reflects the normal sex ratio--boys generally slightly outnumber girls. For the 20-24 age group, the net effect of migration in most developing regions shows up very strongly. Latin America is exceptional in that more young women than men migrate from rural areas. In some regions, the 30-34 age group shows the most dramatic difference in urban-rural sex ratios. For example, in southern Africa these ratios were 128.7:100 and 65.3:100 (males-females) in urban and rural areas, respectively; a difference of almost 2:1. Eastern Africa showed similar ratios. For the older, 40-44 age group, the longevity of women, plus possibly lower migration rates of about 20 years earlier, are shown by the narrowing of these ratios.*

* For a discussion of these trends, see FAO, The State of Food and Agriculture 1983, Chapter 2, "Women in Developing Agriculture," Rome, 1984.

The dependency ratio, the number of very young and elderly directly supported by the population of working age, also varies widely among regions and between urban and rural areas. For example, the rural dependency ratio was five times greater in South Asia and Africa than in Latin America in 1980 where the dependency ratio is lower in the rural than in the urban areas.

Region	Urban	Rural
	dependency ratio a/	
Developed countries	47.7	23.0
Africa	76.6	199.6
Latin America	71.8	43.2
East Asia	53.8	116.4
South Asia	70.0	211.4

a/ Number of children aged 0-14 years and elderly persons aged 65 years and above per 100 people of working age (15-64).

Source: UN 1982b.

A simple methodology was employed to arrive at a crude estimate of the production (measured in wheat equivalents) required to meet consumption needs of the net additions to urban areas in developing countries by 2000 (see Box 2-5). Production was then divided by the projected number of agricultural workers 7/ by the year 2000 to obtain a rough estimate of the additional food required from each worker to feed the additional urban population (Table 2-7).

TABLE 2-7. ADDITIONAL PRODUCTION EXPRESSED IN WHEAT EQUIVALENTS, REQUIRED PER AGRICULTURAL WORKER IN 2000 TO FEED ADDITIONS TO URBAN POPULATION, 1980 TO 2000

Region	Additional production per agricultural worker in 2000	Additional production per agricultural worker in 2000 as % of total production
	kg	%
Africa	330	24
Asia	244	16
Latin America	1 268	17
Total	340	17

Source: FAO, Policy Analysis Division.

7/ Agricultural workers per region in 2000 were calculated by taking the regional percentage of agricultural workers over total population in 2000 as given in the FAO study, Agriculture: Toward 2000, and multiplying by the total population of the corresponding region as projected by the UN. This extra step was necessary since the study did not cover all countries in the regions.

Although Africa has the lowest urban-rural ratio of net additions to population, it is the region where the proportion of production per agricultural worker to feed urban growth from 1980-2000 will be the greatest. The required increase is about one-quarter. What this result reflects is both the low level of production per agricultural worker in Africa and the high rate of urban growth.

From these estimates it may be seen that productivity per agricultural producer in Africa will have to increase by over 1% annually to cover the food needs of the additions to urban population alone. From past experience, doubts must be raised on whether such an increase can be achieved. It is estimated that during the period 1971-80, agricultural output per agricultural worker in sub-Saharan Africa increased by only about 0.5% annually.

The challenge to food production posed by increased urbanization in Asia and Latin America appears to be far more manageable. Not only are the required productivity gains lower than in Africa (0.7% and 0.8% annually per agricultural worker for Asia and Latin America, respectively), but their performance during 1971-80 of about 2.5% a year for Asia and nearly 2% a year for Latin America shows that such gains are achievable.

BOX 2-5. METHODOLOGY USED TO ESTIMATE FOOD PRODUCTION AND CONSUMPTION IN 2000

A period of 20 years was examined (1980-2000) for the three major developing areas: Asia, Africa and Latin America.

Population estimates were based on UN projections (UN 1982a). Production and consumption estimates were based on FAO's Agriculture: Toward 2000.* It was assumed that China and other countries not included in the study had the same per caput production as the region in which they were located. The 'A' scenario of 3.8% annual production increases was used for Asia and Latin America, while the 'B' scenario of 3.2% was used for Africa.

It was also assumed that the urban population consumes 15% less food per caput than the rural population and that 45% of urban population growth was due to rural-urban migration.

Calories were converted to metric tons of wheat equivalents using a conversion factor of 100 grams = 334 calories.

* FAO, Agriculture: Toward 2000, Rome, 1981, revised estimates. Consumption of fish and some minor food products are not included.

Rural-Urban Migration and Production Performance

Although there is circumstantial evidence that high rates of rural-urban migration may be harming agricultural production performance in sub-Saharan Africa, it is impossible to prove the point conclusively from the limited and aggregated data available. Clearly more case study material needs to be collected and analysed.

A recent FAO study of sub-Saharan Africa shows that some of the countries with the highest rates of increase in their agricultural labour force in the 1970s, i.e., where net migration may have been low, were associated with relatively high rates of growth in agricultural production (FAO 1984). Examples are Niger and Rwanda. Conversely, the lowest production gains were associated with low rates of increase in the agricultural labour force, possibly because of rural-urban migration. Ghana, Mozambique, Gabon, Congo, Lesotho and Sierra Leone are examples. There

were exceptions because the growth rate of the labour force is only one factor of agricultural performance. Indeed, it may be argued that the agricultural incentives or improved rural conditions that brought about relatively high growth rates in agricultural output also retarded migration.

Only a few of the microstudies that focused on whether production increased or decreased after rural out-migration found that there was any loss in production (Dasgupta 1984). The production declines were usually in African countries. In some cases the heavy out-migration of men created labour shortages in peak seasons for tasks traditionally done by men, such as land clearing. In other examples, plantations producing export crops were forced to cut back production because of seasonal labour shortages.

That rural-urban migration often does not decrease agricultural production has been traced to the following:

- Productivity may rise to replace workers lost through migration that may reduce underemployment, but may also mean that women, children and the elderly have to work more;

- Previously idle labour is employed or sufficiently high wages are offered to attract workers from other areas;

- Migrants may return to ease seasonal labour peaks;

- New cropping patterns are adjusted to overcome or accommodate labour constraints; and

- Agricultural production becomes mechanized (Dasgupta 1984).

Remittances from migrants may be used to allow agricultural production to be maintained; for example, to pay the wages of workers employed, to hire tractors or invest in livestock. However, most studies show that remittances are spent more on consumption goods, which may have the benefit of opening up the rural economy to industrial products, or on products that confer status. Remittances, nevertheless, are an important contribution to rural incomes and have been estimated to account for from 10% to 20% of total rural income in some countries (Gaude and Peck 1976).

Urbanization and the Changing Structure of Agriculture

Rural out-migration rarely causes agricultural production to decline. However, substantial modifications in production systems have to be introduced to sustain agricultural production and to accommodate the changing patterns of demand that urbanization involves. Important policy issues, therefore, are not whether food and agricultural production will decline, but whether it can increase fast enough, and what will be the implications for equity in rural areas.

United Nations' projections indicate that it is the 20-34 age group that will decline the most in rural areas from 1980 to 2000. For example, in eastern Africa the share of this age group in the rural population is projected to decline by almost 14% during the period. Those left behind may or may not have the special skills needed to adjust existing farming operations. Capital may become scarcer if the person who migrates fails to obtain work quickly or if local credit sources are not willing to make production loans to family members who have stayed on the farm.

The change in cropping patterns may be the most radical change to the agricultural system, particularly in farming areas adjacent to rapidly growing urban areas. The result may be toward more specialization in fruits, vegetables, feed crops, and livestock production. This process

BOX 2-6. MIGRATION AND URBAN GROWTH

What appear to be relatively minor differences between the growth rates in urban and rural populations, when combined with variations in the degree of urbanization, can produce major differences in the numbers of people being added to urban and rural areas. As examples of this process, three scenarios have been selected to show the impact of migration on the growth of urban populations:

Scenario A: The share of the urban population in the total population is 20% in the starting year (typical 'African' situation).

Scenario B: The share of the urban population in the total population is 40% in the starting year (typical 'East Asian' situation).

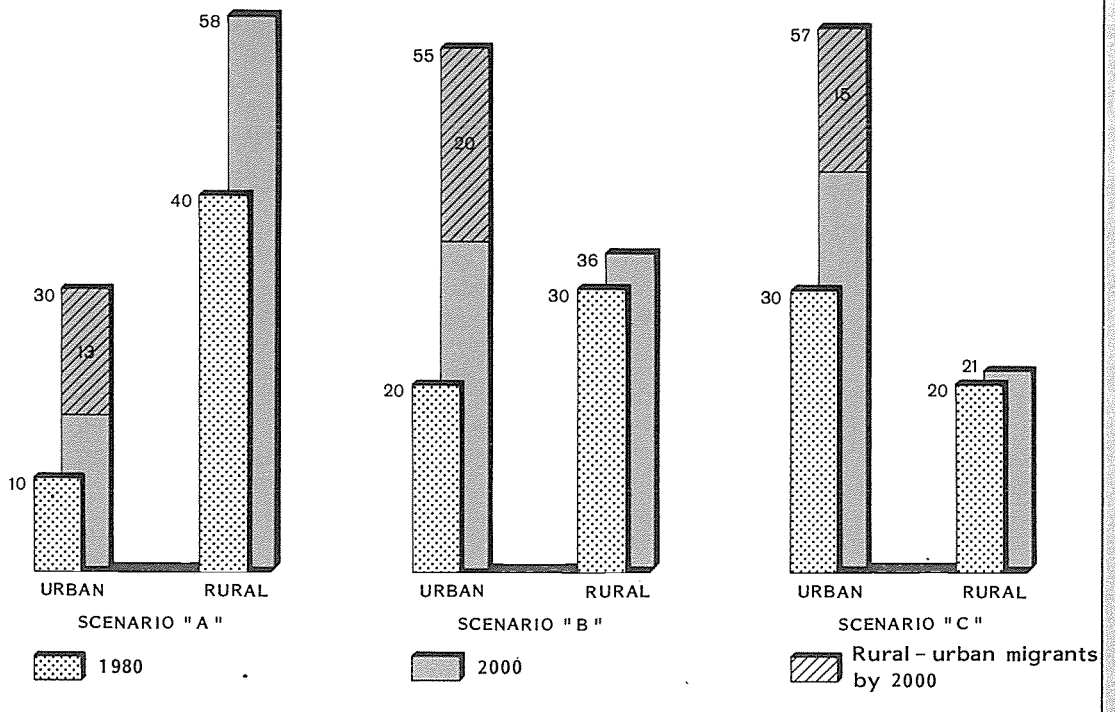
Scenario C: The share of the urban population in the total population is 60% in the starting year (typical 'Latin American' situation).

A procedure was developed to show the increase of urban and rural populations by the year 2000 and the importance of migrants in the growth of urban population. The procedure uses a migration rate that increases slowly but steadily with higher shares of urban population, reaching a peak of 3% (of rural population) when the urbanization rate reaches 54% of the total population. Migration decreases when urbanization is 75% of the total.

For each scenario, different but realistic natural growth rates have been selected: for scenario A, natural growth rates prevailing in Africa; for scenario B, those of East Asia; and for scenario C, those of Latin America.

The figure shows the increases of urban and rural populations by the year 2000 and the share of the urban population from migration over 20 years. The model is worked on the basis of a total population of 50 million in the year 1980, but any other population size would show the same growth patterns.

INCREASES IN URBAN AND RURAL POPULATION FOR THREE SCENARIOS BY 2000
(in millions)



Source: FAO, Policy Analysis Division.

usually leads to the wider use of improved technologies, and hence, a greater use of inputs, the monetization of small farms and modernization of the agricultural sector.

For example, the change in the composition of the value of agricultural production in the Republic of Korea from 1964 to 1979 (a period with a high rate of rural-urban migration) reflects the changing demand for food. Cereal production declined from 71% to 50%, while vegetable production increased from 7% to 22%; fruit production went from 2% to 4% and livestock production increased from 9% to 17%. The per caput consumption of livestock, fruit and vegetables all doubled between 1970 and 1981 (FAO 1983a).

One development, widespread in the past two decades in some countries and particularly in Latin America, was the replacement of crop farming by the raising of animals for meat production on an extensive scale. Such a farming system does not require intensive labour in planting and harvesting periods. In some cases, livestock production was combined with the mechanized production of feed grains, also to save labour. One example is Mexico where animal production and feed grain production outpaced the production of maize and beans (frijoles) for food consumption. The production of the latter two crops stagnated or declined from 1960 to 1980 while meat production increased by more than 6% a year and sorghum and soybean production grew by over 11% and 14% a year, respectively (Reig 1984).

In some cases such developments in production systems are in response to changing supplies of labour, that is, a response to rural out-migration. But in most cases, changing patterns in the demand for food may generate changes in production systems. While these changes provide the opportunity for growth in agriculture, the process of agricultural development frequently is associated with people being forced to leave the land or the rural economy entirely. Thus rural out-migration may be both the instigator and the consequence of the modernization of agriculture.

As urban markets grow, and the range of commodities expands, subsistence farmers with small plots are at a disadvantage because of their use of traditional practices, their lack of technical knowledge or access to inputs and credit. Some of these disadvantages may be offset somewhat by returning migrants who provide technical feedback and capital, but normally these benefits have been insufficient.

On the other hand, the transfer of labour from rural to urban areas should improve the overall income distribution in a country since former low-wage agricultural labour is usually paid more when employed in cities. In Brazil, for example, it was shown that rural-urban migration did in fact improve income distribution, partly because agricultural productivity increased. In the Republic of Korea and the Philippines, rural-urban migration helped improve income distribution between rural and urban areas, while rural inequalities increased partly because of remittances to rural areas sent by migrants (Gaude and Peck 1976).

Competition for Natural Resources

The impact of urbanization on agricultural production is not only felt through the changes it forces on production systems, but also through increased competition between rural and urban areas for land, water and wood.

According to one study, if present trends continue, 10 million ha of arable land will have been lost worldwide to urban encroachment from 1980 to 2000. Potential food supplies from this crop land could have fed 84 million people (Brown 1981). At the national level for example, the amount of land for urban use in Mexico is projected to increase by nearly

one-half between 1980 and 2000, and by the latter year will equal 3% of the cultivated area. Mexico City alone took 53 000 ha of agricultural land from 1960 to 1980 (Reig 1984).

Even if such a loss may not be so significant on a world or even a national scale, it gains in importance for the farming areas close to the fastest growing cities. For example, in the Delhi area of India, it has been estimated that more than 14 000 ha of land ceased to be used for agriculture between 1941 and 1971 because of urban encroachment (FAO 1983a).

Another example is Egypt where urban growth, mostly of Cairo, absorbed nearly 500 000 ha from agriculture from 1960 to 1980 (Parker and Cole 1981). In fact, urbanization has already removed from agricultural use an area of land equivalent to that brought into agricultural use by the Aswan Dam project.

Great urban centres are often located in rich agricultural zones, partly because surplus agricultural production freed labour to pursue non-agricultural occupations. Agricultural land of high productivity has been taken out of production in order to accommodate the housing, industrial and service needs of greater urban populations. Land of relatively lower productive capacity may have to be brought in at a greater rate than land taken by urban areas to compensate for the loss. For example, it was estimated that for every hectare of land taken out of production in eastern Canada because of urban growth, 2.3 ha of land in western Canada would be required to replace agricultural output lost (Brown 1981).

BOX 2-7. URBANIZATION AND THE INCREASING SCARCITY OF FUELWOOD IN SOME DEVELOPING COUNTRIES

It is said that in some parts of the developing world the fuel needed to prepare food for a meal is as important as the food itself. The increasing scarcity and cost of fuelwood and the much higher cost of fossil fuels since the early 1970s goes some way to explain the increasing demand, particularly in urban areas, for convenience foods that need little preparation.

It has been estimated that in Ouagadougou, the capital of Burkina Faso, the annual consumption of raw fuelwood is 438 kg per inhabitant and 29 kg fuelwood-equivalent in the form of charcoal (little charcoal is in fact consumed). It was also estimated that the potential yield of intact natural stands in the area is about 500-700 kg/ha/year. Putting these two estimates together it may be concluded that, for the population of Ouagadougou (260 000 in 1980), some 7 000 ha to 8 000 ha of intact forest would need to be clear-felled each year--the sustained yield from 200 000 ha to 300 000 ha of natural forest.

Higher yielding forest plantations would reduce this minimum area considerably to 30 000-40 000 ha, but the actual area of plantations around Ouagadougou was only one-sixth to one-seventh that size, and only 1 500 ha to 2 000 ha were about to come into production. Therefore, the fuel crisis in Ouagadougou can only worsen in the short run.

A similar situation is developing in and around Bamako, the capital of Mali in the same broad ecological zone. The per caput consumption figures are similar so that about 20 000 ha of intact forest would have to be cut to provide the fuel needs of Bamako district of between 500 000 and 600 000 people.

Most studies of domestic fuel needs assume the same per caput consumption in rural and urban areas. However, an FAO study found that in eastern Africa an additional 6% on average is required to cover urban service needs such as restaurants, small bakeries, blacksmiths, etc. (Kamweti 1984). Within this subregion, the range of this urban-service use varied from less than 1% of the total ir Somalia to 13% in Zambia.

A conflict also exists over water supplies. For example in Mexico, total water use is projected to increase 137% between 1980 and 2000. While water use in agriculture is responsible for much of this increase, the share of urban and industrial use is projected to rise from less than 20% to over 30% of total use during the 20-year period (Government of Mexico 1974).

The possible urban-rural conflict over water supplies is even more complex than that for land, since environmental damage can be traced to both urbanization and agricultural production. Water is subject to pollution from industrial and urban wastes, thus rendering it unusable for agricultural purposes. Yet water pollution can also occur if intensified farming results in the contamination of water by agrochemicals and the wastes from intensive livestock production systems.

The location of farms near an urban area will also affect what is produced and how it is produced. On one hand, there is ready access to expanding markets for high value products such as livestock products and fruits and vegetables. Electricity, telephones, equipment repair facilities and other services are more likely to be available, as well as training facilities and off-farm work for family members. However, urban growth is likely to increase land and water costs for adjacent farms. Higher taxes, labour costs, limits on manure disposal and agrochemical use may also represent constraints to production expansion.

Urbanization also intensifies the demand for energy and this has adverse implications for agriculture. In many developing countries, the domestic component of this demand is derived primarily from wood, either raw fuelwood or charcoal. The composition of energy sources varies widely among countries. For example, in Zambia, 20% of the population uses raw fuelwood and 80% charcoal, while in adjacent Malawi these percentages are completely reversed (Kamweti 1984). The use of fossil-fuels such as oil and gas is usually limited to high-income groups because of their cost, and the capital investment in household equipment needed to use them.

The increasing demand for fuelwood rapidly leads to the deforestation of the land around towns and cities and an increasingly reduced access to fuelwood. For example, in Ouagadougou (Burkina Faso) it is reported that by 1980 the distance to be covered to find fuelwood was 70-100 km along the main roads. Off the main roads, some limited supplies are still available closer to Ouagadougou, but transportation is much more difficult (Chauvin 1981).

In urban areas, the cost of fuelwood and charcoal has increased dramatically in recent years, especially in areas of Africa away from the equatorial zones and in parts of Asia. In Ethiopia, for example, purchases of fuelwood and charcoal use about 20% of the average household income. Again, in Ouagadougou the retail price of fuelwood in 1980 was about CFAF 9-11.50/kg depending on how it was sold. This was a heavy burden on the budgets of urban families, although the sale of fuelwood and the production of charcoal were useful additions to farmers' incomes.

The widening areas of degraded forests close to urban centres show an increasing threat of soil erosion and an increased risk of desertification. Furthermore, as fuelwood becomes scarcer and its price rises, there will be more incentive to use crop residues and dried livestock manure as a source of energy rather than as a fertilizer and soil conditioner. Yet efforts to overcome the shortage of fuelwood by establishing plantations close to towns will compete with crop production for land.

4. NUTRITIONAL CONSEQUENCES OF URBANIZATION

On the side of food demand, urbanization has the greatest consequence for agriculture because of the differences in the patterns of food consumption between urban and rural residents. These patterns will also influence peri-urban and nearby rural areas as well. Low-income urban residents and predominant among them, migrants, may not necessarily eat either adequately or well; and while malnutrition may be more widespread in rural areas, it is often more intense in low-income areas of cities.

Some ways of allowing low-income urban residents to improve their access to food may carry dangers to health. Urban backyard livestock and vegetable production may not comply with minimum sanitary requirements, while low-price providers of prepared foods, street-side food kiosks and vendors may consitute a public health threat.

Dietary Changes Associated with Urbanization

Urbanization is usually accompanied by changes in the kind of food consumed by those who have come from other places. Consumption surveys undertaken by FAO in Tunisia and Brazil illustrate this trend. The food staples (mainly hard wheat in Tunisia and maize and rice in Brazil) of the traditional rural diet become less important in the urbanized diet. They are replaced by other foods, particularly processed cereals such as bread and wheat flour, livestock products and vegetables (Table 2-8).

TABLE 2-8. CHANGES IN FOOD CONSUMPTION PATTERNS BETWEEN RURAL AREAS AND CITIES, TUNISIA AND BRAZIL

	Tunisia (1975)			Southern Brazil (1974-75)		
	Rural areas	Urban areas	Major cities	Rural areas	Urban areas	Major cities
	..... calories/person/day					
Cereals	1 662	1 307	1 129	1 057	910	897
of which:						
Traditional staples	1 250	498	222	637	405	431
Bread and wheat flour	246	607	764	405	426	434
Roots and tubers	24	40	40	183	101	75
Vegetables	62	87	80	21	23	28
Fruit	34	34	35	33	39	46
Meat	42	63	90	178	214	227
Fish	3	11	14	8	12	8
Milk	68	50	108	139	120	152
Oils and fats	400	447	431	252	307	328
Share of basic foods in diet (% of calories)	69	62	57	60	53	51

Source: Adapted from FAO 1983b.

The consumption of food that provide energy and protein from vegetable sources is at its maximum in rural areas. The consumption of these foods decreases as a consequence of urbanization. This is due to the consumption of less traditional basic foods and the substitution, in lesser quantities, of more processed cereals. On the other hand, food consumed as a consequence of urbanization appears to be richer in animal protein, fats, and vitamin A, owing to a greater consumption of livestock products.

These dietary changes also have implications for the intake of micronutrients. For example, iron in the urban diet is more easily assimilated because this diet contains more iron of animal origin. The implications of urbanization in relation to calcium and vitamin C consumption are not clear, however.

Urbanization has consequences for food consumption patterns in rural areas as well. Through personal contacts, families of migrants remaining in rural areas tend to make some changes in diets that are similar to the changes made by the migrants themelves because of demonstrated effects and the receipt of remittances. Rural dwellers may also consume some of the new foods they produce for urban markets. As farmers specialize in crop production in response to changes in food demand, the variety of food produced in local rural areas may become more limited and can adversely affect the diets of the low-incomes rural population.

Access to Food and Urban Malnutrition

Most nutritional studies show that malnutrition is more widespread in rural than in urban areas of developing countries, but that the intensity of malnutrition is worse and becoming more severe in urban areas, particularly for children. This is mostly because access to food in cities is almost totally dependent on monetary income and the employment situation in many urban areas in developing countries is worsening.

For the newly arrived migrant, apart from income itself, crucial factors determining whether he or she can obtain an adequate diet are the length of period of unemployment following arrival and whether or not there are family members or friends who can provide food and lodging during the waiting period.

In addition, remittances to family members remaining at home in the rural areas may demand a significant portion of the migrant's income once a job is found. Because rural-urban migrants often constitute the majority of low-income groups in urban areas, where malnutrition is most frequently found, it is expected that they represent a significant proportion of those who do not have access to adequate diets.

Caloric intake in rural areas is usually higher than in urban areas (Table 2-9). However, this is partly because energy requirements are higher in rural areas owing to the greater amount of manual labour performed there.

TABLE 2-9. DIFFERENCES IN AVERAGE URBAN AND RURAL CALORIC INTAKE IN SELECTED COUNTRIES

Country	Urban	Rural
	... calories/day ...	
West Pakistan	1 806	2 126
East Pakistan	1 732	2 251
Eastern Brazil	2 331	2 258
Southern Brazil	2 451	3 072
India	1 480	2 090
Thailand	1 504	1 821
Trinidad and Tobago	2 550	3 011
Chad	2 113	2 467
Korea, Republic of	1 946	2 181
Indonesia	1 633	1 885

Source: Austin 1980.

Regardless of the level of income, the availability of food in cities influences the adequacy of the diet. In regions where food cultivated in backyards or gardens plays an important role in diversifying the rural diet, rural-urban migrants may not have access to sufficient land--if they have any at all--on which to grow vegetables or fruits, or to raise poultry or other small animals. Such foods can be available in cities, but prices may put them beyond the reach of most migrant families.

People in urban areas with low incomes spend most of their income on food and consequently have little choice as to what kinds of food they are able to buy (Table 2-10). Most migrants find themselves in this situation initially and are less likely to have had any nutritional guidance. The resulting diet may rely heavily on low-price staples and processed foods that may not provide the best nutrition for the expenditure.

TABLE 2-10. PERCENTAGE OF INCOME SPENT ON FOOD BY THE LOWEST INCOME QUARTILE IN SELECTED CITIES IN LATIN AMERICA

Country/City	Percentage of income spent on food
	%
Colombia	
Bogota	57.1
Barranquilla	67.7
Cali	67.4
Medellín	62.5
Chile	
Santiago	52.2
Ecuador	
Quito	59.7
Guayaquil	68.5
Peru	
Lima	57.6
Venezuela	
Caracas	50.4
Maracaibo	58.2

Source: Austin 1980.

These conditions may explain the urban bias often apparent in food distribution that can lead to large cities receiving a disproportionate share of public food. The cost of administering food distribution programmes may mean that rural areas--that are less accessible--will have to receive less attention.

Urban Slums and Nutrition

The most severe nutritional problems in many countries exist in the so-called peri-urban or suburban areas of large cities, where rural-urban migrants tend to congregate. The problem of poor nutrition in these areas is not only because of low incomes, but to limited access to food, since urban transportation is frequently not available and local markets are often far away. An emerging problem in these zones is the large number of households headed by working women who have little time to shop and prepare food for their children. Their time available for breast-feeding is also severely limited and babies have to be weaned early. It is reported that malnutrition among children in these areas is increasing (Nelson 1978).

People with low incomes in urban areas often have to buy food at small local outlets that have higher prices than supermarkets. But the small stores give credit that low-income consumers are often forced to use because of unemployment and low wages. While the large supermarket is

able to buy large volumes on credit and sell large volumes for cash, the small food store must buy small volumes with cash and sell on credit, thus giving the large stores a financial advantage. Therefore, small stores usually sell lower quality food at higher prices so that food takes an even greater percentage of the income of the poor.

Urbanization and Food Safety

Methods of solving the nutritional problems of cities, such as developing urban agriculture, may raise other problems related to food safety. Uncontrolled or unregulated food crop and livestock production in densely populated urban areas can lead to serious sanitary and health problems. Such a situation caused a social worker in Mexico City to comment that the poor can die from what they eat as well as from a lack of food. On another continent, the feasibility of establishing rural cooperative dairies in India (the successful 'Operation Flood' programme) partially rested on the need to phase out, on public health grounds, the dairies that were situated in the midst of many Indian cities.

The density of population in urban areas makes adequate sanitary regulations of food handling most important. The wide variety and scale of food processing facilities, markets and retail outlets, particularly the street vendors and food kiosks, typical in the urban environment of developing countries, pose a challenge to the formulation of sanitary regulations that are sufficiently effective, but which do not impose high costs. This is becoming increasingly difficult as city dwellers turn to raising their own food, and the unregulated urban informal sector is usually focused on the marketing and preparation of food.

5. URBAN GROWTH AND FOOD MARKETING

Rapid urbanization in developing countries signifies a greater reliance on markets to supply the food needs of the urban population. Rural-urban migration implies that proportionately fewer people are able to grow their own food, which in turn means that food marketing facilities and channels must grow faster than overall population growth rates. Urban populations of developing countries depended on imports for nearly half of their food consumption in the late 1970s, and this can only worsen without substantial developments in marketing systems (Austin 1980).

Estimating Food Marketing Needs

According to a simple calculation, an additional 131 million tons of food in wheat equivalent will have to be shipped to urban areas in developing countries to feed those who will have migrated to urban areas between 1980 and 2000 (Table 2-11).8/ The actual amount produced on farms will have to be greater than the 131 million tons quoted because of food losses in storage, transportation, processing and distribution. Another 160 million tons of food in wheat equivalent will be required to feed the additional urban population due to natural increase.

The projected requirements in wheat equivalent of over 290 million tons in 2000 from the net addition to urban populations in developing countries between 1980 and 2000 provide a general idea of the additional food to be marketed owing to urbanization growth.

The marketing needs of the urban population of different countries and regions will vary because of differing rates of urban growth and present levels of marketing systems. Africa clearly seems to be in a precarious position as it will have to increase food marketing by nearly the same amount to urban areas as Latin America, but without the same degree of market infrastructure. Inability of the market to adjust to the urban

8/ See Box 2-5 for the methodology employed.

TABLE 2-11. ESTIMATED INCREASE IN FOOD REQUIREMENTS (WHEAT EQUIVALENT) FROM ADDITIONAL URBAN POPULATION BY 2000

Region	Total urban additions 1980-2000	Urban migrants 1980-2000	Natural additions 1980-2000
	.....million tons.....		
Africa	56.9	25.6	31.3
Asia	173.6	78.1	95.5
Latin America	59.6	26.8	32.8
Total	290.1	130.5	159.6

Source: FAO, Policy Analysis Division.

demand for food, plus the difficult production situation, could combine to put Africa in a serious food import position leading to greater balance of payment problems and the need for more food aid.

The large population base in Asia means that the net additional quantities marketed in urban areas will be roughly three times those of Latin America and Africa, even though Asia has both lower population growth and rural-urban migration rates.

Food Marketing and Urban Consumer Demand

The main challenges to marketing systems in developing countries as a result of urbanization are the major adjustments that must be made to meet the changing demand for food as well as the increase in the quantity of food to be marketed, and the need for agricultural input markets to provide the necessary quantity and mix of inputs required to produce the food products for urban markets. The food produced domestically will have to reflect the change in demand, and marketing channels will have to be expanded and created, in some cases, to satisfy domestic demand. The failure of the marketing system to work efficiently can result in lower prices to farmers, higher prices to consumers, and increasing food imports.

The demand for livestock products, fruits and vegetables will grow more rapidly than the demand for food grains as urbanization expands. While the importance of grains as a staple food will not diminish much and will remain crucial to the nutritional needs of low-income people in urban areas, an increasing demand for non-grain foods will require the rapid creation and expansion of marketing systems. Since these products are more perishable, greater market specialization in terms of physical facilities and management will be necessary.

Market adjustments will also occur in the provision of inputs for increased production of livestock products, fruits and vegetables. Clearly, pharmaceutical items will have to be supplied to provide for the health of animals as well as provisions of coarse grain and feed concentrates for intensive animal feeding in order to satisfy the growing demand for meat and milk. Also, increasing inputs of pesticides and herbicides specific to fruit and vegetable cultivation will have to be made available.

Evolution of Marketing with Development

As economic development progresses, the marketing component of the consumer's expenditure for food increases because more raw food products must be processed, packed and distributed to consumers. Yet the food system's share of a country's total economic activity declines as incomes rise, even as the need for food marketing functions rises. These trends can be observed in Colombia where, from 1970 to 1982, the food system's

share of economic activity declined from 38% to 34%. During the same period the off-farm component of the food system increased its share from nearly one-third of the system's economic activity to almost one-half, while the share of on-farm food production declined proportionally (Silva et al. 1984).

The case of the Republic of Korea also provides an example of the rapid growth of marketing as economic development proceeds. The ratios of marketed volume to total production of some commodity groups at the beginning and end of the 1967-80 period were as follows: rice 39%-46%; wheat and barley 26%-73%; miscellaneous grains 48%-94%; and vegetables 57%-77% (FAO 1983a).

During the initial phases of urbanization, the lack of an infrastructure and responsiveness to changing conditions appear to be the biggest problems in marketing. Critical bottlenecks are likely to occur in the transportation of food from rural areas to cities and in the overcrowding of access roads to markets.

Frequently, developing country transport systems have been built to facilitate the export of products rather than to move local produce to domestic urban centres. When urban food supplies are heavily dependent on imported foods, little domestic transport is needed other than to move foodstuffs from ports to major distribution points in cities. Inadequacies in the domestic transport sector may make it cheaper to import food rather than to acquire it locally. Importing food is also attractive because governments can more easily control prices and availability compared to domestic production, and quality standards are often more reliable.

Conversely, when a large share of food is produced domestically, an extensive transportation system is required to transfer food from principal food-producing to food-deficit zones. Roads must be built, improved and maintained, so that more products can move at faster speeds and incur less damage. Greater speed is needed to reduce ton-per-mile costs, since more perishable goods such as fruit, vegetables and livestock products have to be moved greater distances than formerly because of urban growth. Speed is crucial because an increasing demand for perishables by urban areas make transport costs and wastage important factors affecting both producer and consumer prices.

Storage presents a problem that is normally ranked second only to transport as the primary bottleneck in the transfer of food to urban areas. As the commercial production of grains and perishable crops increases above immediate market requirements, not only is a greater storage capacity required, but storage facilities may be required in more places. The marketing of processed foods requires different storage facilities as urban tastes begin to dominate food demand patterns.

The need to preserve food and transport it long distances will require new food processing methods. Food processing can have serious nutritional consequences because important nutrients can be lost either because the process cannot economically utilize the whole product, or because of spoilage. On the other hand, the fortification of processed foods by adding nutrients and vitamins can improve nutrition in cities as well as in rural areas.

Traditional and modern marketing

The traditional food marketing system is often characterized by inefficient marketing services with many small-volume, high unit-cost transactions and high food losses. Yet modern marketing systems often by pass low-income people in urban areas and may leave them worse off.

Modern marketing developments in some countries have failed to alleviate urban nutritional problems in some countries. The development of commercial supermarkets in Latin America and, in some cases, in Asia, has generally taken place in relatively affluent neighbourhoods where clients have their own automobiles and a bank account and are normally required to shop at modern supermarkets where large-purchase, one-stop shopping is the norm. A refrigerator is also necessary to store perishables once shopping ceases to be a daily activity. Clearly, low-income residents in urban areas have neither the means nor the access required to utilize such facilities.

The trend toward supermarkets in Latin America is particularly demonstrated in the metropolitan area of Mexico City. From 1970 to 1975, the proportion of total food sold in Mexico City at small neighbourhood stores plummeted from 63% to 27%. The share of supermarket chains meanwhile increased from 10% to 37%, and the share of sales of speciality food shops rose from 27% to 35% (FAO 1977).

BOX 2-8. URBANIZATION AND FOOD IMPORTS

Increased urbanization in developing countries leads to increased dependency on food imports. This is supported by evidence provided by 61 developing countries (with populations of more than 1 million) for which data between 1970 and 1980 on food imports in relation to total food supplies and urbanization were available (see chart).

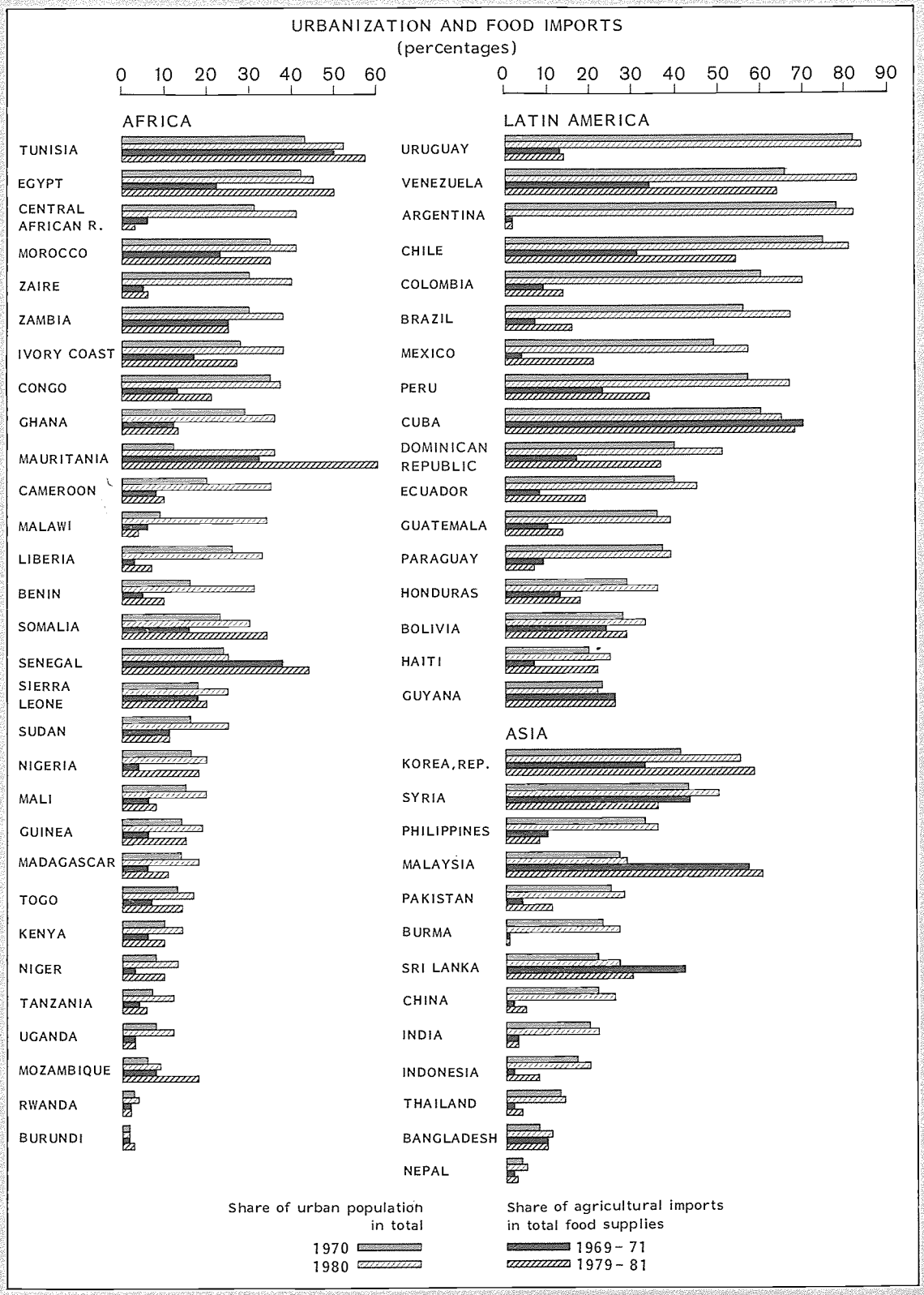
In 43 of the 61 countries, the importance of agricultural imports in food supplies increased; and in all but one country, the share of urban population per total population also increased.

However, other factors are important in determining the level of a country's imports of food. For example, urbanization is highly correlated with level of income, and both urbanization and income are associated with changing food tastes. Other important factors are the country's ability to finance food imports (foreign exchange balances, debt position, and access to food aid) and yearly changes in domestic food production. All of these factors and others mentioned here interact to obscure the relationship between urbanization and food imports. Nevertheless, when the 61 countries are classified according to the rate of increase in urbanization between 1970-1980, those that urbanized fastest (more than a 30% change) increased their dependency on food imports faster than those that urbanized more slowly (less than a 10% change). Economic growth (as measured by average annual changes in GDP in constant dollars) was similar for both groups of countries.

The adjacent figure shows changes in urbanization and food imports in relation to food supply.

Changes in Urban to Total Population, 1970-80

	Less than 10%	10.1-20%	20.1-30%	More than 30%
Developing countries (no.)	16	14	11	20
Average change in food imports/total food supply (%)	39	109	89	54



Source: FAO, Policy Analysis Division.

The expanding influence of marketing functions

As rural-urban migration proceeds, incomes rise, tastes change, and consumers demand marketing services beyond those required for simply moving food to the city. The demand for greater convenience in food preparation and higher quality food generally rise as incomes and population concentrations increase. This is particularly true since time and facilities available for food preparation are different in urban and rural areas. This tendency has been shown in most countries by the demand for wheat bread over the local staple, as well as an increase demand for meat, fruit, vegetables and pasteurized milk in place of food grains and untreated milk. When marketings are inadquate or the marketing system is too inefficient and unable to compete against imported products, the result is an increase in food imports.9/ A critical issue in developing countries, where the cost of food is also the principal component of the cost of living, is how marketing services are provided at minimum costs.

The role of the small farmer also changes as food and input markets evolve. Many of the transport functions formerly performed by the small farmer are usually taken over by trucking operations directed by entrepreneurs. A growing share of the purchases from farmers will be made by wholesalers or processors who reach back as well as forward in the marketing system.

On the supply side, production may have to be geared to new processing schedules and equipment that are required by a changing marketing system. More important is the need to plan production around commercial tolerance guides for grades and standards. For example, contract farming requires the farmer to deliver a certain quality and quantity during a specific period of time.

On the consumption side, more people concentrated in urban areas will result in a greater influence of advertising on consumption habits compared to rural areas. In addition, there will be a less face-to-face relationship in the market place so that the names of processors and merchandisers will be more important in food choices. Consumers will be the crucial element on the demand side and the final arbiter of the marketing system.

6. POLICY OPTIONS

It is clear that economic development means slower growth in farm than non-farm employment opportunities. Unless jobs are provided in rural areas to absorb those released from agricultural production, migration also must accompany economic development. It is equally clear that urbanization and migration are not self-adjusting processes and if not controlled or directed to some degree, can result in deteriorating living conditions for both rural and urban people.

However, few goverments have provided the guidance, incentives or actions required to ensure an orderly transition from an agricultural to a non-agricultural based economy. Instead, the common pattern has been major imbalances in socio-economic conditions between rural and urban areas.

Governments and their development planners must recognize the interdependent nature of agriculture, rural development and demographic phenomena, including urbanization and migration. They must seek a coordinated approach to policies that affect development and welfare objectives and the implementation of the policies among the agencies that formulate them.

9/ The exchange rate is, of course, a major factor in determining the relative local cost of domestically produced and imported food.

The simple relationship in Figure 2-2, Section 2, depicts the simultaneous movements in demographic, production, marketing and nutrition factors that correspond to different levels of development. While the complexity of economic and social factors cannot be fully represented this way, any one of these factors can create a bottleneck in the course of development.

Direct Actions

Apart from the need to better integrate policies and programmes in a wide variety of fields across various governmental agencies, a number of policy options are available to mitigate some of the worst problems associated with the effects of urbanization and rural-urban migration. Policies can be directed towards:

1. Modifying migration, population redistribution and population growth;

2. Helping food systems adjust; and

3. Competition and natural resource use.

Modifying Migration

The development process includes the transfer of labour from agricultural to non-agricultural occupations as agriculture modernizes. This inevitably leads to some rural-urban migration when jobs are created in the industrial and service sectors. However, the growth of an urban bias in national policies and development strategies has become perceptible that encourages excessive rural-urban migration with ultimate negative consequences for both urban and rural areas.

The role of government in creating and extending an urban bias towards major urban centres has been pervasive through such activities as: industrial promotion in or near major cities; higher education centered in urban areas; food subsidy programmes in cities; low prices to producers of agricultural products; subsidized urban housing and urban services; better medical facilities in urban areas; industrial protection policies that increase agricultural input prices; and concentration of investment in infrastructure in urban areas. These policies have helped to widen the gap in living standards between urban and rural areas, providing a major impetus to out-migration from the latter.

Clearly, governments will have to modify their development policies and programmes to slow down migration in order to promote orderly and cost-effective development for both urban and rural people. Such modification have already been set down in the programme of action of the World Conference on Agrarian Reform and Rural Development (WCARRD) in 1979 (FAO 1981b).

Improving rural infrastructure, services and living conditions. Apart from correcting an urban bias in policies, policymakers and planners have been urged to improve the incomes and living conditions of rural areas in order to retard rural out-migration. Rural electrification, more and better schools, medical facilities, and recreational outlets are among the amenities most sought.

The greatest obstacle to such investments is that the cost per caput of delivering such services in rural areas is normally higher than in all but the largest urban areas, mainly because population densities are lower. It is also difficult to attract and retain staff in relatively isolated places.

Some of the more successful attempts to improve living conditions in rural areas have concentrated on promoting in such areas economic growth

centres. Such developments have often led to an improvement in living standards by providing jobs and have created a tax base so that rural communities can become more self-sufficient in providing services.

Rural industries. The need to create employment and income-earning opportunities in rural areas is a crucial issue. Rapid urbanization requires a more productive agriculture that usually results in fewer people being employed in agriculture. This creates a reserve of low-cost labour relative to urban areas where relatively high wages result, often from a statutory minimum wage and pressure from labour unions.

A commonly advocated alternative to metropolitan growth is the location of industry in rural areas to provide part- or full-time employment to local people. The creation of jobs and the resulting multiplier effect provide an economic base that can lead to agglomeration economies and further economic growth. The extension of agricultural processing, grading and assembly points to rural areas can help increase employment and incomes.

This approach has been effective in many developed countries and is now increasingly advocated in developing countries. For example, in Kenya a combination of capital investment by peasants and small businessmen, principally in labour-intensive agro-processing industries, provided jobs to many rural people, including farmers. In the late 1970s, in some areas about one-half of the farming households had off-farm incomes and two-thirds of those employed off-farm had full-time jobs (Freeman and Norcliffe 1983).

In China efforts have been taken to shift excess agricultural labour into other occupations in rural areas. This is achieved through the establishment of enterprises in rural areas such as food processing plants; the manufacture of building and construction materials, and other goods; the maintenance and repair of farm equipment; rural energy production; and small-scale mining and other light industries that employ and keep people in rural areas. The Chinese government attaches importance to such measures as a means of relieving the pressure on the big cities and of promoting the balanced development of industry and agriculture as well as urban and rural areas.

Rural family planning assistance. Programmes to reduce population growth through economic development are generally long term in scope as research has shown that socio-economic factors have a mitigating influence on fertility rates only after a relatively high level of income has been reached. An initial reaction to economic progress may be larger families, as education, income and job opportunities increase. However, after critical minimum income and educational levels are reached and infant mortality rates are reduced dramatically, birth rates will most likely begin to fall. But this is a slow process that may not take effect before more drastic methods are required.

Since the 1974 World Population Conference in Bucharest, profound changes in attitudes toward family planning and population distribution have taken place in many countries. Most countries have begun family planning programmes and while not all of the programmes have been successful, the overall population growth rate for developing countries has fallen from about 2.6% a year during the late 1960s to 2.1% a year currently.

As mentioned, the fertility rate in rural areas is higher than in urban areas. Although available figures for mortality rates in rural and urban areas clearly show that mortality rates are considerably higher in rural areas--largely because of the lack of medical services and health education--they will drop as socio-economic conditions improve, thus increasing population growth.

The fact that rural population growth may accelerate and contribute even more to rural out-migration pressures, suggests that family planning services should be intensified in rural areas. While the costs of a rural family planning programme may be higher than an urban one, the benefits to society are still likely to be greater than the costs.

BOX 2-9. THE INTERNATIONAL CONFERENCE ON POPULATION 1984

The International Conference on Population was held in Mexico City in August 1984 to appraise the implementation of the World Population Plan of Action adopted in Bucharest in 1974. The conference reaffirmed the validity of the principles and objectives that have served as a guide to action in the field of population for governments and for international and non-governmental organizations. However, it was noted that the demographic, social, economic and political conditions of the world have changed considerably since then. While progress has been made in achieving some goals of the plan, other goals such as those relating to mortality, have not been met. Some important gaps in knowledge have been filled, but new issues have emerged to challenge the international community.

Urbanization was among the major issues raised by the Plan of Action. It was noted that the urban population continued to increase far more rapidly than the total population in most regions of the world. Furthermore, rapid urban population growth had become a matter of growing policy concern to most governments, particularly in developing regions where urban unemployment levels remain extremely high.

In the preparatory work for the conference, four expert group meetings convened in 1983 to review developments in four priority areas:
(1) fertility and the family;
(2) population distribution, migration and development;
(3) population, resources, environment and development; and
(4) mortality and health policies.

The 88 recommendations regarding the Plan of Action, that arose from these and other meetings and that were discussed and endorsed by the conference, included several related to urbanization and migration.

Given the rapid growth of urbanization, it was recommended that population distribution policies should be integrated with economic and social policies. Governments were encouraged to base such policies upon a broad cost-benefit analysis of individuals, families, different socio-economic groups, communities, regions and the country as a whole.

It was pointed out that if governments wanted to slow rural-urban migration, they should implement population distribution policies through incentives instead of through coercive measures, since the latter are difficult to implement and could violate human rights.

Governments that had adopted or were going to adopt an urbanization policy were encouraged to try to incorporate it in the overall process of development planning. Specific measures to reduce rural-urban migration were noted, such as the development of small- and medium-sized urban centres, and the reduction of inequalities among regions as well as rural and urban areas.

Source: UN 1984.

Population redistribution. Policies that encourage the expansion of and migration to secondary cities and towns not far from rural peoples' origins, have been successful in some countries. For example, both the Republic of Korea and Pakistan have met with some success in promoting such a policy and their secondary cities are growing faster than Seoul and Karachi, their respective primate cities.

BOX 2-10. AN INTEGRATED PROGRAMME: THE CASE OF THE REPUBLIC OF KOREA

The Republic of Korea initiated a comprehensive programme of population and income redistribution more than twenty years ago. The initial policy guidelines revolved around the geographic allocation of economic activities because of the role of economic incentives in determining people's movements. Three criteria were then outlined to determine subsequent investment: the need to specialize regional production; the calculation of the costs and benefits of economic efficiencies; and long-term environmental consequences.

Concurrent policies for urban and rural areas were then implemented in the 1960s under the 'New Community Movement' that aimed to improve social and economic conditions for all regions, while reducing regional imbalances and urban-rural disparities. These were accompanied by a programme of land reform.

A tenfold increase in real farm income during the 1970-81 period has been claimed. Added employment in new rural occupations also increased non-farm incomes of farmers from 18% to 33% of all earnings. A rural housing programme and national education and transportation networks were developed to reduce regional disparities. The location of economic activities in secondary cities such as Inchon and Pusan are believed to be an important element in the reduced rate of migration to Seoul, the capital city.

Sources: Shin, Dong-Wan and Yang-Boo Chui 1983. Shin, Dong-Ju and Koe-Won Lee 1983.

The development of new or satellite towns near other large cities has also been attempted in some countries, such as India, to achieve a better population distribution. However, most efforts in developing countries to redistribute population in this way have not been very successful largely because of the cost involved and the tremendous amount of planning required. Mexico attempted to develop four cities to alleviate the population pressure on its federal district. The results of the project are not yet available, but preliminary indications have not been favourable.

Some countries provide monetary incentives to encourage migration from crowded to underpopulated regions. Indirect subsidies have also been utilized in the form of the provision of services to a sparsely populated area in an effort to attract people. The establishment of Brasilia is an example. Government-sponsored resettlement schemes have also been attempted to relieve population pressure. The transmigration programme of Indonesia is an often cited example of an attempt to expand agricultural frontiers in order to reduce urban population growth rates.

Rural development programmes should also have a population retention component through the setting up of infrastructure necessary for the location of industrial and service activities and the creation of jobs in rural areas. A major purpose of some programmes could be to involve local rural inhabitants in the planning of projects that are to be implemented in the area. The panchayat experiment introduced in West Bengal (India) in 1978 is an example in that it mobilizes partly remunerated labour in rural development. Such programmes can offer a partial alternative solution to migration.

BOX 2-11. TRANSMIGRATION: THE EXPERIENCE OF INDONESIA

Transmigration in Indonesia has its roots in the colonization programme of the Dutch colonial administration and even in pre-colonial days, with people moving from the densely populated inner islands of Indonesia such as Java to the lightly settled outer islands, particularly Sumatra. However, the transmigration programme proper was reinstituted in 1950 by the newly independent Indonesian Government. It was seen originally as a way to reduce poverty and later as a programme to alleviate population pressure on the overcrowded island of Java. However, it has become recognized that transmigration itself can have little impact on the rate of population growth in Java except in specific locations. The officially held view is that transmigration brings unused resources into production and is a means of regional development. In these respects, the programme has been successful.

Although there have been extensive modifications to the transmigration programme throughout its long history and the categories of transmigrants and the eligibility of people for participation in the programme have changed over time, there is a basic distinction between general and spontaneous transmigrants. The former receive full support from the government, including all transport costs, 2 ha of prepared land, food until the initial harvest and--on a repayment basis--housing, utensils and agricultural inputs. Spontaneous transmigrants have to pay for their transportation costs but receive land and other assistance at their destination in the outer islands.

The programme has had a history of overly optimistic targets and rising budgetary costs. For example, in the 1950s only 28 4000 people were settled compared with the target of over 6 million. The modest target of 40 000 families settled in the first five-year development plan, Repelita I (1969-74) was exceeded, but that of Repelita II (1974-79) of over 250 000 families was achieved to an extent of only one-third. Repelita III (1979-84) had a target to settle 500 000 families, but the figure has not been attained. Budgetary expenditures have soared from Rp 2 300 million in 1972/73 to Rp 360 000 million in 1981/82; international agencies also have increased their participation in the programme.

Problems encountered have been of essentially three categories: administrative, insufficient preparation in the destination areas, and socio-cultural difficulties. Although greater attention is being given to site selection and preparation, the mass movement of relatively young, and hence fertile, couples and their children to a different environment, inevitably poses major challenges to health and educational systems that are not well developed. Queries are now being raised about the population supporting capacity of the outer islands themselves and land shortages there could well emerge.

Source: UN/ESCAP 1981.

Helping Food Systems Adjust

Direct policy measures can be undertaken in the food production, marketing and nutrition components of a country's food system to help adjust to the changes brought about by urbanization and to prepare for likely problems. There is ample scope for improving the commercial and public sectors of most developing countries to meet the needs of food producers and consumers, increase food production, establish efficient marketing systems and enhance access to food.

Food and agricultural production

More food will have to be produced by relatively fewer people as urbanization proceeds. Production patterns will have to change to meet changing food consumption patterns and to allow for the changing size and structure of the agricultural labour force (relatively more women in Africa and Asia, and the young and elderly in all regions). Pressures will increase for mechanized methods of farming to be introduced and, in situations where land ownership is already skewed, greater inequality in the access to land is likely to emerge. Without some form of intervention, the operation of market forces may mean that the opportunities offered by expanding urban markets are grasped by a privileged few and bypass the majority.

Some of the ways to help food producers meet the challenge of urbanization can only be outlined here since they embrace a very wide range of possible interventions in agricultural development. Measures meeting the needs of the rural poor and small-scale farmers will help to ensure that development reduces rather than increases the flow of migrants to overcrowded cities. Such measures can be on the following lines:

- Extension services have to be strengthened in several ways. Different types of farmers will have to be contacted, particularly women farmers, which means the recruitment of more women extension staff. New technologies will have to be introduced to intensify the production of existing food products. Farmers will need to learn how to cultivate new crops such as vegetables on the periphery of towns. Extension staff may have to be retrained or equipped to handle these problems and applied agricultural research programmes may also have to be reoriented to generate the technologies needed to produce existing food products in new ways and to produce new or non-traditional crop and livestock products.

- Inputs will have to be more widely available. Clearly, more intensive production generally implies greater input use and hence the wider distribution of inputs. Seeds and planting material will be needed for new or non-traditional crops and stock for new livestock enterprises. Decisions will have to be made on what forms of mechanization should be promoted (if any) and whether to improve existing livestock or to take the opportunity to introduce improved and possibly exotic breeds, which may lead to more capital-intensive production systems. Better and more efficient distribution channels for inputs will have to be sought.

- Greater input use implies a greater need for working capital and hence credit. Here again the need for greater access by women farmers, often discriminated against in this area, must be taken into account.

- Land reform measures, such as limits on farm size and redistribution, may have to be introduced to prevent deterioration in the structure of land ownership or access.

Marketing development

Large-scale commercial operations. A major feature of the successful development in delivery systems in the commercial sector has been the proliferation of vertical coordination by which producers are linked with food distributors. It is widely held that efficient vertical integration will be the key to efficient food production and delivery in many developing countries as marketing channels become longer and more complex, and as the scale of handling food increases geometrically with urban growth. However, such a marketing structure carries the danger of an excess concentration of bargaining power from both the producer's and consumer's viewpoint. It also lends itself to the adoption of imported technology and advertising.

Small-farmer cooperation. A complement to vertical coordination for marketing purposes is horizontal coordination among small-scale producers in order for them to undertake various cooperative ventures that enhance access to lower cost services and supplies and reduce marketing costs. Small farmers can join together to form supply and marketing cooperatives to obtain inputs and services and to assemble, grade, transport and sell their products to varying degrees. However, in many developing countries small farmers often lack the managerial skills needed for such ventures to succeed, let alone the organizational and business background. Employing experienced managers is usually essential and government can provide guidance in their selection and training.

The role of government in marketing. In addition to needed attention to the structure of food marketing, concomitant developments in public institutions are crucial to the effective evolution of a food supply system capable of satisfying the needs of a rapidly urbanizing population. Direct state intervention has been used successfully in some cases to stabilize the prices paid by low-income consumers for basic foods during periods of economic stress and food shortages. In other cases, governments have successfully played a role of facilitator to improve performance of commercial markets rather than as controller of food prices and have intervened in food distribution. This facilitating role is particularly important to the servicing of rapidly growing urban areas that will require greater volumes of perishable food (meat, fish, vegetables, fruits and dairy products) on a daily basis.

Governments are frequently involved in making markets more efficient, which in most cases could be achieved by making the process of market price formation more transparent. Many countries have been advised to use auctions to help food buyers and sellers arrive at prices efficiently. Crop reporting, market information and outlook services can be important in enabling food systems to adjust. India is even looking to computerization as a means of providing price information on a continuing basis.

Each of the basic food groups has distinct characteristics that determine the appropriate type of marketing channel. Recognizing the important role of grains in meeting the nutritional needs of low-income urban groups, governments often intervene to ensure cereal availability and stable prices. This is relatively easy since grains are easily stored for long periods compared to more perishable produce.

A difficult decision for governments to make is whether to provide a subsidy on food grains and, if so, whether targeted or blanket subsidies should be used. Targeted subsidies include food stamps and food shops that are available to qualified low-income people, whereas the blanket subsidy is available to all. Successful programmes using blanket subsidies either make subsidized food available in areas where only low-income consumers live and work or subsidize food that is consumed mostly by low-income people.

Other direct intervention schemes for staple foods, such as the 'fair shop' programme in India and various food stamp or food rationing programmes in other countries, are likely to continue to play an important role in food distribution, even though they may encourage rural-urban migration by lowering the cost-of-living in urban areas. To be fully effective, fair price shops should be located in the local market or bazaar in low-income neighbourhoods. However, such shops do not replace the need to expand and improve wholesale and retail markets to serve the other income groups in cities.

Price control and other direct forms of market intervention for meat are difficult, particularly in tropical climates since meat is perishable. Marketing specialists advise governments to concentrate their efforts more on introducing and implementing standards of sanitation and hygiene in the

markets and shops where meat is sold. The grading of meat for quality is not important where low-price meat is cut or chopped and sometimes combined with other foods before consumption. For example, in Kenya where price controls have been applied to meat, only two grades were used: bone-in and bone-out.

The perishability of fresh products such as fruit and vegetables makes effective price control by government agencies virtually impossible. The grading of the many types involved also poses problems. A system that allows the daily supply to be sold on the same day is often necessary for the efficient marketing of such perishable products. Prices can be arrived at through auction or bargaining. These activities may not require government regulation beyond ensuring access to them by small-scale buyers and sellers.

Sanitary and hygienic control by governmental personnel is also important for fish and seafood marketing. However, the extreme perishability of these products renders direct market intervention by governments hazardous.

The availability of trained personnel is crucial to the efficient operation of an urban food marketing system. Training programmes have to be expanded in line with anticipated technological advances and investments in marketing facilities and infrastructure if operational bottlenecks are to be avoided. There are clear roles for governments in the provision of technology, economic analyses, logistics, information and regulatory training programmes related to food marketing, as well as for donor agencies in supporting them.

Local market development. For most developing countries, the establishment of large open bazaar-type markets throughout major cities can help accommodate the needs of growing urban areas. Most urban food marketing studies have shown that food shoppers are willing to walk about 700 metres or 15 minutes one way to shop for food. In the developing world's cities this would mean that food markets so dispersed would accommodate from 3 000 to 5 000 families. Servicing this number of families could require from 100 to 200 food shops in each retail market (FAO 1975).

Typically, the local government collects fees and takes care of the land and sanitation services, but advertizing, management and physical upkeep of the market depends on the retailers themselves. Government control of weights, measures and produce quality (where appropriate) can be important in protecting consumers and ensuring their confidence in the market.

One of the greatest needs regarding the food delivery system in developing countries that experience rapid urban growth will be the development of strategically located wholesale markets for perishable foods. The efficient planning, management and organization of such markets are crucial to ensure fair prices for consumers. The keys to success of such markets include adequate facilities, product specialization and access to transportation and credit. Brazil has recently completed plans and construction for 22 wholesale markets with details such as these incorporated into the overall design.

The periodic market, which rotates to different points in rural areas every few days, is another market development that has been successful in some Asian countries and could be introduced elsewhere to assemble food for shipment to urban areas. The competition among wholesalers promoted by this type of market allows farmers a choice in selling their produce and is more likely to ensure an acceptable market performance. The role of the entrepreneur has also been encouraged in more traditional bazaar-type markets. In all, successful examples of these market developments and the role of the government have been limited to regulation and organization and do not extend to price interventions.

Public and private complementarity in food marketing. Numerous studies in developing countries have shown that middlemen or traders' margins are not necessarily excessive. Indeed, a lack of middlemen willing to serve outlying rural markets with small volumes of produce to sell is often a greater problem. The same studies have shown that parastatal marketing margins are often higher than those of private traders. They usually recommend training in business practices for wholesalers and retailers and the gathering of food commodities into a wholesale market so that large retailers need only go to a single location to obtain the range of commodities they need. Price information in the wholesale market must be publicized so that all traders can participate.

From such studies it is clear that cooperation between the private and the public sectors is a requirement for overcoming the food production, marketing, and distribution problems faced by developing countries with rapidly growing urban populations. The need for coordinated and coherent policies across government agencies is a minimum requirement for success. Increasingly efficient market operations have resulted from government policies and actions that have supported and facilitated the development of private food markets in urban areas.

Better nutrition for low-income urban groups

Some direct measures can also be taken to improve inadequate diets of low-income groups in urban areas that often include many rural-urban migrants.

One interesting development, which may have its antecedents in the urban allotment movement in the industrial cities of Great Britain in the nineteenth century, is the growth of urban agriculture. China, for example, has been very successful in growing vegetables in urban areas as its cities are 85% self-sufficient in this produce. Two of its largest cities, Shanghai and Beijing, are totally self-sufficient in vegetable production (Wade 1981).

The urban agriculture programme in Lusaka, Zambia is another example. The programme provides seeds and technical assistance and encourages community organization in the city to promote urban gardening. It is estimated that 10%-20% of Zambia's perishable food is currently produced within the city (Ledogar 1978).

Town planners are being encouraged to include areas for urban agriculture in their city designs. Urban agriculture can take advantage of the food growing skills of rural-urban migrants. However, uncontrolled growth of food supplies in urban areas can lead to sanitary and public health problems regarding food crop and livestock production.

The health hazards posed by unsanitary conditions and untrained staff in food preparation and handling have already been noted in Section 4 when the growth of informal food kiosks or cafes in urban centres in developing countries was discussed. These informal vendors provide a service needed by the urban poor who are often single, lack cooking facilities and may have to travel long distances to their place of work or to look for work. The food retailed by these places is usually a traditional staple, simply prepared; it must be low cost. Basic sanitary requirements must be met without significantly raising costs.

Closely related to this are needs to educate the urban public about food safety, the nutritional aspects of convenience foods, and the dangers of being influenced too much by food advertising.

Competition and Natural Resources Use

The competition for land, water and forest resources often assume serious proportions as cities grow. Two examples indicate some of the measures that can be taken.

The first example suggests that urban water supplies are often subsidized so that less is available for the most useful purposes. For example, it is claimed that Mexico City residents only pay about 20% of the real costs of supplying them with water. This causes the wasteful use of a scarce resource that must travel hundreds of kilometers and be lifted over 2 200 vertical metres (Leal 1984).

The other example concerns legislative means to regulate land use through zoning laws. For example, Tunisia has introduced legislation with the objective of protecting its scarce agricultural land. Land within this law are divided into three types or zones:

1. Zones where urban development is forbidden, such as around public irrigation schemes and forest areas;
2. Zones where agricultural use is protected in the national interest; and
3. Zones comprising all agricultural land, apart from the first two listed, which are placed under government control to prevent their unauthorized conversion to non-agricultural use.

Other ways of dealing with land and water problems, as regards pollution and speculation in peri-urban land markets that drive up prices of agricultural products, usually centre around governmental methods of imposing taxes or fines or passage of land use legislation. Industrial and agricultural polluters can be fined according to the net societal costs of the pollution activity. However, the difficulty in measuring the source and effects of pollution, whether agricultural or industrial, has been illustrated in court cases in many developed countries. While the costs of establishing legal precedents and institutions to effectively deal with pollution problems are high, the long-term societal cost of not doing so may be much higher.

Methods of taxation can be used to avoid rapidly rising prices of farmland due to land speculation near urban centres. Such methods include the taxing of windfall profits that would result if agricultural land is sold for urban development at market prices. A judicious use of taxes and zoning laws could prevent the price of farmland from rising to levels where farming is no longer a viable option near urban areas.

Concluding Remarks

Rural-urban migration, rapid urbanization, and the excessive rise of primate cities can be modified by governmental actions in a manner so that the negative effects on people of too rapid modernization on an agrarian society can be eased. The sum of such measures may amount to no more than the removal of an urban bias in development policies or coordinating such policies. In other cases, more substantive measures may be required involving movements of people from one rural area to another or bringing jobs to rural people. Again these may range from merely assisting spontaneous movements to more elaborate and expensive government-sponsored settlement schemes and rural industrialization programmes. Policies designed to control the rate of overall population growth over the long term will make the situation easier to manage.

The success of such policies will be seen in making both urban and rural areas better places in which to live, possibly without the polarization that exists between many rural and urban environments today. A thriving, progressive agricultural sector, well-integrated with the industrial and service sectors of the economy, is a reasonable goal to aim for.

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ANNEX 2-1

LIST OF REGIONS AND COUNTRIES USED IN CHAPTER 2

AFRICA

Algeria
Angola
Benin
Botswana
British Indian Oce. Terr.
Burkina Faso
Burundi
Cape Verde
Central African Rep.
Chad
Comoros
Congo
Djibouti
Egypt
Equatorial Guinea
Ethiopia
Gabon
Gambia
Ghana
Guinea
Guinea-Bissau
Ivory Coast
Kenya
Lesotho
Liberia
Libyan Arab Jamahiriya
Madagascar
Malawi
Mali
Mauritania
Mauritius 1/
Morrocco
Mozambique
Namibia
Niger
Nigeria
Reunion
Rwanda
St. Helena
Sao Tome & Principe
Senegal
Seychelles
Sierra-Leone
Somalia
South Africa
Sudan
Swaziland
Togo
Tunisia
Uganda
United Rep. of Cameroon
United Rep. of Tanzania
Western Sahara
Zaire
Zambia
Zimbabwe

EAST ASIA

China
Hong Kong
Korea, Republic
Korea, Dem. People's Rep.
Macau
Mongolia

SOUTH ASIA

Afghanistan
Bahrain
Bangladesh
Bhutan
Brunei
Burma
Cyprus
Democratic Kampuchea
Democratic Yemen
East Timor
Gaza Strip (Palestine)
India
Indonesia
Iran
Iraq
Israel
Jordan
Kuwait
Lao People's Dem. Rep.
Lebanon
Malaysia
Maldives
Nepal
Oman
Pakistan
Philippines
Qatar
Saudi Arabia
Singapore
Sri-Lanka
Syrian Arab Republic
Thailand
Turkey
United Arab Emirates
Viet Nam
Yemen

LATIN AMERICA

Antigua and Barbuda
Argentina
Bahamas
Barbados
Belize
Bolivia
Brazil
British Virgin Islands
Cayman Islands
Chile
Colombia
Cost Rica
Cuba
Dominica
Dominican Republic
Ecuador
El Salvador
Falkland Islands
French Guiana
Grenada
Guadaloupe
Guatemala
Guayana
Haiti
Honduras
Jamaica
Martinique
Mexico
Monserrat
Netherlands Antilles
Nicaragua
Panama
Paraguay
Peru
Puerto Rico
St. Kitts-Nevis-Anguilla
St. Lucia
St. Vincent-The Grenadines
Suriname
Trinidad & Tobago
Turks and Caicos Islands
U.S. Virgin Islands
Uruguay
Venezuela

1/ Including Agalesa, Rodrigues and St. Brandon

Source: UN, Estimates and Projection of Urban, Rural and City Populations, 1950-2025: The 1980 Assessment, New York, 1982.

ANNEX TABLES

ANNEX TABLE 1. VOLUME OF PRODUCTION OF MAJOR AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
	THOUSAND METRIC TONS											
WORLD												
AGRICULTURAL PRODUCTS												
TOTAL CEREALS	1375350	1338553	1372474	1481695	1472148	1604753	1556310	1566476	1651938	1701537	1643156	2.37
WHEAT	376194	364252	360045	425812	387311	451200	428499	446169	453551	485167	497025	3.16
RICE PADDY	335981	333069	356828	350621	371903	367772	377226	398582	412029	422966	450140	2.86
BARLEY	151037	152746	137905	172188	160334	179988	158198	160163	155419	162361	168404	.90
MAIZE	321438	307170	342403	351559	371597	394571	419290	396793	449769	447866	346501	2.85
MILLET AND SORGHUM	96062	86577	90189	91102	94757	97186	94319	83833	101786	96142	90769	.30
ROOT CROPS	590994	556123	545325	547478	568518	595396	586083	535533	553287	552862	555425	-.30
POTATOES	312431	293925	284936	291941	298716	315681	320876	264318	288702	287609	287704	-.53
CASSAVA	100003	102963	107545	111614	114991	119925	116758	123354	126535	125328	119190	2.17
TOTAL PULSES	42324	42474	39916	44839	42572	44452	40855	40433	42362	45133	44742	.41
CITRUS FRUIT	45233	46190	47958	48638	51069	49726	50931	55961	55807	54519	57424	2.38
BANANAS	32587	33154	32946	34131	36509	37329	38249	39608	41038	39950	40213	2.59
APPLES	29207	27281	31254	31647	30345	32430	36350	33733	33352	40898	38410	3.23
VEGETABLE OILS,OIL EQUIV	39950	38901	42235	40004	45333	47526	51390	49785	53548	57094	53599	3.97
SOYBEANS	59238	52567	64267	57395	73779	75350	88766	81110	88181	92253	79318	5.16
GROUNDNUTS IN SHELL	16738	17305	19126	17058	17314	18227	18111	16857	20594	18241	19021	1.00
SUNFLOWER SEED	12140	10992	9628	10301	12164	13093	15244	13432	14168	16183	15483	4.35
RAPESEED	7296	7351	8788	7612	7904	10568	10542	10605	12047	15060	13939	7.55
COTTONSEED	25700	26151	22666	22078	25671	24411	26410	26642	28692	27955	27885	1.64
COPRA	3892	3482	4565	5300	4748	4889	4291	4526	4689	4764	5061	2.05
PALM KERNELS	1168	1366	1391	1416	1492	1421	1667	1809	1855	2210	2144	5.94
SUGAR (CENTRIFUGAL,RAW)	76463	75729	79194	83554	89723	90510	88623	83924	93026	102640	97766	2.69
COFFEE GREEN	4193	4767	4609	3531	4419	4804	4986	4811	6039	4927	5553	2.85
COCOA BEANS	1403	1557	1561	1352	1465	1488	1676	1659	1729	1597	1609	1.50
TEA	1456	1489	1548	1589	1751	1788	1811	1862	1875	1955	2082	3.52
COTTON LINT	14014	13980	12334	11947	13973	13256	13943	13985	15274	14826	14421	1.22
JUTE AND SIMILAR FIBRES	3926	3148	3177	3393	3716	4497	4474	4090	4217	3736	3773	1.74
SISAL	639	693	618	425	457	405	423	453	425	429	345	-5.37
TOBACCO	4932	5249	5386	5703	5551	5980	5416	5308	5970	6896	5968	2.01
NATURAL RUBBER	3475	3448	3573	3808	3651	3722	3876	3745	3768	3785	3989	1.14
TOTAL MEAT	105570	111129	113002	115319	119452	123862	128721	132501	135168	136631	140550	2.90
TOTAL MILK	413213	421715	426365	435027	447516	454410	460467	466061	468765	476698	495195	1.69
TOTAL EGGS	21652	22285	23005	23419	24399	25579	26351	27154	27978	28752	29284	3.22
WOOL GREASY	2649	2623	2721	2675	2654	2638	2696	2764	2818	2854	2866	.84
FISHERY PRODUCTS 1/												
FRESHWATER + DIADROMOUS	7312	7292	7492	7292	7508	7460	7729	8061	8683	8982	9311	2.50
MARINE FISH	48439	52361	51487	54742	52913	54421	54858	55219	57183	58602	57888	1.57
CRUST+ MOLLUS+ CEPHALOP	6127	6267	6660	7011	7566	7841	8155	8635	8716	9031	8946	4.32
AQUATIC MAMMALS	11	11	12	13	11	11	20	20	17	17		
AQUATIC ANIMALS	257	139	138	143	232	215	207	148	167	194	325	2.80
AQUATIC PLANTS	2311	2625	2479	2534	3093	3196	3150	3304	3027	1289		
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	589834	566038	542507	597420	612655	629252	635303	609181	574398	559526	599597	.26
SAWLOGS NONCONIFEROUS	216870	226810	210742	232537	237367	250172	251353	254475	240137	227879	225625	.77
PULPWOOD+PARTICLES	326171	358182	322668	323349	315612	331980	356501	368842	370206	362267	370930	1.36
FUELWOOD	1273589	1307890	1332716	1366695	1380183	1421027	1473174	1530599	1573112	1606318	1632899	2.63
SAWNWOOD CONIFEROUS	338833	321243	304700	329361	339163	340386	338758	324752	308194	303392	340135	-.19
SAWNWOOD NONCONIFEROUS	97515	100564	96710	102837	103045	108103	110420	112730	111098	106411	107923	1.28
WOOD-BASED PANELS	95217	88001	84271	95019	101217	103911	105656	100773	100546	95008	103645	1.30
PULP FOR PAPER	108743	111615	97358	109756	111097	116321	118453	121119	120691	115814	123478	1.55
PAPER+PAPERBOARD	148318	150553	130840	147512	152218	160181	165282	169598	170425	166440	174581	2.21
WESTERN EUROPE												
AGRICULTURAL PRODUCTS												
TOTAL CEREALS	150841	156844	146858	142299	153175	168201	164353	177300	166086	181187	173647	1.94
WHEAT	55535	62735	52959	57132	53490	63943	60256	69907	65202	73629	73731	2.96
RICE PADDY	1784	1729	1703	1533	1311	1650	1831	1701	1590	1706	1508	-.51
BARLEY	45046	47514	45665	42574	51197	55362	52830	57239	50777	53757	49859	1.78
MAIZE	28960	26299	27412	24098	29539	28202	32384	31160	32418	35394	34266	2.89
MILLET AND SORGHUM	523	497	498	475	601	761	642	613	599	508	456	-.49
ROOT CROPS	56385	58565	47536	45160	55006	53172	51984	49387	48667	48446	42138	-1.82
POTATOES	56245	58421	47397	45009	54856	53028	51839	49237	48515	48293	41993	-1.83
TOTAL PULSES	1958	2054	1899	1573	1666	1786	1800	1881	1657	1869	2025	-.17
CITRUS FRUIT	6537	6666	6737	6802	6603	6267	6403	6462	6724	6629	6502	1.05
BANANAS	480	426	385	362	422	430	435	512	521	484	490	2.06
APPLES	11591	9908	11473	10200	7658	10637	10636	10671	8536	12636	9178	-.60
VEGETABLE OILS,OIL EQUIV	2410	2235	2616	2129	2600	2748	2686	3222	2912	3668	3512	4.70

1/ NOMINAL CATCH (LIVE WEIGHT) EXCLUDING WHALES
2/ EXCEPT FOR PULP FOR PAPER AND PAPER AND PAPERBOARD, ALL FOREST PRODUCTS ARE EXPRESSED IN THOUSAND CUBIC METERS

ANNEX TABLE 1. VOLUME OF PRODUCTION OF MAJOR AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
	THOUSAND METRIC TONS											
SOYBEANS	26	59	47	58	78	85	102	66	118	233	306	21.19
GROUNDNUTS IN SHELL	18	16	19	17	19	20	21	19	15	15	20	-.31
SUNFLOWER SEED	842	692	858	774	1010	1150	1276	1124	1138	1601	1817	8.55
RAPESEED	1456	1611	1338	1388	1330	1729	1696	2536	2524	3285	3071	9.49
COTTONSEED	330	351	332	300	337	326	284	333	366	288	308	-.72
SUGAR (CENTRIFUGAL,RAW)	12259	11179	12916	13796	15427	15592	15795	15739	19081	18014	14835	4.01
COTTON LINT	167	175	165	148	173	165	146	178	196	156	169	.32
TOBACCO	350	329	401	446	391	409	440	401	435	443	426	2.14
TOTAL MEAT	23254	25201	25154	25649	26316	27237	28470	29293	29635	29742	30133	2.57
TOTAL MILK	124312	125486	126660	129261	132259	136902	139060	141864	142560	145609	149913	1.95
TOTAL EGGS	4857	4891	5019	5081	5154	5277	5327	5385	5490	5637	5540	1.51
WOOL GREASY	163	167	150	154	152	157	156	159	157	161	164	.11
FISHERY PRODUCTS 1/												
FRESHWATER + DIADROMOUS	169	178	181	182	182	197	205	256	251	249	266	5.03
MARINE FISH	10155	10142	9777	10880	10931	10261	10027	9950	10001	9506	9707	-.62
CRUST+ MOLLUS+ CEPHALOP	1013	970	1034	960	967	975	931	1036	1042	1133	1156	1.30
AQUATIC MAMMALS	6	5	7	7	8	8	17	18	17	17		
AQUATIC ANIMALS	5	5	2	4	3	5	2	1	1	1	1	-19.52
AQUATIC PLANTS	230	262	226	210	274	280	272	245	206	161		
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	96406	93756	74687	83972	87161	89561	96073	97381	90790	89581	93641	.59
SAWLOGS NONCONIFEROUS	24973	23841	20797	20736	21885	24084	23862	24240	23836	22281	21809	-1.13
PULPWOOD+PARTICLES	78597	88077	86604	79816	73403	75913	83932	83788	86444	84036	85575	.42
FUELWOOD	39264	38372	36923	36906	35346	33944	35358	37013	38676	36805	38775	.12
SAWNWOOD CONIFEROUS	53227	51486	42671	47330	49222	49034	53617	54880	50555	49985	52972	.67
SAWNWOOD NONCONIFEROUS	13161	12313	10508	11630	12365	12538	12724	12437	11504	11296	11207	-1.65
WOOD-BASED PANELS	25343	24334	22667	25139	25131	25532	26598	26755	25710	24364	24612	.38
PULP FOR PAPER	25792	26400	22261	23155	22447	24224	26051	26034	25976	24574	26468	.63
PAPER+PAPERBOARD	40032	41271	33366	38628	39230	41472	45174	44736	44699	43923	45550	2.03
USSR AND EASTERN EUROPE												
AGRICULTURAL PRODUCTS												
TOTAL CEREALS	287585	263336	206405	293808	266091	312719	251009	264202	234582	261663	271116	-.21
WHEAT	136681	111876	90542	126017	121253	151590	113566	127682	106325	116460	109920	-.44
RICE PADDY	1961	2092	2228	2126	2381	2269	2584	2935	2576	2681	2684	3.44
BARLEY	66993	68374	49605	83290	67038	78108	62927	59219	54313	57740	69702	-.86
MAIZE	29998	26245	27736	30909	30955	29062	32920	30695	30376	37348	36657	2.24
MILLET AND SORGHUM	4573	3180	1330	3514	2231	2408	1744	2077	1685	2179	2458	-4.62
ROOT CROPS	181029	153757	151145	152736	145232	154405	163116	111272	135403	129664	135710	-2.66
POTATOES	181025	153754	151141	152734	145229	154403	163113	111270	135399	129661	135707	-2.66
TOTAL PULSES	9202	9588	6149	9328	8231	8620	5052	7132	6456	7475	7519	-2.59
CITRUS FRUIT	58	127	160	134	234	204	340	160	314	284	412	15.41
APPLES	8156	7348	8744	10436	10946	8967	11301	8565	9998	13272	12738	4.28
VEGETABLE OILS,OIL EQUIV	5075	4790	4257	4455	4688	4477	4437	4365	4365	4675	4556	-.60
SOYBEANS	711	710	1111	834	862	1012	1042	1118	907	1097	894	2.82
GROUNDNUTS IN SHELL	3	3	5	4	4	5	6	7	9	9	8	12.56
SUNFLOWER SEED	8768	7983	6340	6665	7393	6793	7208	6328	6636	7350	6880	-1.39
RAPESEED	966	983	1312	1531	1285	1306	574	1226	1097	1064	1304	.03
COTTONSEED	4714	5170	4863	5066	5366	5210	5615	6100	5901	5687	5742	2.17
SUGAR (CENTRIFUGAL,RAW)	13758	11817	12112	11597	13881	13641	12406	10974	10956	12508	13369	-.40
TEA	75	81	86	92	106	111	118	130	137	140	146	7.25
COTTON LINT	2456	2497	2667	2597	2709	2744	2514	2816	2905	2800	2598	.92
JUTE AND SIMILAR FIBRES	45	35	36	49	47	44	48	52	45	50	55	2.59
TOBACCO	616	606	646	712	608	567	627	545	574	637	677	-.17
TOTAL MEAT	21493	23284	24099	22262	23828	25044	25250	25100	24877	24760	26027	1.46
TOTAL MILK	125537	125963	126588	127514	134505	135208	133855	131396	127757	129346	137580	.43
TOTAL EGGS	4381	4642	4825	4769	5174	5397	5466	5605	5808	5855	6029	3.24
WOOL GREASY	527	556	566	534	567	578	573	559	574	571	583	.68
FISHERY PRODUCTS 1/												
FRESHWATER + DIADROMOUS	1201	1072	1339	1068	1089	1037	1137	1078	1122	1186	1217	
MARINE FISH	8505	9393	9997	10333	9226	8723	8621	9062	9117	9293	9518	-.08
CRUST+ MOLLUS+ CEPHALOP	105	131	158	109	248	218	437	565	540	731	427	21.52
AQUATIC ANIMALS	5										1	
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	164877	163360	171306	166669	164533	158643	154849	155724	155698	153520	154911	-.94
SAWLOGS NONCONIFEROUS	35065	34896	36349	35247	35079	34599	33545	33594	33619	33109	33104	-.79
PULPWOOD+PARTICLES	59446	62358	58856	57328	57068	55829	55277	55592	55666	56524	57531	-.73
FUELWOOD	98871	99247	96449	97054	94835	92080	91236	92384	96375	99284	99293	-.11

1/ NOMINAL CATCH (LIVE WEIGHT) EXCLUDING WHALES
2/ EXCEPT FOR PULP FOR PAPER AND PAPER AND PAPERBOARD, ALL FOREST PRODUCTS ARE EXPRESSED IN THOUSAND CUBIC METRES

ANNEX TABLE 1. VOLUME OF PRODUCTION OF MAJOR AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
	THOUSAND METRIC TONS											
SAWNWOOD CONIFEROUS	117331	116371	117612	114640	110966	108612	102829	101494	100809	100153	112325	-1.44
SAWNWOOD NONCONIFEROUS	20524	20382	20492	20031	19551	19365	18638	18260	18269	18060	18300	-1.48
WOOD-BASED PANELS	12474	13690	14853	15523	16518	17095	17005	17464	17598	18023	19189	3.73
PULP FOR PAPER	9456	10192	10546	11129	11348	11654	11041	11192	11340	11637	11920	1.73
PAPER+PAPERBOARD	12267	12814	13495	14079	14428	14520	13989	14102	14264	14356	14427	1.28
NORTH AMERICA DEVELOPED												
AGRICULTURAL PRODUCTS												
TOTAL CEREALS	274331	235557	286554	303112	308372	318610	338726	311335	381936	386618	255065	2.42
WHEAT	62720	61600	74967	82068	75529	69459	75277	84092	100608	101986	92446	4.55
RICE PADDY	4208	5098	5826	5246	4501	6040	5965	6629	8289	6969	4523	3.16
BARLEY	19312	15293	17765	18652	21115	20298	16821	19257	24033	25198	21376	2.98
MAIZE	146845	122040	152006	163511	169484	189092	206659	174400	212895	215693	111756	2.07
MILLET AND SORGHUM	23451	15617	19161	18055	19837	18575	20509	14716	22247	21212	12173	-1.83
ROOT CROPS	16220	18652	17398	19176	19166	19728	18857	16715	18623	19408	18252	.60
POTATOES	15665	18042	16810	18570	18642	19129	18288	16215	18041	18757	17701	.63
TOTAL PULSES	1015	1303	1146	1115	948	1303	1297	1675	1954	1716	1178	4.24
CITRUS FRUIT	12604	12167	13237	13415	13827	12932	12052	14554	13703	10934	12344	-.31
BANANAS	3	3	3	2	3	3	2	2	3	3	2	-2.98
APPLES	3216	3391	3876	3345	3468	3898	4129	4557	3939	4159	4256	2.82
VEGETABLE OILS,OIL EQUIV	9941	8113	9967	8243	11853	12836	15756	11687	13251	14346	10911	4.29
SOYBEANS	42514	33383	42507	35321	48678	51376	62183	49635	54742	60459	45241	4.05
GROUNDNUTS IN SHELL	1576	1664	1745	1696	1690	1793	1800	1044	1806	1560	1495	-1.20
SUNFLOWER SEED	394	298	574	487	1411	1846	3528	1863	2200	2513	1503	23.08
RAPESEED	1207	1163	1839	837	1973	3497	3411	2483	1849	2226	2632	8.76
COTTONSEED	4550	4091	2919	3739	5009	3873	5242	4056	5803	4304	2791	.02
SUGAR (CENTRIFUGAL,RAW)	5344	5048	6443	6170	5403	5482	5167	5438	5784	5384	5190	-.46
COFFEE GREEN	1	1	1	1	1	1	1	1	1		1	-2.68
COTTON LINT	2825	2513	1807	2304	3133	2364	3185	2422	3406	2605	1692	-.36
TOBACCO	907	1019	1096	1051	973	1034	771	918	1047	975	760	-1.54
TOTAL MEAT	23011	24492	23877	25825	26019	25669	26138	26990	27394	26829	27777	1.66
TOTAL MILK	60052	60062	60095	62205	63384	62716	63653	66153	68339	69857	71542	1.83
TOTAL EGGS	4214	4191	4128	4115	4125	4276	4417	4463	4456	4442	4348	.77
WOOL GREASY	73	65	55	51	50	46	49	49	51	49	47	-3.31
FISHERY PRODUCTS 1/												
FRESHWATER + DIADROMOUS	338	309	264	328	356	396	433	476	502	486	497	6.20
MARINE FISH	2485	2449	2491	2685	2507	2964	3040	3075	3104	3503	3654	4.16
CRUST+ MOLLUS+ CEPHALOP	1013	1057	1075	1130	1272	1347	1376	1350	1558	1378	1319	3.64
AQUATIC ANIMALS	4	6	6	9	9	11	10	2	2	10	10	1.13
AQUATIC PLANTS	180	224	198	169	195	196	195	191	78	103		
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	255365	237683	222108	267372	278553	299879	298266	260561	238884	228104	262245	.15
SAWLOGS NONCONIFEROUS	41472	37932	32125	34553	36846	40908	42727	43206	39834	29434	35554	-.51
PULPWOOD+PARTICLES	149291	165000	132931	139779	136788	146956	157282	163894	164429	156026	161024	1.14
FUELWOOD	20764	21663	22907	23891	35679	51645	71933	95576	107410	107410	107410	22.96
SAWNWOOD CONIFEROUS	109561	96191	87609	106334	113629	116369	113841	100326	92422	88333	110661	-.22
SAWNWOOD NONCONIFEROUS	17896	17626	14831	16373	16614	17282	18432	18650	17087	13039	15308	-1.08
WOOD-BASED PANELS	36275	31038	28739	33860	37274	37288	36649	31026	31919	26790	33242	-.82
PULP FOR PAPER	58004	59139	45977	59449	60716	63280	63106	64443	64986	60582	65520	1.55
PAPER+PAPERBOARD	65549	65758	55315	63548	65498	68440	70896	70229	71503	67307	72157	1.49
OCEANIA DEVELOPED												
AGRICULTURAL PRODUCTS												
TOTAL CEREALS	17795	16574	18419	18374	15312	26084	24140	17132	24496	15045	32793	3.46
WHEAT	12363	11572	12162	12213	9724	18415	16483	11162	16686	9168	22384	3.08
RICE PADDY	309	409	388	417	530	490	652	613	728	854	548	8.26
BARLEY	2655	2755	3442	3132	2655	4265	3967	2910	3721	2295	5732	3.33
MAIZE	257	194	291	316	355	305	348	307	325	382	316	3.71
MILLET AND SORGHUM	1044	1096	923	1151	975	747	1162	936	1231	1350	987	1.08
ROOT CROPS	1003	870	977	953	1008	1027	1012	1091	1089	1168	1119	2.14
POTATOES	991	857	967	945	999	1010	1001	1071	1075	1157	1108	2.14
TOTAL PULSES	93	127	157	189	106	120	175	209	225	315	417	12.44
CITRUS FRUIT	401	434	458	428	461	496	489	566	509	533	495	2.59
BANANAS	125	118	103	115	98	113	125	124	130	131	133	1.65
APPLES	574	487	527	447	447	444	525	510	549	520	499	.10
VEGETABLE OILS,OIL EQUIV	85	91	98	74	86	140	159	120	126	122	112	4.54
SOYBEANS	38	64	74	45	55	77	99	82	73	77	53	3.91
GROUNDNUTS IN SHELL	38	29	32	35	32	39	62	35	43	58	23	1.81
SUNFLOWER SEED	102	84	113	80	75	158	186	142	139	115	104	3.70

1/ NOMINAL CATCH (LIVE WEIGHT) EXCLUDING WHALES
2/ EXCEPT FOR PULP FOR PAPER AND PAPER AND PAPERBOARD, ALL FOREST PRODUCTS ARE EXPRESSED IN THOUSAND CUBIC METRES

ANNEX TABLE 1. VOLUME OF PRODUCTION OF MAJOR AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
	.....	.....	.....	.....	THOUSAND METRIC TONS	.....	.....	.....	.....	.....	.....	
RAPESEED	11	9	12	9	16	24	41	18	15	7	17	3.85
COTTONSEED	53	50	54	41	46	72	79	136	181	219	164	17.61
SUGAR (CENTRIFUGAL,RAW)	2526	2848	2855	3296	3318	2902	2963	3330	3435	3500	3075	2.08
COTTON LINT	31	31	33	25	28	44	53	83	99	134	101	17.89
TOBACCO	20	20	18	18	19	19	18	18	17	15	17	-2.14
TOTAL MEAT	3646	3189	3525	4032	4091	4303	4096	3799	3814	3904	3979	1.25
TOTAL MILK	13237	12654	12773	12984	12582	11724	12202	12098	11958	12067	12458	-.78
TOTAL EGGS	265	259	268	263	264	274	268	264	276	272	269	.36
WOOL GREASY	1044	986	1088	1066	1005	968	1025	1066	1082	1060	1073	.46
FISHERY PRODUCTS 1/												
FRESHWATER + DIADROMOUS	4	4	5	4	5	5	5	4	3	1	1	-9.70
MARINE FISH	116	123	98	105	128	135	146	175	188	152	182	5.80
CRUST+ MOLLUS+ CEPHALOP	70	77	70	71	73	72	85	109	116	119	126	6.79
AQUATIC ANIMALS											1	2.53
AQUATIC PLANTS	6	4		1								
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	8339	6537	6356	7595	7178	6913	7021	8443	8607	8367	8029	1.74
SAWLOGS NONCONIFEROUS	6902	7240	6490	6631	6518	6336	5846	5681	6077	5725	4568	-3.17
PULPWOOD+PARTICLES	5374	5006	7613	7191	8596	8335	8330	9890	10177	9513	9888	6.66
FUELWOOD	1396	1710	1711	1721	1715	1636	1447	1458	1812	2118	2518	3.21
SAWNWOOD CONIFEROUS	2836	2682	2821	3067	2917	2559	2743	3101	3370	3414	3141	1.54
SAWNWOOD NONCONIFEROUS	2462	2533	2505	2430	2340	2063	1986	2069	2145	2013	1593	-3.65
WOOD-BASED PANELS	933	988	920	1054	1043	1059	1073	1166	1215	1230	1059	2.37
PULP FOR PAPER	1326	1505	1524	1660	1712	1695	1693	1819	1908	1887	1813	3.06
PAPER+PAPERBOARD	1686	1732	1697	1761	1850	1867	1942	2104	2151	2188	2100	2.88
AFRICA DEVELOPING												
AGRICULTURAL PRODUCTS												
TOTAL CEREALS	39800	45398	47609	49583	44911	49444	47895	49283	48791	51244	45229	1.14
WHEAT	4680	4986	5388	5766	3645	4790	4630	5386	4456	5646	4878	.21
RICE PADDY	4977	5470	5689	5705	5684	5852	5988	6241	6325	6200	5959	1.79
BARLEY	2654	3669	3324	4699	2468	3894	3752	4487	3182	4452	3182	1.76
MAIZE	12095	14417	15546	15845	15482	15700	13984	13982	15724	15562	14871	.93
MILLET AND SORGHUM	13974	15775	16373	16234	16404	17796	17842	17465	17640	17622	14768	1.07
ROOT CROPS	69481	72161	75663	76622	76514	78152	75940	82136	84017	86716	82790	1.93
POTATOES	2023	2121	2441	2655	2667	2988	3069	3192	2875	3577	3630	5.70
CASSAVA	39504	40816	43665	44202	44052	44065	44960	46792	48193	49136	46927	1.87
TOTAL PULSES	4281	4612	4943	5210	4621	5050	5191	4865	4932	5487	5397	1.67
CITRUS FRUIT	2615	2636	2417	2394	2486	2696	2490	2616	2545	2504	2465	-.15
BANANAS	3502	3801	3717	3945	3904	3951	4117	4290	4230	4291	4331	1.96
APPLES	50	52	59	56	61	61	64	73	79	81	89	5.70
VEGETABLE OILS,OIL EQUIV	3609	3501	4112	4034	3663	3768	3731	3818	3903	4016	3700	
SOYBEANS	98	99	112	132	147	151	162	206	189	217	201	8.93
GROUNDNUTS IN SHELL	3462	4079	4249	4485	3268	3740	3420	3168	3788	3885	2895	-1.88
SUNFLOWER SEED	78	84	100	124	148	156	149	135	132	125	149	5.45
RAPESEED	21	21	21	22	22	22	21	22	22	22	23	.62
COTTONSEED	1018	1008	872	932	947	941	904	912	876	905	972	-.67
COPRA	152	149	146	168	162	170	162	180	173	172	173	1.61
PALM KERNELS	636	742	728	704	698	597	703	736	742	741	733	.76
SUGAR (CENTRIFUGAL,RAW)	2921	2916	2822	3110	3046	3355	3524	3527	3695	3887	3898	3.51
COFFEE GREEN	1380	1267	1313	1175	1245	1079	1130	1162	1265	1227	1237	-.82
COCOA BEANS	965	1025	1004	860	944	902	1033	1024	1060	852	880	-.54
TEA	155	151	152	157	192	203	199	165	193	206	221	3.79
COTTON LINT	536	530	466	504	505	502	464	517	481	500	544	-.05
JUTE AND SIMILAR FIBRES	12	11	11	8	7	8	8	8	8	9	8	-2.89
SISAL	330	350	260	223	204	175	166	163	160	152	136	-8.55
TOBACCO	188	194	221	249	225	224	258	271	223	248	268	2.84
NATURAL RUBBER	229	234	222	204	206	196	193	194	200	189	194	-1.97
TOTAL MEAT	3705	3709	3830	3977	4207	4373	4484	4625	4748	4671	4971	3.30
TOTAL MILK	6352	6317	6651	6879	7156	7478	7695	7631	7799	8134	8399	2.92
TOTAL EGGS	428	447	476	514	544	567	606	644	676	730	768	6.09
WOOL GREASY	75	72	72	76	67	69	70	73	74	73	75	.06
FISHERY PRODUCTS 1/												
FRESHWATER + DIADROMOUS	1259	1249	1288	1342	1406	1363	1343	1302	1289	1308	1296	.21
MARINE FISH	1962	1841	1886	1547	1569	1623	1525	1551	1662	1681	2149	.14
CRUST+ MOLLUS+ CEPHALOP	46	56	56	62	56	66	66	85	83	116	119	9.27
AQUATIC ANIMALS	1	1	1	1	1	1	1	1	1	1	1	-2.60
AQUATIC PLANTS	7	5	6	51	5	5	5	5	5			

1/ NOMINAL CATCH (LIVE WEIGHT) EXCLUDING WHALES
2/ EXCEPT FOR PULP FOR PAPER AND PAPER AND PAPERBOARD, ALL FOREST PRODUCTS ARE EXPRESSED IN THOUSAND CUBIC METERS

ANNEX TABLE 1. VOLUME OF PRODUCTION OF MAJOR AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
	THOUSAND METRIC TONS											
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	1042	1087	1030	1137	1292	1316	1032	1336	1376	1575	1249	3.10
SAWLOGS NONCONIFEROUS	16643	14370	13697	15661	16365	17242	17978	19457	18421	16069	17610	2.41
PULPWOOD+PARTICLES	1375	1496	2137	2213	2255	2610	2171	2002	2018	2047	2029	2.56
FUELWOOD	275940	283641	291712	300251	311378	320335	328899	339412	349322	359685	368580	2.99
SAWNWOOD CONIFEROUS	403	429	445	506	525	457	492	506	571	587	534	3.09
SAWNWOOD NONCONIFEROUS	3000	3210	3350	3244	3473	4415	4547	5403	5346	5423	5424	7.30
WOOD-BASED PANELS	751	765	634	747	838	860	867	897	914	944	1003	3.50
PULP FOR PAPER	245	251	263	292	278	300	354	644	678	682	703	13.51
PAPER+PAPERBOARD	166	195	218	219	265	282	345	351	355	362	365	8.07
LATIN AMERICA												
AGRICULTURAL PRODUCTS												
TOTAL CEREALS	74852	78409	80546	86256	86094	85303	84081	88459	104464	105318	98593	3.11
WHEAT	12094	13474	14971	19336	21540	14969	15103	14655	15179	22721	19441	3.94
RICE PADDY	11803	12242	14036	15416	15104	13420	14435	16403	15599	17483	14813	2.72
BARLEY	1665	1249	1556	1883	1376	1716	1330	1315	1277	1177	1199	-2.89
MAIZE	37820	39579	36273	37386	43729	40150	39751	45276	55382	47986	46869	2.99
MILLET AND SORGHUM	9899	10780	10510	10984	13216	13728	12264	5542	16038	14738	14995	3.93
ROOT CROPS	45137	45115	45735	45182	46034	46484	45594	43693	46057	45600	41756	-.36
POTATOES	8565	9969	9260	9739	10103	10903	10989	10361	11853	11869	10096	2.26
CASSAVA	31988	30925	32106	31325	31965	31579	30935	29880	30834	30289	28071	-.89
TOTAL PULSES	4547	4642	4712	3913	4609	4722	4605	4335	5351	5604	4377	1.05
CITRUS FRUIT	10597	11290	11892	12795	13413	13814	14528	16986	17594	18159	17520	5.83
BANANAS	17337	17404	17029	17657	18414	18158	17740	18569	18915	18630	18287	.84
APPLES	680	1297	1090	1198	1329	1449	1670	1651	1682	1760	1705	7.53
VEGETABLE OILS,OIL EQUIV	3642	4218	4386	4654	5389	5240	5822	6476	6258	6132	6498	5.79
SOYBEANS	6100	9180	11410	12643	14960	12527	15464	19814	20397	18716	20208	11.03
GROUNDNUTS IN SHELL	1244	975	1049	1056	1157	1012	1361	1080	915	879	734	-2.92
SUNFLOWER SEED	1030	1033	804	1192	955	1717	1550	1756	1351	2066	2458	9.46
RAPESEED	46	41	68	111	91	61	75	96	64	32	17	-5.86
COTTONSEED	3244	3426	2771	2354	3369	3220	3098	2956	2789	2448	2317	-2.37
COPRA	232	220	224	229	232	236	214	234	225	227	223	-.08
PALM KERNELS	277	289	275	297	311	298	324	326	312	321	309	1.44
SUGAR (CENTRIFUGAL,RAW)	23281	24488	23793	25947	27256	26933	26295	26391	27059	28967	28578	1.91
COFFEE GREEN	2446	3136	2854	1905	2673	3096	3261	2564	4078	2992	3686	3.72
COCOA BEANS	397	476	497	432	459	520	573	552	563	629	602	3.97
TEA	40	44	51	44	52	39	44	51	39	49	58	1.49
COTTON LINT	1839	1954	1565	1341	1898	1809	1728	1652	1558	1325	1320	-2.60
JUTE AND SIMILAR FIBRES	113	90	108	127	114	100	114	112	132	91	89	-.67
SISAL	293	324	341	187	241	218	246	257	255	266	198	-2.66
TOBACCO	567	670	676	727	740	768	757	734	684	755	723	1.66
NATURAL RUBBER	33	29	33	35	38	40	43	42	48	52	54	5.98
TOTAL MEAT	10808	11092	11717	12512	13165	13686	13783	14300	14977	14999	14867	3.56
TOTAL MILK	27239	28912	31110	32891	32219	32745	33951	35169	35922	35169	35844	2.55
TOTAL EGGS	1621	1657	1792	1889	1997	2204	2402	2589	2662	2696	2761	6.19
WOOL GREASY	303	300	300	298	315	300	304	308	316	319	325	.70
FISHERY PRODUCTS 1/												
FRESHWATER + DIADROMOUS	200	254	269	243	267	295	262	325	393	433	348	6.19
MARINE FISH	4479	6727	5854	7443	6023	7915	9111	8670	9479	10431	8064	6.43
CRUST+ MOLLUS+ CEPHALOP	437	416	425	486	472	575	634	537	535	547	605	3.60
AQUATIC ANIMALS	49	38	51	25	61	52	54	66	48	37	30	-.85
AQUATIC PLANTS	81	90	80	92	112	90	128	124	162	30		
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	16359	16315	19171	21677	23841	22669	25673	31533	26246	25732	25671	5.48
SAWLOGS NONCONIFEROUS	19522	19533	21948	23044	23700	23913	26290	29194	28233	27420	27257	3.96
PULPWOOD+PARTICLES	9080	9866	11556	12913	13667	19804	26631	29264	29054	28660	28663	14.70
FUELWOOD	197138	202767	206724	212123	217254	224079	230479	235515	240363	246248	253507	2.57
SAWNWOOD CONIFEROUS	7063	7430	8051	9695	10541	11289	12149	11537	11485	10756	11088	4.59
SAWNWOOD NONCONIFEROUS	8477	8807	9747	10843	11725	11531	12167	13737	14497	13583	13562	5.40
WOOD-BASED PANELS	2536	2629	2795	3132	3377	3521	3748	4368	4512	4502	4536	6.83
PULP FOR PAPER	2165	2423	2357	2713	3081	3535	3710	4605	4467	4908	5298	9.93
PAPER+PAPERBOARD	4698	5198	4787	5297	5536	6248	7006	7721	7436	7710	7969	6.12
NEAR EAST DEVELOPING												
AGRICULTURAL PRODUCTS												
TOTAL CEREALS	40613	44529	51492	56134	51582	54318	54750	55700	59753	58541	56746	3.01
WHEAT	21230	24353	28386	31316	29206	30324	30623	30628	32094	32467	31666	3.26
RICE PADDY	4447	4304	4602	4741	4564	4798	4749	4834	4835	5039	5040	1.20
BARLEY	5171	6252	7841	8935	7478	8247	8163	9547	10708	10619	9875	6.10
MAIZE	4476	4772	4946	5341	5097	5542	5349	5600	5574	5775	5977	2.50

1/ NOMINAL CATCH (LIVE WEIGHT) EXCLUDING WHALES
2/ EXCEPT FOR PULP FOR PAPER AND PAPER AND PAPERBOARD, ALL FOREST PRODUCTS ARE EXPRESSED IN THOUSAND CUBIC METERS

ANNEX TABLE 1. VOLUME OF PRODUCTION OF MAJOR AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
	THOUSAND METRIC TONS											
MILLET AND SORGHUM	3950	3674	4318	4416	3947	4195	4664	4217	5505	3744	3317	
ROOT CROPS	4634	4625	4856	5667	5825	5902	6520	7243	7555	7820	7800	6.21
POTATOES	4250	4252	4427	5280	5432	5494	6031	6782	7088	7316	7304	6.47
CASSAVA	140	92	130	99	95	103	127	122	125	125	125	1.14
TOTAL PULSES	1498	1730	1618	1854	1875	1707	1663	1830	1830	2197	2411	3.29
CITRUS FRUIT	2884	3140	3104	3174	3284	3428	3743	3685	3680	4104	4237	3.64
BANANAS	280	300	302	297	321	301	300	332	332	372	353	2.25
APPLES	1245	1335	1393	1626	1585	1850	2149	2197	2204	2471	2613	7.99
VEGETABLE OILS,OIL EQUIV	1265	1563	1429	1535	1428	1551	1399	1672	1333	1535	1346	.09
SOYBEANS	30	47	92	123	119	197	195	145	217	282	314	22.93
GROUNDNUTS IN SHELL	655	984	1040	870	1145	923	977	814	841	605	570	-3.19
SUNFLOWER SEED	616	487	541	612	506	524	634	794	620	643	757	3.03
RAPESEED	1	1		6	14	13	43	12	6	2	2	17.07
COTTONSEED	2779	3036	2523	2341	2609	2458	2321	2280	2186	2286	2530	-1.98
SUGAR (CENTRIFUGAL,RAW)	2221	2323	2455	2846	2671	2586	2553	2213	3102	3770	3888	4.54
COFFEE GREEN	4	4	4	4	4	5	5	4	4	4	4	
TEA	66	67	77	82	102	109	123	123	76	106	135	5.99
COTTON LINT	1698	1763	1453	1364	1520	1456	1383	1364	1318	1379	1450	-1.70
JUTE AND SIMILAR FIBRES	15	12	14	14	13	13	13	13	13	13	13	-.57
TOBACCO	215	240	245	360	301	344	274	298	235	275	297	1.32
TOTAL MEAT	2577	2710	2853	2923	3109	3226	3355	3454	3678	3916	3981	4.48
TOTAL MILK	12021	12489	12868	13344	13420	14150	14679	14875	15328	15075	15714	2.69
TOTAL EGGS	433	499	574	624	708	757	704	739	838	925	973	7.53
WOOL GREASY	146	157	162	164	165	159	165	169	169	181	184	1.76
FISHERY PRODUCTS 1/												
FRESHWATER + DIADROMOUS	130	128	135	134	132	140	161	175	176	183	188	4.47
MARINE FISH	490	675	625	608	489	559	701	783	809	820	901	5.10
CRUST+ MOLLUS+ CEPHALOP	35	28	27	42	41	28	37	41	38	34	33	1.20
AQUATIC MAMMALS	3	2	2	2	2	2	2	2				
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	4259	4569	4770	4796	5265	5216	4718	4964	5218	2765	2777	-3.50
SAWLOGS NONCONIFEROUS	1626	1805	1287	1314	1442	1659	1523	1315	1366	1255	1125	-2.75
PULPWOOD+PARTICLES	1133	1363	869	907	984	1003	1043	672	714	712	714	-5.34
FUELWOOD	61731	69146	71465	77413	54059	54600	57952	59647	59429	60625	61900	-1.37
SAWNWOOD CONIFEROUS	2297	2281	2278	2916	2932	4104	4114	4127	2972	3254	3787	5.37
SAWNWOOD NONCONIFEROUS	750	733	693	646	871	1146	1146	1139	1121	917	910	4.38
WOOD-BASED PANELS	409	430	512	615	761	797	843	731	723	721	756	6.20
PULP FOR PAPER	311	268	247	229	252	165	276	273	265	265	265	-.19
PAPER+PAPERBOARD	595	606	675	567	629	560	737	773	832	776	775	3.37
FAR EAST DEVELOPING												
AGRICULTURAL PRODUCTS												
TOTAL CEREALS	225374	211527	238844	233679	251972	267197	250642	273388	290085	275965	316348	3.37
WHEAT	32714	29932	32394	38288	38904	41013	46459	44140	49540	50449	57212	6.20
RICE PADDY	150730	143463	162664	152734	171464	181118	162613	186699	193605	184121	208494	3.22
BARLEY	3976	3943	5018	5127	3321	3620	3819	2593	3366	2938	2906	-4.59
MAIZE	15956	15494	17617	16303	15498	18040	16989	19187	20264	18108	22321	2.90
MILLET AND SORGHUM	21770	18462	21049	21142	22657	23122	20661	20683	23207	20256	25325	1.17
ROOT CROPS	41040	43679	45728	49984	51265	56452	55113	57566	60215	59276	58078	3.85
POTATOES	6534	6931	8672	9763	9447	10334	12458	10921	12347	12870	13143	7.09
CASSAVA	24710	27435	27805	31374	33410	37778	34177	39408	40161	39101	37145	4.69
TOTAL PULSES	12731	11499	12451	14642	13780	13953	13696	11117	12852	13434	14786	.83
CITRUS FRUIT	2359	2469	2626	2698	3550	3045	3052	3272	3608	3554	3602	4.43
BANANAS	8707	9001	9445	9819	11291	12270	13284	13572	14464	13367	13824	5.59
APPLES	765	806	829	891	989	1070	1208	1179	1493	1558	1644	8.51
VEGETABLE OILS,OIL EQUIV	8936	8951	10513	10503	10892	11363	11627	11771	13457	14202	14542	4.96
SOYBEANS	907	1033	1167	1093	1095	1344	1455	1491	1552	1420	1595	5.47
GROUNDNUTS IN SHELL	7099	6353	8180	6576	7494	7711	7156	6442	8774	6943	8976	1.51
SUNFLOWER SEED	1	1	1	1	3	13	47	41	91	211	282	90.80
RAPESEED	2221	2130	2650	2350	1996	2042	2273	1622	2359	2762	2583	1.02
COTTONSEED	3786	3932	3411	3075	3711	3747	4227	4207	4413	4401	3572	1.55
COPRA	3209	2789	3850	4577	4000	4813	3493	3728	3891	3986	4291	2.18
PALM KERNELS	234	292	341	365	430	470	600	691	738	1068	1019	16.15
SUGAR (CENTRIFUGAL,RAW)	8596	9585	10539	11177	12443	13562	12912	9722	12090	18047	17045	5.72
COFFEE GREEN	314	312	385	387	436	563	525	606	619	635	548	7.68
COCOA BEANS	16	20	22	25	30	34	40	48	70	84	95	19.72
TEA	750	807	814	827	891	897	850	906	923	892	949	1.72
COTTON LINT	1893	1966	1706	1538	1856	1874	2114	2104	2190	2201	1786	1.53
JUTE AND SIMILAR FIBRES	3158	2341	2278	2426	2641	3208	3171	2770	2718	2472	2544	.10

1/ NOMINAL CATCH (LIVE WEIGHT) EXCLUDING WHALES
2/ EXCEPT FOR PULP FOR PAPER AND PAPER AND PAPERBOARD, ALL FOREST PRODUCTS ARE EXPRESSED IN THOUSAND CUBIC METRES

ANNEX TABLE 1. VOLUME OF PRODUCTION OF MAJOR AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
	THOUSAND METRIC TONS											
TOBACCO	853	920	850	849	1001	1060	1003	951	991	1089	1176	2.73
NATURAL RUBBER	3115	3092	3210	3442	3254	3317	3474	3340	3344	3340	3524	.96
TOTAL MEAT	3842	3944	4112	4251	4361	4640	5072	5316	5584	5898	6159	5.11
TOTAL MILK	33423	35020	36561	36351	39815	40653	42175	43416	45299	47066	48766	3.72
TOTAL EGGS	1110	1224	1316	1395	1510	1673	1818	1970	2051	2149	2247	7.53
WOOL GREASY	60	62	65	69	73	75	79	84	81	84	86	3.84
FISHERY PRODUCTS 1/												
FRESHWATER + DIADROMOUS	2389	2474	2304	2311	2362	2365	2402	2537	2834	2841	2886	2.13
MARINE FISH	6215	6761	6916	7027	7815	7932	7844	7776	8211	8761	8788	3.22
CRUST+ MOLLUS+ CEPHALOP	1241	1219	1437	1681	1809	1815	1986	2096	2150	2062	2125	6.12
AQUATIC MAMMALS	89	28	25	50	106	91	82	29	60	88	221	9.99
AQUATIC PLANTS	245	376	282	317	379	354	373	442	537	361		
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	2056	2771	3116	3151	4055	3105	4000	4141	3902	3629	3733	5.00
SAWLOGS NONCONIFEROUS	53024	66645	60337	75990	76213	81281	76861	76545	67630	68738	61947	1.07
PULPWOOD+PARTICLES	2623	3058	2810	2851	3033	3027	2957	3096	2831	2967	3206	.96
FUELWOOD	403909	413304	423373	432716	442061	451515	461032	470716	480500	490306	500414	2.15
SAWNWOOD CONIFEROUS	1547	1972	1657	1953	2810	3006	3454	3146	3704	3698	4086	10.12
SAWNWOOD NONCONIFEROUS	12125	16829	16024	20545	22138	23557	23460	25133	25389	26436	26098	6.69
WOOD-BASED PANELS	4027	3372	3691	4110	4954	5443	5504	5319	6023	6750	7563	7.56
PULP FOR PAPER	470	503	457	543	568	650	720	691	781	833	759	6.28
PAPER+PAPERBOARD	2062	2160	2185	2335	2915	3351	3766	3914	4084	4084	4414	9.04
ASIAN CENT PLANNED ECON												
AGRICULTURAL PRODUCTS												
TOTAL CEREALS	240937	253516	264245	272388	264803	293700	313622	303096	309856	340434	372788	3.91
WHEAT	35861	41421	45999	51006	41704	54471	63343	55810	60318	69312	82542	7.19
RICE PADDY	139964	142276	144566	147385	149330	156372	163368	161102	165624	185062	193584	3.09
BARLEY	3319	3385	3395	3404	3391	3609	4035	3122	3531	3673	4010	1.27
MAIZE	40637	44992	49402	50501	51803	58522	62644	65434	62109	63227	71340	5.19
MILLET AND SORGHUM	16544	16558	15572	14820	14434	15218	14412	12660	13055	14226	16050	-1.42
ROOT CROPS	168220	151370	152601	143917	160257	172262	155936	158121	143761	146110	159382	-.39
POTATOES	32964	35625	39681	42640	46843	54145	49792	50982	47328	49123	52238	4.15
CASSAVA	3451	3503	3626	4396	5250	6178	6313	6925	6969	6444	6690	8.33
TOTAL PULSES	6668	6572	6574	6757	6436	6908	7131	7169	6879	6766	6482	.30
CITRUS FRUIT	852	913	884	875	973	964	1165	1359	1469	1668	2063	8.97
BANANAS	1154	1088	522	883	986	1015	1128	1235	1281	1479	1599	4.32
APPLES	1560	1450	1912	2101	2519	2723	3331	2843	3501	2941	4081	9.65
VEGETABLE OILS,OIL EQUIV	4453	4354	4279	3824	4028	4644	5054	5720	7062	7724	7791	7.19
SOYBEANS	8650	7841	7611	7019	7646	7957	7844	8339	9748	9503	10263	2.50
GROUNDNUTS IN SHELL	2324	2505	2444	2070	2155	2568	2994	3786	3992	4088	4129	7.38
SUNFLOWER SEED	70	70	80	100	170	279	340	910	1332	1286	1320	43.69
RAPESEED	1355	1383	1539	1353	1173	1871	2404	2586	4067	5657	4288	15.83
COTTONSEED	5135	4933	4772	4120	4112	4347	4424	5423	5946	7215	9294	5.39
COPRA	32	31	30	32	40	46	61	58	63	64	70	10.22
PALM KERNELS	38	35	39	41	40	42	43	40	41	45	47	1.66
SUGAR (CENTRIFUGAL,RAW)	2843	2877	2678	2675	3154	3303	3690	3763	4346	4839	5251	7.00
COFFEE GREEN	12	12	13	16	21	14	14	16	19	22	24	6.11
TEA	223	237	255	277	295	313	325	350	391	450	457	7.55
COTTON LINT	2567	2466	2386	2060	2056	2173	2212	2712	2973	3604	4643	5.38
JUTE AND SIMILAR FIBRES	581	654	729	766	893	1122	1118	1133	1299	1100	1062	7.36
SISAL	8	10	9	9	8	9	8	8	3	4	4	-9.60
TOBACCO	1027	1064	1039	1060	1077	1338	1026	995	1597	2285	1447	5.50
NATURAL RUBBER	91	87	103	123	149	166	162	164	172	200	212	9.26
TOTAL MEAT	10129	10142	10457	10458	10583	11451	13765	15252	16116	17184	17994	6.86
TOTAL MILK	2659	2800	2894	3011	3109	3242	3385	3583	3792	4192	4491	5.03
TOTAL EGGS	2367	2450	2549	2665	2775	2924	3071	3233	3442	3693	3975	5.24
WOOL GREASY	148	151	154	155	156	157	174	196	210	224	217	4.63
FISHERY PRODUCTS 1/												
FRESHWATER + DIADROMOUS	1343	1347	1387	1351	1422	1376	1461	1601	1780	1972	2277	4.86
MARINE FISH	3846	4163	4323	4437	4536	4509	4311	4444	4489	4743	4808	1.58
CRUST+ MOLLUS+ CEPHALOP	872	926	989	1052	1182	1259	1145	1169	1180	1353	1413	4.31
AQUATIC MAMMALS	1	1	1	2	2	2	2					
AQUATIC ANIMALS	59	22	17	16	13	14	14	10	19	19	20	-5.93
AQUATIC PLANTS	849	915	1013	965	1434	1606	1519	1590	1367			
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	16725	18340	19145	19993	20768	21717	22696	23678	24083	25161	26452	4.34
SAWLOGS NONCONIFEROUS	10531	11702	12085	12999	13546	14108	14697	15282	15928	16596	17394	4.78
PULPWOOD+PARTICLES	2930	4000	4291	4476	4671	4876	5089	4647	4647	4795	5313	3.88
FUELWOOD	161488	164923	168313	171565	174797	178148	181633	185188	185746	186369	187060	1.57

1/ NOMINAL CATCH (LIVE WEIGHT) EXCLUDING WHALES
2/ EXCEPT FOR PULP FOR PAPER AND PAPER AND PAPERBOARD, ALL FOREST PRODUCTS ARE EXPRESSED IN THOUSAND CUBIC METRES

ANNEX TABLE 1. VOLUME OF PRODUCTION OF MAJOR AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
	THOUSAND METRIC TONS											
SAWNWOOD CONIFEROUS	10604	11074	11166	11697	12256	12814	13400	14016	14662	15341	16054	4.31
SAWNWOOD NONCONIFEROUS	6753	6734	6739	7039	7354	7685	8032	8396	8779	9181	9603	3.92
WOOD-BASED PANELS	1549	1266	1254	1407	1494	2001	2138	2281	2363	2363	2363	7.38
PULP FOR PAPER	823	819	891	917	1021	1191	1299	1361	1361	1361	1373	6.47
PAPER+PAPERBOARD	4306	4167	4572	4655	5031	5606	6339	6752	6817	6917	7017	6.22

1/ NOMINAL CATCH (LIVE WEIGHT) EXCLUDING WHALES
2/ EXCEPT FOR PULP FOR PAPER AND PAPER AND PAPERBOARD, ALL FOREST PRODUCTS ARE EXPRESSED IN THOUSAND CUBIC METRES

ANNEX TABLE 2. INDICES OF FOOD PRODUCTION

	TOTAL						PER CAPUT					
	1979	1980	1981	1982	1983	CHANGE 1982 TO 1983	1979	1980	1981	1982	1983	CHANGE 1982 TO 1983
	1974-76=100					PERCENT	1974-76=100					PERCENT
FOOD PRODUCTION												
WORLD	110	110	114	117	117	-.19	103	101	103	104	102	-1.84
DEVELOPED COUNTRIES	108	106	109	112	108	-3.17	105	102	104	106	102	-3.80
WESTERN EUROPE	108	111	108	114	113	-1.17	107	109	106	112	110	-1.43
EUROPEAN ECON COMMUNITY	108	111	110	115	114	-.58	107	110	109	113	112	-.71
BELGIUM-LUXEMBOURG	103	104	108	104	98	-5.46	102	103	107	103	98	-5.50
DENMARK	111	111	112	124	119	-4.16	110	110	111	123	118	-4.07
FRANCE	111	110	107	117	112	-4.53	110	108	104	114	108	-4.91
GERMANY FED.REP. OF	106	109	108	116	113	-3.13	107	109	108	117	113	-2.79
GREECE	100	114	113	113	105	-7.38	95	107	105	105	97	-7.85
IRELAND	104	122	103	106	106	-.42	99	115	96	98	96	-1.53
ITALY	107	114	112	108	120	10.88	106	113	111	107	118	10.56
NETHERLANDS	106	106	116	116	120	3.09	103	102	111	111	114	2.72
UNITED KINGDOM	111	118	118	120	120	.04	111	117	118	120	120	-.07
OTHER WESTERN EUROPE	107	109	103	113	109	-3.13	104	106	99	108	104	-3.71
AUSTRIA	104	108	103	119	112	-5.62	104	105	103	118	112	-5.33
FINLAND	104	103	94	105	111	5.60	102	101	92	103	108	4.82
ICELAND	105	109	110	108	111	3.37	100	103	104	100	102	2.50
MALTA	119	145	139	166	131	-21.21	113	136	130	153	120	-21.63
NORWAY	106	108	114	120	119	-.45	104	106	111	116	116	-.82
PORTUGAL	95	89	78	96	86	-10.74	92	86	74	91	81	-11.38
SPAIN	111	117	104	112	107	-4.33	106	111	98	105	99	-5.09
SWEDEN	101	104	108	111	111	.20	100	103	106	109	109	.16
SWITZERLAND	112	109	107	118	116	-1.83	112	110	106	117	114	-2.48
YUGOSLAVIA	108	108	109	119	116	-2.78	105	104	104	112	108	-3.48
USSR AND EASTERN EUROPE	104	102	102	106	109	2.99	101	98	97	100	102	2.19
EASTERN EUROPE	108	105	105	110	111	.23	105	102	101	106	106	-.23
ALBANIA	123	122	119	121	131	8.00	112	109	103	103	109	5.67
BULGARIA	116	111	117	126	117	-6.99	114	108	115	123	114	-7.21
CZECHOSLOVAKIA	101	110	108	116	118	1.84	98	106	104	112	113	1.54
GERMAN DEMOCRATIC REP.	107	105	111	104	106	1.97	108	106	112	105	107	2.00
HUNGARY	107	115	113	126	124	-1.05	106	114	111	124	123	-.85
POLAND	105	93	92	97	101	3.82	102	89	87	91	94	2.84
ROMANIA	121	118	116	126	118	-7.00	117	113	110	120	111	-7.31
USSR	103	100	100	104	108	4.25	99	96	95	98	101	3.31
NORTH AMERICA DEVELOPED	116	112	124	124	104	-16.57	111	106	116	116	96	-17.20
CANADA	106	114	126	137	131	-4.76	102	108	118	127	119	-5.71
UNITED STATES	117	112	124	123	101	-17.92	112	106	116	114	93	-18.52
OCEANIA DEVELOPED	115	102	113	100	128	27.98	109	96	105	91	116	26.48
AUSTRALIA	119	101	115	96	132	37.92	112	93	105	86	117	36.16
NEW ZEALAND	104	106	109	113	116	2.46	102	105	107	110	112	1.82
OTHER DEV. EL COUNTRIES	104	96	98	100	97	-3.27	99	90	91	92	88	-4.30
ISRAEL	106	101	98	113	113	-.11	96	90	86	97	95	-1.79
JAPAN	103	94	95	98	97	-1.48	99	90	90	92	90	-2.15
SOUTH AFRICA	108	112	126	110	93	-16.11	99	99	110	94	77	-18.17
DEVELOPING COUNTRIES	114	117	122	125	130	3.65	104	105	107	108	110	1.58
AFRICA DEVELOPING	107	111	113	117	113	-3.66	95	95	94	94	88	-6.58
NORTH WESTERN AFRICA	104	112	100	111	109	-1.93	92	97	84	90	86	-4.97
ALGERIA	94	109	103	104	104	-.02	83	94	86	83	81	-3.25
MOROCCO	113	114	96	121	112	-6.91	100	99	81	98	88	-9.93
TUNISIA	93	110	104	98	110	12.44	84	97	89	82	90	9.80
WESTERN AFRICA	110	114	116	122	113	-7.42	97	97	97	98	88	-10.23
BENIN	123	115	114	114	115	.72	111	101	98	95	93	-2.13
BURKINA FASO	114	109	117	117	114	-3.12	105	98	103	101	96	-5.34
GAMBIA	66	69	91	105	78	-28.45	60	62	80	94	66	-29.73
GHANA	89	84	83	81	78	-3.82	79	72	69	65	60	-6.90
GUINEA	96	96	97	101	99	-1.44	88	86	86	86	83	-3.73
IVORY COAST	131	141	145	139	150	7.49	112	115	115	106	111	3.90
LIBERIA	110	110	115	116	117	1.29	96	93	94	92	90	-1.81
MALI	120	116	127	125	120	-3.86	110	104	111	107	100	-6.55
MAURITANIA	121	125	132	120	117	-2.72	109	109	112	99	94	-5.57
NIGER	142	148	146	146	148	1.74	129	130	125	121	120	-1.08
NIGERIA	114	120	124	130	118	-9.51	99	101	101	103	90	-12.45
SENEGAL	74	68	94	101	71	-29.70	64	57	77	80	55	-31.47
SIERRA LEONE	98	102	102	112	114	2.04	92	94	93	100	100	.24
TOGO	113	115	113	118	121	2.26	103	102	98	100	99	-.67
CENTRAL AFRICA	102	106	109	112	113	.62	92	92	93	93	91	-2.04
ANGOLA	100	102	102	103	103	.68	87	87	84	82	81	-1.70
CAMEROON	100	100	96	104	98	-5.82	91	89	83	88	81	-8.20
CENTRAL AFRICAN REP	105	108	109	111	109	-1.46	97	97	96	95	92	-3.67
CHAD	117	116	117	116	119	2.53	108	105	103	100	100	.22
CONGO	107	112	117	119	116	-2.52	97	99	101	100	95	-5.00
GABON	108	108	109	109	112	2.98	102	101	100	98	100	1.24
ZAIRE	102	106	111	114	116	1.86	91	92	94	93	92	-1.09
EASTERN AFRICA	108	109	113	116	116	-.07	96	93	93	93	90	-3.24
BURUNDI	109	105	110	108	112	3.94	103	97	99	95	96	1.09

ANNEX TABLE 2. INDICES OF FOOD PRODUCTION

	TOTAL						PER CAPUT					
	1979	1980	1981	1982	1983	CHANGE 1982 TO 1983	1979	1980	1981	1982	1983	CHANGE 1982 TO 1983
	1974-76=100					PERCENT	1974-76=100					PERCENT
FOOD PRODUCTION												
ETHIOPIA	122	117	115	127	126	-1.20	113	106	102	110	106	-3.76
KENYA	106	105	106	116	119	2.48	91	86	83	88	86	-1.65
MADAGASCAR	96	104	106	106	113	6.46	87	91	90	88	91	3.52
MALAWI	108	115	120	127	127	.12	96	100	101	103	100	-3.08
MAURITIUS	112	84	97	119	98	-17.65	105	77	87	104	84	-19.15
MOZAMBIQUE	94	95	96	95	76	-19.62	78	77	75	72	57	-20.96
RWANDA	126	127	136	145	150	3.66	110	108	112	115	115	.15
SOMALIA	104	110	112	115	117	1.49	77	76	73	72	70	-2.05
TANZANIA	122	129	133	128	129	1.26	107	109	109	101	98	-2.24
UGANDA	105	105	110	115	120	4.58	93	90	91	91	92	.97
ZAMBIA	89	94	92	86	97	10.71	79	81	76	71	76	7.10
ZIMBABWE	88	89	117	98	83	-14.71	77	75	96	77	63	-17.64
SOUTHERN AFRICA	96	97	103	103	99	-4.08	86	84	86	84	79	-6.82
BOTSWANA	92	72	86	91	92	.32	79	59	69	71	69	-3.06
LESOTHO	97	94	92	88	88	-.02	88	84	80	74	73	-2.51
SWAZILAND	108	126	139	141	142	.30	97	109	117	115	112	-2.82
LATIN AMERICA	115	119	124	126	125	-.92	105	106	107	107	104	-3.17
CENTRAL AMERICA	118	123	129	124	125	.82	105	106	109	102	100	-1.85
COSTA RICA	111	108	108	105	108	3.16	99	93	91	86	86	.49
EL SALVADOR	119	114	111	110	114	3.91	106	99	93	90	90	.93
GUATEMALA	119	124	128	128	120	-6.34	106	106	107	104	95	-9.03
HONDURAS	115	127	136	138	137	-.77	100	107	110	108	103	-4.07
MEXICO	118	126	133	127	128	1.08	105	109	112	104	103	-1.50
NICARAGUA	127	98	92	89	93	4.76	114	77	78	72	73	1.25
PANAMA	112	114	118	121	121	-.17	102	102	103	103	101	-2.32
CARIBBEAN	115	107	112	115	114	-.77	109	100	103	104	102	-2.26
BARBADOS	119	133	119	107	102	-4.94	115	128	113	101	95	-5.67
CUBA	133	121	129	136	135	-2.02	128	116	123	130	127	-2.58
DOMINICAN REPUBLIC	109	105	107	114	114	.22	99	94	93	97	95	-2.10
HAITI	108	104	105	105	108	2.17	98	92	91	89	89	-.36
JAMAICA	106	104	105	102	104	1.06	101	98	97	94	94	-.33
SOUTH AMERICA	114	119	123	128	126	-1.48	104	106	107	109	105	-3.67
ARGENTINA	122	114	123	129	125	-3.07	114	105	111	116	110	-4.60
BOLIVIA	100	106	112	116	84	-27.42	91	93	96	97	68	-29.34
BRAZIL	113	127	128	135	135	.55	103	113	111	115	113	-1.66
CHILE	108	108	119	116	110	-5.20	101	99	107	103	96	-6.78
COLOMBIA	118	120	125	123	123	.09	109	108	110	106	103	-2.04
ECUADOR	105	115	118	120	103	-14.10	93	99	98	97	81	-16.75
GUYANA	101	99	108	106	101	-4.85	93	89	96	92	86	-6.72
PARAGUAY	126	129	134	139	136	-2.43	110	109	111	111	105	-5.29
PERU	100	91	98	102	96	-6.35	90	79	84	85	78	-8.76
URUGUAY	89	94	111	109	112	2.92	87	92	107	104	107	2.19
VENEZUELA	115	115	115	115	119	3.32	100	97	93	91	91	
NEAR EAST DEVELOPING	110	113	118	121	121	.25	99	99	100	100	98	-2.34
NEAR EAST IN AFRICA	108	108	114	111	112	1.26	96	94	96	91	90	-1.42
EGYPT	105	107	107	112	112	.67	95	94	92	93	92	-1.63
LIBYA	109	109	112	107	115	7.24	93	89	88	81	84	3.20
SUDAN	112	109	129	109	110	1.47	99	94	107	88	87	-1.36
NEAR EAST IN ASIA	110	114	119	123	123	.04	99	100	101	103	100	-2.52
AFGHANISTAN	101	105	107	107	109	2.04	97	100	103	105	108	2.91
CYPRUS	109	119	115	126	106	-15.33	106	116	110	119	100	-16.37
IRAN	108	108	127	126	127	-.89	96	93	106	104	100	-3.86
IRAQ	110	126	130	148	144	-3.09	95	106	105	116	108	-6.35
JORDAN	89	136	125	126	135	7.33	81	121	107	105	108	3.36
LEBANON	103	133	106	134	120	-10.62	105	136	109	139	125	-10.55
SAUDI ARABIA	93	57	24	21	98	363.40	77	45	18	15	68	345.79
SYRIA	118	161	160	170	163	-4.21	103	136	131	134	124	-7.69
TURKEY	114	115	118	124	123	-.62	104	103	104	106	103	-2.95
YEMEN ARAB REPUBLIC	101	103	99	98	81	-17.23	94	93	88	85	69	-19.18
YEMEN DEMOCRATIC	98	96	99	99	100	1.37	90	85	86	84	83	-1.30
FAR EAST DEVELOPING	114	117	126	125	135	8.24	104	105	110	107	113	5.94
SOUTH ASIA	111	115	123	120	134	11.60	101	103	107	103	112	9.17
BANGLADESH	111	119	119	123	127	2.79	99	104	101	101	101	.02
INDIA	110	114	123	118	135	14.23	101	102	108	102	114	11.97
NEPAL	94	103	107	97	117	20.08	85	92	93	82	97	17.31
PAKISTAN	115	117	124	130	134	3.15	102	101	104	105	105	-.11
SRI LANKA	142	159	147	136	147	6.39	133	146	132	122	127	4.20
EAST SOUTH-EAST ASIA	120	121	132	133	137	2.56	110	109	116	115	115	.54
BURMA	115	126	136	147	148	.70	104	111	117	124	122	-1.82
INDONESIA	116	129	139	136	146	6.83	107	115	122	118	124	4.97
KOREA REP	132	107	119	122	123	1.29	124	99	108	110	109	-.10
LAO	118	136	149	149	150	.73	106	120	127	125	123	-1.78
MALAYSIA	119	121	132	138	130	-5.84	108	108	115	117	107	-7.96
PHILIPPINES	123	127	133	133	137	2.35	112	112	114	112	112	-.17
THAILAND	114	119	129	131	135	3.20	104	106	112	111	113	1.04
ASIAN CENT PLANNED ECON	117	118	122	132	140	6.47	110	110	112	119	125	5.15
CHINA	117	117	122	132	141	6.64	110	109	112	120	126	5.40
KAMPUCHEA, DEMOCRATIC	62	87	81	91	108	19.12	68	96	88	96	111	14.94
KOREA DPR	123	126	127	130	138	5.94	112	112	110	110	114	3.52
MONGOLIA	103	96	102	110	111	.42	92	84	86	91	89	-2.25
VIET NAM	119	126	127	129	136	4.76	108	112	110	110	113	2.70
OTHER DEV. ING COUNTRIES	114	114	119	123	118	-4.06	103	99	101	102	95	-6.45

ANNEX TABLE 3. INDICES OF AGRICULTURAL PRODUCTION

	TOTAL						PER CAPUT					
	1979	1980	1981	1982	1983	CHANGE 1982 TO 1983	1979	1980	1981	1982	1983	CHANGE 1982 TO 1983
	1974-76=100					PERCENT	1974-76=100					PERCENT
ETHIOPIA	121	117	116	127	126	-.63	112	106	103	110	106	-3.20
KENYA	109	112	112	121	126	4.31	93	91	88	91	91	.11
MALAGASCAR	96	102	105	105	111	5.82	86	90	89	86	89	2.90
MALAWI	113	117	122	131	130	-.76	101	101	103	107	103	-3.93
MAURITIUS	112	85	98	119	99	-16.99	105	78	88	105	85	-18.55
MOZAMBIQUE	93	95	96	94	77	-18.46	78	78	75	71	56	-20.82
RWANDA	126	127	137	144	150	3.98	111	107	113	115	115	.46
SOMALIA	104	110	112	115	117	1.49	77	76	73	72	70	-2.06
TANZANIA	115	122	125	118	119	.44	100	103	102	93	90	-3.03
UGANDA	99	100	102	110	115	4.77	87	85	84	88	89	1.16
ZAMBIA	90	96	93	88	99	12.96	80	83	77	71	78	9.28
ZIMBABWE	97	101	114	100	92	-8.67	85	86	93	79	70	-11.80
SOUTHERN AFRICA	97	99	104	104	100	-3.81	86	86	88	85	80	-6.55
BOTSWANA	92	72	86	91	92	.32	79	60	69	71	69	-3.07
LESOTHO	98	95	94	91	91	-.01	89	84	81	76	74	-2.51
SWAZILAND	108	131	141	143	144	.27	97	113	119	117	114	-2.85
LATIN AMERICA	115	117	123	123	123	.60	104	104	107	104	102	-1.69
CENTRAL AMERICA	117	120	125	118	121	2.02	104	104	105	97	96	-.68
COSTA RICA	113	113	116	110	117	6.88	101	98	98	90	93	4.11
EL SALVADOR	119	115	104	101	112	11.09	106	99	87	82	89	7.91
GUATEMALA	120	122	123	118	109	-7.40	106	105	102	96	86	-10.06
HONDURAS	123	129	140	139	141	1.25	107	108	113	109	107	-2.12
MEXICO	116	124	130	122	124	1.94	104	107	110	100	99	-.67
NICARAGUA	118	80	92	89	95	6.43	105	70	77	72	75	2.91
PANAMA	113	116	119	122	123	.38	103	104	104	105	103	-1.78
CARIBBEAN	114	106	112	115	113	-1.64	108	99	102	104	101	-3.12
BARBADOS	119	133	119	107	102	-4.94	115	128	113	101	96	-5.67
CUBA	131	118	128	136	132	-2.74	126	113	122	129	124	-3.30
DOMINICAN REPUBLIC	109	106	106	114	111	-2.66	100	94	92	96	92	-4.93
HAITI	107	102	103	105	107	1.14	98	91	90	89	88	-1.37
JAMAICA	106	104	105	103	104	1.12	101	98	97	94	94	-.27
SOUTH AMERICA	114	117	124	125	125	.38	104	104	108	106	104	-1.85
ARGENTINA	120	112	118	126	122	-3.70	113	103	107	113	107	-5.22
BOLIVIA	100	104	110	113	84	-25.98	50	52	54	54	68	-27.95
BRAZIL	113	123	131	129	134	4.18	103	109	114	110	112	1.88
CHILE	108	109	119	117	111	-5.09	101	100	107	104	97	-6.67
COLOMBIA	119	121	126	124	124	-.14	110	109	111	107	105	-2.27
ECUADOR	106	113	117	119	103	-13.46	94	97	98	96	80	-16.14
GUYANA	101	95	105	107	101	-4.81	93	90	96	92	86	-6.67
PARAGUAY	127	129	137	138	135	-2.53	111	109	113	110	104	-5.35
PERU	103	95	101	101	97	-3.61	93	83	86	84	78	-6.09
URUGUAY	90	96	112	110	113	2.91	86	94	108	105	108	2.18
VENEZUELA	114	113	112	113	118	3.95	99	95	91	89	99	.61
NEAR EAST DEVELOPING	108	111	115	118	119	.66	97	97	98	98	96	-1.94
NEAR EAST IN AFRICA	106	107	111	109	110	1.28	95	93	94	90	88	-1.35
EGYPT	107	110	109	112	111	-.95	97	97	93	94	90	-3.42
LIBYA	109	108	111	107	115	7.08	93	89	88	81	84	3.04
SUDAN	104	100	115	103	108	5.17	92	86	95	83	85	2.24
NEAR EAST IN ASIA	109	112	115	121	121	.52	98	98	99	100	98	-2.06
AFGHANISTAN	99	100	102	101	104	2.91	95	96	98	99	103	3.79
CYPRUS	109	119	115	125	106	-15.24	106	115	110	119	99	-16.29
IRAN	106	106	124	126	125	-1.03	94	91	104	102	98	-4.00
IRAQ	108	124	128	146	142	-2.85	94	104	103	114	107	-6.11
JORDAN	89	135	124	125	135	7.68	81	119	107	104	108	3.70
LEBANON	101	129	103	130	116	-10.23	103	133	107	135	121	-10.16
SAUDI ARABIA	94	56	26	23	98	330.63	77	46	20	17	68	314.27
SYRIA	114	151	151	163	158	-2.64	100	128	123	128	120	-6.17
TURKEY	112	113	115	120	120	.09	103	102	101	103	101	-2.25
YEMEN ARAB REPUBLIC	101	102	99	98	81	-16.69	94	93	88	85	69	-18.66
YEMEN DEMOCRATIC	97	92	95	95	100	5.02	88	82	82	80	82	2.25
FAR EAST DEVELOPING	114	117	125	124	134	7.62	104	105	109	106	112	5.34
SOUTH ASIA	111	115	122	120	133	10.67	101	103	107	103	111	8.26
BANGLADESH	113	115	119	123	126	2.64	101	103	100	101	101	-.13
INDIA	110	114	122	118	135	13.59	101	102	108	102	114	11.35
NEPAL	94	104	107	98	117	20.04	86	92	93	82	97	17.27
PAKISTAN	116	119	125	132	132	.55	104	103	104	106	104	-2.63
SRI LANKA	130	140	132	125	131	4.83	121	129	119	110	113	2.67
EAST SOUTH-EAST ASIA	120	120	130	131	135	2.54	110	108	114	113	114	.53
BURMA	116	126	136	147	148	1.15	105	112	118	124	122	-1.38
INDONESIA	116	127	138	134	144	7.01	107	114	121	116	122	5.16
KOREA REP	129	105	116	119	120	.82	121	97	105	107	107	-.56
LAO	118	136	148	150	150	.52	106	119	127	125	122	-1.99
MALAYSIA	116	117	125	130	124	-4.77	105	104	109	110	102	-6.92
PHILIPPINES	124	128	134	135	138	1.84	112	113	115	113	113	-.66
THAILAND	116	120	129	132	136	3.10	105	107	112	112	113	.94
ASIAN CENT PLANNED ECON	116	118	123	134	143	6.43	109	110	113	121	127	5.11
CHINA	116	117	123	135	144	6.57	109	109	113	122	129	5.33
KAMPUCHEA,DEMOCRATIC	62	85	79	89	106	19.21	68	93	86	94	108	15.03
KOREA DPR	123	126	127	130	138	5.90	111	112	110	110	114	3.48
MONGOLIA	102	97	101	109	111	1.24	91	84	86	90	89	-1.46
VIET NAM	119	126	128	130	136	4.86	108	112	111	110	114	2.80
OTHER DEV. ING COUNTRIES	115	115	120	122	119	-2.97	103	101	102	102	98	-5.35

ANNEX TABLE 4. VOLUME OF EXPORTS OF MAJOR AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
	THOUSAND METRIC TONS											
WORLD												
AGRICULTURAL PRODUCTS												
WHEAT+FLOUR,WHEAT EQUIV.	61636	65400	73813	69063	74486	84908	81538	99499	105389	105090	111503	4.96
RICE MILLED	8417	8312	7736	8997	10681	9639	11776	13045	13097	12168	11487	5.12
BARLEY	12445	11693	12604	13927	13112	14565	14106	16235	20262	18402	17747	5.02
MAIZE	48349	49750	52085	62377	57764	69792	76093	80302	79441	69574	69307	4.85
MILLET	226	216	207	303	272	318	296	224	239	219	217	-.21
SORGHUM	9950	10766	10155	11161	11936	10923	11365	11162	14465	13727	11857	3.08
POTATOES	3913	3877	3931	4411	4697	4037	4630	4918	4958	5197	4837	2.69
SUGAR,TOTAL (RAW EQUIV.)	23154	23347	21937	23165	28965	26139	26602	27656	29345	30853	29592	3.22
PULSES	2024	1655	1788	1906	1974	2115	2347	2796	3124	2965	3173	6.76
SOYBEANS	15629	17233	16479	19766	20025	24062	25469	26886	26218	28915	26497	6.53
SOYBEAN OIL	1053	1546	1365	1635	2106	2610	2953	3196	3468	3402	3677	13.23
GROUNDNUTS SHELLED BASIS	561	853	899	1035	874	745	744	734	831	732	753	-2.62
GROUNDNUT OIL	507	382	402	561	561	416	501	474	320	447	524	-.33
COPRA	1043	526	1062	1147	941	703	443	453	401	434	244	-11.65
COCONUT OIL	737	667	1043	1374	1110	1334	1142	1216	1356	1265	1329	5.68
PALM NUTS KERNELS	302	360	308	391	279	181	160	201	138	140	133	-10.47
PALM OIL	1514	1691	2043	2188	2332	2401	2841	3606	3214	3732	3938	10.02
OILSEED CAKE AND MEAL	14574	14713	14968	18814	19106	21678	23318	25544	27475	27652	31768	8.68
BANANAS	6767	6627	6373	6344	6662	7048	6951	6959	6911	7149	6227	-.31
ORANGES+TANGER+CLEMEN	4978	4955	5165	5153	5404	5213	4958	5136	4981	5029	4970	-.14
LEMONS AND LIMES	786	827	813	967	895	982	927	997	934	1014	948	2.06
COFFEE GREEN+ROASTED	3804	3410	3576	3659	2938	3445	3793	3722	3716	3957	4051	1.20
COCOA BEANS	1111	1194	1161	1152	969	1066	923	1078	1248	1246	1261	-.77
TEA	789	804	813	852	904	884	938	953	958	918	933	1.94
COTTON LINT	4728	3616	3994	4049	3929	4467	4374	4834	4305	4387	4322	.73
JUTE AND SIMILAR FIBRES	907	691	590	666	565	503	561	509	538	486	514	-5.38
TOBACCO UNMANUFACTURED	1235	1400	1251	1306	1280	1430	1355	1356	1483	1425	1360	1.09
NATURAL RUBBER	3356	3199	3011	3249	3292	3317	3422	3329	3142	3104	3433	.19
WOOL GREASY	1119	834	853	1010	1103	890	937	907	950	884	901	-.82
BOVINE CATTLE 1/	6855	5940	6831	6887	6766	7601	7446	6952	7142	7502	7256	1.34
SHEEP AND GOATS 1/	10825	10397	11830	10776	12430	14775	15250	18639	17590	18541	21196	7.70
PIGS 1/	5927	6071	6428	6943	6938	7945	8414	10736	9836	9278	9571	6.02
TOTAL MEAT	5748	5283	5548	6263	6815	7103	7622	8099	8860	8608	9036	5.87
MILK DRY	361	356	378	442	572	565	659	674	867	841	741	10.26
TOTAL EGGS IN SHELL	455	508	535	516	573	606	656	743	792	812	790	6.25
FISHERY PRODUCTS												
FISH FRESH FROZEN	2855	2786	2965	3025	3461	3838	4234	4225	4292	2485		
FISH CURED	507	441	434	441	424	415	439	447	471	335		
SHELLFISH	712	706	761	877	830	986	1111	1012	1072	578		
FISH CANNED AND PREPARED	739	747	721	831	801	846	864	1605	1051	750		
SHELLFISH CANNED+PREPAR	93	89	68	94	108	107	108	123	122	92		
FISH BODY AND LIVER OIL	550	556	597	565	565	694	740	738	724	531		
FISH MEAL	1631	1951	2188	2113	2073	2173	2453	2383	2117	1533		
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	28793	26238	23898	28411	28657	29669	31849	27996	22860	26539	29377	.06
SAWLOGS NONCONIFEROUS	51864	44685	36239	45353	47063	48256	45929	41556	33067	33320	32432	-3.57
PULPWOOD+PARTICLE	29208	32980	31876	33856	35121	32616	36364	41048	39850	34429	35277	2.03
FUELWOOD	1291	1286	1039	782	1066	632	771	906	621	678	666	-6.55
SAWNWOOD CONIFEROUS	60510	51622	43250	56294	61793	65962	68826	66021	60730	61479	70755	2.68
SAWNWOOD NONCONIFEROUS	10648	8928	7918	11424	11174	12004	13396	12534	10980	11031	12125	2.62
WOOD-BASED PANELS	14674	12964	12436	14384	14971	16396	16673	16296	16711	15235	16354	2.23
PULP FOR PAPER	16666	17192	13490	15274	15368	17277	18457	19542	18571	17190	19490	2.22
PAPER AND PAPERBOARD	27587	30063	23076	27090	28291	30273	33321	35055	35430	33697	36524	3.54
WESTERN EUROPE												
AGRICULTURAL PRODUCTS												
WHEAT+FLOUR,WHEAT EQUIV.	12714	12393	14406	14498	12860	13772	16812	19525	23885	22583	23852	7.47
RICE MILLED	386	605	613	660	738	839	873	943	999	933	942	8.08
BARLEY	5586	5966	5686	5075	4408	8634	7199	8057	10807	7548	8388	5.91
MAIZE	5613	6012	5666	5876	4458	4869	5050	5474	4820	5743	7708	.82
MILLET	9	7	15	11	12	12	13	15	20	20	24	9.98
SORGHUM	276	711	736	771	384	262	308	206	241	271	159	-11.02
POTATOES	2465	2358	2589	2337	2708	2798	3016	3455	3544	3667	3515	4.97
SUGAR,TOTAL (RAW EQUIV.)	2827	2638	2249	3072	3924	4448	4632	5627	6147	6466	6044	11.30
PULSES	288	253	323	226	302	353	450	456	448	419	596	7.97
SOYBEANS	113	16	111	189	120	237	353	327	160	205	127	13.68

1/ THOUSAND HEAD
2/ EXCEPT FOR PULP FOR PAPER AND PAPER AND PAPERBOARD, ALL FOREST PRODUCTS ARE EXPRESSED IN THOUSAND CUBIC METERS

ANNEX TABLE 4. VOLUME OF EXPORTS OF MAJOR AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83
	THOUSAND METRIC TONS											PERCENT
SOYBEAN OIL	470	720	719	744	767	1099	1208	1204	1272	1379	1430	10.81
GROUNDNUTS SHELLED BASIS	17	17	13	24	21	28	14	18	24	25	17	1.93
GROUNDNUT OIL	54	51	74	49	44	45	64	79	68	74	99	5.22
COPRA	6		1	17	3	4	1	2		1		-26.65
COCONUT OIL	117	78	203	269	163	119	61	43	58	86	60	-9.79
PALM NUTS KERNELS	1	5	1	1	1	1	2	3	1	2		-9.74
PALM OIL	80	68	86	98	111	97	92	123	114	94	123	4.20
OILSEED CAKE AND MEAL	2710	2875	2257	2630	2518	3437	3957	4247	4921	5333	6432	10.06
BANANAS	23	27	35	25	31	41	43	43	48	46	35	6.23
ORANGES+TANGER+CLEMEN	1943	1933	1999	2056	2113	1921	1906	1799	1659	1880	1689	-1.57
LEMONS AND LIMES	384	444	461	525	464	505	483	512	430	571	448	1.43
COFFEE GREEN+ROASTED	62	76	86	92	78	102	124	106	122	126	141	7.51
COCOA BEANS	3	6	11	15	30	34	32	44	48	52	52	31.44
TEA	58	61	43	46	60	50	46	43	44	43	51	-2.13
COTTON LINT	101	79	65	85	70	71	60	57	55	75	69	-3.29
JUTE AND SIMILAR FIBRES	28	25	21	18	17	19	16	17	17	15	15	-5.21
TOBACCO UNMANUFACTURED	141	196	177	179	153	223	234	197	210	247	248	4.54
NATURAL RUBBER	30	40	29	32	27	21	21	16	14	15	16	-9.35
WOOL GREASY	55	43	55	64	57	60	65	69	61	57	66	2.50
BOVINE CATTLE 1/	2566	2312	3416	3121	2979	3322	3340	3412	3620	3533	3502	3.44
SHEEP AND GOATS 1/	619	575	1152	1183	1318	1732	1364	1418	927	784	1162	3.85
PIGS 1/	2552	2576	2596	3112	3106	3421	4004	4777	4749	4537	4737	7.62
TOTAL MEAT	1933	2215	2434	2394	2652	2825	3173	3673	3900	3788	4067	7.65
MILK DRY	269	272	285	334	432	450	514	660	673	624	531	9.99
TOTAL EGGS IN SHELL	262	308	326	335	349	382	445	506	538	601	597	8.88
FISHERY PRODUCTS												
FISH FRESH FROZEN	1095	1017	1054	1115	1146	1391	1686	1643	1791	757		
FISH CURED	327	283	278	286	263	253	276	286	309	206		
SHELLFISH	196	225	250	274	232	263	275	277	326	75		
FISH CANNED AND PREPARED	235	226	207	243	246	262	264	257	261	125		
SHELLFISH CANNED+PREPAR	28	24	27	32	34	36	38	42	47	19		
FISH BODY AND LIVER OIL	271	196	249	319	327	270	296	332	335	166		
FISH MEAL	797	803	864	948	1040	945	951	978	918	556		
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	2236	2784	1704	2428	2590	1899	2395	2937	2735	2429	2523	1.63
SAWLOGS NONCONIFEROUS	1850	1943	1665	1833	2077	2017	2055	2257	2128	1928	2023	1.43
PULPWOOD+PARTICLE	7114	7920	6627	8173	7575	6846	8462	10718	11165	9683	9443	3.37
FUELWOOD	881	888	735	512	740	314	493	575	364	433	383	-8.12
SAWNWOOD CONIFEROUS	20295	17248	12640	17061	16554	18051	20349	19783	17142	18334	20572	1.58
SAWNWOOD NONCONIFEROUS	2274	1856	1607	2801	2494	2756	2514	2395	2037	1896	2015	-.11
WOOD-BASED PANELS	6337	5654	5171	6151	6194	6737	7366	7047	6690	6151	6120	1.14
PULP FOR PAPER	6036	7436	5179	5670	5559	6689	6837	6635	6201	5604	6716	-.88
PAPER AND PAPERBOARD	13763	14964	10655	13098	13753	15659	17385	17423	18108	17770	19400	4.46
USSR AND EASTERN EUROPE												
AGRICULTURAL PRODUCTS												
WHEAT+FLOUR,WHEAT EQUIV.	7108	6372	5335	4164	5443	3969	5002	4170	4380	5092	4087	-4.82
RICE MILLED	90	149	16	11	11	13	24	33	25	28	38	-5.78
BARLEY	570	1156	1040	943	1725	222	232	336	247	225	284	-15.42
MAIZE	1570	1727	983	1536	1318	1493	554	1325	1770	1319	1042	-2.27
MILLET		4	3	7	3	3	5	6	3	5	4	
SORGHUM		8	10	11	5	7	7	5	9	6	4	
POTATOES	534	648	490	442	682	371	655	322	323	299	228	-8.08
SUGAR,TOTAL (RAW EQUIV.)	619	787	438	573	808	953	717	738	631	807	823	1.47
PULSES	118	115	119	112	117	135	145	122	122	112	117	.24
SOYBEANS	34	31	11	10	32	6	30	5	4	5	5	-17.55
SOYBEAN OIL	6	8	2	12	13	7	10	17	14	18	12	12.65
GROUNDNUTS SHELLED BASIS		1					1	1				
COCONUT OIL							1	1				
OILSEED CAKE AND MEAL	75	47	49	14	61	53	20	27	9	35	14	-12.29
ORANGES+TANGER+CLEMEN								1	2	2	2	
COCOA BEANS											5	
TEA	13	14	17	15	22	17	17	20	18	17	26	4.38
COTTON LINT	734	740	801	887	976	865	807	663	928	957	789	1.45
JUTE AND SIMILAR FIBRES	3											
TOBACCO UNMANUFACTURED	97	100	102	101	99	89	102	103	90	87	86	-1.32
WOOL GREASY	1	1	1	1	1	2	3	3	1	1	2	11.44
BOVINE CATTLE 1/	783	630	686	496	540	544	676	577	460	603	636	-1.71
SHEEP AND GOATS 1/	3168	2875	3457	3025	3504	3800	4719	4597	3720	3655	4005	3.22
PIGS 1/	412	628	944	720	720	1158	1152	1144	1713	1091	973	9.20

1/ THOUSAND HEAD
2/ EXCEPT FOR PULP FOR PAPER AND PAPER AND PAPERBOARD, ALL FOREST PRODUCTS ARE EXPRESSED IN THOUSAND CUBIC METRES

ANNEX TABLE 4. VOLUME OF EXPORTS OF MAJOR AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
	THOUSAND METRIC TONS											
TOTAL MEAT	433	527	627	547	658	620	744	738	779	733	739	5.00
TOTAL EGGS IN SHELL	103	111	121	101	120	114	104	90	69	50	52	-7.56
FISHERY PRODUCTS												
FISH FRESH FROZEN	379	494	606	607	540	569	605	621	514	429		
FISH CURED	15	13	19	12	11	15	21	17	11	6		
SHELLFISH	7	3	1	1	1	2	1	2	1			
FISH CANNED AND PREPARED	31	32	45	47	48	40	36	39	39	34		
SHELLFISH CANNED+PREPAR	2	2	3	2	1	1	1	2	1	2		
FISH BODY AND LIVER OIL	6	6	4	2	1	1	1	1				
FISH MEAL	13	11	19	18	14	21	20	22	12	9		
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	10195	9829	6884	9534	9919	10281	8774	7430	7104	7165	7681	-3.55
SAWLOGS NONCONIFEROUS	334	397	354	201	315	296	404	384	285	303	292	-.79
PULPWOOD+PARTICLE	11019	12480	12146	12401	12155	11375	12066	12162	12396	10693	12057	-.14
FUELWOOD	141	127	95	40	63	92	46	31	18	15	30	-18.10
SAWNWOOD CONIFEROUS	10682	9865	10362	11009	10592	10782	9956	9513	9363	9630	9690	-1.12
SAWNWOOD NONCONIFEROUS	825	767	749	714	702	752	600	597	539	487	537	-4.85
WOOD-BASED PANELS	1476	1457	1588	1702	1791	1875	1842	1827	1683	1520	1574	.76
PULP FOR PAPER	619	592	601	726	754	851	753	689	894	982	1037	5.80
PAPER AND PAPERBOARD	1264	1304	1295	1480	1653	1779	1664	1732	1697	1701	1707	3.42
NORTH AMERICA DEVELOPED												
AGRICULTURAL PRODUCTS												
WHEAT+FLOUR,WHEAT EQUIV.	51359	36782	43589	38974	40736	50841	47174	54495	61342	61254	63319	4.58
RICE MILLED	1630	1726	2139	2107	2288	2279	2301	3054	3133	2540	2385	4.98
BARLEY	5168	3547	4068	5432	4343	4249	4654	4195	6853	7097	7258	5.21
MAIZE	33215	29875	33526	44692	40580	50550	59414	63923	56067	49658	48099	6.11
MILLET						23	15	60	24	28	41	
SORGHUM	5629	5722	5848	5797	6139	5184	5950	8050	8032	6051	5325	1.40
POTATOES	313	356	369	857	503	282	269	344	395	461	363	-.36
SUGAR,TOTAL (RAW EQUIV.)	71	105	291	122	166	149	135	654	1167	154	323	16.19
PULSES	416	339	390	460	374	390	470	913	1141	854	680	10.78
SOYBEANS	13250	13953	12506	15361	16234	20794	20951	21882	21980	25652	22791	7.35
SOYBEAN OIL	439	766	355	506	768	916	1110	1081	809	911	786	7.50
GROUNDNUTS SHELLED BASIS	189	255	241	130	302	381	356	285	146	201	224	.12
GROUNDNUT OIL	47	21	12	48	45	40	5	18	20	10	2	-17.62
COCONUT OIL	11	5	8	26	17	9	5	19	14	13	11	2.95
OILSEED CAKE AND MEAL	5075	5253	4105	5370	4740	6793	6845	8009	7471	6917	7517	5.63
BANANAS	188	195	187	201	199	201	197	205	217	210	188	.69
ORANGES+TANGER+CLEMEN	292	328	481	461	410	356	318	482	443	353	497	2.33
LEMONS AND LIMES	201	202	183	225	236	237	173	171	176	135	163	-3.26
COFFEE GREEN+ROASTED	72	85	55	69	106	59	79	79	70	60	43	-2.90
COCOA BEANS	9	23	9	10	14	9	9	7	14	14	16	.77
TEA	3	3	4	3	4	5	5	5	4	4	5	3.80
COTTON LINT	1246	1172	871	779	1017	1347	1527	1823	1269	1392	1205	3.47
JUTE AND SIMILAR FIBRES	1	1	1	1	2	1						-26.33
TOBACCO UNMANUFACTURED	313	335	293	293	314	364	299	293	300	290	264	-1.27
NATURAL RUBBER	27	26	29	29	25	20	21	28	18	16	19	-4.67
WOOL GREASY	1		1						1	1	1	3.01
BOVINE CATTLE 1/	699	360	421	684	651	592	436	424	441	563	440	-1.58
SHEEP AND GOATS 1/	214	293	344	250	214	153	135	144	225	287	226	-2.36
PIGS 1/	107	213	47	56	54	201	185	254	171	342	483	17.09
TOTAL MEAT	441	403	472	693	700	721	777	973	1073	987	924	10.05
MILK DRY	23	21	17	16	16	7	5	36	37	29	37	6.13
TOTAL EGGS IN SHELL	18	21	22	22	38	39	30	61	87	64	31	12.48
FISHERY PRODUCTS												
FISH FRESH FROZEN	264	200	236	250	352	383	414	418	499	546		
FISH CURED	49	49	47	62	65	63	64	76	87	89		
SHELLFISH	47	39	42	48	71	120	133	115	88	80		
FISH CANNED AND PREPARED	52	39	36	46	51	63	65	81	93	68		
SHELLFISH CANNED+PREPAR	10	8	8	9	9	11	11	11	11	11		
FISH BODY AND LIVER OIL	121	101	93	91	60	110	101	137	117	98		
FISH MEAL	63	85	35	63	61	82	40	108	75	42		
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	14248	12118	12196	14842	14362	15565	17865	15135	11676	15269	17395	1.88
SAWLOGS NONCONIFEROUS	567	622	328	470	481	522	630	784	751	506	755	4.07
PULPWOOD+PARTICLE	7837	8402	6867	8337	8710	8216	9463	9687	8382	6605	6422	-.85
FUELWOOD	19	18	34	27	33	28	16	11	18	14	14	-6.16
SAWNWOOD CONIFEROUS	27338	22944	18553	26379	32305	34492	35407	33612	31770	31423	38296	4.78

1/ THOUSAND HEAD
2/ EXCEPT FOR PULP FOR PAPER AND PAPER AND PAPERBOARD, ALL FOREST PRODUCTS ARE EXPRESSED IN THOUSAND CUBIC METERS

ANNEX TABLE 4. VOLUME OF EXPORTS OF MAJOR AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
	.....	.....	.....	.....	THOUSAND METRIC TONS	.....	.....	.....	.....	.....	.....	
SAWNWOOD NONCONIFEROUS	1072	705	807	814	847	1341	1025	1190	1209	1083	1340	4.64
WOOD-BASED PANELS	1558	1518	1507	1567	1774	2061	2053	2312	2533	2088	2401	5.53
PULP FOR PAPER	7162	8011	6621	7603	7657	8051	8787	9704	9141	8436	9335	2.88
PAPER AND PAPERBOARD	11255	12255	9726	10935	11232	11124	12326	13675	13134	11951	12918	1.86
OCEANIA DEVELOPED												
AGRICULTURAL PRODUCTS												
WHEAT+FLOUR,WHEAT EQUIV.	5659	5326	6201	7875	8196	11134	6933	14955	10677	10997	8312	6.31
RICE MILLED	158	137	174	218	255	277	241	457	281	596	405	13.04
BARLEY	844	808	1760	2022	2157	1375	1757	3047	1650	1599	852	2.55
MAIZE	19	3	1	88	79	32	75	37	52	24	73	24.91
MILLET	25	31	21	20	23	15	18	14	11	25	19	-4.50
SORGHUM	736	748	856	815	829	385	516	580	463	1271	445	-3.03
POTATOES	21	16	21	25	29	20	18	23	21	23	26	1.83
SUGAR,TOTAL (RAW EQUIV.)	2087	1784	1999	2002	2558	2481	1842	2203	2563	2502	2551	2.73
PULSES	44	42	36	33	40	36	45	72	64	71	105	9.38
SOYBEANS	1	2	4	32								
GROUNDNUTS SHELLED BASIS	7	7	2	2	4	2	2	12	4	4	8	4.35
GROUNDNUT OIL										1		
OILSEED CAKE AND MEAL	1		1	3	2	1	1	1		1	1	2.35
ORANGES+TANGER+CLEMEN	32	24	15	18	11	22	25	38	32	28	32	5.03
LEMONS AND LIMES	1	1	1	1	1			4	1	2	1	9.40
COCOA BEANS	1	1									1	-1.20
TEA	1	1	1	1		1						-17.47
COTTON LINT	22	3	8	16	6	10	24	49	59	79	129	33.27
TOBACCO UNMANUFACTURED						1		1	1		1	5.23
NATURAL RUBBER								1				5.69
WOOL GREASY	859	634	588	750	826	630	705	650	680	642	660	-1.16
BOVINE CATTLE 1/	17	34	13	33	45	71	107	74	109	121	113	23.78
SHEEP AND GOATS 1/	1145	1159	1456	1847	3409	4143	3858	6172	5763	6097	7134	22.65
PIGS 1/	1	1	1	1		1	1	2	1		1	-3.66
TOTAL MEAT	1542	1278	1183	1446	1643	1667	1814	1494	1602	1493	1689	1.98
MILK DRY	48	51	56	53	100	109	123	161	137	157	146	14.62
TOTAL EGGS IN SHELL	4	2	2	2	1	1	1	1	1	1	2	-4.26
FISHERY PRODUCTS												
FISH FRESH FROZEN	14	13	12	19	28	32	54	81	95	87		
FISH CURED								1	1	2		
SHELLFISH	17	16	16	14	17	20	32	56	57	70		
FISH CANNED AND PREPARED	2		1	1			1	3	2	4		
SHELLFISH CANNED+PREPAR	3	2	2	2	2	2	2	2	2	2		
FISH BODY AND LIVER OIL	8	8	4	8	5	4	3					
FISH MEAL									1			
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	1916	1302	534	956	1027	936	1236	971	529	479	439	-9.66
SAWLOGS NONCONIFEROUS	9	12	3	1	3	2	1	4	4			-30.40
PULPWOOD+PARTICLE	2199	2931	3061	3866	5326	5074	5357	7064	6647	6240	6124	11.20
SAWNWOOD CONIFEROUS	248	245	160	232	295	367	509	617	546	515	515	12.36
SAWNWOOD NONCONIFEROUS	54	51	32	23	31	30	41	54	35	34	35	-1.38
WOOD-BASED PANELS	93	52	61	28	32	52	104	142	138	99	107	9.70
PULP FOR PAPER	142	232	335	375	452	435	464	475	518	421	460	9.55
PAPER AND PAPERBOARD	189	214	204	269	302	332	359	418	447	340	356	7.96
AFRICA DEVELOPING												
AGRICULTURAL PRODUCTS												
WHEAT+FLOUR,WHEAT EQUIV.	76	42	27	21	20	46	31	17	19	22	1	-20.70
RICE MILLED	43	29	17	55	46	13	12	21	18	9	6	-14.84
BARLEY	65	2	5		1		2					-43.30
MAIZE	807	626	1009	472	434	652	364	69	249	359	820	-8.99
MILLET	29	59	10	79	13	31	78	56	41	36	30	3.52
SORGHUM	5	5	10	2			53	10	3	15	2	2.24
POTATOES	104	83	97	91	82	58	50	55	36	32	47	-10.51
SUGAR,TOTAL (RAW EQUIV.)	1601	1473	1139	1365	1468	1296	1658	1624	1493	1751	1775	2.25
PULSES	465	357	319	410	258	149	148	201	102	161	216	-10.68
SOYBEANS	9	2	21	3	13	36	1	1	1			
SOYBEAN OIL				2	1	2	1			1		
GROUNDNUTS SHELLED BASIS	377	189	166	286	192	64	82	87	37	56	90	-16.47
GROUNDNUT OIL	239	155	226	290	258	94	188	90	36	159	193	-8.11
COPRA	69	62	42	60	55	52	45	24	15	22	18	-13.42
COCONUT OIL	17	18	9	11	6	5	14	15	16	23	22	5.05
PALM NUTS KERNELS	254	320	269	353	239	152	123	140	107	101	98	-12.49

1/ THOUSAND HEAD
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ANNEX TABLE 4. VOLUME OF EXPORTS OF MAJOR AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
	THOUSAND METRIC TONS											
PALM OIL	135	196	209	157	117	93	63	138	81	86	68	-9.03
OILSEED CAKE AND MEAL	725	617	677	754	709	461	666	477	361	509	543	-4.51
BANANAS	438	465	354	320	312	347	295	246	208	190	161	-9.31
ORANGES+TANGER+CLEMEN	914	729	592	664	744	873	672	847	704	653	653	-1.09
LEMONS AND LIMES	6	3	1	1	1	2	1	.1	1	1	1	-10.60
COFFEE GREEN+ROASTED	1187	1177	1109	1151	880	930	1019	901	961	1065	974	-1.94
COCOA BEANS	891	864	819	866	688	780	594	772	890	815	843	-.56
TEA	141	137	135	149	165	181	197	168	169	192	195	3.75
COTTON LINT	410	317	271	351	300	308	339	339	325	297	296	-1.15
JUTE AND SIMILAR FIBRES	1						1					
TOBACCO UNMANUFACTURED	131	131	113	141	129	139	132	174	189	151	146	2.86
NATURAL RUBBER	197	203	186	159	153	145	142	138	146	147	145	-3.53
WOOL GREASY	5	6	4	3	4	4	3	4	3	4	3	-4.50
BOVINE CATTLE 1/	1405	1207	1022	1126	1106	1091	1131	1226	1239	1124	1030	-.97
SHEEP AND GOATS 1/	3368	3161	3515	2548	2461	3066	3073	3645	3386	3511	3580	1.42
PIGS 1/	17	13	13	15	2	1	2	1	1	1		-34.72
TOTAL MEAT	126	116	102	112	118	99	97	47	50	45	52	-10.59
MILK DRY	3	1		1		2	4					
TOTAL EGGS IN SHELL	1	1	1	1	1			1				-15.04
FISHERY PRODUCTS												
FISH FRESH FROZEN	106	106	76	76	98	109	107	163	187	37		
FISH CURED	33	24	30	20	22	20	16	18	19	8		
SHELLFISH	23	29	39	43	43	48	34	35	58	8		
FISH CANNED AND PREPARED	83	80	59	75	70	62	77	80	93	63		
FISH BODY AND LIVER OIL	31	18	12	7	7	7	7	5	5	1		
FISH MEAL	142	95	83	43	19	39	23	26	27			
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	14	14	15	11	2	2	2					-36.18
SAWLOGS NONCONIFEROUS	8260	6580	5012	6309	6436	6226	6186	6002	4727	4840	4790	-3.81
PULPWOOD+PARTICLE	2	69	70	127	100	75	112	84	173	173	173	30.31
FUELWOOD	28	27	9	8	9	9	9	1				
SAWNWOOD CONIFEROUS	103	107	98	113	119	116	126	108	99	95	94	-.84
SAWNWOOD NONCONIFEROUS	933	813	625	664	682	707	660	597	529	594	651	-3.37
WOOD-BASED PANELS	340	300	206	220	241	256	230	245	245	247	257	-1.35
PULP FOR PAPER	201	219	121	222	156	199	226	225	216	212	212	2.10
PAPER AND PAPERBOARD	18	30	19	22	19	16	24	21	20	9	12	-5.82
LATIN AMERICA												
AGRICULTURAL PRODUCTS												
WHEAT+FLOUR,WHEAT EQUIV.	3142	1871	2054	3345	6095	1821	4427	4621	3956	4040	10404	10.88
RICE MILLED	310	348	437	535	999	732	573	552	617	511	551	4.62
BARLEY	161	110	28	43	130	18	58	74	32	24	54	-9.36
MAIZE	4113	6666	5088	4560	6864	5927	5990	3557	9198	5807	7301	3.20
MILLET	118	78	94	124	172	196	139	63	136	101	96	-.43
SORGHUM	2108	3169	2180	3499	4295	4625	3899	1544	5073	5368	5369	7.14
POTATOES	11	21	50	99	106	67	77	61	45	34	39	5.91
SUGAR,TOTAL (RAW EQUIV.)	12000	12085	11107	10533	13050	12425	12726	12031	12698	12926	12866	1.15
PULSES	166	175	233	312	424	464	395	340	285	286	352	8.01
SOYBEANS	1841	2831	3435	3934	3941	2645	3814	4503	3909	2877	3199	3.32
SOYBEAN OIL	116	42	285	562	544	570	609	840	1353	1024	1364	32.18
GROUNDNUTS SHELLED BASIS	56	52	60	24	53	52	97	97	86	63	105	7.82
GROUNDNUT OIL	124	101	38	140	181	155	209	207	80	113	104	2.52
COPRA	1	2	2	2			2			5		-14.41
COCONUT OIL	9	5	5	5	5	9	8	4	6	6	6	-.56
PALM NUTS KERNELS	6	5	4	2	3	9	7	5	1	3	2	-9.04
PALM OIL	6	6	3	5	3	4	5	1	5	11	7	1.45
OILSEED CAKE AND MEAL	2869	3130	4299	5798	7354	7676	7497	8891	10908	10651	12334	15.51
BANANAS	5345	5055	4779	4839	5232	5520	5366	5357	5382	5584	5048	.64
ORANGES+TANGER+CLEMEN	218	210	190	173	224	269	314	308	317	395	432	8.50
LEMONS AND LIMES	11	14	22	25	29	47	74	53	50	33	59	16.62
COFFEE GREEN+ROASTED	2232	1826	2055	2032	1547	1960	2179	2210	2124	2238	2423	1.68
COCOA BEANS	174	255	270	209	167	211	226	183	201	247	226	.22
TEA	25	30	23	32	34	41	39	44	35	43	53	6.78
COTTON LINT	829	664	806	607	689	903	733	641	608	598	522	-3.05
JUTE AND SIMILAR FIBRES	4	3	1	1		1	2	2		1		-15.75
TOBACCO UNMANUFACTURED	186	244	244	255	238	274	276	254	271	276	283	2.82
NATURAL RUBBER	8	5	6	7	5	6	4	4	2	3	3	-9.84
WOOL GREASY	81	64	108	92	108	107	80	104	125	108	87	2.59

1/ THOUSAND HEAD
2/ EXCEPT FOR PULP FOR PAPER AND PAPER AND PAPERBOARD, ALL FOREST PRODUCTS ARE EXPRESSED IN THOUSAND CUBIC METRES

ANNEX TABLE 4. VOLUME OF EXPORTS OF MAJOR AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83
	THOUSAND METRIC TONS											PERCENT
BOVINE CATTLE 1/	1026	1037	960	1103	1093	1662	1404	854	863	1094	1114	.04
SHEEP AND GOATS 1/	48	65	93	106	112	125	98	65	312	245	572	20.25
PIGS 1/	31	33	42	65	31	24	16	1		1	2	-37.98
TOTAL MEAT	890	504	449	775	778	840	816	749	999	1053	1083	5.90
MILK DRY	15	9	16	34	18	10	4	3	11	17	17	-3.68
TOTAL EGGS IN SHELL	1	1	1	3	3	2	4	11	14	7	8	29.02
FISHERY PRODUCTS												
FISH FRESH FROZEN	107	131	145	196	302	361	407	397	383	135		
FISH CURED	7	9	5	4	9	3	12	6	7	7		
SHELLFISH	94	90	93	99	99	140	171	125	125	58		
FISH CANNED AND PREPARED	20	20	16	28	48	72	76	135	164	84		
SHELLFISH CANNED+PREPAR	1	1	3	3	5	2	5	3	4	4		
FISH BODY AND LIVER OIL	10	93	148	39	46	70	128	100	79	89		
FISH MEAL	402	749	909	842	740	843	1147	1020	849	680		
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	14	9	15	23	167	689	968	1029	377	906	1041	71.61
SAWLOGS NONCONIFEROUS	524	202	55	86	49	60	86	114	51	44	46	-14.56
PULPWOOD+PARTICLE	264	183	107	115	53							
FUELWOOD	2	1	3	4	18	26	37	29	13	6	10	27.45
SAWNWOOD CONIFEROUS	1530	1131	1134	1050	1429	1477	1678	1718	1313	1045	1159	-.11
SAWNWOOD NONCONIFEROUS	870	835	590	629	838	727	1121	1130	993	886	838	2.84
WOOD-BASED PANELS	295	265	252	326	374	487	488	625	607	612	669	11.16
PULP FOR PAPER	256	314	328	377	433	706	1014	1306	1362	1283	1510	21.47
PAPER AND PAPERBOARD	196	231	158	199	222	272	388	407	575	474	692	14.66
NEAR EAST DEVELOPING												
AGRICULTURAL PRODUCTS												
WHEAT+FLOUR,=WHEAT EQUIV.	606	29	15	27	640	2131	876	540	648	660	839	33.32
RICE MILLED	341	181	130	256	276	223	211	259	159	67	44	-11.86
BARLEY	17	7	12	366	302	50	58	229	424	1025	664	53.04
MAIZE	3	2	1	14	8	43	111	155	40	53	9	38.66
MILLET	9	5	4	6	3	4	2	2				
SORGHUM	104	98	48	75	137	66	196	286	256	423	300	19.10
POTATOES	328	300	209	382	438	291	314	453	393	482	457	5.05
SUGAR,TOTAL (RAW EQUIV.)	55	59	58	48	64	55	37	45	71	215	261	12.42
PULSES	170	106	109	121	176	256	303	299	500	577	672	20.57
SOYBEAN OIL				1				3	5	16	10	
GROUNDNUTS SHELLED BASIS	160	140	218	312	175	111	92	55	108	100	43	-12.51
GROUNDNUT OIL	2	6	7	2	26	35	16	33	16	18	7	19.93
COCONUT OIL					1				1			8.75
PALM OIL										1		
OILSEED CAKE AND MEAL	545	401	452	368	252	225	214	261	144	105	141	-13.87
BANANAS	11	7	12	10	5	4	7	19	20	13	3	-.48
ORANGES+TANGER+CLEMEN	703	674	697	716	754	643	619	627	760	710	765	.38
LEMONS AND LIMES	154	133	118	162	131	151	149	202	205	207	216	5.30
COFFEE GREEN+ROASTED	8	6	4	3	3	4	3	2	6	4	2	-8.03
TEA	26	19	4	6	7	10	16	15	17	9	10	-.79
COTTON LINT	1097	706	856	1004	710	768	669	608	532	584	823	-4.18
TOBACCO UNMANUFACTURED	120	123	75	86	71	83	77	94	137	109	74	-.71
WOOL GREASY	25	10	8	7	12	9	8	7	3	6	5	-12.01
BOVINE CATTLE 1/	52	77	18	11	16	12	21	13	60	112	70	6.77
SHEEP AND GOATS 1/	987	980	720	828	680	1209	1424	2026	2852	3567	4076	18.76
PIGS 1/					1	1	3					
TOTAL MEAT	30	22	14	9	12	15	15	21	73	88	72	16.64
MILK DRY				1						1	1	39.29
TOTAL EGGS IN SHELL	15	17	12	1	3	7	10	13	18	25	32	12.25
FISHERY PRODUCTS												
FISH FRESH FROZEN	20	16	6	4	4	8	13	14	21	13		
FISH CURED	9	13	12	10	12	11	5	6	4			
SHELLFISH	16	10	7	10	10	8	11	11	7	5		
FISH CANNED AND PREPARED	1	1	1	3	4	4	5	9	6			
SHELLFISH CANNED+PREPAR	1	2	2	2	3	1	2	3	4	4		
FISH BODY AND LIVER OIL	1			1	2	1						
FISH MEAL		1				1		1	1			
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	7	5	4	3		1	1	1	2	7	11	1.16
SAWLOGS NONCONIFEROUS	24	8	17	10	9	5	3	4	36	36	35	7.09
FUELWOOD	9	7	8	8	6	5	8	8	7	6	7	-1.60
SAWNWOOD CONIFEROUS	37	61	49	60	69	60	103	84	99	95	148	11.47
SAWNWOOD NONCONIFEROUS	23	21	1	1	1		2	3	6	12	7	.67

1/ THOUSAND HEAD
2/ EXCEPT FOR PULP FOR PAPER AND PAPER AND PAPERBOARD, ALL FOREST PRODUCTS ARE EXPRESSED IN THOUSAND CUBIC METERS

ANNEX TABLE 4. VOLUME OF EXPORTS OF MAJOR AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
	THOUSAND METRIC TONS											
WOOD-BASED PANELS	32	31	27	29	26	26	24	19	19	21	25	-4.38
PULP FOR PAPER		3	1									
PAPER AND PAPERBOARD	10	22	9	10	11	10	16	21	35	34	39	14.23
FAR EAST DEVELOPING												
AGRICULTURAL PRODUCTS												
WHEAT+FLOUR,WHEAT EQUIV.	555	145	115	83	264	967	755	482	295	155	217	2.72
RICE MILLED	2170	1993	1862	3608	4749	3083	5031	5323	6023	6096	5498	13.03
BARLEY	19	95		32	39	13	73	259	248	884	247	53.33
MAIZE	1627	2551	2276	2483	1768	2196	2143	2340	2703	3014	2867	3.79
MILLET	3	2			8	3	6	2	2	1		
SORGHUM	135	189	213	182	138	166	170	208	288	317	246	6.05
POTATOES	39	35	46	95	73	55	89	105	81	72	64	7.16
SUGAR,TOTAL (RAW EQUIV.)	2000	2594	2900	3639	4511	2822	3165	2631	2931	4272	3781	4.04
PULSES	231	167	170	191	181	245	251	312	342	378	327	8.12
SOYBEANS	59	18	32	38	47	30	27	27	27	27	26	-3.98
SOYBEAN OIL	8	7	4	2	4	7	6	27	32	49	70	31.66
GROUNDNUTS SHELLED BASIS	62	109	86	174	69	24	40	55	117	107	80	-.65
GROUNDNUT OIL	10	7	9	10	5	6	16	5	5	6	27	2.67
COPRA	800	283	834	878	683	445	193	233	172	232	68	-17.94
COCONUT OIL	525	508	760	1004	845	1112	976	1061	1192	1064	1146	8.00
PALM NUTS KERNELS	42	29	33	33	30	13	23	45	24	15	14	-7.54
PALM OIL	1284	1411	1726	1897	2067	2168	2634	3295	2953	3444	3642	11.26
OILSEED CAKE AND MEAL	2244	2007	2061	3353	2870	2582	3389	2913	2858	3154	3283	4.25
BANANAS	503	705	872	846	738	832	921	972	923	983	654	3.06
ORANGES+TANGER+CLEMEN	41	39	137	37	113	65	81	81	44	55	70	1.76
LEMONS AND LIMES						1	2	1	7	2	2	90.44
COFFEE GREEN+ROASTED	206	203	226	262	267	339	335	369	382	410	403	8.20
COCOA BEANS	10	14	15	18	18	24	32	41	64	88	87	25.64
TEA	454	458	502	512	499	459	481	523	553	483	481	.72
COTTON LINT	248	96	244	218	56	128	134	394	466	329	368	10.40
JUTE AND SIMILAR FIBERS	867	860	566	646	543	473	521	456	480	426	453	-6.42
TOBACCO UNMANUFACTURED	196	212	158	210	232	215	194	200	252	227	206	.87
NATURAL RUBBER	3048	2869	2737	2967	3027	3080	3179	3101	2926	2886	3207	.56
WOOL GREASY	2	3	1	2		1						-22.09
BOVINE CATTLE 1/	123	114	74	73	98	78	66	59	47	52	66	-7.34
SHEEP AND GOATS 1/	20	28	28	80	215	70	54	120	74	81	84	13.26
PIGS 1/	13	5	10	22	7	10	12	8	13	89	117	21.81
TOTAL MEAT	19	26	33	44	60	68	67	94	97	111	113	19.79
MILK DRY	2	3	4	5	5	7	10	13	10	10	9	16.34
TOTAL EGGS IN SHELL	4	3	5	6	10	6	5	3	6	6	5	1.56
FISHERY PRODUCTS												
FISH FRESH FROZEN	302	285	418	289	543	561	553	555	523	292		
FISH CURED	54	36	32	30	29	31	28	25	26	9		
SHELLFISH	218	212	228	291	282	312	350	305	321	245		
FISH CANNED AND PREPARED	11	18	18	26	36	49	47	55	60	85		
SHELLFISH CANNED+PREPAR	23	26	27	21	32	29	30	42	33	39		
FISH BODY AND LIVER OIL		1	1	1	1	3	2	2	1			
FISH MEAL	78	63	57	84	116	142	165	153	153	106		
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	14	9	356	423	394	270	396	327	294	130	130	20.66
SAWLOGS NONCONIFEROUS	39605	34240	28203	35756	37017	38457	35843	31533	24034	24318	23161	-4.28
PULPWOOD+PARTICLE	754	986	930	697	1033	860	736	1003	1033	909	904	1.17
FUELWOOD	212	215	154	179	190	145	142	217	194	186	211	.20
SAWNWOOD CONIFEROUS	188	117	134	251	258	425	461	410	254	197	153	4.24
SAWNWOOD NONCONIFEROUS	4352	3661	3298	5551	5374	5463	7236	6398	5518	5901	6564	5.69
WOOD-BASED PANELS	3076	2424	2512	3110	3198	3342	3159	2933	3585	3425	4056	3.42
PULP FOR PAPER	11	5		1				1	2	2	4	-.97
PAPER AND PAPERBOARD	173	114	104	175	139	154	146	292	290	222	216	7.46
ASIAN CENT PLANNED ECON												
AGRICULTURAL PRODUCTS												
WHEAT+FLOUR,WHEAT EQUIV.	12	5	4	4	6	8	9	4	9	6	7	.90
RICE MILLED	2743	2832	2336	1547	1498	2094	1902	1710	985	1084	1289	-8.50
BARLEY	16		6	2		1	2	1			1	-18.38
MAIZE	65	130	315	430	356	230	240	104	141	96	87	-4.76
MILLET	33	30	56	52	37	30	20	5	1	2	2	-32.61
SORGHUM							10	1		3	4	
POTATOES	54	49	50	55	53	62	61	77	80	89	83	6.56

1/ THOUSAND HEAD
2/ EXCEPT FOR PULP FOR PAPER AND PAPER AND PAPERBOARD, ALL FOREST PRODUCTS ARE EXPRESSED IN THOUSAND CUBIC METRES

ANNEX TABLE 4. VOLUME OF EXPORTS OF MAJOR AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
	THOUSAND METRIC TONS											
SUGAR,TOTAL (RAW EQUIV.)	647	720	639	678	777	493	514	657	440	459	236	-7.38
PULSES	115	86	83	97	89	76	90	71	111	103	108	.61
SOYBEANS	321	375	355	199	130	113	306	140	138	149	350	-5.27
SOYBEAN OIL				1	2	6	4	4		1	2	35.03
GROUNDNUTS SHELLED BASIS	32	37	37	45	25	30	49	91	245	127	161	20.78
GROUNDNUT OIL	22	29	21	16	5	13	18	21	57	55	81	13.60
COPRA	1									1	2	
PALM NUTS KERNELS										1		
PALM OIL		1										
OILSEED CAKE AND MEAL	43	31	29	36	30	31	49	87	208	341	810	34.24
BANANAS	270	165	127	96	140	101	117	109	103	112	133	-4.98
ORANGES+TANGER+CLEMEN	89	78	76	52	74	81	73	70	54	58	70	-2.51
COFFEE GREEN+ROASTED	6	6	4	12	4	5	5	4	1	10	12	.42
TEA	63	73	77	77	104	109	126	125	107	117	102	6.03
COTTON LINT	22	22	43	65	71	33	22	2	1	3	45	-19.07
JUTE AND SIMILAR FIBRES	2	1		2	3	8	20	35	41	43	46	57.98
TOBACCO UNMANUFACTURED	38	51	42	33	37	35	35	32	28	31	42	-2.49
NATURAL RUBBER	40	49	17	49	50	41	50	39	31	34	39	-.29
WOOL GREASY	23	22	24	25	21	22	24	23	21	16	12	-4.56
BOVINE CATTLE 1/	160	147	199	195	195	181	224	272	263	257	245	5.63
SHEEP AND GOATS 1/	1220	1225	1030	873	482	443	463	448	330	312	355	-13.88
PIGS 1/	2794	2601	2775	2953	3016	3129	3079	4548	3189	3216	3257	2.69
TOTAL MEAT	262	167	205	201	155	210	246	251	250	283	275	3.57
TOTAL EGGS IN SHELL	41	40	39	38	35	42	51	54	56	57	61	5.27
FISHERY PRODUCTS												
FISH FRESH FROZEN	193	153	182	174	207	130	134	49	54	5		
FISH CURED	5	4	5	4	3	6	9	2	3	2		
SHELLFISH	45	45	44	53	51	55	68	61	65	20		
FISH CANNED AND PREPARED	6	6	6	14	13	21	31	31	31	32		
SHELLFISH CANNED+PREPAR	8	7	7	11	11	14	10	8	9	1		
FISH MEAL	3	3	1			1						
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	129	157	177	128	128	128	123	117	105	107	110	-3.72
SAWLOGS NONCONIFEROUS	5	3	17	12	12	12	15	8	9	3	14	3.05
SAWNWOOD CONIFEROUS	53	66	95	103	102	111	102	93	93	95	95	3.80
SAWNWOOD NONCONIFEROUS	160	118	133	136	91	115	63	52	41	66	68	-10.63
WOOD-BASED PANELS	959	687	770	872	949	1244	1096	885	957	834	884	1.10
PULP FOR PAPER	18	23	30	22	22	33	35	33	75	68	58	13.61
PAPER AND PAPERBOARD	116	107	132	122	122	121	95	158	181	175	152	4.20

1/ THOUSAND HEAD
2/ EXCEPT FOR PULP FOR PAPER AND PAPER AND PAPERBOARD, ALL FOREST PRODUCTS ARE EXPRESSED IN THOUSAND CUBIC METERS

ANNEX TABLE 5. WORLD AVERAGE EXPORT UNIT VALUES OF SELECTED AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
	US $ PER METRIC TON											
AGRICULTURAL PRODUCTS												
WHEAT	106	171	169	153	125	131	163	186	188	172	162	2.88
WHEAT FLOUR	135	210	237	215	191	199	224	284	294	244	193	3.46
RICE MILLED	223	398	374	277	263	345	323	382	437	336	306	2.04
BARLEY	94	135	140	136	132	137	145	175	175	160	144	3.73
MAIZE	92	128	136	123	111	117	128	150	154	126	142	2.87
POTATOES	114	111	149	246	197	157	188	185	178	186	170	3.67
SUGAR CENTRIFUGAL RAW	169	400	555	376	295	341	355	537	504	399	409	4.14
SOYBEANS	216	246	225	216	272	250	271	264	282	243	256	1.73
SOYBEAN OIL	358	701	695	456	586	617	675	625	541	483	493	.12
GROUNDNUTS SHELLED	340	513	514	467	596	661	679	692	970	650	623	6.36
GROUNDNUT OIL	443	929	801	723	814	946	965	777	990	646	558	.60
COPRA	210	508	237	183	314	369	569	396	308	260	317	2.11
COCONUT OIL	358	929	418	361	552	627	938	651	537	461	513	1.33
PALM NUTS KERNELS	179	364	178	160	266	262	357	267	235	212	224	1.01
PALM OIL	255	529	462	362	514	554	617	564	528	442	443	3.25
PALM KERNEL OIL	342	826	455	402	538	617	896	662	546	454	574	2.07
OLIVE OIL	1168	1791	1655	1314	1259	1363	1649	1959	1770	1748	1499	1.91
CASTOR BEANS	384	329	207	251	334	332	345	364	351	305	283	.50
CASTOR BEAN OIL	967	838	575	557	883	801	803	970	856	821	838	1.29
COTTONSEED	100	136	139	147	168	177	171	185	197	143	132	2.92
COTTONSEED OIL	355	602	675	555	599	607	682	628	628	535	550	1.73
LINSEED	258	426	336	291	273	216	281	311	326	284	273	-1.15
LINSEED OIL	316	900	762	520	500	379	542	611	662	532	416	-.68
BANANAS	94	99	128	138	144	157	168	186	197	205	213	8.62
ORANGES	154	164	206	201	222	267	349	361	348	331	318	9.13
APPLES	249	241	316	273	352	410	399	437	414	440	341	5.46
RAISINS	726	907	716	677	965	1080	1563	1672	1480	1208	1095	7.22
DATES	166	214	246	242	320	387	414	460	603	642	666	15.22
COFFEE GREEN	1137	1259	1180	2264	4229	3169	3152	3317	2269	2315	2333	8.00
COCOA BEANS	942	1327	1397	1506	2811	3138	3297	2679	1789	1600	1627	5.70
TEA	935	1087	1269	1239	2205	2057	1970	2050	1953	1765	1977	7.46
COTTON LINT	879	1295	1120	1294	1536	1359	1529	1624	1715	1440	1520	4.54
JUTE	251	247	237	267	277	357	382	380	310	282	263	2.39
JUTE-LIKE FIBRES	193	170	203	210	250	245	248	264	182	277	182	1.62
SISAL	320	716	469	342	380	380	478	589	539	485	429	1.51
TOBACCO UNMANUFACTURED	1502	1751	2079	2180	2361	2643	2773	2817	2958	3233	3118	7.38
NATURAL RUBBER	557	822	556	745	806	919	1214	1311	1131	825	975	6.06
RUBBER NATURAL DRY	573	712	548	723	796	916	1160	1309	1064	799	965	6.22
WOOL GREASY	2057	2803	1765	1797	2160	2221	2463	2624	2962	2890	2500	3.41
CATTLE 1/	284	267	305	287	306	353	416	443	429	404	385	5.01
BEEF AND VEAL	1659	1521	1733	1650	1861	2157	2390	2513	2377	2468	2264	5.19
MUTTON AND LAMB	872	1223	1071	1005	1143	1390	1590	1762	1863	1821	1551	7.13
PIGS 1/	78	81	90	90	100	104	111	106	108	111	97	3.08
BACON HAM OF SWINE	1507	1620	2069	1979	1849	2242	2624	2682	2736	2560	2280	5.45
MEAT CHICKENS	1040	1032	1132	1180	1232	1314	1394	1467	1363	1179	1035	1.49
MEAT PREPARATIONS	1537	1735	1500	1530	1521	1615	2151	2612	2492	2195	2096	5.06
EVAP COND WHOLE COW MILK	482	559	681	638	658	756	854	929	919	930	886	6.56
MILK OF COWS SKIMMED DRY	660	842	992	812	638	744	843	1074	1106	1072	867	3.23
BUTTER OF COWMILK	991	1318	1728	1676	1732	2244	2280	2466	2631	2712	2392	9.12
CHEESE OF WHOLE COWMILK	1461	1713	2021	1965	2146	2533	2750	2990	2735	2634	2482	5.97
FISHERY PRODUCTS												
FISH FRESH FROZEN	664	669	746	897	1051	1130	1237	1219	1252	1378		
FISH CURED	914	1237	1300	1488	1639	1798	2076	2398	2534	2167		
SHELLFISH	1789	1849	2093	2579	2753	3111	3637	3834	3765	4729		
FISH CANNED AND PREPARED	1186	1342	1330	1448	1709	2042	2252	2272	2317	2152		
SHELLFISH CANNED+PREPAR	2240	2620	2861	3133	3403	3996	4623	4817	4572	4955		
FISH BODY AND LIVER OIL	272	467	338	362	430	433	417	434	404	338		
FISH MEAL	401	377	243	324	425	410	390	473	464	352		
FOREST PRODUCTS												
SAWLOGS CONIFEROUS 2/	46	53	52	52	59	63	84	90	81	73	64	5.34
SAWLOGS NONCONIFEROUS 2/	40	48	39	50	53	57	93	101	87	90	89	10.34
PULPWOOD+PARTICLS 2/	17	22	25	23	24	25	26	36	39	34	30	6.56
FUELWOOD 2/	21	37	43	59	48	64	78	104	121	99	105	16.47
SAWNWOOD CONIFEROUS 2/	74	96	88	93	101	108	131	138	127	114	114	4.56
SAWNWOOD NONCONIF. 2/	105	133	128	134	152	164	215	243	222	211	216	8.14
WOOD-BASED PANELS 2/	167	187	183	197	211	228	283	315	294	263	280	6.46
PULP FOR PAPER	174	279	351	336	314	281	360	442	449	408	355	6.08
PAPER AND PAPERBOARD	245	349	411	406	421	453	506	572	567	556	496	6.78

1/ U.S. DOLLARS PER HEAD
2/ U.S. DOLLARS PER CUBIC METRE

ANNEX TABLE 6. VOLUME OF IMPORTS OF MAJOR AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
	.....	.....	.....	.....	THOUSAND METRIC TONS	.....	.....	.....	.....	.....	.....	.....
WORLD												
AGRICULTURAL PRODUCTS												
WHEAT+FLOUR,WHEAT EQUIV.	76993	67705	73922	72243	70916	80070	85380	97847	104074	108671	106828	4.96
RICE MILLED	9012	8400	7557	9160	9971	10255	12270	12903	13750	11336	12043	4.97
BARLEY	12096	12422	12512	13703	12355	14749	14767	15016	18635	18426	16886	4.46
MAIZE	47000	45533	51706	61873	55045	67880	74670	79657	80277	69349	69912	5.05
MILLET	366	446	318	313	356	339	348	250	202	229	230	-6.27
SORGHUM	7369	10199	9228	10481	10855	10399	10173	10592	13711	13492	11029	4.04
POTATOES	3834	3626	3761	4325	4727	3908	4567	4665	4703	5222	4791	2.90
SUGAR,TOTAL (RAW EQUIV.)	23284	22715	22079	22669	27528	24522	26519	27123	28706	29748	28857	3.01
PULSES	2014	1672	1863	1883	2050	2056	2353	2917	3068	2925	3060	6.41
SOYBEANS	14675	17513	16313	19983	19623	23412	26125	27078	26294	28538	26706	6.84
SOYBEAN OIL	1052	1514	1374	1616	2072	2403	2869	3254	3267	3612	3506	13.35
GROUNDNUTS SHELLED BASIS	962	864	889	1030	815	805	777	707	719	817	768	-2.50
GROUNDNUT OIL	537	387	428	512	596	475	474	513	354	416	515	-.65
COPRA	1061	545	1033	1215	919	804	458	464	398	463	267	-11.03
COCONUT OIL	766	625	955	1411	1084	1259	1198	1125	1428	1303	1299	6.02
PALM NUTS KERNELS	295	343	278	349	292	169	161	182	161	121	145	-9.72
PALM OIL	1549	1560	1884	2016	2471	2319	2703	3457	3069	3562	3802	9.54
OILSEED CAKE AND MEAL	15385	14824	14911	18475	19351	22082	23941	25486	27165	26542	32228	8.50
BANANAS	6385	6345	6308	6346	6577	6862	7036	6803	6784	6766	6066	.35
ORANGES+TANGER+CLEMEN	4952	4671	4991	5119	5276	4971	5054	5234	5023	5160	5108	.37
LEMONS AND LIMES	778	836	830	936	912	963	965	991	972	1040	1009	2.59
COFFEE GREEN+ROASTED	3654	3463	3676	3776	3126	3435	3913	3799	3814	3867	3968	1.12
COCOA BEANS	1171	1155	1192	1159	1006	1096	1026	1068	1242	1251	1256	.59
TEA	758	822	806	846	699	829	867	914	861	905	901	1.52
COTTON LINT	4774	4091	4083	4103	4018	4506	4520	5069	4409	4554	4317	.64
JUTE AND SIMILAR FIBRES	873	859	579	682	572	452	574	574	512	533	527	-4.57
TOBACCO UNMANUFACTURED	1237	1283	1301	1296	1258	1423	1395	1407	1444	1405	1387	1.39
NATURAL RUBBER	3262	3349	3130	3275	3389	3351	3493	3391	3285	3157	3440	.25
WOOL GREASY	548	748	844	1034	870	883	918	853	878	823	826	-.47
BOVINE CATTLE 1/	7084	5957	6410	6702	6782	7351	7341	6777	6994	7347	7188	1.17
SHEEP AND GOATS 1/	11146	10293	11210	10701	13143	14337	16219	17371	18471	18787	20855	7.76
PIGS 1/	5778	5985	6377	6802	6703	7759	8144	10622	9866	9193	9477	6.17
TOTAL MEAT	5489	5044	5536	6019	6617	6934	7560	7897	8424	8626	8683	5.57
MILK DRY	264	315	267	338	459	460	500	585	560	555	537	8.85
TOTAL EGGS IN SHELL	444	505	529	516	574	637	675	742	770	809	794	6.36
FISHERY PRODUCTS												
FISH FRESH FROZEN	2816	2918	2835	2971	3167	3485	3829	4287	4390	2930		
FISH CURED	413	376	377	366	327	340	374	390	369	195		
SHELLFISH	717	770	822	939	876	1051	1152	1080	1118	782		
FISH CANNED AND PREPARED	735	767	713	857	797	891	932	1023	1064	623		
SHELLFISH CANNED+PREPAR	134	130	129	145	154	160	161	170	179	126		
FISH BODY AND LIVER OIL	631	624	631	613	569	654	762	815	706	503		
FISH MEAL	1720	1908	2288	2193	2212	2058	2419	2250	1992	1436		
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	29838	26831	24329	27706	29281	29639	31496	28026	23791	26508	28713	-.14
SAWLOGS NONCONIFEROUS	49430	45228	35773	44192	46216	47651	48240	42218	35122	33064	33423	-2.97
PULPWOOD+PARTICLE	28801	33914	31445	31866	36158	33914	38657	42328	42384	36574	36861	2.83
FUELWOOD	1679	1816	1684	1550	1627	1337	1383	1397	942	1077	1353	-4.65
SAWNWOOD CONIFEROUS	60759	52077	42394	54302	60762	65293	67379	63090	58068	59415	66621	2.14
SAWNWOOD NONCONIFEROUS	10562	9563	7982	10400	11243	11610	13252	12692	11279	10702	11316	2.20
WOOD-BASED PANELS	16063	13712	12380	14555	14540	15836	16759	15617	16397	15161	16699	1.56
PULP FOR PAPER	16568	17385	13504	15275	15351	17394	18563	19119	18427	17098	19122	2.04
PAPER AND PAPERBOARD	27015	28938	22993	26546	27753	30358	32199	33495	33841	35157	35304	3.38
WESTERN EUROPE												
AGRICULTURAL PRODUCTS												
WHEAT+FLOUR,WHEAT EQUIV.	13554	12558	12460	13184	12602	13383	12979	14120	13330	13957	10478	-.46
RICE MILLED	757	794	797	1214	1310	1466	1299	1288	1487	1681	1572	7.91
BARLEY	5364	6345	5477	6329	6136	6567	5105	5255	5966	6194	6660	.63
MAIZE	22641	24324	25301	26440	26733	24757	24817	23455	21740	21099	18829	-2.03
MILLET	138	108	112	90	182	195	150	98	109	121	139	.35
SORGHUM	1139	2800	2669	2893	2146	1425	1166	1251	1091	2149	683	-7.51
POTATOES	2390	2235	2372	3149	2999	2565	2808	3051	3025	3228	3174	3.22
SUGAR,TOTAL (RAW EQUIV.)	4950	5335	5263	4608	4237	3521	3448	3137	3074	3206	3061	-6.19
PULSES	1103	780	794	826	868	907	1054	1014	923	1066	1318	2.92
SOYBEANS	8327	11275	10524	11719	11612	14201	15381	16217	14414	16454	14933	5.90

1/ THOUSAND HEAD
2/ EXCEPT FOR PULP FOR PAPER AND PAPER AND PAPERBOARD, ALL FOREST PRODUCTS ARE EXPRESSED IN THOUSAND CUBIC METERS

ANNEX TABLE 6. VOLUME OF IMPORTS OF MAJOR AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
	THOUSAND METRIC TONS											
SOYBEAN OIL	316	545	575	532	502	559	560	675	643	661	743	5.73
GROUNDNUTS SHELLED BASIS	694	614	603	726	558	541	528	413	389	433	392	-5.56
GROUNDNUT OIL	422	327	338	351	355	325	407	446	256	349	396	.15
COPRA	630	354	816	961	670	515	294	252	184	280	113	-14.66
COCONUT OIL	277	177	281	427	331	395	390	414	561	537	513	9.22
PALM NUTS KERNELS	251	329	260	327	271	153	137	147	140	106	114	-10.86
PALM OIL	752	698	797	660	829	781	856	833	722	735	859	.50
OILSEED CAKE AND MEAL	11030	9922	10101	12778	12863	15318	16705	17391	18205	19259	21465	8.17
BANANAS	2556	2427	2329	2256	2430	2525	2460	2221	2172	2176	2018	-1.66
ORANGES+TANGER+CLEMEN	3459	3200	3198	3176	3322	3143	3227	3222	2969	3185	3118	-.65
LEMONS AND LIMES	378	386	398	432	408	428	432	425	416	452	451	1.56
COFFEE GREEN+ROASTED	1674	1642	1747	1810	1543	1703	1955	1929	1997	1956	2061	2.38
COCOA BEANS	564	574	564	565	561	590	569	616	664	721	648	1.94
TEA	298	313	269	297	336	250	278	297	244	267	267	-1.45
COTTON LINT	1543	1145	1188	1318	1135	1216	1150	1258	1015	1147	1249	-1.44
JUTE AND SIMILAR FIBRES	353	356	177	232	216	157	182	132	120	97	87	-12.47
TOBACCO UNMANUFACTURED	681	661	677	695	677	765	743	701	679	669	681	.16
NATURAL RUBBER	947	958	875	941	950	861	925	892	838	844	837	-1.26
WOOL GREASY	423	370	391	528	418	437	444	399	394	353	314	-1.93
BOVINE CATTLE 1/	3305	2691	3444	3306	3175	3472	3529	3404	3210	3478	3402	1.03
SHEEP AND GOATS 1/	2529	1968	2570	2370	2354	2724	2913	2920	2183	2274	2751	1.04
PIGS 1/	2819	3009	3314	3629	3284	3670	4382	5202	5495	4681	4886	6.62
TOTAL MEAT	3446	2876	3103	3316	3461	3762	3787	3760	3504	3770	3875	2.18
MILK DRY	102	85	92	117	98	115	128	147	123	135	136	4.55
TOTAL EGGS IN SHELL	270	318	311	307	327	366	400	430	431	444	441	5.27
FISHERY PRODUCTS												
FISH FRESH FROZEN	1143	1231	1147	1132	1230	1332	1471	1602	1603	861		
FISH CURED	186	181	158	156	157	163	167	188	164	95		
SHELLFISH	245	261	295	328	271	344	366	411	407	132		
FISH CANNED AND PREPARED	310	288	274	307	299	290	315	339	338	182		
SHELLFISH CANNED+PREPAR	57	56	60	63	68	73	80	87	86	34		
FISH BODY AND LIVER OIL	569	551	558	537	510	584	666	666	637	476		
FISH MEAL	1106	1086	1204	1187	1083	1070	1215	1155	1007	900		
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	4316	4756	3221	4417	4890	4094	4547	5103	4507	4660	4518	1.25
SAWLOGS NONCONIFEROUS	10952	6928	6585	8856	8793	7715	8056	8427	6903	6146	6206	-4.06
PULPWOOD+PARTICLE	14941	18155	17920	17252	16718	15294	17865	20907	24780	20515	19994	3.11
FUELWOOD	1413	1597	1470	1343	1379	1106	1129	1167	725	815	1092	-5.81
SAWNWOOD CONIFEROUS	28214	23709	17176	23111	22096	23684	27274	25507	21514	22724	23755	.05
SAWNWOOD NONCONIFEROUS	5677	4033	3620	5435	5521	5620	6724	6088	4938	4898	5202	1.55
WOOD-BASED PANELS	6157	6952	6076	7564	7524	8440	9652	8551	8956	8459	8920	2.75
PULP FOR PAPER	9305	9594	7234	8370	8217	9369	9949	9943	9456	8735	9395	.92
PAPER AND PAPERBOARD	12502	13523	9907	12368	12631	13602	15046	15107	15740	15755	17088	3.83
USSR AND EASTERN EUROPE												
AGRICULTURAL PRODUCTS												
WHEAT+FLOUR,WHEAT EQUIV.	20147	7448	13457	13099	11996	13101	16167	21293	24563	27256	25887	9.04
RICE MILLED	417	441	543	647	725	710	940	994	1599	1127	615	9.56
BARLEY	3416	2368	3283	4116	2225	4137	4559	4311	6007	3147	3567	3.68
MAIZE	7816	6527	9131	17664	7493	17809	20175	18863	22075	14959	8464	6.81
MILLET						1	1	1	1	1	1	
SORGHUM	31	322	310	1041	705	830	229	1567	3967	2709	2078	39.81
POTATOES	584	642	514	368	664	301	512	297	330	481	184	-7.81
SUGAR,TOTAL (RAW EQUIV.)	3578	2920	3951	4606	5652	4667	4945	5841	6443	6156	7091	8.86
PULSES	32	49	59	39	33	39	41	62	85	58	39	3.70
SOYBEANS	914	265	520	2089	1544	1409	2360	1768	1653	1908	1933	14.81
SOYBEAN OIL	34	38	31	72	94	103	122	154	203	320	243	26.42
GROUNDNUTS SHELLED BASIS	52	66	59	54	59	57	46	54	61	67	53	-.02
GROUNDNUT OIL	1	4	4	2	2		2	1		1	1	-15.00
COPRA	28	29	29	25	38	26	18	20	10	15	14	-9.05
COCONUT OIL	24	27	42	93	48	66	58	85	77	99	79	12.71
PALM NUTS KERNELS	13	3	4	4	4	4	3	4			2	
PALM OIL	10	22	17	28	67	58	113	112	184	384	302	42.48
OILSEED CAKE AND MEAL	3009	3404	3541	3592	3704	3699	4033	4599	5312	5172	5989	6.48
BANANAS	189	198	267	224	281	299	298	269	232	155	167	-1.46
ORANGES+TANGER+CLEMEN	680	762	715	693	727	719	650	750	688	643	585	-1.31
LEMONS AND LIMES	273	308	310	330	314	327	309	333	308	353	297	.87
COFFEE GREEN+ROASTED	171	183	205	199	201	178	201	228	203	204	202	1.38
COCOA BEANS	215	250	280	256	175	202	198	201	199	178	235	-2.05
TEA	54	69	88	82	80	71	79	102	116	107	110	6.15
COTTON LINT	710	748	769	679	720	681	718	743	638	694	825	.06

1/ THOUSAND HEAD
2/ EXCEPT FOR PULP FOR PAPER AND PAPER AND PAPERBOARD, ALL FOREST PRODUCTS ARE EXPRESSED IN THOUSAND CUBIC METRES

ANNEX TABLE 6. VOLUME OF IMPORTS OF MAJOR AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
	THOUSAND METRIC TONS											
JUTE AND SIMILAR FIBRES	85	67	83	80	68	70	79	93	111	122	93	3.83
TOBACCO UNMANUFACTURED	151	142	147	126	133	135	133	178	196	201	187	3.72
NATURAL RUBBER	495	548	473	485	409	433	437	441	418	360	421	-2.68
WOOL GREASY	146	151	162	162	161	182	188	182	174	173	199	2.45
BOVINE CATTLE 1/	90	232	506	195	224	84	176	180	169	167	150	-1.17
SHEEP AND GOATS 1/	1907	1918	1529	1401	1103	1243	1251	1276	1167	1187	1242	-4.37
PIGS 1/	126	103	185	55	306	523	502	604	959	735	791	28.12
TOTAL MEAT	265	597	545	416	757	267	646	956	1228	1091	1091	12.59
MILK DRY	22	28	23	28	43	29	42	71	78	90	47	13.63
TOTAL EGGS IN SHELL	51	51	52	37	43	43	47	43	34	36	31	-4.31
FISHERY PRODUCTS												
FISH FRESH FROZEN	120	132	141	159	147	224	241	273	163	68		
FISH CURED	18	18	24	28	18	16	17	19	28	20		
SHELLFISH								2				
FISH CANNED AND PREPARED	27	26	41	52	41	38	38	41	43	12		
FISH BODY AND LIVER OIL	15	28	34	4	7	6	5	26	15			
FISH MEAL	287	458	498	445	407	389	454	303	221	148		
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	1188	1246	830	787	885	960	720	1050	960	800	659	-5.13
SAWLOGS NONCONIFEROUS	577	541	568	556	556	442	416	454	487	365	367	-4.34
PULPWOOD+PARTICLE	1208	1533	1722	1548	1440	1345	1446	1583	1390	1248	1286	-1.00
FUELWOOD	5	5	5	5	5	5	4	4	4	3	4	-3.96
SAWNWOOD CONIFEROUS	2841	3436	3599	2702	3157	3228	2644	2665	2864	2797	2641	-1.65
SAWNWOOD NONCONIFEROUS	354	441	442	366	363	326	268	274	331	213	226	-6.07
WOOD-BASED PANELS	923	1117	1245	1386	1314	1132	1045	1137	1115	942	831	-1.55
PULP FOR PAPER	913	859	1106	1040	1027	1036	1005	1155	1092	1031	1081	1.56
PAPER AND PAPERBOARD	1417	1507	1713	1706	1712	1709	1784	2044	1969	1967	1951	3.22
NORTH AMERICA DEVELOPED												
AGRICULTURAL PRODUCTS												
WHEAT+FLOUR,WHEAT EQUIV.	4	83	17	23	35	1	5	6	1	57	53	-2.07
RICE MILLED	92	71	74	80	80	82	91	94	106	126	128	5.09
BARLEY	181	328	307	195	180	108	157	140	127	196	141	-5.52
MAIZE	825	1320	618	838	623	476	849	1228	1276	607	352	-3.42
MILLET	1				1							-10.56
SORGHUM	1					1				2		-4.38
POTATOES	176	239	208	213	301	235	242	212	340	344	278	4.69
SUGAR,TOTAL (RAW EQUIV.)	5708	6140	4492	5054	6383	4835	5406	4595	5459	3467	3665	-3.81
PULSES	32	66	44	34	53	43	39	43	61	47	48	1.63
SOYBEANS	232	391	385	422	318	325	351	483	382	468	315	2.35
SOYBEAN OIL	19	34	23	31	28	35	22	12	9	4	35	-8.95
GROUNDNUTS SHELLED BASIS	60	60	61	62	55	66	63	55	72	61	67	.94
GROUNDNUT OIL	7	6	7	8	7	6	5	5	4	4	6	-5.21
COPRA	199	27										
COCONUT OIL	260	271	435	603	495	503	527	422	476	427	475	3.77
PALM OIL	196	217	483	416	282	173	163	137	138	132	168	-8.09
OILSEED CAKE AND MEAL	216	300	301	386	374	426	491	431	443	457	446	6.54
BANANAS	2169	2268	2179	2411	2410	2543	2659	2669	2794	2935	2708	2.94
ORANGES+TANGER+CLEMEN	265	259	264	339	380	303	294	320	333	317	329	2.04
LEMONS AND LIMES	19	20	23	24	27	34	36	38	43	38	40	8.80
COFFEE GREEN+ROASTED	1405	1246	1324	1290	986	1195	1277	1190	1104	1150	1089	-1.84
COCOA BEANS	268	238	248	252	186	226	179	162	264	213	233	-1.67
TEA	102	105	96	106	117	91	101	107	107	103	97	-.13
COTTON LINT	86	72	61	73	53	59	61	65	63	52	61	-2.69
JUTE AND SIMILAR FIBRES	33	31	23	25	14	17	23	10	18	18	16	-6.83
TOBACCO UNMANUFACTURED	158	163	177	161	142	173	188	191	176	167	163	.76
NATURAL RUBBER	727	759	747	818	903	846	862	695	759	713	773	-.24
WOOL GREASY	18	8	13	17	12	15	11	14	20	16	20	3.98
BOVINE CATTLE 1/	1264	716	516	1183	1184	1337	758	731	815	1084	1004	.43
SHEEP AND GOATS 1/	71	33	61	71	52	40	27	42	41	52	64	-1.43
PIGS 1/	88	137	30	46	44	204	137	248	146	296	449	18.81
TOTAL MEAT	785	637	719	862	755	875	913	854	766	867	809	1.60
TOTAL EGGS IN SHELL	12	15	12	13	19	18	21	12	12	11	22	1.81
FISHERY PRODUCTS												
FISH FRESH FROZEN	792	685	611	709	727	800	776	699	735	676		
FISH CURED	33	31	30	37	30	34	31	26	35	33		
SHELLFISH	140	148	139	157	158	146	155	146	156	175		
FISH CANNED AND PREPARED	104	131	82	103	78	89	95	99	104	114		
SHELLFISH CANNED+PREPAR	32	33	27	35	41	40	41	35	47	54		

1/ THOUSAND HEAD
2/ EXCEPT FOR PULP FOR PAPER AND PAPER AND PAPERBOARD, ALL FOREST PRODUCTS ARE EXPRESSED IN THOUSAND CUBIC METRES

ANNEX TABLE 6. VOLUME OF IMPORTS OF MAJOR AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
	THOUSAND METRIC TONS											
FISH BODY AND LIVER OIL	11	8	7	11	8	9	9	12	10	8		
FISH MEAL	63	62	108	128	74	40	82	45	56	79		
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	1954	1737	1728	2025	2174	2043	2458	2146	1674	1772	2683	1.66
SAWLOGS NONCONIFEROUS	459	492	318	291	294	409	502	471	415	335	424	.33
PULPWOOD+PARTICLE	1863	2187	1859	2039	2273	2516	2504	2249	2348	2000	2409	1.76
FUELWOOD	26	32	35	30	51	59	63	45	23	19	16	-4.23
SAWNWOOD CONIFEROUS	21750	16639	14175	19583	25061	28675	26582	22839	22542	21694	28483	3.86
SAWNWOOD NONCONIFEROUS	1732	1412	963	1287	1351	1431	1571	1422	1557	912	1246	-1.45
WOOD-BASED PANELS	4147	3245	3147	3645	3546	3956	3336	2378	2851	2283	3366	-3.27
PULP FOR PAPER	3497	3533	2687	3243	3344	3477	3818	3502	3538	3221	3631	.85
PAPER AND PAPERBOARD	7546	7602	6165	6982	7017	8387	8322	8118	7595	7303	8291	1.29
OCEANIA DEVELOPED												
AGRICULTURAL PRODUCTS												
WHEAT+FLOUR,WHEAT EQUIV.		50	134	112			32	54	53	51	71	37.32
RICE MILLED	6	7	7	6	9	8	8	6	9	10	12	5.40
BARLEY		5										
MAIZE	1	1	1	1	2	3	3	4	5	11	14	35.26
MILLET							1	1	1	1	1	
SORGHUM										4	3	
POTATOES		1										
SUGAR,TOTAL (RAW EQUIV.)	171	153	192	174	165	166	172	151	120	147	155	-2.16
PULSES	12	16	20	13	12	13	12	14	13	16	17	.40
SOYBEANS		33	16	10	21	15		13	41	10	23	25.56
SOYBEAN OIL	6	10	18	38	33	29	26	32	29	45	53	17.18
GROUNDNUTS SHELLED BASIS	5	6	4	6	5	12	4	5	9	12	6	4.55
GROUNDNUT OIL	3	4	4	2	4	2	3		1	1	1	-18.03
COPRA	24	20	12	10	11	5	7	4	6	6	4	-15.77
COCONUT OIL	9	13	11	16	20	18	19	17	16	20	19	5.98
PALM OIL	7	14	16	17	23	23	28	26	24	20	4	1.18
OILSEED CAKE AND MEAL	12	21	15	3	6	30	9	13	23	12	53	9.13
BANANAS	33	37	43	29	35	38	35	37	36	36	40	.67
ORANGES+TANGER+CLEMEN	18	18	18	19	17	18	14	16	16	17	20	.02
LEMONS AND LIMES							1	1	1	1	3	23.10
COFFEE GREEN+ROASTED	29	32	35	32	34	26	35	41	38	42	39	3.07
COCOA BEANS	21	21	25	16	20	17	15	14	15	13	13	-5.79
TEA	36	34	35	33	35	30	30	32	28	30	28	-2.41
COTTON LINT	4	5	4	4	5	4	2	2	2	1	1	-17.16
JUTE AND SIMILAR FIBRES	16	26	17	14	12	11	12	9	11	8	7	-9.62
TOBACCO UNMANUFACTURED	14	17	17	17	13	16	13	15	15	14	14	-1.12
NATURAL RUBBER	55	74	53	61	55	52	53	54	50	48	41	-3.33
WOOL GREASY	5	6	1	1	1	1	1					-22.31
BOVINE CATTLE 1/	3	3	1	1	2	1	1	1				-20.40
SHEEP AND GOATS 1/	1					1	1	8	1	1		7.93
TOTAL MEAT	2	4	2	2	2	1	2	4	4	4	6	9.61
MILK DRY	1	1	1	1	1	1	1		1			-12.82
FISHERY PRODUCTS												
FISH FRESH FROZEN	18	22	19	19	20	21	22	29	24	32		
FISH CURED	3	5	4	4	5	3	5	4	4	4		
SHELLFISH	2	1	1	3	3	2	4	4	6	7		
FISH CANNED AND PREPARED	25	27	23	19	25	26	22	28	27	28		
SHELLFISH CANNED+PREPAR	4	6	5	6	7	7	6	5	6	7		
FISH BODY AND LIVER OIL	1	1	1	1	1	1	1			1		
FISH MEAL	14	14	24	13	8	3	4	13	8	8		
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	1	3		5	2	2					1	
SAWLOGS NONCONIFEROUS	101	106	41	46	26	17	11	2	1	7	6	-32.22
FUELWOOD			2	1								-13.99
SAWNWOOD CONIFEROUS	793	686	637	693	754	636	682	697	781	881	642	-.50
SAWNWOOD NONCONIFEROUS	338	449	282	346	445	311	304	317	306	290	211	-3.93
WOOD-BASED PANELS	92	131	123	137	121	89	99	88	104	111	80	-2.67
PULP FOR PAPER	315	352	301	232	276	239	279	279	284	261	219	-2.51
PAPER AND PAPERBOARD	563	678	683	470	652	584	671	739	736	794	580	1.78

1/ THOUSAND HEAD
2/ EXCEPT FOR PULP FOR PAPER AND PAPER AND PAPERBOARD, ALL FOREST PRODUCTS ARE EXPRESSED IN THOUSAND CUBIC METRES

ANNEX TABLE 6. VOLUME OF IMPORTS OF MAJOR AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83
	THOUSAND METRIC TONS											PERCENT
AFRICA DEVELOPING												
AGRICULTURAL PRODUCTS												
WHEAT+FLOUR,WHEAT EQUIV.	4022	4730	5363	5344	6356	7942	7764	9074	9315	9829	9761	9.79
RICE MILLED	976	972	602	887	1584	1685	2243	2230	2476	2972	2996	16.19
BARLEY	106	114	173	68	219	647	419	300	456	672	377	19.90
MAIZE	480	830	864	685	880	1154	1267	2321	2412	2356	1651	15.92
MILLET	158	218	137	123	109	76	118	93	35	41	31	-16.13
SORGHUM	167	195	42	118	94	145	127	106	142	136	169	2.23
POTATOES	192	208	189	149	211	233	307	241	218	421	444	8.30
SUGAR,TOTAL (RAW EQUIV.)	1441	1353	1328	1494	1896	2041	2146	2251	2557	2476	2536	7.70
PULSES	78	53	89	77	91	118	208	217	176	173	214	14.37
SOYBEANS	13	10	9	16	50	23	31	25	11	35	18	6.92
SOYBEAN OIL	93	147	156	121	256	312	357	335	342	450	427	16.51
GROUNDNUTS SHELLED BASIS	24	15	35	17	25	27	12	16	9	13	7	-9.66
GROUNDNUT OIL	39	6	8	30	23	11	10	16	13	21	19	.57
COPRA	6	2	3	3	3	4	4	3	4	2	3	-1.32
COCONUT OIL	14	13	9	16	20	10	9	7	14	16	14	-.05
PALM NUTS KERNELS			1									
PALM OIL	41	39	29	68	81	106	100	168	244	292	254	26.16
OILSEED CAKE AND MEAL	36	50	58	54	102	122	157	184	242	236	194	21.96
BANANAS	55	43	38	41	47	31	17	20	27	24	10	-12.26
ORANGES+TANGER+CLEMEN	10	10	12	10	12	12	12	10	9	9	9	-1.33
LEMONS AND LIMES	1	1			1	1	1	1	1	1	1	3.56
COFFEE GREEN+ROASTED	42	61	65	77	59	83	76	80	102	77	119	7.37
COCOA BEANS	2	2	2	1	3	1	1	1	1	1	1	-8.27
TEA	35	42	45	42	46	56	70	57	66	58	60	5.83
COTTON LINT	41	51	54	46	51	42	48	44	60	117	102	7.57
JUTE AND SIMILAR FIBRES	74	94	80	61	73	58	62	65	49	50	50	-5.31
TOBACCO UNMANUFACTURED	45	57	53	46	49	62	63	54	51	44	54	.24
NATURAL RUBBER	18	21	17	18	22	21	20	21	25	26	30	4.62
WOOL GREASY	1	1	1	3	3	4	3	2	2	3	3	10.52
BOVINE CATTLE 1/	899	756	626	632	687	784	822	792	889	808	834	1.44
SHEEP AND GOATS 1/	1263	1246	1229	1113	1167	1144	1097	1091	1262	1048	1152	-1.06
PIGS 1/	2		1	1	1	1	1	1		1	1	-1.76
TOTAL MEAT	40	43	57	84	110	139	137	147	167	214	221	19.32
MILK DRY	16	26	21	23	23	27	24	36	33	29	31	5.77
TOTAL EGGS IN SHELL	3	4	8	13	21	44	36	51	52	75	78	41.47
FISHERY PRODUCTS												
FISH FRESH FROZEN	279	367	342	349	338	374	467	908	913	614		
FISH CURED	50	40	46	55	39	32	39	56	50	22		
SHELLFISH	4	3	11	14	18	19	6	8	8			
FISH CANNED AND PREPARED	66	64	62	114	108	159	160	151	152	95		
FISH BODY AND LIVER OIL	3	4	1	3	2	3	2					
FISH MEAL	13	18	12	13	17	20	24	35	32	9		
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	8	17	38	43	31	32	73	94	85	84	84	23.74
SAWLOGS NONCONIFEROUS	215	311	153	172	286	197	204	326	232	160	162	-1.71
FUELWOOD	5	1	5									
SAWNWOOD CONIFEROUS	603	954	764	825	1251	763	1018	902	1402	1568	1647	8.33
SAWNWOOD NONCONIFEROUS	115	218	153	168	158	205	206	214	243	202	205	4.40
WOOD-BASED PANELS	139	198	183	193	312	265	317	361	340	301	299	8.18
PULP FOR PAPER	46	65	56	94	96	96	98	114	116	114	143	10.01
PAPER AND PAPERBOARD	501	583	460	456	501	535	549	553	562	563	551	1.30
LATIN AMERICA												
AGRICULTURAL PRODUCTS												
WHEAT+FLOUR,WHEAT EQUIV.	8357	8612	7164	8981	8152	10765	10603	12070	12028	11049	12094	4.89
RICE MILLED	390	621	563	489	428	432	1344	1060	801	632	1025	8.17
BARLEY	186	319	262	207	203	358	323	479	413	351	509	8.45
MAIZE	2335	2584	3897	2438	3590	4714	3954	8994	7111	3366	8151	11.34
MILLET	2	4	4	6	2	4	6	3	2	3		
SORGHUM	450	1048	1348	554	1440	1442	1902	2943	3639	3161	3779	21.76
POTATOES	241	192	196	173	198	205	252	337	204	191	160	-.33
SUGAR,TOTAL (RAW EQUIV.)	438	257	113	286	645	882	717	1568	1561	1325	1919	25.90
PULSES	253	274	308	299	400	291	284	819	876	524	381	8.97
SOYBEANS	184	600	127	444	628	971	952	1207	2235	2034	1256	26.10
SOYBEAN OIL	149	254	141	243	245	351	372	440	437	586	537	14.37

1/ THOUSAND HEAD
2/ EXCEPT FOR PULP FOR PAPER AND PAPER AND PAPERBOARD, ALL FOREST PRODUCTS ARE EXPRESSED IN THOUSAND CUBIC METERS

ANNEX TABLE 6. VOLUME OF IMPORTS OF MAJOR AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
	THOUSAND METRIC TONS											
GROUNDNUTS SHELLED BASIS	6	13	46	38	8	14	11	13	14	17	9	-1.73
GROUNDNUT OIL	34	13	41	64	136	65	9	2	4	1	10	-25.27
COPRA		1	21	1								
COCONUT OIL	33	26	40	88	26	39	15	26	20	24	18	-7.44
PALM NUTS KERNELS		2	2	2	1		2	1	1			
PALM OIL	23	9	3	16	16	8	6	16	13	10	3	-5.52
OILSEED CAKE AND MEAL	257	398	340	413	593	647	684	962	957	1078	1145	16.06
BANANAS	238	286	233	184	228	287	391	503	463	318	229	4.51
ORANGES+TANGER+CLEMEN	20	18	17	19	26	22	44	55	35	25	31	7.96
LEMONS AND LIMES	1	2	2	3	4	6	3	3	3	2	1	.84
COFFEE GREEN+ROASTED	75	96	82	86	54	58	93	60	67	62	57	-3.50
COCOA BEANS	16	20	15	7	3	3	2	3	10	13	7	-8.28
TEA	12	18	10	13	14	16	19	15	14	13	15	1.45
COTTON LINT	67	67	69	56	65	71	61	79	93	81	87	2.20
JUTE AND SIMILAR FIBRES	34	55	45	30	15	12	18	36	34	16	15	-7.91
TOBACCO UNMANUFACTURED	14	23	15	17	18	16	17	28	24	21	19	3.13
NATURAL RUBBER	139	168	144	166	171	183	182	188	187	163	166	1.70
WOOL GREASY	5	4	6	8	6	7	9	13	12	13	9	10.18
BOVINE CATTLE 1/	564	624	564	632	607	697	1046	540	582	595	476	-.80
SHEEP AND GOATS 1/	65	226	316	41	55	54	116	140	251	446	299	12.42
PIGS 1/	38	41	47	59	36	32	21	10	24	60	29	-5.32
TOTAL MEAT	125	232	160	182	197	374	365	336	410	339	300	10.06
MILK DRY	64	95	50	73	181	138	119	153	158	140	167	10.35
TOTAL EGGS IN SHELL	6	6	7	9	14	11	18	20	18	17	16	13.01
FISHERY PRODUCTS												
FISH FRESH FROZEN	58	71	126	97	91	93	115	110	97	53		
FISH CURED	75	58	67	56	49	54	63	56	55	6		
SHELLFISH	9	11	7	4	5	5	10	7	9	3		
FISH CANNED AND PREPARED	35	39	41	44	49	67	76	85	83	20		
SHELLFISH CANNED+PREPAR	1	1	1	1	1	1	2	2	2	1		
FISH BODY AND LIVER OIL	19	23	20	44	27	36	66	103	37	2		
FISH MEAL	44	61	143	75	70	109	138	161	118	42		
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	25	27	7	43	26	34	54	120	161	179	172	30.81
SAWLOGS NONCONIFEROUS	134	128	134	73	69	105	65	57	30	29	30	-15.46
PULPWOOD+PARTICLE							51	35	24	16	16	
FUELWOOD	8	8	3	2	2	1	1	1	3	2	2	-13.66
SAWNWOOD CONIFEROUS	1458	1235	1235	1467	1481	1710	1516	1585	1684	1366	1401	1.62
SAWNWOOD NONCONIFEROUS	202	685	742	427	520	679	664	527	652	607	533	5.42
WOOD-BASED PANELS	141	182	169	184	234	285	384	468	479	424	385	13.46
PULP FOR PAPER	649	806	543	534	461	576	643	743	852	745	759	2.59
PAPER AND PAPERBOARD	1752	2061	1637	1732	2103	1755	1764	2290	2360	2137	1896	1.85
NEAR EAST DEVELOPING												
AGRICULTURAL PRODUCTS												
WHEAT+FLOUR,WHEAT EQUIV.	5475	8742	6733	7649	9207	10320	10639	12717	13939	14159	16877	9.64
RICE MILLED	501	946	939	1106	1456	1548	1887	1790	2015	1938	1906	12.61
BARLEY	595	530	473	465	990	851	1493	2361	3290	4865	2967	27.11
MAIZE	423	803	791	1009	1487	1850	2369	3032	3746	3803	4123	25.45
MILLET	3	30	3	10	6	4	4	2	2	3	2	-12.64
SORGHUM	5	4	77	197	189	254	109	101	132	339	94	32.96
POTATOES	123	178	171	160	233	234	280	349	422	388	394	12.96
SUGAR,TOTAL (RAW EQUIV.)	1669	1785	2098	1694	2266	2400	3460	3343	3518	3792	3644	9.71
PULSES	109	128	243	234	200	205	258	249	357	313	334	10.24
SOYBEANS	28	62	28	29	63	136	180	95	116	107	121	17.07
SOYBEAN OIL	108	232	270	332	230	280	380	442	504	516	503	13.42
GROUNDNUTS SHELLED BASIS	7	8	9	8	15	6	8	15	8	7	6	-.97
GROUNDNUT OIL	2	1	1	2	2	1	1	3	1	1		-10.86
COPRA			8	7		1						
COCONUT OIL	5	8	22	31	8	7	4	14	13	17	17	4.38
PALM NUTS KERNELS			1	5								
PALM OIL	89	78	137	76	148	164	187	191	205	377	360	16.25
OILSEED CAKE AND MEAL	88	117	100	237	379	459	442	406	543	668	771	24.53
BANANAS	135	167	255	308	272	277	317	298	304	304	267	6.00
ORANGES+TANGER+CLEMEN	284	408	532	636	543	472	500	547	619	627	635	5.42
LEMONS AND LIMES	14	27	32	54	52	46	78	80	81	80	86	17.02
COFFEE GREEN+ROASTED	55	56	49	51	53	42	40	45	56	73	74	2.24
COCOA BEANS	2	2	4	4	2	4	1	1	5	5	6	6.13
TEA	114	144	132	157	148	202	184	176	171	180	180	4.11
COTTON LINT	9	12	26	7	37	21	41	21	24	27	27	10.58

1/ THOUSAND HEAD
2/ EXCEPT FOR PULP FOR PAPER AND PAPER AND PAPERBOARD, ALL FOREST PRODUCTS ARE EXPRESSED IN THOUSAND CUBIC METRES

ANNEX TABLE 5. VOLUME OF IMPORTS OF MAJOR AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
	.....	.....	.....	.....	THOUSAND METRIC TONS	.....	.....	.....	.....	.....	.....	
JUTE AND SIMILAR FIBRES	27	31	31	40	31	24	41	20	25	37	47	1.61
TOBACCO UNMANUFACTURED	29	32	44	45	45	52	60	49	61	75	77	9.17
NATURAL RUBBER	49	57	51	50	49	46	37	40	50	53	72	.76
WOOL GREASY	20	23	26	27	32	17	18	18	19	13	19	-4.12
BOVINE CATTLE 1/	154	153	160	164	369	369	365	503	678	637	747	19.85
SHEEP AND GOATS 1/	4695	4317	4921	5139	7856	8640	10327	11489	13201	13082	14893	14.66
PIGS 1/	1		2		5							
TOTAL MEAT	90	142	251	331	462	586	673	578	1298	1282	1267	30.65
MILK DRY	3	4	3	5	10	11	20	14	24	28	19	27.10
TOTAL EGGS IN SHELL	44	56	81	77	84	85	75	106	143	143	123	10.73
FISHERY PRODUCTS												
FISH FRESH FROZEN	23	30	41	60	55	74	59	79	113	6		
FISH CURED	3	4	3	3	4	6	3	6	7			
SHELLFISH	1	1	1	1	2	2	3	3	4			
FISH CANNED AND PREPARED	23	27	33	45	47	57	54	73	66	11		
SHELLFISH CANNED+PREPAR							1	1	2			
FISH BODY AND LIVER OIL	2	2	2	2	2	1	1	1	1			
FISH MEAL	12	26	27	51	136	56	52	80	145			
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	135	59	165	195	229	175	126	173	217	287	337	10.44
SAWLOGS NONCONIFEROUS	40	37	68	88	56	68	42	57	46	6	8	-14.91
PULPWOOD+PARTICLE	29	26	8	9	13	36	40	14	4	9	9	-9.34
FUELWOOD	62	34	35	37	38	39	31	25	27	32	32	-4.57
SAWNWOOD CONIFEROUS	1589	1685	1744	2202	3063	2441	2689	3242	3422	3726	3665	9.54
SAWNWOOD NONCONIFEROUS	80	350	294	406	659	558	469	630	535	605	556	13.78
WOOD-BASED PANELS	331	419	465	591	740	792	916	1055	1379	1517	1527	17.17
PULP FOR PAPER	69	64	71	69	81	80	85	86	72	82	94	2.86
PAPER AND PAPERBOARD	539	572	696	724	866	889	903	972	1023	968	941	6.33
FAR EAST DEVELOPING												
AGRICULTURAL PRODUCTS												
WHEAT+FLOUR,WHEAT EQUIV.	10960	11676	15063	13644	7213	8060	8808	8687	8607	10433	12214	-2.03
RICE MILLED	4603	3053	3023	3698	3848	3550	3453	4511	4416	2036	3224	-1.77
BARLEY	494	497	539	8	327	107	106	206	275	916	469	5.25
MAIZE	1337	1250	1440	1971	2517	3125	4114	3888	4487	4840	6322	18.26
MILLET	26	43	13	29	10	1	2	3	3	6	4	-22.58
SORGHUM	1188	727	204	398	21	49	144	62	162	440	231	-10.85
POTATOES	94	98	87	93	104	117	143	155	144	148	130	5.72
SUGAR,TOTAL (RAW EQUIV.)	1453	1096	1127	1117	1435	1866	1935	2612	2827	2296	2056	8.96
PULSES	121	94	93	90	89	165	207	207	223	368	320	15.10
SOYBEANS	168	135	153	433	370	489	728	874	1093	1219	1135	27.06
SOYBEAN OIL	178	184	87	194	527	583	841	1004	981	890	911	26.07
GROUNDNUTS SHELLED BASIS	22	24	18	43	23	28	39	67	93	152	142	23.49
GROUNDNUT OIL	27	24	23	48	64	42	36	38	33	37	55	5.13
COPRA	34	19	55	96	99	163	74	115	113	87	64	10.99
COCONUT OIL	58	41	34	55	74	162	91	58	176	88	84	9.71
PALM NUTS KERNELS	19	4	4	5	5	6	10	15	6	3	14	.71
PALM OIL	315	356	277	372	842	847	1058	1757	1365	1430	1665	22.13
OILSEED CAKE AND MEAL	150	271	333	533	848	917	1076	1129	1157	1362	1598	24.19
BANANAS	55	50	56	45	48	57	69	59	49	58	51	.65
ORANGES+TANGER+CLEMEN	193	170	208	199	215	222	208	238	273	249	284	4.26
LEMONS AND LIMES						4	6	7	8	8	9	81.75
COFFEE GREEN+ROASTED	45	34	31	42	32	19	27	19	36	51	64	1.83
COCOA BEANS	11	9	9	9	8	12	17	27	45	60	58	24.33
TEA	54	52	64	70	81	77	84	86	97	95	109	7.17
COTTON LINT	672	559	790	794	843	863	827	888	771	792	855	2.52
JUTE AND SIMILAR FIBRES	112	71	80	123	57	64	78	119	89	121	137	3.45
TOBACCO UNMANUFACTURED	49	71	53	59	69	64	69	82	88	70	63	3.16
NATURAL RUBBER	114	125	123	142	160	193	215	182	211	214	196	6.82
WOOL GREASY	14	16	26	27	32	29	30	33	44	36	37	9.77
BOVINE CATTLE 1/	303	286	286	283	301	338	376	367	384	365	414	4.06
SHEEP AND GOATS 1/	239	219	249	294	274	258	234	216	180	179	192	-3.26
PIGS 1/	2700	2629	2796	3004	3023	3123	3095	4552	3194	3412	3311	3.06
TOTAL MEAT	109	125	149	173	212	279	297	227	266	352	357	12.19
MILK DRY	53	66	68	84	93	128	151	152	147	116	123	9.93
TOTAL EGGS IN SHELL	56	54	58	57	64	68	75	76	75	80	79	4.48

1/ THOUSAND HEAD
2/ EXCEPT FOR PULP FOR PAPER AND PAPER AND PAPERBOARD, ALL FOREST PRODUCTS ARE EXPRESSED IN THOUSAND CUBIC METRES

ANNEX TABLE 6. VOLUME OF IMPORTS OF MAJOR AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
	THOUSAND METRIC TONS											
FISHERY PRODUCTS												
FISH FRESH FROZEN	140	132	148	156	163	185	230	223	268	88		
FISH CURED	42	32	32	21	19	22	22	29	23	8		
SHELLFISH	68	80	68	89	79	103	161	102	97	32		
FISH CANNED AND PREPARED	91	97	114	112	83	83	79	95	86	66		
SHELLFISH CANNED+PREPAR	17	15	14	16	15	16	14	17	16	11		
FISH BODY AND LIVER OIL	6	2	2	1	3	4	5	2	2	1		
FISH MEAL	53	60	99	84	94	131	164	149	152	43		
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	827	773	461	750	1200	2426	2128	1536	1186	1545	2113	11.83
SAWLOGS NONCONIFEROUS	6481	5686	6180	7505	8558	9371	9355	6526	5991	5413	5796	-.94
PULPWOOD+PARTICLE	13	61	61		1		2	2	1		2	
FUELWOOD	115	110	110	114	138	117	141	137	145	171	172	4.61
SAWNWOOD CONIFEROUS	41	65	179	214	228	235	80	87	71	77	77	-1.59
SAWNWOOD NONCONIFEROUS	1207	1109	981	1463	1741	1829	2345	1650	1765	1747	1738	5.77
WOOD-BASED PANELS	348	339	392	472	495	575	610	724	821	682	798	9.74
PULP FOR PAPER	466	465	282	406	545	678	714	704	810	739	870	9.03
PAPER AND PAPERBOARD	1418	1320	1133	1459	1494	1829	1994	2072	2283	2138	2292	6.98
ASIAN CENT PLANNED ECON												
AGRICULTURAL PRODUCTS												
WHEAT+FLOUR,WHEAT EQUIV.	8609	7990	5287	3796	9164	10271	11756	13243	15688	15303	12943	10.16
RICE MILLED	963	1241	737	784	214	250	624	592	447	386	172	-12.16
BARLEY	279	321	174	333	265	336	704	402	354	509	518	7.94
MAIZE	3229	3827	1729	2150	2222	3064	5412	4436	3287	4117	5569	7.28
SORGHUM	41	73	152	255	384	473	517	417	840	772	614	30.65
SUGAR,TOTAL (RAW EQUIV.)	1296	643	760	952	1895	1587	1368	1114	1303	2399	2506	9.68
PULSES	40	32	33	39	49	68	58	72	91	118	96	13.58
SOYBEANS	799	1181	854	829	985	1172	1696	1529	1682	1516	1439	7.29
SOYBEAN OIL	123	34	42	27	149	137	143	136	56	63	27	-.96
GROUNDNUTS SHELLED BASIS	4	4				2	1			6	1	
GROUNDNUT OIL											19	
COPRA	4	4					1	3	3	7	1	
COCONUT OIL	22	21	47	29	22	19	27	31	26	31	27	1.26
PALM NUTS KERNELS									2	1		
PALM OIL	13	11	12	3	30	14	48	63	26	24	17	13.13
OILSEED CAKE AND MEAL	2	1	1	29	41	55	1	9	14	15	15	24.54
BANANAS	15	4	10	15								
ORANGES+TANGER+CLEMEN						1		2	1	1	5	
COFFEE GREEN+ROASTED				7	6	6	5	6	7	19	19	51.96
COCOA BEANS	6	6	8	11	12	15	17	17	4	5	14	.81
TEA	6	7	6	5	5	6	5	5	4	4	5	-3.82
COTTON LINT	719	599	412	426	422	816	835	1235	1021	838	408	3.74
JUTE AND SIMILAR FIBRES	86	69	22	27	34	39	36	47	25	44	58	-2.06
TOBACCO UNMANUFACTURED	20	23	11	13	15	19	22	32	54	46	30	11.41
NATURAL RUBBER	304	274	298	248	316	300	333	356	220	270	376	.79
WOOL GREASY	21	17	13	22	22	28	51	60	94	95	118	24.60
BOVINE CATTLE 1/	1	4	8	1				2		1	1	
SHEEP AND GOATS 1/	5	6	6				3	1		1	1	
PIGS 1/	1	3		2	1	4	3	3	5	3	3	22.07
TOTAL MEAT	2	2	29	10	4	11	18	16	23	27	28	25.58
FISHERY PRODUCTS												
FISH FRESH FROZEN	1	8	4	6	7	5	5	1	1	1		
FISH CURED		2	7	1	1	1	1					
SHELLFISH		3	4	4	8	9	14	2	2	2		
FISH CANNED AND PREPARED	3	4	2	4	4	3	4	4	4	4		
FISH BODY AND LIVER OIL	3	3	3	2	2	3	3	1	1	1		
FISH MEAL	33	40	95	129	124	145	170	164	165	157		
FOREST PRODUCTS 2/												
SAWLOGS CONIFEROUS	492	610	614	618	400	370	403	611	1112	3046	3724	18.12
SAWLOGS NONCONIFEROUS	3990	3801	3887	4437	6236	7127	6760	6481	5491	4637	5993	4.53
PULPWOOD+PARTICLE	7	7	88	199	199	199	56	56	235	246	363	35.01
SAWNWOOD CONIFEROUS			21	29	29	29	29	31	37	33	38	51.60
SAWNWOOD NONCONIFEROUS	9	27	23	30	38	56	96	139	200	296	425	43.26
WOOD-BASED PANELS	1	1	3	12	13	24	36	51	70	97	100	63.07
PULP FOR PAPER	243	248	217	228	169	201	209	419	521	432	679	10.94
PAPER AND PAPERBOARD	167	189	174	217	297	411	427	650	649	474	620	16.45

1/ THOUSAND HEAD
2/ EXCEPT FOR PULP FOR PAPER AND PAPER AND PAPERBOARD, ALL FOREST PRODUCTS ARE EXPRESSED IN THOUSAND CUBIC METERS

ANNEX TABLE 7. INDICES OF VALUE OF EXPORTS OF AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
	.....	.....	.....	.....	1974-76=100	.....	.....	.....	.....	.....	.....	
WORLD												
AGRICULTURAL PRODUCTS	76	96	99	105	120	133	156	181	180	162	159	8.44
FOOD	72	95	104	101	110	127	150	178	183	161	156	8.64
FEED	99	94	84	122	151	165	194	227	254	235	260	12.87
RAW MATERIALS	91	107	88	105	121	129	148	161	156	138	141	5.59
BEVERAGES	61	82	86	132	191	183	207	215	169	174	177	9.51
FISHERY PRODUCTS	82	88	93	119	140	170	207	213	220	143		
FOREST PRODUCTS	77	101	90	109	118	132	171	194	178	162	164	8.75
DEVELOPED COUNTRIES												
AGRICULTURAL PRODUCTS	78	96	101	103	113	132	157	188	190	171	163	8.95
FOOD	75	94	104	103	109	129	154	187	192	170	161	9.07
FEED	108	109	82	109	128	160	191	223	236	223	253	11.66
RAW MATERIALS	88	110	90	101	127	131	153	167	164	155	145	6.45
BEVERAGES	85	89	98	113	145	167	212	218	201	201	195	10.75
FISHERY PRODUCTS	87	93	93	114	134	163	193	209	211	143		
FOREST PRODUCTS	74	101	91	107	116	130	163	187	176	159	160	8.64
WESTERN EUROPE												
AGRICULTURAL PRODUCTS	76	90	103	107	120	147	178	207	202	189	182	10.54
FOOD	74	89	105	106	119	145	174	207	204	187	179	10.60
FEED	108	111	82	107	131	162	200	224	269	276	313	14.04
RAW MATERIALS	80	100	93	108	106	136	162	141	127	127	131	4.97
BEVERAGES	88	89	99	113	139	169	218	221	205	205	199	10.94
FISHERY PRODUCTS	85	93	93	114	136	156	189	211	204	92		
FOREST PRODUCTS	73	104	90	106	113	129	166	194	176	159	155	8.62
USSR AND EASTERN EUROPE												
AGRICULTURAL PRODUCTS	79	102	100	98	119	114	132	139	135	127	112	4.01
FOOD	81	106	100	94	112	106	127	133	129	117	102	2.87
FEED	57	70	70	161	161	140	136	115	75	102	73	1.96
RAW MATERIALS	72	91	99	109	141	131	139	150	151	153	132	6.59
BEVERAGES	76	89	107	104	124	143	165	163	150	155	162	7.74
FISHERY PRODUCTS	67	84	107	109	105	121	156	155	135	113		
FOREST PRODUCTS	73	97	98	105	119	125	137	147	141	137	139	6.11
NORTH AMERICA DEVELOPED												
AGRICULTURAL PRODUCTS	78	100	99	101	104	126	148	181	191	164	162	8.64
FOOD	77	97	101	101	98	121	143	175	190	161	159	8.57
FEED	112	110	80	110	124	160	189	230	224	199	227	10.41
RAW MATERIALS	81	113	91	96	127	145	165	194	180	164	156	8.02
BEVERAGES	68	96	73	131	298	202	253	295	256	243	215	14.33
FISHERY PRODUCTS	97	86	93	122	158	236	275	261	301	292		
FOREST PRODUCTS	76	97	91	112	120	133	168	190	184	164	173	9.22
OCEANIA DEVELOPED												
AGRICULTURAL PRODUCTS	84	100	98	102	114	111	134	176	188	173	147	7.71
FOOD	73	91	105	103	107	111	131	185	195	177	148	8.91
FEED	101	118	88	94	214	204	217	126	171	177	166	6.28
RAW MATERIALS	112	124	79	97	130	110	140	155	171	161	143	5.21
BEVERAGES	68	92	103	106	100	108	117	149	210	220	250	12.53
FISHERY PRODUCTS	97	93	97	110	155	170	243	318	333	383		
FOREST PRODUCTS	78	101	94	105	125	136	193	245	258	219	208	12.71

ANNEX TABLE 7. INDICES OF VALUE OF EXPORTS OF AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
						1974-76=100						
DEVELOPING COUNTRIES												
AGRICULTURAL PRODUCTS	73	95	96	108	132	136	154	169	162	145	152	7.51
FOOD	64	99	104	97	112	121	140	157	162	141	145	7.56
FEED	88	75	87	137	178	171	197	232	277	249	267	14.58
RAW MATERIALS	93	104	87	109	116	127	143	155	147	122	136	4.68
BEVERAGES	79	78	80	141	213	191	205	214	154	161	168	8.91
FISHERY PRODUCTS	71	78	95	127	152	184	233	222	239	142		
FOREST PRODUCTS	100	103	80	118	129	144	221	233	193	182	191	9.57
AFRICA DEVELOPING												
AGRICULTURAL PRODUCTS	78	99	92	110	143	138	147	148	123	115	113	3.69
FOOD	73	103	99	99	117	132	133	140	116	102	100	2.62
FEED	120	98	90	112	143	90	150	109	86	97	101	-.94
RAW MATERIALS	89	113	83	104	108	107	124	142	152	126	128	4.51
BEVERAGES	81	85	82	133	208	164	185	170	129	137	132	5.69
FISHERY PRODUCTS	92	100	98	102	109	126	154	204	212	83		
FOREST PRODUCTS	109	114	79	108	113	123	141	164	125	126	129	3.45
LATIN AMERICA												
AGRICULTURAL PRODUCTS	71	90	98	112	138	143	159	176	171	150	165	8.50
FOOD	64	95	107	98	114	120	141	157	166	138	155	7.93
FEED	87	66	88	146	211	198	220	264	348	286	337	17.75
RAW MATERIALS	89	100	94	106	127	148	145	153	157	137	122	4.87
BEVERAGES	81	73	75	152	205	199	209	228	151	167	176	9.61
FISHERY PRODUCTS	65	89	90	121	130	186	238	254	258	133		
FOREST PRODUCTS	82	109	96	95	117	142	242	328	329	271	291	16.60
NEAR EAST DEVELOPING												
AGRICULTURAL PRODUCTS	91	100	90	110	112	120	124	136	156	149	156	6.10
FOOD	87	95	91	114	128	156	168	195	240	240	227	12.29
FEED	149	117	95	88	86	59	72	92	62	46	45	-9.56
RAW MATERIALS	91	102	89	109	100	93	91	92	94	83	106	-.30
BEVERAGES	117	118	79	103	147	178	224	183	238	172	141	6.92
FISHERY PRODUCTS	109	90	97	113	160	132	171	195	242	122		
FOREST PRODUCTS	81	122	81	97	110	90	154	170	268	268	344	15.07
FAR EAST DEVELOPING												
AGRICULTURAL PRODUCTS	66	98	94	107	133	135	167	191	188	163	164	9.52
FOOD	50	100	101	98	116	115	149	172	188	168	153	10.40
FEED	76	80	85	135	148	162	187	216	216	224	197	12.38
RAW MATERIALS	94	106	83	112	122	141	179	204	178	135	164	7.24
BEVERAGES	67	79	95	126	244	202	212	239	201	177	200	11.62
FISHERY PRODUCTS	68	71	100	129	172	190	250	232	265	196		
FOREST PRODUCTS	101	99	75	125	136	148	241	237	180	177	184	9.28
ASIAN CENT PLANNED ECON												
AGRICULTURAL PRODUCTS	80	105	105	90	87	105	119	135	126	122	126	4.22
FOOD	73	106	109	85	75	95	105	125	118	108	108	3.15
FEED	95	79	89	132	114	83	196	799	1539	1565	1961	43.56
RAW MATERIALS	121	103	89	109	119	126	150	140	108	130	149	3.04
BEVERAGES	75	93	96	110	207	236	270	268	227	255	229	13.80
FISHERY PRODUCTS	73	47	91	162	186	219	261	139	149	59		
FOREST PRODUCTS	111	90	91	119	132	174	213	201	211	178	192	9.04

ANNEX TABLE 8. INDICES OF VOLUME OF EXPORTS OF AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
						1974-76=100						
WORLD												
AGRICULTURAL PRODUCTS	102	97	98	106	110	117	123	132	137	136	137	4.07
FOOD	100	96	98	106	113	119	126	136	142	141	141	4.61
FEED	90	92	90	118	121	146	147	164	180	187	198	9.28
RAW MATERIALS	114	101	96	103	104	109	108	112	108	107	108	.50
BEVERAGES	103	95	100	105	95	103	115	114	117	120	123	2.44
FISHERY PRODUCTS	99	94	99	107	113	121	130	129	135	91		
FOREST PRODUCTS	110	108	88	104	108	115	123	124	119	115	126	2.14
DEVELOPED COUNTRIES												
AGRICULTURAL PRODUCTS	101	96	98	105	111	122	129	142	146	143	142	4.66
FOOD	100	95	99	106	111	123	129	144	149	146	144	5.17
FEED	101	103	88	109	104	139	148	165	171	180	197	8.25
RAW MATERIALS	112	103	95	103	112	113	118	123	117	117	114	1.48
BEVERAGES	91	94	99	108	115	111	132	130	137	139	144	5.00
FISHERY PRODUCTS	103	95	98	107	111	121	128	132	139	97		
FOREST PRODUCTS	108	109	88	104	107	114	123	125	121	116	128	2.37
WESTERN EUROPE												
AGRICULTURAL PRODUCTS	94	96	99	105	108	118	131	141	151	150	156	5.96
FOOD	94	97	99	104	108	119	131	143	154	151	156	6.07
FEED	97	106	89	106	102	139	152	160	194	229	249	10.90
RAW MATERIALS	96	99	97	104	94	107	111	110	108	111	120	1.97
BEVERAGES	92	92	99	109	112	109	132	127	137	139	145	4.99
FISHERY PRODUCTS	101	94	98	108	111	114	124	127	137	66		
FOREST PRODUCTS	115	114	84	103	105	117	128	127	125	122	135	2.70
USSR AND EASTERN EUROPE												
AGRICULTURAL PRODUCTS	99	107	98	95	108	96	99	100	101	101	96	-.23
FOOD	102	112	97	91	105	93	97	96	97	96	92	-.99
FEED	62	79	79	142	129	119	112	96	63	74	57	-2.03
RAW MATERIALS	93	93	100	107	115	103	99	104	107	112	95	.70
BEVERAGES	84	97	101	102	117	117	126	128	129	132	142	4.75
FISHERY PRODUCTS	77	86	109	106	94	91	96	99	86	68		
FOREST PRODUCTS	101	98	98	104	107	110	102	100	97	97	100	-.16
NORTH AMERICA DEVELOPED												
AGRICULTURAL PRODUCTS	108	95	98	107	112	133	138	156	157	152	147	5.42
FOOD	107	91	99	110	112	133	138	156	161	156	150	5.80
FEED	106	103	87	110	104	141	146	175	164	157	174	6.89
RAW MATERIALS	118	117	93	90	109	128	131	146	124	124	115	1.96
BEVERAGES	93	110	86	104	155	122	154	178	168	154	134	5.86
FISHERY PRODUCTS	116	92	97	110	144	181	181	185	198	197		
FOREST PRODUCTS	104	106	89	105	109	113	122	129.	122	114	128	2.55
OCEANIA DEVELOPED												
AGRICULTURAL PRODUCTS	108	91	97	112	124	121	116	137	126	126	121	2.78
FOOD	100	90	99	110	123	129	115	148	129	131	123	3.52
FEED	115	74	92	134	159	152	170	78	95	118	116	-.93
RAW MATERIALS	126	92	92	117	127	103	117	112	117	113	117	-.96
BEVERAGES	84	99	99	102	89	87	90	105	125	126	157	4.52
FISHERY PRODUCTS	111	102	102	97	116	123	156	199	209	248		
FOREST PRODUCTS	95	98	91	111	135	139	158	187	181	155	156	7.14

ANNEX TABLE 3. INDICES OF VOLUME OF EXPORTS OF AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
	1974-76=100											
DEVELOPING COUNTRIES												
AGRICULTURAL PRODUCTS	104	97	97	106	109	110	114	114	120	123	127	2.56
FOOD	101	99	95	106	117	112	118	117	126	129	134	3.24
FEED	75	78	93	129	141	154	145	162	192	196	200	10.74
RAW MATERIALS	115	99	97	104	96	105	99	100	100	97	103	-.55
BEVERAGES	109	96	101	103	85	99	107	107	107	111	113	1.16
FISHERY PRODUCTS	92	93	99	108	118	121	133	123	129	80		
FOREST PRODUCTS	121	100	89	111	114	121	127	122	110	105	112	.70
AFRICA DEVELOPING												
AGRICULTURAL PRODUCTS	112	104	95	101	88	88	87	87	88	90	89	-2.06
FOOD	112	104	95	101	91	87	83	86	85	86	89	-2.35
FEED	115	92	95	113	106	86	103	72	55	72	83	-4.61
RAW MATERIALS	118	106	90	103	89	94	95	105	107	94	91	-1.07
BEVERAGES	110	103	97	101	82	87	92	82	87	95	88	-1.84
FISHERY PRODUCTS	112	106	95	99	97	100	98	117	142	55		
FOREST PRODUCTS	133	111	85	104	103	102	102	97	81	82	83	-3.46
LATIN AMERICA												
AGRICULTURAL PRODUCTS	102	98	98	104	116	120	124	119	129	127	139	3.43
FOOD	101	101	96	103	126	121	127	117	131	127	142	3.54
FEED	64	70	96	133	165	171	165	193	238	229	262	14.81
RAW MATERIALS	109	97	106	97	103	132	108	106	105	97	92	-.58
BEVERAGES	113	92	104	103	79	100	112	114	109	114	124	1.62
FISHERY PRODUCTS	77	94	103	103	113	124	150	143	147	76		
FOREST PRODUCTS	127	109	92	99	120	145	193	215	219	199	239	9.74
NEAR EAST DEVELOPING												
AGRICULTURAL PRODUCTS	128	97	93	111	97	99	93	94	110	118	126	.78
FOOD	121	97	88	115	118	116	112	117	152	169	168	5.09
FEED	142	105	107	88	56	50	39	45	28	27	31	-15.73
RAW MATERIALS	132	96	96	108	83	86	80	79	79	62	97	-3.08
BEVERAGES	166	124	76	100	102	118	150	130	183	147	136	3.00
FISHERY PRODUCTS	128	120	87	93	107	90	101	109	111	62		
FOREST PRODUCTS	94	123	84	93	96	81	139	123	175	181	220	8.45
FAR EAST DEVELOPING												
AGRICULTURAL PRODUCTS	91	90	95	115	119	115	125	133	139	147	141	5.23
FOOD	83	85	95	120	131	118	137	147	154	172	161	7.60
FEED	77	84	86	130	124	154	137	142	156	176	132	7.30
RAW MATERIALS	109	100	95	104	100	103	104	109	109	102	112	.69
BEVERAGES	92	91	100	108	106	110	113	124	133	124	122	3.52
FISHERY PRODUCTS	87	86	100	113	132	137	140	131	137	102		
FOREST PRODUCTS	117	97	88	115	116	119	121	111	95	91	93	-1.07
ASIAN CENT PLANNED ECON												
AGRICULTURAL PRODUCTS	115	106	99	95	90	96	101	103	92	100	107	-.47
FOOD	117	109	101	90	83	89	94	100	85	88	93	-1.98
FEED	96	76	90	132	95	85	155	503	1043	1099	1568	37.54
RAW MATERIALS	110	94	91	115	117	117	118	98	95	124	143	2.04
BEVERAGES	85	95	97	108	132	140	158	157	132	158	142	6.01
FISHERY PRODUCTS	121	94	94	112	111	90	105	58	61	40		
FOREST PRODUCTS	117	81	107	112	113	142	123	107	112	105	109	.75

ANNEX TABLE 9. INDICES OF VALUE OF IMPORTS OF AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
	1974-76=100											
WORLD												
AGRICULTURAL PRODUCTS	74	94	101	105	119	133	157	181	181	164	159	8.73
FOOD	69	94	105	101	109	126	151	178	184	165	157	9.02
FEED	98	96	87	117	149	157	190	216	243	228	252	12.26
RAW MATERIALS	68	104	90	105	119	130	148	163	151	135	137	5.51
BEVERAGES	78	82	90	127	195	186	208	219	176	176	178	9.81
FISHERY PRODUCTS	81	92	93	116	135	163	202	209	215	160		
FOREST PRODUCTS	78	103	90	108	121	134	172	193	174	168	165	8.77
DEVELOPED COUNTRIES												
AGRICULTURAL PRODUCTS	77	93	100	107	121	133	156	172	165	151	148	7.42
FOOD	73	92	105	103	109	126	149	166	165	149	142	7.45
FEED	101	96	87	117	145	153	186	210	234	217	240	11.49
RAW MATERIALS	91	105	90	105	115	124	141	149	136	123	128	4.15
BEVERAGES	79	82	90	128	197	186	208	220	173	175	176	9.63
FISHERY PRODUCTS	83	93	92	116	136	162	202	203	209	169		
FOREST PRODUCTS	80	103	89	107	117	131	169	187	163	158	155	7.85
WESTERN EUROPE												
AGRICULTURAL PRODUCTS	81	94	100	106	125	139	161	173	155	149	143	6.83
FOOD	77	94	105	102	114	133	153	165	149	144	134	6.36
FEED	100	93	87	120	147	163	199	225	243	234	252	12.51
RAW MATERIALS	92	105	88	107	116	129	143	150	132	122	124	3.91
BEVERAGES	82	84	90	126	197	186	214	225	177	176	177	9.61
FISHERY PRODUCTS	85	97	95	108	126	154	192	222	200	105		
FOREST PRODUCTS	76	105	88	108	116	125	164	192	167	156	150	7.99
USSR AND EASTERN EUROPE												
AGRICULTURAL PRODUCTS	64	77	107	116	116	127	160	196	220	188	177	11.67
FOOD	57	67	112	122	110	129	168	212	251	210	187	14.08
FEED	98	105	93	102	129	122	144	167	219	181	213	9.21
RAW MATERIALS	81	108	97	95	111	108	130	144	130	119	133	4.39
BEVERAGES	65	81	100	119	174	157	169	198	162	159	161	9.23
FISHERY PRODUCTS	70	95	97	108	113	114	123	127	109	51		
FOREST PRODUCTS	62	85	113	102	108	109	113	138	140	131	126	6.15
NORTH AMERICA DEVELOPED												
AGRICULTURAL PRODUCTS	80	100	93	107	125	135	152	160	151	133	140	5.98
FOOD	79	108	97	95	99	111	130	140	143	119	126	4.57
FEED	93	93	88	118	133	144	170	152	167	149	177	7.27
RAW MATERIALS	76	98	87	115	120	132	161	156	157	123	143	6.32
BEVERAGES	82	81	85	134	196	198	207	214	167	174	173	9.28
FISHERY PRODUCTS	86	94	87	119	132	140	169	168	189	198		
FOREST PRODUCTS	88	95	91	113	131	165	177	165	171	174	196	8.90
OCEANIA DEVELOPED												
AGRICULTURAL PRODUCTS	57	99	106	95	121	139	136	162	157	165	138	8.37
FOOD	47	90	117	93	106	127	130	146	151	179	140	9.63
FEED	54	171	102	26	47	207	64	111	210	87	370	11.80
RAW MATERIALS	67	121	84	95	97	109	112	139	133	116	95	3.55
BEVERAGES	73	88	107	105	202	215	195	247	207	201	187	11.16
FISHERY PRODUCTS	73	109	99	93	127	135	149	182	209	216		
FOREST PRODUCTS	66	103	104	93	117	113	137	167	177	195	140	8.76

ANNEX TABLE 9. INDICES OF VALUE OF IMPORTS OF AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
	1974-76=100											
DEVELOPING COUNTRIES												
AGRICULTURAL PRODUCTS	62	99	104	98	114	133	161	211	232	205	197	12.60
FOOD	60	99	106	95	107	127	156	210	235	207	199	12.88
FEED	59	94	88	118	198	210	238	296	356	355	394	21.09
RAW MATERIALS	75	100	92	108	136	152	174	215	210	183	171	10.12
BEVERAGES	65	82	96	123	175	189	204	203	200	186	192	11.61
FISHERY PRODUCTS	69	86	99	115	127	170	204	251	260	90		
FOREST PRODUCTS	65	99	91	110	140	154	186	230	242	230	226	13.83
AFRICA DEVELOPING												
AGRICULTURAL PRODUCTS	57	91	111	98	123	145	164	214	232	214	191	13.16
FOOD	56	92	112	96	117	143	164	220	241	222	195	13.63
FEED	63	94	95	111	221	267	376	453	591	519	391	25.30
RAW MATERIALS	60	101	102	97	122	131	152	155	158	172	169	9.32
BEVERAGES	57	71	101	128	183	179	168	189	183	147	161	10.09
FISHERY PRODUCTS	58	78	95	127	138	194	240	342	337	201		
FOREST PRODUCTS	55	105	96	99	126	124	141	162	181	183	185	10.77
LATIN AMERICA												
AGRICULTURAL PRODUCTS	66	105	97	99	106	130	160	227	230	179	185	11.51
FOOD	64	104	98	98	102	127	152	229	234	179	186	11.70
FEED	77	106	85	109	190	184	229	303	345	336	387	18.95
RAW MATERIALS	74	119	86	95	118	134	173	196	179	149	144	7.83
BEVERAGES	73	90	89	121	149	147	281	206	192	161	141	9.15
FISHERY PRODUCTS	74	90	110	100	110	148	191	222	208	42		
FOREST PRODUCTS	63	108	92	100	115	115	136	200	212	203	168	11.00
NEAR EAST DEVELOPING												
AGRICULTURAL PRODUCTS	40	91	111	98	118	139	167	229	281	261	249	18.05
FOOD	38	91	113	96	113	132	167	235	289	267	252	18.63
FEED	50	90	66	144	250	283	279	315	448	447	519	26.10
RAW MATERIALS	50	84	106	111	140	133	135	135	186	166	193	11.11
BEVERAGES	63	88	95	117	184	249	201	228	220	228	226	13.61
FISHERY PRODUCTS	46	83	90	127	199	268	256	403	490	33		
FOREST PRODUCTS	49	80	101	119	173	167	173	228	259	250	247	16.51
FAR EAST DEVELOPING												
AGRICULTURAL PRODUCTS	69	92	104	104	109	121	141	171	189	164	170	9.41
FOOD	69	94	107	99	97	113	134	165	185	158	164	8.91
FEED	49	89	99	112	178	182	222	267	266	314	357	20.08
RAW MATERIALS	68	85	95	120	151	150	162	187	197	170	175	10.18
BEVERAGES	71	76	96	128	173	157	179	183	205	212	251	13.02
FISHERY PRODUCTS	80	90	98	113	113	141	170	196	214	46		
FOREST PRODUCTS	80	101	85	114	135	171	239	245	246	222	224	13.14
ASIAN CENT PLANNED ECON												
AGRICULTURAL PRODUCTS	86	128	90	82	120	144	152	238	242	227	191	11.38
FOOD	80	131	93	76	118	130	164	210	231	225	197	11.35
FEED	31	46	101	152	217	298	106	231	412	302	275	23.06
RAW MATERIALS	103	121	82	96	124	178	214	315	269	229	170	11.05
BEVERAGES	65	82	55	163	362	243	302	302	343	466	447	23.44
FISHERY PRODUCTS	59	61	107	132	158	254	320	191	197	204		
FOREST PRODUCTS	81	104	78	118	182	249	282	406	394	378	448	21.62

ANNEX TABLE 10. INDICES OF VOLUME OF IMPORTS OF AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
	1974-76=100											
WORLD												
AGRICULTURAL PRODUCTS	100	96	98	106	108	116	125	130	134	135	135	4.01
FOOD	95	96	98	106	111	119	128	134	139	140	140	4.57
FEED	91	91	93	116	122	144	149	155	169	177	179	8.14
RAW MATERIALS	108	99	98	103	101	108	109	112	108	106	107	.70
BEVERAGES	101	95	101	104	96	102	115	113	116	118	119	2.27
FISHERY PRODUCTS	96	95	98	107	108	115	126	126	130	97		
FOREST PRODUCTS	110	108	88	104	109	117	125	125	119	117	125	2.16
DEVELOPED COUNTRIES												
AGRICULTURAL PRODUCTS	102	95	98	107	104	109	115	115	118	120	118	2.27
FOOD	101	95	98	107	106	110	116	117	120	122	119	2.51
FEED	94	91	93	116	120	141	147	151	164	169	168	7.38
RAW MATERIALS	110	99	98	103	97	102	102	100	96	96	100	-.61
BEVERAGES	102	95	102	103	94	101	114	113	115	117	118	2.08
FISHERY PRODUCTS	97	96	97	107	108	115	126	124	129	103		
FOREST PRODUCTS	113	109	87	104	106	115	123	121	113	111	119	1.45
WESTERN EUROPE												
AGRICULTURAL PRODUCTS	101	97	98	105	104	110	114	114	112	118	116	1.95
FOOD	99	97	99	104	105	110	113	113	110	116	113	1.78
FEED	94	89	92	119	122	151	157	161	177	193	188	8.87
RAW MATERIALS	112	97	96	107	100	106	104	101	93	93	96	-.99
BEVERAGES	104	96	101	103	96	100	117	112	117	118	120	2.14
FISHERY PRODUCTS	97	96	99	105	101	108	121	128	124	69		
FOREST PRODUCTS	114	110	85	105	106	113	126	124	119	117	124	2.00
USSR AND EASTERN EUROPE												
AGRICULTURAL PRODUCTS	102	84	102	114	105	111	125	137	152	147	136	5.08
FOOD	106	77	102	121	109	118	136	149	173	168	147	6.56
FEED	82	97	100	103	106	108	115	122	134	103	108	2.66
RAW MATERIALS	98	101	103	96	95	96	101	105	100	100	116	.84
BEVERAGES	83	92	106	102	98	89	97	111	109	103	101	1.54
FISHERY PRODUCTS	68	92	105	103	92	102	115	115	78	36		
FOREST PRODUCTS	88	95	106	100	102	101	97	111	109	102	102	1.18
NORTH AMERICA DEVELOPED												
AGRICULTURAL PRODUCTS	105	101	94	105	101	104	107	101	106	100	104	.22
FOOD	106	103	91	105	106	101	104	96	103	94	100	-.47
FEED	86	94	93	113	109	128	135	116	117	121	112	3.04
RAW MATERIALS	99	97	98	105	102	105	109	100	105	94	102	.16
BEVERAGES	106	96	101	103	89	109	115	113	112	117	116	1.86
FISHERY PRODUCTS	103	101	92	106	106	105	108	101	108	112		
FOREST PRODUCTS	115	106	88	106	113	129	128	117	114	105	128	1.40
OCEANIA DEVELOPED												
AGRICULTURAL PRODUCTS	86	104	101	96	96	94	91	97	94	118	107	1.27
FOOD	79	98	107	95	100	98	96	99	96	139	122	3.00
FEED	85	156	117	27	48	213	53	87	140	53	339	5.15
RAW MATERIALS	95	118	85	97	83	66	76	82	80	78	70	-3.39
BEVERAGES	92	97	104	99	107	90	102	111	107	119	109	1.73
FISHERY PRODUCTS	90	110	96	94	111	107	100	116	119	140		
FOREST PRODUCTS	95	116	99	84	103	88	99	104	108	117	90	.34

ANNEX TABLE 10. INDICES OF VOLUME OF IMPORTS OF AGRICULTURAL, FISHERY AND FOREST PRODUCTS

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	ANNUAL RATE OF CHANGE 1973-83 PERCENT
	1974-76=100											
DEVELOPING COUNTRIES												
AGRICULTURAL PRODUCTS	93	99	99	102	121	139	154	175	184	182	188	8.63
FOOD	93	99	99	102	122	141	159	180	190	188	196	9.17
FEED	56	87	94	119	153	176	179	199	226	278	308	16.66
RAW MATERIALS	103	98	99	102	113	129	134	155	152	146	136	4.92
BEVERAGES	86	94	96	110	112	112	118	113	127	126	134	4.11
FISHERY PRODUCTS	88	89	101	110	107	117	128	137	139	52		
FOREST PRODUCTS	93	104	92	104	124	130	138	151	156	152	157	6.20
AFRICA DEVELOPING												
AGRICULTURAL PRODUCTS	88	97	100	104	134	155	160	181	194	207	204	10.06
FOOD	90	97	99	103	137	163	170	194	207	222	216	10.86
FEED	66	96	101	103	173	185	214	227	308	311	306	17.25
RAW MATERIALS	79	99	105	96	101	105	110	106	111	135	135	4.03
BEVERAGES	71	82	102	116	130	103	95	98	121	101	119	3.02
FISHERY PRODUCTS	81	82	91	127	125	132	145	168	162	84		
FOREST PRODUCTS	87	113	91	96	118	108	115	119	131	131	133	3.92
LATIN AMERICA												
AGRICULTURAL PRODUCTS	92	105	94	101	113	145	157	197	192	161	179	8.33
FOOD	92	105	94	101	115	150	160	206	199	164	185	8.82
FEED	65	100	91	110	139	151	161	196	211	253	260	14.14
RAW MATERIALS	105	111	95	94	108	113	128	139	141	129	128	3.43
BEVERAGES	95	106	94	100	85	97	140	114	123	117	111	2.49
FISHERY PRODUCTS	97	88	113	99	95	122	154	146	150	31		
FOREST PRODUCTS	94	118	92	90	100	96	105	137	133	119	109	2.51
NEAR EAST DEVELOPING												
AGRICULTURAL PRODUCTS	67	91	104	104	131	140	167	184	212	219	231	12.74
FOOD	67	91	105	104	133	142	172	193	220	227	238	13.30
FEED	58	85	70	145	219	271	259	242	344	413	499	23.33
RAW MATERIALS	62	83	111	106	106	93	99	97	138	131	154	6.34
BEVERAGES	85	99	93	108	107	135	123	123	129	141	137	4.83
FISHERY PRODUCTS	61	79	91	129	190	167	160	220	267	22		
FOREST PRODUCTS	75	87	98	115	150	142	148	168	180	191	188	9.83
FAR EAST DEVELOPING												
AGRICULTURAL PRODUCTS	100	92	101	107	108	118	128	140	145	142	155	5.33
FOOD	102	93	101	106	104	116	128	141	146	142	156	5.29
FEED	51	82	104	115	133	152	167	184	178	247	281	15.40
RAW MATERIALS	94	84	103	112	127	128	127	133	133	132	138	4.47
BEVERAGES	103	90	96	114	118	106	121	119	143	157	179	5.86
FISHERY PRODUCTS	97	93	102	104	87	92	94	97	96	37		
FOREST PRODUCTS	107	99	87	113	129	156	167	156	164	154	166	6.33
ASIAN CENT PLANNED ECON												
AGRICULTURAL PRODUCTS	134	124	90	86	129	152	180	198	199	206	179	7.41
FOOD	134	126	90	84	139	150	184	185	197	214	195	7.74
FEED	22	42	109	149	179	223	77	141	235	184	168	17.22
RAW MATERIALS	137	119	89	92	100	158	167	235	204	183	131	5.97
BEVERAGES	67	83	53	165	163	150	217	223	234	395	398	20.51
FISHERY PRODUCTS	38	84	111	104	131	141	155	140	145	150		
FOREST PRODUCTS	92	96	93	110	136	164	164	188	191	200	256	10.95

ANNEX TABLE 11. THE IMPORTANCE OF AGRICULTURE IN THE ECONOMY

COUNTRY	AGRICULTURAL GDP AS % TOTAL GDP 1982	AGRIC. POPULATION AS % TOTAL POPULATION 1983	AGRIC. EXPORTS AS % TOTAL EXPORTS 1983	AGRIC. IMPORTS AS % TOTAL IMPORTS 1983	SHARE OF TOTAL IMPORTS FINANCED BY AGR. EXPORTS % 1983
ALGERIA	7	46		20	
ANGOLA	26	56	4	15	5
BENIN	41	45	73	12	3
BOTSWANA	14	78	15	14	14
BRIT. INDIAN OCEAN TERRIT	35	46			
BURKINA FASO	34	79	83	15	17
BURUNDI	45	82	98	13	38
CAMEROON	29	79	39	11	30
CAPE VERDE	18	54	19	29	1
CENTRAL AFRICAN REPUBLIC	40	86	51	31	60
CHAD	60	81	63	10	68
COMOROS	42	63	83	30	47
CONGO	11	32	1	14	2
DJIBOUTI	3	46		27	
EGYPT	18	49	23	35	7
EQUATORIAL GUINEA	44	73			
ETHIOPIA	45	77	88	12	43
GABON	8	75		15	1
GAMBIA	29	77	54	31	23
GHANA	46	49	42	16	33
GUINEA	40	79	9	19	13
GUINEA-BISSAU	46	80	43	26	13
IVORY COAST	24	78	59	21	64
KENYA	27	76	57	10	42
LESOTHO	22	81	26	16	3
LIBERIA	24	68	18	24	20
LIBYA	3	12		16	
MADAGASCAR	48	81	87	17	56
MALAWI	41	82	86	6	71
MALI	27	85	77	25	56
MAURITANIA	16	81	14	42	18
MAURITIUS	17	27	57	28	56
MOROCCO	16	49	18	20	10
MOZAMBIQUE	39	61	18	10	10
NAMIBIA	12	46			
NIGER	44	86	21	12	17
NIGERIA	24	50	4	19	3
REUNION	8	26	60	21	8
RWANDA	51	88		14	35
ST. HELENA	100			22	
SAO TOME AND PRINCIPE	73	51	28	22	31
SENEGAL	31	73	29	27	17
SEYCHELLES	7	46	9	20	2
SIERRA LEONE	22	63	39	27	15
SOMALIA	31	78	93	55	90
SOUTH AFRICA	6	27	7	6	8
SPANISH NORTH AFRICA	22	15			
SUDAN	22	75	98	16	45
SWAZILAND	24	70	44	8	26
TANZANIA	34	79	71	10	33
TOGO	27	66	24	30	11
TUNISIA	13	38	6	17	4
UGANDA	75	79	90	4	100
WESTERN SAHARA	22	37			
ZAIRE	32	73	36	31	41
ZAMBIA	13	65	1	5	1
ZIMBABWE	14	57	42	4	36
ANTIGUA AND BARBUDA	5	8	2	13	
BAHAMAS	3	8		1	
BARBADOS	5	15	5	15	5
BELIZE	40	27	52	20	35
BERMUDA	10	6		18	
BRITISH VIRGIN ISLANDS	9	8	1	9	
CANADA	5	4	11	7	13
CAYMAN ISLANDS	21	6		5	
COSTA RICA	19	33	70	13	70
CUBA		21		14	77
DOMINICA	49	32	50	21	26
DOMINICAN REPUBLIC	22	54	63	15	39
EL SALVADOR	23	50	72	19	57
GREENLAND	33	6	1	21	1
GRENADA	19	32	69	23	24
GUADELOUPE	8	14	78	22	11
GUATEMALA	25	53	63	12	67
HAITI	33	64	43	32	22
HONDURAS	24	61	64	11	63
JAMAICA	7	18	18	16	9
MARTINIQUE	10	13	78	20	12
MEXICO	7	33	7	25	19
MONTSERRAT	20	6		13	
NETHERLANDS ANTILLES	16	8		3	
NICARAGUA	20	39	84	11	40
PANAMA	9	32	51	6	12

ANNEX TABLE 11. THE IMPORTANCE OF AGRICULTURE IN THE ECONOMY

COUNTRY	AGRICULTURAL GDP AS % TOTAL GDP 1982	AGRIC. POPULATION AS % TOTAL POPULATION 1983	AGRIC. EXPORTS AS % TOTAL EXPORTS 1983	AGRIC. IMPORTS AS % TOTAL IMPORTS 1983	SHARE OF TOTAL IMPORTS FINANCED BY AGR. EXPORTS % 1983
PUERTO RICO	2	2			
ST CHRISTOPHER AND NEVIS	21	8	49	19	20
SAINT LUCIA	20	32	60	21	23
ST.PIERRE AND MIQUELON	24	6		14	
ST VINCENT GRENADINES	22	32	92	29	41
TRINIDAD AND TOBAGO	2	15	3	17	2
TURKS AND CAICOS IS.	20	8			
UNITED STATES	2	2	19	7	15
US VIRGIN ISLANDS	64	8			
ARGENTINA	12	12	78	7	144
BOLIVIA	19	48	6	28	10
BRAZIL	10	36	41	9	48
CHILE	5	17	9	17	12
COLOMBIA	25	25	67	12	42
ECUADOR	15	43	17	19	26
FRENCH GUIANA	42	21	8	16	1
GUYANA	31	20	58	15	47
PARAGUAY	33	48	64	24	49
PERU	14	37	7	31	10
SURINAME	9	16	14	12	11
URUGUAY	10	11	65	12	96
VENEZUELA	6	16	1	16	1
AFGHANISTAN		77	33	16	32
BAHRAIN	1	60	1	6	1
BANGLADESH	45	83	22	26	10
BHUTAN	92	93			
BRUNEI	1	7		14	
BURMA	48	50	61	9	86
CHINA (EXC TAIWAN)	26	57	14	25	17
CYPRUS	10	33	38	17	15
EAST TIMOR	92	57			
GAZA STRIP (PALESTINE)		3	42	4	23
HONG KONG	1	2	5	14	5
INDIA	30	61	28	14	18
INDONESIA	25	56	9	9	12
IRAN		35	1	27	1
IRAQ		38	1	18	
ISRAEL	4	6	15	10	9
JAPAN	4	9	1	13	1
JORDAN	5	24	25	19	5
KAMPUCHEA, DEMOCRATIC		72	31	14	3
KOREA DPR		43	9	11	6
KOREA REP	17	35	2	12	2
KUWAIT		2	1	13	1
LAOS		72	10	13	5
LEBANON		8	19	19	6
MACAU	1	3	1	19	1
MALAYSIA	24	45	25	11	27
MALDIVES	105	79		20	
MONGOLIA		45	30	10	24
NEPAL	66	92	9	13	7
OMAN	2	60	1	15	1
PAKISTAN	26	52	29	15	15
PHILIPPINES	23	44	28	8	19
QATAR		60		11	
SAUDI ARABIA KINGDOM OF	1	58		11	
SINGAPORE	1	2	6	7	5
SRI LANKA	24	52	59	17	35
SYRIA	18	46	12	21	6
THAILAND	21	74	52	6	33
TURKEY	21	50	47	3	29
UNITED ARAB EMIRATES	1	60	1	9	1
VIET NAM		69	29	14	13
YEMEN ARAB REPUBLIC	27	74	2	26	
YEMEN DEMOCRATIC	10	57	2	12	1
ALBANIA		58			
ANDORRA	45	21			
AUSTRIA	4	8	5	6	4
BELGIUM-LUXEMBOURG	3	3	11	13	10
BULGARIA		30	10	6	10
CZECHOSLOVAKIA		9	3	11	3
DENMARK	4	6	29	12	28
FAEROE ISLANDS	43	4	3	10	2
FINLAND	10	12	5	7	5
FRANCE	5	7	17	12	15
GERMAN DEMOCRATIC REP.		9	2	9	2
GERMANY, FED. REP. OF	3	3	6	14	6
GIBRALTAR	46	21			
GREECE	14	35	35	14	16

ANNEX TABLE 11. THE IMPORTANCE OF AGRICULTURE IN THE ECONOMY

COUNTRY	AGRICULTURAL GDP AS % TOTAL GDP 1982	AGRIC. POPULATION AS % TOTAL POPULATION 1983	AGRIC. EXPORTS AS % TOTAL EXPORTS 1983	AGRIC. IMPORTS AS % TOTAL IMPORTS 1983	SHARE OF TOTAL IMPORTS FINANCED BY AGR. EXPORTS % 1983
HOLY SEE		21			
HUNGARY		15	23	9	24
ICELAND	21	10	3	12	3
IRELAND	13	19	28	14	26
ITALY	7	9	7	16	6
LIECHTENSTEIN	50	2			
MALTA	4	4	4	15	2
MONACO	44	2			
NETHERLANDS	6	5	22	16	24
NORWAY	5	7	2	7	2
POLAND		28	7	13	8
PORTUGAL	11	24	8	19	4
ROMANIA		45	7	9	9
SAN MARINO	43	21			
SPAIN	9	15	15	13	10
SWEDEN	3	5	3	7	3
SWITZERLAND	7	5	4	9	3
UNITED KINGDOM	2	2	7	13	7
YUGOSLAVIA	15	34	11	9	9
AMERICAN SAMOA	58	55		14	
AUSTRALIA	5	5	34	5	34
CHRISTMAS ISLAND (AUST.)	56	55			
COCOS (KEELING) ISLANDS	63	55			
COOK ISLANDS	56	55	43	18	6
FIJI	27	38	55	16	27
FRENCH POLYNESIA	7	55	12	17	1
GUAM	77	55		4	
JOHNSTON ISLAND	63	55			
KIRIBATI	58	55	6	26	10
MIDWAY ISLANDS	56	55			
NAURU	57	55		17	
NEW CALEDONIA	3	59	1	24	
NEW ZEALAND	12	9	64	6	71
NIUE	56	55	19	21	4
NORFOLK ISLAND	56	59	23	9	3
PACIFIC IS. (TRUST TR.)	58	55	38	26	13
PAPUA NEW GUINEA	41	81	32	16	26
SAMOA	56	55	69	19	28
SOLOMON ISLANDS	63	59	23	15	26
TOKELAU	60	55			
TONGA	55	55	77	24	10
TUVALU	60	55		15	
VANUATU	55	59	60	9	28
WAKE ISLAND	71	55			
WALLIS AND FUTUNA IS.	60	55		13	
USSR		15	3	23	3

ANNEX TABLE 12A. RESOURCES AND THEIR USE IN AGRICULTURE

COUNTRY	ARABLE LAND AS % OF TOTAL LAND 1982	IRRIGATED LAND AS % OF ARABLE LAND 1982	FOREST LAND AS % OF TOTAL LAND 1982	AGRIC.POPULATION PER HA OF ARABLE LAND 1982	AGRIC.LAB.FORCE AS % OF AGRIC.POPULATION 1983
ALGERIA	3	5	2	1.2	22
ANGOLA	3		43	1.3	26
BENIN	16	1	35	.9	45
BOTSWANA	2		2	.6	46
BRIT. INDIAN OCEAN TERRIT					30
BURKINA FASO	10		26	2.0	52
BURUNDI	51		2	2.7	47
CAMEROON	15		54	1.0	45
CAPE VERDE	10	5		4.2	32
CENTRAL AFRICAN REPUBLIC	3		64	1.1	53
CHAD	3		16	1.2	38
COMOROS	42		16	2.9	36
CONGO	2		62	.8	34
DJIBOUTI					30
EGYPT	2	100		8.7	28
EQUATORIAL GUINEA	8		61	1.2	29
ETHIOPIA	13		24	1.9	41
GABON	2		78	1.8	47
GAMBIA	16	21	20	2.9	48
GHANA	12	1	38	2.2	36
GUINEA	6	1	43	2.5	44
GUINEA-BISSAU	10		38	2.4	30
IVORY COAST	12	1	28	1.7	49
KENYA	4	2	4	5.8	37
LESOTHO	10			3.9	51
LIBERIA	4	1	39	3.7	36
LIBYA	1	11		.2	25
MADAGASCAR	5	16	23	2.5	48
MALAWI	25		45	2.2	44
MALI	2	6	7	3.1	53
MAURITANIA		4	15	6.8	30
MAURITIUS	58	15	31	2.5	37
MOROCCO	19	6	12	1.3	27
MOZAMBIQUE	4	2	19	2.6	37
NAMIBIA	1	1	13	1.0	31
NIGER	3	1	2	1.3	31
NIGERIA	33		16	1.5	37
REUNION	22	9	35	2.6	32
RWANDA	41		11	4.7	52
ST. HELENA	6		3		
SAO TOME AND PRINCIPE	38			1.3	25
SENEGAL	27	3	28	.6	41
SEYCHELLES	22		19	5.4	30
SIERRA LEONE	25		29	1.2	37
SOMALIA	2	15	14	3.6	38
SOUTH AFRICA	11	8	4	.6	36
SPANISH NORTH AFRICA					36
SUDAN	5	15	20	1.2	31
SWAZILAND	8	22	6	3.0	45
TANZANIA	6	1	47	3.1	40
TOGO	26	1	29	1.3	40
TUNISIA	32	4	4	.5	24
UGANDA	29		30	1.5	40
WESTERN SAHARA				26.5	24
ZAIRE	3		78	3.5	41
ZAMBIA	7		27	.8	36
ZIMBABWE	7	4	62	1.6	32
ANTIGUA AND BARBUDA	18		16	.8	38
BAHAMAS	1		32	2.0	36
BARBADOS	77			1.2	44
BELIZE	2	4	44	.8	30
BERMUDA			20		46
BRITISH VIRGIN ISLANDS	27		7	.3	38
CANADA	5	1	35		43
CAYMAN ISLANDS			23		36
COSTA RICA	13	4	32	1.3	34
CUBA	28	31	17	.7	31
DOMINICA	23		41	1.4	33
DOMINICAN REPUBLIC	30	12	13	2.2	26
EL SALVADOR	35	15	6	3.5	31
GREENLAND					46
GRENADA	41		9	2.6	33
GUADELOUPE	22	5	40	1.2	37
GUATEMALA	16	4	40	2.3	30
HAITI	33	8	4	4.4	49
HONDURAS	16	5	35	1.4	29
JAMAICA	25	12	28	1.6	36
MARTINIQUE	18	26	26	2.3	36
MEXICO	12	22	25	1.1	29
MONTSERRAT	20		40	.5	38
NETHERLANDS ANTILLES	8			2.7	38
NICARAGUA	11	7	36	.9	31
PANAMA	8	5	54	1.2	34

ANNEX TABLE 12A. RESOURCES AND THEIR USE IN AGRICULTURE

COUNTRY	ARABLE LAND AS % OF TOTAL LAND 1982	IRRIGATED LAND AS % OF ARABLE LAND 1982	FOREST LAND AS % OF TOTAL LAND 1982	AGRIC. POPULATION PER HA OF ARABLE LAND 1982	AGRIC. LAB. FORCE AS % OF AGRIC. POPULATION 1983
PUERTO RICO	15	30	21	.7	33
ST CHRISTOPHER AND NEVIS	39		17	.3	38
SAINT LUCIA	28	6	13	2.4	33
ST. PIERRE AND MIQUELON	13		4	.1	46
ST VINCENT GRENADINES	50	6	41	1.9	33
TRINIDAD AND TOBAGO	31	13	44	1.1	39
TURKS AND CAICOS IS.	2			.7	38
UNITED STATES	21	11	31		46
US VIRGIN ISLANDS	21		6	1.2	38
ARGENTINA	13	5	22	.1	38
BOLIVIA	3	4	52	.9	33
BRAZIL	9	3	67	.6	32
CHILE	7	23	21	.4	33
COLOMBIA	5	6	50	1.2	30
ECUADOR	9	21	52	1.5	32
FRENCH GUIANA			82	4.8	36
GUYANA	3	25	83	.4	34
PARAGUAY	5	3	52	.8	32
PERU	3	34	55	2.0	28
SURINAME		67	96	1.0	26
URUGUAY	8	6	4	.2	39
VENEZUELA	4	8	39	.7	31
AFGHANISTAN	12	33	3	1.4	33
BAHRAIN	3	50		114.9	25
BANGLADESH	68	20	16	8.5	34
BHUTAN	2		70	12.9	48
BRUNEI	2		79	2.0	29
BURMA	15	10	49	1.8	39
CHINA (EXC TAIWAN)	11	44	14	5.9	46
CYPRUS	47	22	19	.5	44
EAST TIMOR	5		74	4.3	30
GAZA STRIP (PALESTINE)	45			.8	26
HONG KONG	8	38	13	15.0	47
INDIA	57	24	23	2.6	38
INDONESIA	11	28	67	4.6	34
IRAN	8	25	11	1.1	28
IRAQ	13	32	3	1.0	24
ISRAEL	21	49	6	.6	36
JAPAN	13	67	68	2.3	53
JORDAN	4	9		1.8	24
KAMPUCHEA, DEMOCRATIC	17	3	76	1.6	38
KOREA DPR	19	47	74	3.6	45
KOREA REP	22	54	66	6.5	39
KUWAIT		100		25.9	25
LAOS	4	13	55	3.3	47
LEBANON	29	29	7	.8	26
MACAU					38
MALAYSIA	13	9	67	1.5	35
MALDIVES	10		3	43.1	42
MONGOLIA	1	3	10	.6	37
NEPAL	17	10	33	6.1	47
OMAN		93		15.9	25
PAKISTAN	26	72	4	2.4	27
PHILIPPINES	38	12	41	2.0	35
QATAR				54.4	25
SAUDI ARABIA KINGDOM OF	1	35	1	5.2	25
SINGAPORE	11		5	8.3	40
SRI LANKA	34	24	37	3.7	36
SYRIA	32	10	3	.8	25
THAILAND	37	18	31	1.9	44
TURKEY	35	8	26	.9	41
UNITED ARAB EMIRATES		36		48.9	25
VIET NAM	19	28	31	6.3	45
YEMEN ARAB REPUBLIC	14	5	8	1.6	27
YEMEN DEMOCRATIC	1	34	7	5.4	25
ALBANIA	26	54	45	2.4	43
ANDORRA	2		22	7.1	36
AUSTRIA	20		40	.4	45
BELGIUM-LUXEMBOURG	25		21	.3	39
BULGARIA	38	29	35	.7	52
CZECHOSLOVAKIA	41	4	37	.3	50
DENMARK	62	15	12	.1	49
FAEROE ISLANDS	2			.6	43
FINLAND	8	3	76	.3	47
FRANCE	34	6	27	.2	43
GERMAN DEMOCRATIC REP.	47	3	28	.3	53
GERMANY, FED. REP. OF	31	4	30	.3	48
GIBRALTAR					36
GREECE	30	25	20	.9	42

ANNEX TABLE 12A. RESOURCES AND THEIR USE IN AGRICULTURE

COUNTRY	ARABLE LAND AS % OF TOTAL LAND 1982	IRRIGATED LAND AS % OF ARABLE LAND 1982	FOREST LAND AS % OF TOTAL LAND 1982	AGRIC.POPULATION PER HA OF ARABLE LAND 1982	AGRIC.LAB.FORCE AS % OF AGRIC.POPULATION 1983
HOLY SEE					36
HUNGARY	57	3	18	.3	44
ICELAND			1	3.1	43
IRELAND	14		5	.7	38
ITALY	42	24	22	.5	38
LIECHTENSTEIN	25		19	.2	46
MALTA	44	7		1.2	35
MONACO					46
NETHERLANDS	25	58	9	.8	39
NORWAY	3	10	27	.3	38
POLAND	49	1	29	.7	56
PORTUGAL	39	18	40	.7	39
ROMANIA	46	23	28	1.0	55
SAN MARINO	17			4.5	36
SPAIN	41	15	31	.3	36
SWEDEN	7	2	64	.1	39
SWITZERLAND	10	6	26	.7	50
UNITED KINGDOM	29	2	9	.2	47
YUGOSLAVIA	31	2	37	1.0	46
AMERICAN SAMOA	20		70	4.5	33
AUSTRALIA	6	4	14		42
CHRISTMAS ISLAND (AUST.)					36
COCOS (KEELING) ISLANDS					36
COOK ISLANDS	26			1.7	33
FIJI	13		65	1.1	34
FRENCH POLYNESIA	20		31	1.1	33
GUAM	22		18	5.2	36
JOHNSTON ISLAND					36
KIRIBATI	51		3	.9	36
MIDWAY ISLANDS					36
NAURU					36
NEW CALEDONIA	1		51	6.7	38
NEW ZEALAND	2	36	37	.6	40
NIUE	65		19	.1	36
NORFOLK ISLAND					38
PACIFIC IS. (TRUST TR.)	33		22	1.3	36
PAPUA NEW GUINEA	1		71	7.5	49
SAMOA	43		47	.7	33
SOLOMON ISLANDS	2		93	2.8	38
TOKELAU					36
TONGA	79		12	1.1	33
TUVALU					36
VANUATU	6		1	.8	38
WAKE ISLAND					36
WALLIS AND FUTUNA IS.	25			1.1	33
USSR	10	8	41	.2	50

ANNEX TABLE 12A RESOURCES AND THEIR USE IN AGRICULTURE

COUNTRY	AGRICULTURAL GFCF $ PER HA ARABLE LAND 1982	AGRICULTURAL GFCF $ PER CAPUT OF AGRIC.LAB.FORCE 1982	FERTILIZER USE PER HA ARAB.LAND KG/HA 1982	NOS. OF TRACTORS PER 000 HA ARABLE LAND 1982	OFFICIAL COMMITM. TO AGRICULTURE $ PER CAPUT 1982
ALGERIA			21	6	.1
ANGOLA			1	3	4.5
BENIN			2		7.6
BOTSWANA	2.8	12.6	1	2	45.1
BURKINA FASO			4		21.9
BURUNDI			1		15.1
CAMEROON			6		17.2
CAPE VERDE				1	18.1
CENTRAL AFRICAN REPUBLIC					13.9
CHAD			2		2.2
CONGO			2	1	12.1
DJIBOUTI					3.6
EGYPT	204.0	83.8	335	16	3.4
ETHIOPIA			3		1.8
GABON	48.1	106.0	1	3	18.1
GAMBIA			16		35.7
GHANA			10	1	2.5
GUINEA			2		1.2
GUINEA-BISSAU			3		20.4
IVORY COAST			9	1	16.6
KENYA	34.3	16.1	29	3	10.4
LESOTHO	42.3	22.1	15	5	15.7
LIBERIA			4	1	17.6
LIBYA	609.1	11338.4	38	8	
MADAGASCAR			5	1	7.1
MALAWI			14	1	4.2
MALI			3		24.1
MAURITANIA				1	48.9
MAURITIUS	115.9	125.3	240	3	29.2
MOROCCO			25	3	12.1
MOZAMBIQUE			13	2	7.2
NAMIBIA				4	
NIGER			1		14.4
NIGERIA			7		
REUNION			163	27	
RWANDA			1		9.2
ST. HELENA				3	
SAO TOME AND PRINCIPE				3	38.9
SENEGAL			4		36.9
SEYCHELLES			149	6	31.4
SIERRA LEONE			1		7.4
SOMALIA			1	2	6.3
SOUTH AFRICA	74.3	325.5	83	13	
SUDAN			4	1	6.0
SWAZILAND	78.3	79.6	120	21	22.9
TANZANIA			4	4	10.1
TOGO			2		2.6
TUNISIA	65.8	528.5	17	7	17.7
UGANDA					4.0
WESTERN SAHARA				6	
ZAIRE			1		1.7
ZAMBIA			19	1	15.3
ZIMBABWE	52.1	96.2	53	7	17.5
ANTIGUA AND BARBUDA				29	
BAHAMAS			122	8	1.0
BARBADOS			182	17	4.2
BELIZE			26	25	24.7
BRITISH VIRGIN ISLANDS				1	
CANADA	79.7	7616.1	44	14	
COSTA RICA	30.2	72.5	113	10	32.0
CUBA			172	20	
DOMINICA			107	5	11.4
DOMINICAN REPUBLIC			35	2	11.0
EL SALVADOR	11.0	10.6	83	5	7.3
GRENADA				2	4.6
GUADELOUPE			175	23	1.3
GUATEMALA	37.1	52.8	50	2	2.8
HAITI			5	1	5.9
HONDURAS			14	2	22.9
JAMAICA			57	11	17.6
MARTINIQUE			570	46	
MEXICO			78	7	6.3
MONTSERRAT				7	20.0
NETHERLANDS ANTILLES				15	
NICARAGUA			19	2	9.4
PANAMA			47	7	14.5
PUERTO RICO				26	
ST CHRISTOPHER AND NEVIS			171	15	
SAINT LUCIA			95	2	30.8
ST VINCENT GRENADINES			229	4	
TRINIDAD AND TOBAGO			30	16	.1
UNITED STATES	83.8	7661.7	87	24	
US VIRGIN ISLANDS			157	43	

ANNEX TABLE 12B. RESOURCES AND THEIR USE IN AGRICULTURE

COUNTRY	AGRICULTURAL GFCF $ PER HA ARABLE LAND 1982	AGRICULTURAL GFCF $ PER CAPUT OF AGRIC. LAB. FORCE 1982	FERTILIZER USE PER HA ARAB. LAND KG/HA 1982	NOS. OF TRACTORS PER 000 HA ARABLE LAND 1982	OFFICIAL COMMITM. TO AGRICULTURE $ PER CAPUT 1982
ARGENTINA			3	4	1.8
BOLIVIA			1		3.4
BRAZIL			37	5	2.8
CHILE			19	6	8.2
COLOMBIA			55	5	8.4
ECUADOR			29	3	6.8
FRENCH GUIANA			217	37	14.3
GUYANA			17	7	8.4
PARAGUAY			4	2	18.0
PERU			27	4	10.2
SURINAME			133	26	
URUGUAY			38	23	.2
VENEZUELA	132.2	576.7	41	11	
AFGHANISTAN			7		
BAHRAIN			57		
BANGLADESH			51	1	7.6
BHUTAN			1		5.3
BRUNEI				3	
BURMA			17	1	3.4
CHINA (EXC TAIWAN)			155	8	.2
CYPRUS	94.0	441.3	45	25	.3
EAST TIMOR				1	
GAZA STRIP (PALESTINE)				16	
HONG KONG				1	
INDIA	38.4	40.1	35	3	2.0
INDONESIA			78	1	5.0
IRAN	78.0	302.5	65	5	
IRAQ			15	5	
ISRAEL	414.0	1890.2	178	64	3.6
JAPAN	141.9	115.2	411	316	
JORDAN			35	11	4.2
KAMPUCHEA, DEMOCRATIC			4		
KOREA DEP			338	14	
KOREA REP	641.8	251.6	282	3	4.5
KUWAIT			732	26	
LAOS				1	1.1
LEBANON			149	10	.8
MALAYSIA			102	2	28.5
MONGOLIA			11	8	
NEPAL			14		3.9
OMAN			27	4	
PAKISTAN	25.0	39.1	62	5	3.2
PHILIPPINES			30	2	8.9
QATAR			273		
SAUDI ARABIA KINGDOM OF			83	1	
SINGAPORE			783	8	
SRI LANKA			74	12	12.8
SYRIA	53.9	270.5	27	6	5.6
THAILAND	33.2	38.0	18	6	7.1
TURKEY			54	18	2.2
UNITED ARAB EMIRATES	7628.6		203		.2
VIET NAM			51	6	.7
YEMEN ARAB REPUBLIC	30.1	69.7	5	1	6.6
YEMEN DEMOCRATIC			11	6	16.4
ALBANIA			155	15	
AUSTRIA			216	198	
BELGIUM-LUXEMBOURG	616.2	4232.8	521	133	
BULGARIA			250	14	
CZECHOSLOVAKIA			337	26	
DENMARK	336.5	5160.7	247	69	
FINLAND	394.6	3333.7	224	96	
FRANCE	258.6	2527.9	299	83	
GERMAN DEMOCRATIC REP.			281	30	
GERMANY, FED. REP. OF	517.8	3707.9	435	197	
GREECE	1844.3	4948.0	161	40	
HUNGARY			288	10	
ICELAND			3738	1725	
IRELAND	565.6	2131.0	644	150	
ITALY	351.2	2024.1	161	92	
LIECHTENSTEIN				113	
MALTA	249.3	581.7	26	31	
NETHERLANDS	1516.5	4753.5	738	215	
NORWAY	1042.1	8040.4	319	166	
POLAND			215	48	
PORTUGAL			73	21	.3
ROMANIA			159	16	4.2
SPAIN			72	27	
SWEDEN	242.7	4319.8	161	64	
SWITZERLAND			414	249	
UNITED KINGDOM	244.9	3466.9	365	77	
YUGOSLAVIA	167.0	359.8	120	63	3.2

ANNEX TABLE 12 B. RESOURCES AND THEIR USE IN AGRICULTURE

COUNTRY	AGRICULTURAL GFCF $ PER HA ARABLE LAND 1982	AGRICULTURAL GFCF $ PER CAPUT OF AGRIC. LAB. FORCE 1982	FERTILIZER USE PER HA ARAB. LAND KG/HA 1982	NOS. OF TRACTORS PER 000 HA ARABLE LAND 1982	OFFICIAL COMMITM. TO AGRICULTURE $ PER CAPUT 1982
AMERICAN SAMOA				3	
AUSTRALIA			24	7	
COOK ISLANDS				22	
FIJI			58	7	10.5
FRENCH POLYNESIA			13	2	1.3
GUAM				7	
NEW CALEDONIA			70	108	17.3
NEW ZEALAND	1228.3	5154.5	947	214	
NIUE				1	
PACIFIC IS. (TRUST TE.)				1	
PAPUA NEW GUINEA			15	4	20.4
SAMOA					18.8
TONGA			2	1	24.0
VANUATU				1	42.3
USSR			87	11	

ANNEX TABLE 13. MEASURES OF OUTPUT AND PRODUCTIVITY IN AGRICULTURE

COUNTRY	AGRICULTURAL GDP $ PER CAPUT AGRIC. POPULATION 1982	AGRICULTURAL GDP GROWTH RATE 1973-82 %	INDEX OF FOOD PRODUC. PER CAPUT 1974-76=100 1981-83	INDEX OF TOT. AGR. PRODUC. PER CAPUT 1974-76=100 1981-83	PER CAPUT DIETARY ENERGY SUPPLIES AS % OF REQUIREM. 1982	INDEX OF VALUE OF AGRIC. EXPORTS 1974-76=100 1981-83
ALGERIA	326	18.3	83	84	110	210
ANGOLA	185	1.0	82	66	97	274
BENIN	253	13.2	95	95	95	236
BOTSWANA	249	7.4	69	69	105	183
BRIT. INDIAN OCEAN TERRIT	744	6.0				
BURKINA FASO	73	9.4	100	102	79	144
BURUNDI	143	13.8	97	99	102	216
CAMEROON	225	10.5	84	85	91	173
CAPE VERDE	91	7.4	106	106	117	127
CENTRAL AFRICAN REPUBLIC	127	11.0	94	92	95	117
CHAD	90	7.0	101	97	72	63
COMOROS	199	12.9	88	87	103	164
CONGO	248	8.1	98	99	112	239
DJIBOUTI	74	16.0				228
EGYPT	282	4.7	92	92	130	208
EQUATORIAL GUINEA	47					70
ETHIOPIA	88	6.1	106	106	93	320
GABON	276	5.7	99	100	122	196
GAMBIA	159	7.2	80	80	91	269
GHANA	1929	26.0	65	65	67	115
GUINEA	216	4.4	85	85	79	153
GUINEA-BISSAU	117	6.0	69	69	97	106
IVORY COAST	270	15.3	111	108	115	241
KENYA	107	5.0	86	90	88	170
LESOTHO	67	8.3	76	77	100	201
LIBERIA	162	8.9	92	88	97	208
LIBYA	2166	15.8	84	84	156	181
MADAGASCAR	182	10.4	90	88	113	264
MALAWI	127	13.0	101	104	97	73
MALI	62	16.8	106	107	73	113
MAURITANIA	97	8.3	102	102	96	175
MAURITIUS	610	.7	92	93	125	129
MOROCCO	215	8.0	89	89	110	141
MOZAMBIQUE	278	1.6	68	67	79	153
NAMIBIA	410	4.9	75	75	91	144
NIGER	193	16.6	122	122	104	158
NIGERIA	383	13.0	98	97	103	429
REUNION	937	10.0	106	104	110	119
RWANDA	144	15.6	114	114	95	77
ST. HELENA		10.6				74
SAO TOME AND PRINCIPE	507	7.9	79	79	100	124
SENEGAL	155	6.4	70	71	100	130
SEYCHELLES	267	5.2				120
SIERRA LEONE	170	5.2	98	99	84	159
SOMALIA	177	24.9	72	72	91	235
SOUTH AFRICA	574	9.1	93	93	116	131
SPANISH NORTH AFRICA	1013	8.1				
SUDAN	108	4.2	94	88	96	168
SWAZILAND	339	9.9	115	117	111	115
TANZANIA	119	15.4	102	95	107	95
TOGO	127	8.7	99	99	94	535
TUNISIA	399	8.1	87	88	111	183
UGANDA	249	16.9	91	87	78	137
WESTERN SAHARA	405	10.7				134
ZAIRE	74	13.5	93	93	96	87
ZAMBIA	110	8.2	74	75	87	230
ZIMBABWE	213	8.0	75	81	89	144
ANTIGUA AND BARBUDA	858	3.3	100	98	81	115
BAHAMAS	2444	4.2	125	125	85	110
BARBADOS	2336	13.1	103	103	126	117
BELIZE	1524	10.4	120	120	118	101
BERMUDA	17638	12.8				112
BRITISH VIRGIN ISLANDS	3398	9.0				79
CANADA	13564	8.8	121	121	129	100
CAYMAN ISLANDS	1982	14.2				
COSTA RICA	644	9.0	88	94	117	122
CUBA			127	125	130	116
DOMINICA	1323	11.1	92	92	95	137
DOMINICAN REPUBLIC	542	13.3	95	93	96	136
EL SALVADOR	334	11.7	91	86	88	185
GREENLAND	37404	20.3				144
GRENADA	514	12.2	104	104	88	150
GUADELOUPE	1894	4.1	98	97	103	135
GUATEMALA	532	12.7	102	95	96	237
HAITI	146	12.4	90	89	84	198
HONDURAS	283	12.1	107	110	95	177
JAMAICA	546	3.3	95	95	109	101
MARTINIQUE	2843	9.0	87	87	111	146
MEXICO	487	9.6	106	103	128	344
MONTSERRAT	1784	9.1				127
NETHERLANDS ANTILLES	7486	8.8	75	75	112	134
NICARAGUA	502	7.3	74	75	101	202
PANAMA	564	9.5	102	104	108	145

ANNEX TABLE 13. MEASURES OF OUTPUT AND PRODUCTIVITY IN AGRICULTURE

COUNTRY	AGRICULTURAL GDP $ PER CAPUT AGRIC. POPULATION 1982	AGRICULTURAL GDP GROWTH RATE 1973-82 %	INDEX OF FOOD PRODUC. PER CAPUT 1974-76=100 1981-83	INDEX OF TOT. AGR. PRODUC. PER CAPUT 1974-76=100 1981-83	PER CAPUT DIETARY ENERGY SUPPLIES AS % OF REQUIREM. 1982	INDEX OF VALUE OF AGRIC. EXPORTS 1974-76=100 1981-83
PUERTO RICO	4481	4.5	87	88		
ST CHRISTOPHER AND NEVIS	3077	13.0				117
SAINT LUCIA	704	12.8	96	96	102	148
ST.PIERRE AND MIQUELON	19198	13.7				96
ST VINCENT GRENADINES	564	12.8	107	107	100	88
TRINIDAD AND TOBAGO	978	12.0	70	70	123	161
TURKS AND CAICOS IS.	1486	11.3				
UNITED STATES	15920	5.6	108	107	137	104
US VIRGIN ISLANDS	56562	12.3				
ARGENTINA	2152	10.8	112	109	127	138
BOLIVIA	459	18.3	87	86	90	153
BRAZIL	658	15.5	113	112	110	163
CHILE	629	14.3	102	103	108	108
COLOMBIA	1658	16.3	106	108	110	226
ECUADOR	470	13.0	92	91	90	199
FRENCH GUIANA	5447	10.5				181
GUYANA	974	7.2	91	92	100	64
PARAGUAY	1161	19.3	109	109	123	117
PERU	465	4.0	82	83	90	155
SURINAME	1779	12.4	145	145	110	145
URUGUAY	2633	8.7	106	107	103	104
VENEZUELA	1553	16.2	91	90	103	219
AFGHANISTAN			105	100	85	181
BAHRAIN	197	16.3				135
BANGLADESH	64		101	101	82	101
BHUTAN	115	6.4	104	103		173
BRUNEI	1454	12.4	82	82	114	175
BURMA	159	8.4	121	121	114	198
CHINA (EXC TAIWAN)	134	7.5	120	122	108	274
CYPRUS	987	7.9	110	109	139	169
EAST TIMOR	723	15.4				
GAZA STRIP (PALESTINE)						59
HONG KONG	2018	10.5	101	101	112	131
INDIA	114	6.0	108	108	93	92
INDONESIA	254	13.9	121	120	110	142
IRAN			103	101	126	164
IRAQ			110	108	116	320
ISRAEL	3794	8.1	93	99	116	127
JAPAN	3817	6.9	91	90	124	116
JORDAN	261	14.8	107	106	105	190
KAMPUCHEA, DEMOCRATIC			98	96	81	105
KOREA DPR			111	111	130	99
KOREA REP	806	14.6	109	107	127	243
KUWAIT	2874	18.0				178
LAOS			125	125	89	68
LEBANON			124	121	120	149
MACAU	950	19.5	177	177	107	145
MALAYSIA	932	12.9	113	107	119	156
MALDIVES	138	7.4	91	91	85	216
MONGOLIA			88	88	115	149
NEPAL	114	7.2	91	91	92	125
OMAN	219	13.5				276
PAKISTAN	190	14.3	105	105	99	142
PHILIPPINES	413	12.7	113	114	106	151
QATAR						223
SAUDI ARABIA KINGDOM OF	309	24.7	34	35	124	490
SINGAPORE	3429	8.3	107	106	126	177
SRI LANKA	139	1.8	127	114	93	98
SYRIA	745	22.0	125	124	126	182
THAILAND	213	10.4	112	113	103	161
TURKEY	440	6.9	104	102	122	88
UNITED ARAB EMIRATES	372	24.4				236
VIET NAM			111	112	93	35
YEMEN ARAB REPUBLIC	189	13.3	80	80	106	365
YEMEN DEMOCRATIC	71	5.4	84	82	97	214
ALBANIA			105	105	121	108
ANDORRA	11596	15.3				
AUSTRIA	4716	8.1	111	111	133	121
BELGIUM-LUXEMBOURG	9207	4.7	103	102	134	136
BULGARIA			117	111	148	111
CZECHOSLOVAKIA			110	110	146	98
DENMARK	6839	3.6	117	117	147	126
FAEROE ISLANDS	69042	10.8				105
FINLAND	8118	9.9	101	101	122	119
FRANCE	6389	6.7	109	108	141	127
GERMAN DEMOCRATIC REP.			108	108	144	95
GERMANY, FED. REP. OF	8963	6.4	113	113	127	120
GIBRALTAR	11480	13.3				
GREECE	1541	8.5	102	102	142	130

ANNEX TABLE 15. MEASURES OF OUTPUT AND PRODUCTIVITY IN AGRICULTURE

COUNTRY	AGRICULTURAL GDP $ PER CAPUT AGRIC. POPULATION 1982	AGRICULTURAL GDP GROWTH RATE 1973-82 %	INDEX OF FOOD PRODUC. PER CAPUT 1974-76=100 1981-83	INDEX OF TOT. AGR. PRODUC. PER CAPUT 1974-76=100 1981-83	PER CAPUT DIETARY ENERGY SUPPLIES AS % OF REQUIREM. 1982	INDEX OF VALUE OF AGRIC. EXPORTS 1974-76=100 1981-83
HUNGARY			119	119	134	90
ICELAND	20816	13.4	102	102	119	129
IRELAND	3317	8.7	97	96	161	135
ITALY	4540	8.6	112	112	140	116
LIECHTENSTEIN	124590	14.6				
MALTA	2841	9.6	134	134	118	107
MONACO	121966	11.0				
NETHERLANDS	12135	7.9	112	112	132	129
NORWAY	10550	11.2	114	114	119	102
POLAND			91	90	125	105
PORTUGAL	1053	2.8	82	83	130	144
ROMANIA			114	113	126	124
SAN MARINO	14531	11.5				
SPAIN	2739	8.3	101	101	135	116
SWEDEN	7527	5.4	108	108	117	87
SWITZERLAND	21238	12.9	112	112	129	101
UNITED KINGDOM	8359	9.0	119	119	131	86
YUGOSLAVIA	983	9.0	108	108	143	106
AMERICAN SAMOA	799	7.1				208
AUSTRALIA	9779	8.0	103	100	120	106
CHRISTMAS ISLAND (AUST.)	1088	10.8				
COCOS (KEELING) ISLANDS	906	6.2				
COOK ISLANDS	821	5.8				138
FIJI	1311	12.5	119	118	115	138
FRENCH POLYNESIA	769	17.2	85	85	108	137
GUAM	9552	7.6				121
JOHNSTON ISLAND	906	6.2				
KIRIBATI	796	6.9				121
MIDWAY ISLANDS	544	5.3				
NAURU	829	5.8				76
NEW CALEDONIA	438	7.8	102	97	101	113
NEW ZEALAND	10475	8.7	110	111	136	107
NIUE	816	5.4				60
NORFOLK ISLAND	757	5.3				69500
PACIFIC IS. (TRUST TR.)	801	8.1				90
PAPUA NEW GUINEA	351	12.7	95	96	79	131
SAMOA	776	6.3	103	103	94	98
SOLOMON ISLANDS	552	16.3	127	127	78	127
TOKELAU	816	5.3				
TONGA	831	7.3	91	91	120	119
TUVALU	932	9.2				
VANUATU	736	8.8	88	88	78	81
WAKE ISLAND	453	6.2				
WALLIS AND FUTUNA IS.	816	7.3				200
USSR			98	98	131	180

ANNEX TABLE 14. CARRY-OVER STOCKS OF SELECTED AGRICULTURAL PRODUCTS

	DATE	Crop year ending in 1978	1979	1980	1981	1982	1983	1984a/	1985b/
		..... million tons							
CEREALS									
Developed countries		147.6	178.1	157.6	135.9	178.7	217.3	145.1	169.6
Canada		20.6	23.2	15.4	14.0	16.3	18.7	13.5	12.6
United States		74.2	72.6	78.1	62.2	101.8	141.0	71.2	87.8
Australia		1.6	5.8	5.0	2.7	5.4	2.6	9.0	8.4
EEC		13.6	17.6	15.7	15.8	13.7	18.4	12.9	26.1
Japan		8.8	9.9	10.7	8.8	7.1	5.1	4.5	5.1
USSR		10.0	30.0	16.0	14.0	14.0	14.0	19.0	14.0
Developing countries		95.1	99.6	101.6	101.2	105.7	105.1	120.8	128.5
Far East		73.8	81.8	82.3	76.5	77.8	79.0	95.8	102.0
Bangladesh		0.6	0.2	0.8	1.3	0.7	0.5	0.8	0.8
China		40.6	47.7	54.6	47.9	45.6	50.6	57.0	60.4
India		14.7	14.9	10.9	7.1	7.7	7.6	12.8	15.6
Pakistan		0.6	0.7	1.0	1.5	2.4	2.7	2.5	1.3
Near East		8.8	6.7	8.8	9.8	12.3	11.4	13.4	13.9
Turkey		3.5	1.4	0.8	0.5	1.1	0.9	0.3	0.3
Africa		4.7	3.8	2.7	3.5	4.4	4.4	3.1	3.2
Latin America		7.7	7.4	7.7	11.4	11.2	10.3	8.5	9.4
Argentina		1.7	2.3	1.5	1.0	1.6	2.3	1.3	1.5
Brazil		1.8	0.7	2.0	2.8	2.0	2.4	1.7	2.0
World total		242.8	277.7	259.2	237.1	284.5	322.5	265.9	298.0
of which:									
Wheat		98.3	118.0	104.7	97.7	106.0	120.0	130.8	143.3
Rice (milled basis)		40.8	45.0	44.3	43.1	44.9	42.2	45.3	50.5
Coarse grains		103.8	114.7	110.2	96.3	133.6	160.3	89.9	104.2
SUGAR (raw value)									
World total	1 Sept.	30.5	31.5	25.4	24.8	33.0	38.7	39.5	39.3
COFFEE									
Exporting countries c/		1.92	2.08	1.99	1.86	2.60	3.05	3.35	3.40
DRIED SKIM MILK		..... thousand tons							
United States	31 Dec.	265	220	266	404	582	633	590	468
EEC	31 Dec.	840	316	303	387	670	1000	800	550
Total of above		1105	536	569	791	1252	1660	1391	1018

a/ Estimate.
b/ Forecast.
c/ Gross opening stocks at the commencing of the coffee years.

Source: FAO, Commodities and Trade Division.

ANNEX TABLE 15. ANNUAL CHANGES IN CONSUMER PRICES: ALL ITEMS AND FOOD

Region and country	All items				Food			
	1970 to 1975	1975 to 1980	1981 to 1982	1982 to 1983	1970 to 1975	1975 to 1980	1981 to 1982	1982 to 1983
	%/yr							
DEVELOPED COUNTRIES								
WESTERN EUROPE								
Austria	7.4	3.8	5.4	3.3	6.7	4.4	4.5	2.5
Belgium	8.3	6.4	8.7	7.7	7.5	4.6	9.6	8.4
Denmark	9.5	10.4	8.6	6.9	10.7	...	10.7	4.8
Finland	2.0	10.6	9.3	8.5	12.4	10.8	12.1	7.2
France	8.8	10.4	11.8	9.6	9.6	10.0	12.6	9.3
Germany, Fed. Rep. of	6.2	4.0	5.2	3.3	5.6	3.3	6.2	2.7
Greece	13.1	16.3	21.0	20.5	14.7	17.6	21.1	18.1
Iceland	24.8	42.0	51.1	8.4	28.3	41.0	45.6	93.6
Ireland	13.0	84.9	17.1	10.5	14.3	13.7	13.2	8.0
Italy	11.4	3.0	16.4	14.6	11.6	15.6	16.4	12.3
Netherlands	8.6	6.1	6.0	2.7	6.9	...	5.7	...
Norway	8.3	8.4	11.4	8.4	8.3	7.4	13.7	8.3
Portugal	15.3	...	22.4	25.5	16.3	21.0	24.1	25.1
Spain	12.0	18.6	14.4	12.1	12.1	16.0	15.0	10.7
Sweden	7.8	10.5	8.6	8.9	7.9	10.7	12.4	11.6
Switzerland	7.9	2.4	5.6	2.9	7.3	2.9	6.8	2.1
United Kingdom	12.3	14.4	8.6	4.6	15.1	13.9	7.8	3.2
Yugoslavia	19.3	18.2	32.4	41.2	19.1	19.4	39.0	45.0
NORTH AMERICA								
Canada	7.4	8.4	10.8	5.8	11.1	9.9	7.2	3.7
United States	6.7	8.9	6.1	3.2	9.5	7.6	4.1	2.3
OCEANIA								
Australia	10.2	10.6	11.1	10.1	9.8	12.0	7.7	10.1
New Zealand	9.8	14.8	16.1	7.4	9.4	16.8	12.3	4.1
OTHER DEVELOPED COUNTRIES								
Israel	23.9	60.0	120.3	145.7	25.1	65.0	116.0	157.0
Japan	12.0	6.5	2.7	1.8	13.0	5.5	1.8	2.1
South Africa	9.3	12.0	14.7	12.3	11.7	13.0	11.2	11.7

(continued)

ANNEX TABLE 15. ANNUAL CHANGES IN CONSUMER PRICES: ALL ITEMS AND FOOD (continued)

Region and country	All items				Food			
	1970 to 1975	1975 to 1980	1981 to 1982	1982 to 1983	1970 to 1975	1975 to 1980	1981 to 1982	1982 to 1983
	..... %/yr							
DEVELOPING COUNTRIES								
LATIN AMERICA								
Argentina	59.5	100.0	165.5	343.7	58.0	...	178.2	338.5
Bahamas	9.5	6.9	6.1	4.1	11.8	7.7	6.8	1.4
Barbados	18.6	10.0	10.3	5.2	21.0	9.1	7.3	2.6
Bolivia	23.7	17.0	123.6	275.7	27.2	16.4	123.8	303.8
Brazil	23.5a/	46.0	89.6	135.5	25.9a/	49.0	84.4	168.8
Chile	225.4	70.0	9.9	27.3	245.5	70.0	3.6	25.8
Colombia	19.5	23.0	24.0	19.5	24.0	25.0	24.4	19.8
Costa Rica	13.7	8.1	90.1	32.7	3.7	9.6	113.6	32.2
Dominican Republic	11.1	8.3	7.6	4.1b/	13.3	3.4	7.9	3.8b/
Ecuador	13.7	11.7	16.3	48.4	18.4	11.2	17.1	78.0
El Salvador	8.4	...	11.7	13.2	8.8	...	10.7	13.4
Guatemala	2.9	10.7	0.2	...	3.3	9.4	-2.8	...
Guyana	8.2	12.8	20.9	15.0	12.2	14.1	29.3	20.9
Haiti	13.7	8.0	7.2	10.2	15.5	9.3	0.9	11.0
Honduras	6.5	9.2	9.4	8.9	8.0	9.6	6.7	5.3
Jamaica	14.9	22.0	6.7	10.3b/	17.2	24.0	6.1	8.0c/
Mexico	12.4	21.0	58.9	102.0	13.9	19.5	53.6	91.1
Panama	7.8	6.9	4.2	2.1	9.9	6.6	5.9	2.3
Paraguay	12.6	14.7	5.1	...	15.4	14.9	0.1	...
Peru	12.1	37.0	64.5	111.0	13.9	50.0	52.9	25.7
Puerto Rico	8.8	5.6	3.7	0.6	12.6	5.5	2.8	1.0
Suriname	8.2	11.5	7.3	4.4	9.5	12.2	3.2	4.5
Trinidad & Tobago	13.7	12.9	11.4	16.7	17.1	11.1	13.6	23.3
Uruguay	73.4	55.0	19.0	14.9	76.0	55.0	11.7	54.1
Venezuela	5.5	11.4	9.7	6.3	8.5	15.7	9.7	7.8
FAR EAST								
Bangladesh	39.0d/	7.6	9.3	8.0	42.0d/	5.0	9.8	6.9
Burma	17.8	3.8	5.2	5.5	21.0	2.6	4.7	11.2
India	13.2	1.3	7.7	6.9	14.2	0.8	4.6	12.0
Indonesia	21.3	...	9.5	11.8	25.2	...	5.8	9.1
Korea, Rep. of	14.3	17.2	7.3	3.3	16.8	17.2	2.5	1.3
Malaysia	6.7	4.6	...	3.7	10.4	3.7	...	0.9
Nepal	10.3	6.7	11.9	6.2	9.8	6.1	12.4	4.5
Pakistan	15.2	9.0	5.4	7.4	16.6	8.0	6.0	6.1
Philippines	18.7	12.0	...	10.0	20.1	11.0	...	8.6
Sri Lanka	8.0	9.9	10.9	13.9	9.1	10.7	12.7	12.4
Thailand	9.8	10.4	5.4	3.4	11.9	10.6	3.5	5.2

(continued)

ANNEX TABLE 15. ANNUAL CHANGES IN CONSUMER PRICES: ALL ITEMS AND FOOD (concluded)

Region and country	All items				Food			
	1970 to 1975	1975 to 1980	1981 to 1982	1982 to 1983	1970 to 1975	1975 to 1980	1981 to 1982	1982 to 1983
	..... %/yr							
AFRICA								
Algeria	5.1	12.4	-1.6	4.5	7.2	15.7	-15.0	2.7
Botswana	...	12.4	11.5	22.4	...	13.8	13.5	12.0
Cameroon	10.2	10.7	13.3	16.4	11.5	11.8	19.0	12.4
Ethiopia	3.7	15.7	5.6	10.0	2.7	19.2	4.2	4.3
Gabon	11.4	12.9	16.7	10.4	2.7	...	...	...
Gambia	10.5	10.2	10.8	10.8	12.8	9.7	8.9	13.7
Ghana	17.4	70.0	22.3	172.5	20.3	45.0	36.0	44.5
Ivory Coast	8.2	16.7	17.4	5.9	9.3	19.3	4.2	4.3
Kenya	13.9d/	9.8	25.9	15.2	14.7d/	10.2	18.3	10.7
Lesotho	14.7d/	15.1	10.0	17.4	16.4d/	18.6	9.0	19.2
Liberia	12.1	8.8	6.0	2.7	13.7	8.1	4.2	2.7
Madagascar	9.7	9.2	31.6	41.6e/	12.0	9.0	31.2	27.4
Malawi	8.9	9.2	9.6	15.3	10.7	9.5	3.8	15.1
Mauritius	13.1	16.9	...	5.6	14.7	16.3	...	7.3
Morocco	5.4	9.7	10.6	7.0	7.2	9.3	13.1	...
Niger	7.9	14.6	...	...	10.6	14.8	...	...
Nigeria	11.5	14.4	7.7	7.7	13.1	20.0	8.2	23.2
Senegal	13.0	6.8	17.4	11.6	16.5	6.4	20.5	11.3
Sierra Leone	8.4	13.8	27.0	68.5	11.0	12.9	30.2	65.6
Swaziland	9.3	13.2	11.1	11.7	9.8	14.0	9.2	12.0
Tanzania	13.1	14.5	28.9	27.0	17.7	13.4	32.7	27.2
Togo	8.9	8.1	10.3	9.7	9.7	9.9	13.5	11.3
Tunisia	4.8	...	13.6	9.0	5.2	...	13.3	8.1
Zaire	18.6	...	38.5c/	...	21.2	...	39.7c/	...
Zambia	7.1	15.2	12.5	19.6	7.4	13.7	14.0	20.7
Zimbabwe	...	9.8	10.7	23.2	...	8.4	10.5	28.6
NEAR EAST								
Cyprus	8.0	...	6.4	5.1	10.2	...	8.1	4.3
Egypt	5.8	12.9	14.8	16.4e/	8.6	14.4	14.5	18.9e/
Iran	9.6	16.1	18.7	19.8	10.0	18.9	16.9	18.4
Iraq	11.3	...	22.1	...	18.1	...	27.1	...
Jordan	6.0	11.6	...	...	9.2	9.8	3.5	...
Kuwait	10.1	7.1	8.1	4.4	15.4	6.1	7.0	2.6
Saudi Arabia	...	11.3	1.1	0.8	...	9.5	1.3	0.2
Sudan	11.6	16.8	...	...	12.0	14.2	...	...
Syria	16.7	10.9	14.5	6.0	18.2	...	14.6	3.5
Turkey	6.2	50.0	27.1	28.1	7.7	47.0	29.0	29.6

a/ 1972-75.
b/ January-October.
c/ January-August.
d/ 1973-75.
e/ January-November.

Source: ILO, Bulletin of Labour Statistics, 1984-5.

ANNEX TABLE 1c. PER CAPUT DIETARY ENERGY SUPPLIES IN RELATION TO NUTRITIONAL REQUIREMENTS IN SELECTED DEVELOPED AND DEVELOPING COUNTRIES

COUNTRY	1970-72	1973-75	1977-79	1980-82	REQUIREMENTS KILOCAL/CAPUT /DAY
	% OF REQUIREMENTS				
AFGHANISTAN	89	89	85	84	2440
BANGLADESH	87	83	82	83	2210
BRUNEI	105	109	114	114	2240
BURMA	95	96	100	109	2160
CHINA	90	94	99	106	2360
CYPRUS	127	125	132	138	2480
HONG KONG	121	115	118	118	2290
INDIA	91	85	94	92	2210
INDONESIA	88	94	101	109	2160
IRAN	94	111	119	120	2410
IRAQ	96	101	108	116	2410
ISRAEL	119	120	119	118	2570
JAPAN	119	120	121	122	2340
JORDAN	95	88	95	105	2460
KAMPUCHEA, DEMOCRATIC	101	88	79	89	2220
KOREA DPR	108	116	127	131	2340
KOREA REP	105	109	120	125	2350
LAOS	93	85	84	89	2220
LEBANON	102	105	114	120	2480
MACAU	90	92	99	106	2290
MALAYSIA	109	111	115	118	2240
MALDIVES	78	81	88	91	2210
MONGOLIA	100	104	113	113	2430
NEPAL	90	91	90	91	2200
PAKISTAN	88	88	92	97	2310
PHILIPPINES	90	92	102	106	2260
SAUDI ARABIA KINGDOM OF	79	82	108	123	2420
SINGAPORE	118	122	126	128	2300
SRI LANKA	101	93	102	98	2220
SYRIA	99	101	110	125	2480
THAILAND	97	99	103	104	2220
TURKEY	114	116	120	121	2520
VIET NAM	99	95	94	93	2160
YEMEN ARAB REPUBLIC	88	91	98	104	2420
YEMEN DEMOCRATIC	85	80	82	94	2410
ALBANIA	106	110	122	121	2410
AUSTRIA	131	130	130	133	2630
BELGIUM-LUXEMBOURG	136	139	141	140	2640
BULGARIA	140	139	142	147	2500
CZECHOSLOVAKIA	140	140	140	142	2470
DENMARK	127	125	128	139	2690
FINLAND	116	117	113	117	2710
FRANCE	135	136	138	141	2520
GERMAN DEMOCRATIC REP.	129	133	138	142	2620
GERMANY, FED. REP. OF	121	120	124	126	2670
GREECE	129	140	140	143	2500
HUNGARY	127	130	132	133	2630
ICELAND	113	114	113	117	2660
IRELAND	144	146	152	158	2510
ITALY	138	140	140	141	2520
MALTA	125	121	121	118	2480
NETHERLANDS	129	130	132	134	2690
NORWAY	117	115	121	124	2680
POLAND	128	131	133	128	2620
PORTUGAL	126	124	125	127	2450
ROMANIA	117	122	128	126	2650
SPAIN	119	131	132	134	2460
SWEDEN	113	115	116	119	2690
SWITZERLAND	129	125	127	129	2690
UNITED KINGDOM	133	130	129	129	2520
YUGOSLAVIA	131	136	139	143	2540
AUSTRALIA	122	118	118	117	2660
FIJI	93	99	110	115	2660
FRENCH POLYNESIA	107	102	106	108	2660
NEW CALEDONIA	113	105	105	105	2660
NEW ZEALAND	134	136	135	136	2640
PAPUA NEW GUINEA	78	77	77	79	2660
SAMOA	79	80	94	95	2660
SOLOMON ISLANDS	78	75	79	77	2660
TONGA	99	112	120	120	2660
VANUATU	90	89	79	80	2660
USSR	130	131	131	132	2560

ANNEX TABLE 15. PER CAPUT DIETARY ENERGY SUPPLIES IN RELATION TO NUTRITIONAL REQUIREMENTS IN SELECTED DEVELOPED AND DEVELOPING COUNTRIES

COUNTRY	1970-72	1973-75	1977-79	1980-82	REQUIREMENTS KILOCAL/CAPUT /DAY
	% OF REQUIREMENTS				
ALGERIA	78	87	101	110	2400
ANGOLA	88	87	99	99	2350
BENIN	93	89	95	94	2300
BOTSWANA	94	89	93	106	2320
BURKINA FASO	81	81	84	81	2370
BURUNDI	95	97	99	102	2330
CAMEROON	94	99	101	93	2320
CAPE VERDE	88	93	110	116	2350
CENTRAL AFRICAN REPUBLIC	98	101	95	95	2260
CHAD	86	73	77	75	2360
COMOROS	96	97	92	98	2340
CONGO	100	102	106	111	2220
EGYPT	102	108	117	130	2510
ETHIOPIA	86	80	85	95	2330
GABON	93	96	117	119	2340
GAMBIA	97	91	93	93	2360
GHANA	97	95	84	72	2300
GUINEA	87	89	85	81	2310
GUINEA-BISSAU	91	92	96	97	2310
IVORY COAST	107	102	108	115	2310
KENYA	98	95	90	88	2320
LESOTHO	88	89	104	103	2260
LIBERIA	94	93	100	98	2310
LIBYA	105	141	155	160	2360
MADAGASCAR	109	109	108	111	2270
MALAWI	100	98	96	96	2320
MALI	83	79	81	74	2350
MAURITANIA	81	77	82	95	2310
MAURITIUS	105	109	119	124	2270
MOROCCO	103	106	110	109	2420
MOZAMBIQUE	87	85	81	80	2340
NAMIBIA	101	101	98	94	2260
NIGER	87	84	98	105	2350
NIGERIA	95	93	100	104	2360
REUNION	111	117	121	119	2270
RWANDA	84	81	87	91	2320
SAO TOME AND PRINCIPE	92	81	97	100	2350
SENEGAL	95	93	97	99	2380
SIERRA LEONE	89	85	85	84	2300
SOMALIA	94	89	84	90	2310
SOUTH AFRICA	114	118	116	117	2450
SUDAN	91	89	95	95	2350
SWAZILAND	97	104	106	109	2320
TANZANIA	85	92	99	105	2320
TOGO	94	91	88	94	2300
TUNISIA	100	110	108	115	2390
UGANDA	97	90	84	76	2330
ZAIRE	101	103	97	96	2220
ZAMBIA	95	97	97	90	2310
ZIMBABWE	89	92	81	91	2390
ANTIGUA AND BARBUDA	90	86	81	82	2420
BAHAMAS	103	95	83	85	2420
BARBADOS	123	121	122	127	2420
BELIZE	118	119	119	119	2260
CANADA	128	128	128	129	2660
COSTA RICA	109	113	116	118	2240
CUBA	114	115	118	126	2310
DOMINICA	92	90	88	89	2420
DOMINICAN REPUBLIC	88	93	95	95	2260
EL SALVADOR	81	87	92	92	2290
GRENADA	97	87	87	89	2420
GUADELOUPE	97	100	101	104	2420
GUATEMALA	94	95	96	96	2190
HAITI	85	85	84	84	2260
HONDURAS	94	93	96	96	2260
JAMAICA	115	115	114	115	2240
MARTINIQUE	98	102	108	110	2420
MEXICO	113	116	120	126	2330
NETHERLANDS ANTILLES	102	103	112	113	2420
NICARAGUA	112	110	105	100	2250
PANAMA	101	104	99	103	2310
SAINT LUCIA	88	88	93	101	2420
ST VINCENT GRENADINES	94	91	91	97	2420
TRINIDAD AND TOBAGO	99	101	109	121	2420
UNITED STATES	133	132	136	138	2640
ARGENTINA	125	125	126	127	2650
BOLIVIA	83	83	86	89	2390
BRAZIL	104	104	107	108	2390
CHILE	112	108	107	111	2440
COLOMBIA	94	98	104	105	2320
ECUADOR	87	89	91	91	2290
GUYANA	101	102	105	103	2270
PARAGUAY	119	118	121	123	2310
PERU	96	95	92	91	2350
SURINAME	107	108	112	111	2260
URUGUAY	110	110	104	105	2670
VENEZUELA	93	93	104	104	2470

ANNEX TABLE 17. ANNUAL AGRICULTURAL SHARES OF TOTAL OFFICIAL COMMITMENTS TO ALL SECTORS (BROAD DEFINITION), BY MULTILATERAL AND BILATERAL SOURCES, 1976-83

	1976	1977	1978	1979	1980	1981	1982a/	1983a/
	..... %							
CONCESSIONAL AND NON-CONCESSIONAL COMMITMENTS								
Multilateral agencies b/	32	36	39	36	38	36	35	34
World Bank c/	31	39	41	37	33	33	31	36
Regional Development Banks c/	36	35	31	33	45	44	43	27
OPEC Multilateral c/	25	13	30	7	16	16	16	20
Bilateral sources	7	10	9	..	..	..	..	..
DAC/EEC	8	11	11	12	11	11	11	11
OPEC Bilateral	5	6	3	..	..	..	..	..
All sources (multilateral + bilateral)	14	17	17	..	..	..	..	..
CONCESSIONAL COMMITMENTS ONLY (ODA)								
Multilateral agencies b/	46	44	49	49	49	53	46	47
World Bank c/	44	54	52	52	45	58	43	51
Regional Development Banks c/	54	50	48	53	62	65	58	39
OPEC Multilateral c/	29	11	29	7	15	14	17	23
Bilateral sources	9	14	13	16	13	14	16	13
DAC/EEC	11	16	17	18	16	18	17	14
OPEC Bilateral	5	7	3	7	1	4	12	5
All sources (multilateral + bilateral)	15	18	19	21	19	21	21	19

a/ Preliminary.
b/ Including also UNDP, CGIAR, FAO/TF, FAO/TCP (from 1977) and IFAD (from 1978).
c/ Excluding commitments to CGIAR.

Sources: FAO and OECD.

ANNEX TABLE 18. PERCENTAGE DISTRIBUTION OF OFFICIAL COMMITMENTS TO AGRICULTURE (BROAD DEFINITION) BY MULTILATERAL AND BILATERAL SOURCES, 1976-83

	1976	1977	1978	1979	1980	1981	1982a/	1983a/
	..... %							
CONCESSIONAL AND NON-CONCESSIONAL COMMITMENTS								
Multilateral Agencies	57	57	58	52	59	58	57	64
World Bank b/	37	38	43	34	35	34	34	45
Regional Development Banks b/	14	14	10	12	15	17	14	11
OPEC Multilateral b/	2	2	2	-	1	1	2	2
Others c/	4	3	3	6	8	6	7	6
Bilateral Sources	43	43	42	48	41	42	43	36
DAC/EEC	36	38	40	44	40	40	37	34
OPEC Bilateral	7	5	2	4	1	2	6	2
All sources (multilateral + bilateral)	100	100	100	100	100	100	100	100
CONCESSIONAL COMMITMENTS ONLY (ODA)								
Multilateral agencies	47	36	41	37	45	43	40	44
World Bank b/	23	19	26	18	21	21	20	20
Regional Development Banks c/	15	11	8	11	12	12	7	12
OPEC Multilateral b/	3	2	2	-	1	1	2	2
Others c/	6	4	5	8	11	9	11	10
Bilateral sources	53	64	59	63	55	57	60	56
DAC/EEC	47	56	56	59	53	54	51	52
OPEC Bilateral	6	8	3	4	2	3	9	4
All sources (multilateral + bilateral)	100	100	100	100	100	100	100	100

a/ Preliminary.
b/ Excluding commitments to CGIAR.
c/ Including UNDP, CGIAR, FAO/TF, FAO/TCP (from 1977) and IFAD (from 1978).

Sources: FAO and OECD.

ANNEX TABLE 19. PERCENTAGE DISTRIBUTION OF OFFICIAL COMMITMENTS TO AGRICULTURE (EXCLUDING TECHNICAL ASSISTANCE GRANTS), BY PURPOSE, 1976-83

	1976	1977	1978	1979	1980	1981	1982a/	1983a/
	..... %							
Land and water development b/	19	25	26	18	25	17	22	20
Agricultural services	7	12	12	10	13	7	12	15
Supply of inputs	7	4	5	3	6	5	4	6
Crop production	10	5	8	7	7	6	8	7
Livestock	5	3	4	3	2	2	1	2
Fisheries c/	2	3	3	3	3	3	2	2
Research, extension, training d/	3	4	4	3	5	5	5	6
Agriculture, unallocated	13	11	12	17	9	14	11	10
TOTAL NARROW DEFINITION	66	67	74	64	70	59	65	65
Rural development/infrastructure	16	16	15	16	19	22	23	21
Manufacturing of inputs e/	7	5	4	11	2	10	4	1
Agro-industries	10	9	5	6	7	5	4	7
Forestry	1	2	2	3	2	2	3	2
Regional development	-	1	-	-	-	2	1	3
TOTAL BROAD DEFINITION	100	100	100	100	100	100	100	100

a/ Preliminary.
b/ Including river development.
c/ Including inputs such as fishing trawlers, fishing gera.
d/ Including commitments to CGIAR.
e/ Mostly fertilizers.

Sources: FAO and OECD.

ANNEX TABLE 20. DAC COUNTRIES: BILATERAL ODA COMMITMENTS FROM INDIVIDUAL COUNTRIES AND PROPORTION TO AGRICULTURE (BROAD DEFINITION)

	Bilateral ODA to all sectors					Proportion of ODA to agriculture				
	1979	1980	1980	1982	1983	1979	1980	1981	1982	1983
	million $					%				
Australia	453	522	590	545	549	14	8	14	11	5
Austria	70	140	265	291	183	20	47	10	1	2
Belgium	462	512	432	320	346	4	4	4	3	3
Canada	676	512	1 011	807	1 139	21	31	39	15	22
Denmark	288	260	225	282	260	32	37	44	50	17
Finland	85	112	111	123	96	8	15	19	20	24
France	3 746	4 766	4 431	4 358	4 380	7	6	8	8	11
Germany	3 972	4 617	3 467	2 713	2 271	21	16	13	18	11
Italy	63	138	481	641	677	15	24	6	16	26
Japan	2 528	3 369	3 437	3 622	3 483	25	16	24	18	10
Netherlands	1 327	1 592	1 066	934	901	35	24	27	22	19
New Zealand	53	54	52	47	40	18	24	33	30	10
Norway	234	247	262	309	283	25	28	26	25	17
Sweden	782	611	518	579	526	31	34	39	32	12
Switzerland	174	139	253	207	239	13	33	46	20	26
UK	1 964	1 459	1 000	1 112	927	11	7	8	8	10
USA	5 186	5 378	5 135	6 112	6 989	15	20	16	14	17
Total DAC countries	22 062	24 426	22 736	23 002	23 289	18	16	17	15	14

Note: DAC countries comprise members of the Development Assistance Committee of the OECD.

Source: OECD.

ANNEX TABLE 21. DISTRIBUTION OF OFFICIAL COMMITMENTS (EXCLUDING TECHNICAL ASSISTANCE GRANTS) TO AGRICULTURE (BROAD DEFINITION) FROM ALL SOURCES, BY REGION AND ECONOMIC GROUPS, 1976-83

	1976	1977	1978	1979	1980	1981	1982a/	1983a/
	..... %							
CONCESSIONAL AND NON-CONCESSIONAL COMMITMENTS								
Far East and Pacific	36	39	49	46	46	42	49	42
Africa	23	29	22	24	22	28	28	26
Latin America	28	24	21	22	24	23	18	24
Near East	13	7	8	8	8	7	5	8
Total 4 developing regions:	100	100	100	100	100	100	100	100
of which:								
Least developed countries b/	19	18	14	18	19	19	19	21
Low-income food-deficit countries	52	57	60	59	65	59	62	56
IDA-assisted countries d/	56	63	64	65	70	64	66	64
CONCESSIONAL COMMITMENTS								
Far East and Pacific	36	43	53	55	50	48	46	48
Africa	28	33	26	23	26	32	39	31
Latin America	23	14	14	13	14	12	9	12
Near East	13	10	7	9	10	8	6	9
Total 4 developing regions	100	100	100	100	100	100	100	100
of which:								
Least developed countries b/	29	28	21	24	27	28	30	36
Low-income food-deficit countries	69	74	73	73	79	75	75	77
IDA-assisted countries d/	73	79	77	79	83	80	81	81

Note: Data on bilateral (DAC and OPEC) commitments are incomplete.

a/ Preliminary.
b/ 36 countries.
c/ 66 countries.
d/ 69 countries.

Sources: FAO and OECD.

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