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10. Abstract (optional - 250 word limit)  
This paper is part of a three part study on agricultural trade issues. The goal is to define priority areas for A.I.D. support to agricultural trade and trade policy in the countries in the ANE region. This paper examines the changing trade patterns within the region and other parts of the world. Additionally, it identifies and examines factors that have contributed to these changes and are likely to contribute to future trade opportunities. This study includes individual commentaries on selected countries chosen to represent a range of sizes and income levels.

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## **AGRICULTURAL TRADE ISSUES IN ASIA AND THE NEAR EAST:**

## **COUNTRY AND REGIONAL TRADE PATTERNS**

**September 1990**

**Collaborative Research Report No. 301**

**Prepared for Abt Associates, Inc.  
Under USAID Contract No. DAN-4084-Z-00-834-00**

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## PREFACE

Many countries in the Asia Near East (ANE) region have become more competitive in world markets for a wide variety of agricultural products. As the agency for International Development (A.I.D.) Bureaus responsible for this region seek to develop a strategy aimed at increasing income and employment in individual countries, increased attention to the role of agricultural trade has been identified as a critical priority. This paper is one of three products of a study directed at defining priority areas for A.I.D. support to agricultural trade and trade policy in the countries in the region. The study has four objectives:

First, to examine changing trade patterns within the region and between the region and other parts of the world. Additionally, to identify and examine factors that have contributed to these changes and are likely to contribute to future trade opportunities;

Second, to identify lessons learned from successful trade promotion and trade policy reform programs in three case study countries, Malaysia, Thailand and Indonesia;

Third, to examine U.S. commodity and industry interests in trade development in the region, legislative restrictions on foreign assistance designed to respond to U.S. commodity interests, and implications for A.I.D. trade development activities; and

Finally, to develop an agenda for further analysis that will contribute to the ability of the ANE Bureau, Office of Technical Resources (TR) to support country and regional programs and projects directed at expanding agricultural trade.

Abt Associates and its subcontractors, Abel, Daft and Earley and the Food Research Institute of Stanford University are performing the initial work under the first three objectives of the study through a buy-in to the Agricultural Policy Analysis Project II.

The three papers produced under this buy-in include:

- Tim Josling and Dina Umali. Agricultural Trade Issues in Asia and the Near East: Country and Regional Trade Patterns.
- Martin E. Abel and Thomas C. Earley. The Role of Agricultural Trade in the Economic Development of Malaysia, Thailand and Indonesia.
- Mark D. Newman and Christine M. Erbacher. Trade Associations and Foreign Aid: U.S. Commodity and Industry Interests and A.I.D. Trade Development Activities.

# **Agricultural Trade Issues in Asia and the Near East**

## **Country and Regional Trade Patterns**

Tim Josling and  
Dina Umali\*

### Introduction

Agricultural trade patterns reflect both the process of economic development and the policies pursued by governments. Much of the Asia/Near East region (ANE) has undergone rapid economic growth in the past decades. This would itself be expected to shift agricultural trade patterns, as diets change and incomes increase. But in addition, profound changes have taken place in many countries in the economic policy pursued by their governments. This has included significant shifts in macroeconomic policy coupled with changes in the trade regime and in domestic sectoral policies. Agricultural policy has shared in this process. Price incentives have often replaced the implicit taxes on agriculture common a decade ago. The purpose of the ANE Agricultural Trade Study is to document and discuss the emerging agricultural trade patterns and relate them to the process of economic development and to the policy decisions taken in agriculture and in the rest of the economy.

This component of the Study looks at a cross-section of the region, choosing ten countries to illustrate the diversity of experience. After a brief discussion comparing the trade and agricultural developments for these countries over the decade (Part I), there follows a series of individual commentaries on the selected countries (Part II).

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\* The authors are Professor and Doctoral Candidate (respectively) in the Food Research Institute, Stanford University.

## PART I

### Comparison of Selected Country Agricultural Trade Patterns

The Asian/Near East region includes a wide variety of developing countries each with its own particular experience in the area of international trade in agricultural products. Broad trends for the region will mask this diversity and policy decisions based on such overall trends could prove misleading for many countries within that region. But theory, and empirical observation, would suggest what elements go to make up the pattern of agricultural trade for each country. Experiences differ because of the different combination of circumstances that exists in each country. This introductory section illustrates this diversity of experience and discusses the reasons why the trade patterns in the region may differ. To do this, a small number of countries were selected from the ANE region. The characteristics of these countries are described first, followed by a comparison of their trade patterns. The same ten countries are profiled in Part II, where their individual characteristics are explored.

#### Characteristic of the Countries Selected

The ten countries selected for exploring the changing agricultural trade patterns are listed below.

<u>Asia</u>		<u>Near East</u>
Bangladesh	Indonesia	Egypt
Korea, Rep of	Malaysia	Jordan
Pakistan	Philippines	
Taiwan	Thailand	

The countries were chosen to exhibit a range of different sizes and income levels. Land area ranges from Korea and Jordan, with less than 100,000 square kilometers, to Egypt, with 1 million square kms and Indonesia with 1.9 million square kms (see Table 1). Indonesia has the largest population, 170 million, followed by Bangladesh and Pakistan with just over 100 million each. By contrast, Malaysia has only 16 million people, and Jordan has a population of less than 4 million. Population density varies from Bangladesh with only 0.3 acres per head of population, to Malaysia with 5.1 and Jordan 6.4 acres per head.

The disparity in income levels among these countries is illustrated in Table 2. Income per head ranges from Bangladesh, which at \$160 is one of the world's poorest countries, to Korea, an upper middle-income country (as classified by the World Bank) with an average income of \$2,690 in 1987. Indonesia and Pakistan, though with higher per capita incomes, share with Bangladesh some of the problems of populous, low-income economies. Jordan and Malaysia, though not yet at the level of income of Korea, are firmly in the middle-income category. The Philippines, Egypt and Thailand have incomes in the \$500-\$1000 range, and are classified by the World Bank as "lower-middle" income countries.<sup>1</sup> Taiwan, for which comparable figures are not published by the World Bank, would fall into the same upper-middle income category as Korea.

These ten countries exhibit different levels of growth over the past two decades (Table 2). Bangladesh grew very slowly over the period 1965-1987, achieving only 0.3 percent increase in GDP per capita per year. The

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<sup>1</sup> Jordan is also classified by the World Bank in the "lower-middle" group, but among the selected countries discussed in this paper it is more conveniently placed with Malaysia and Korea.

Table 1:

## LAND AREA, POPULATION, AND DENSITY IN SELECTED ANE COUNTRIES

COUNTRY	LAND AREA (000 SQ KM)	1987 POPULATION (MILLION)	POP DENSITY ACRES/HEAD	POPULATION GROWTH
Bangladesh	144	102.6	0.3	2.2%
Indonesia	1,919	170.2	2.8	2.2%
Korea	98	42.1	0.6	1.4%
Malaysia	330	16.1	5.1	2.5%
Pakistan	804	102.2	1.9	3.1%
Philippines	300	57.4	1.3	2.5%
Thailand	514	53.1	2.4	1.8%
Egypt	1,001	50.7	4.9	2.7%
Jordan	98	3.8	6.4	3.5%

SOURCE: World Development Report

**Table 2:**  
**GDP, GDP growth rates and Agricultural growth, Selected ANE countries, 1978-87**  
**US Dollars**

COUNTRY	GDP (1987) (US\$ billion)	GDP per capita US \$	GDP growth % per year	Agric growth % per year
Bangladesh	17.6	160	0.3	2.4
Indonesia	69.7	450	4.5	3.0
Korea	121.3	2,690	6.4	4.4
Malaysia	31.2	1,810	4.1	3.4
Pakistan	31.7	350	2.5	3.4
Philippines	34.6	590	1.7	1.8
Taiwan	0.0			
Thailand	48.2	850	3.9	3.7
Egypt	34.5	680	3.5	2.7
Jordan	4.3	1,560		4.1

Source: World Development Report, 1989 (World Bank)

Philippines (1.7 percent) and Pakistan (2.5 percent) also grew at a rate lower than the average for developing countries as a whole (3.1 percent).

Indonesia, Malaysia, Thailand and Egypt managed to achieve growth rates ranging from 3.5 to 4.5 percent per year, while Korea grew fastest at 6.4 percent per year over the period 1965-87.

The agricultural sector also experienced a variety of growth rates among these ten countries (Table 2). Annual growth in agriculture in the 1980s was low in the Philippines (1.8) percent and in Bangladesh (2.4 percent). The highest growth rates were achieved in Korea (4.4 percent), Jordan (4.1 percent) and Thailand (3.7 percent), with the other countries showing agricultural growth of between 2.7 and 3.4 percent.

Agricultural output makes up a very different share of GDP in these countries. In two of the countries (Indonesia and Bangladesh) agriculture accounts for roughly one-half of GDP (see Table 3); in Pakistan and the Philippines the of agriculture is about one-quarter; in Malaysia , Egypt and Thailand agriculture accounts for about one-fifth of the GDP. In Korea and Jordan the comparable figure is around one-tenth, illustrating that higher rates of agricultural growth seem to be achieved by those countries with a relatively small GDP arising from agriculture.

#### Agricultural Trade Trends

The countries in the sample illustrate the wide variety of trade situations found among developing countries, from those that are significant net importers of agricultural products (such as Korea and Egypt) to those that are major exporters (Indonesia and Thailand). The net agricultural trade for each country is shown in Table 4.

Table 3:

Percentage distribution of gross domestic product by  
sector in Selected Countries, 1986

=====				
PERCENTAGE DISTRIBUTION OF GDP				
YEAR	Agriculture	Industry	Manufacturing	Services
-----				
Bangladesh	47	14	8	39
Indonesia	47	32	14	39
Korea	12	42	30	45
Malaysia (1984)	21	35	19	44
Pakistan	24	28	17	47
Philippines	26	32	25	42
Thailand	17	30	21	53
Egypt	20	29	0	51
Jordan	8	28	14	63
=====				

Source: World Development Report (World Bank), various issues.

Table 4: Value of Agricultural Trade, Selected ANE Countries, 1978 and 1986, (US\$ million)

country	Exports		Imports		Net Exports	
	1978	1986	1978	1986	1978	1986
Bangladesh	179	312	422	501	-243	-189
Egypt	664	697	2,420	4,491	-1,756	-3,794
Indonesia	3,076	4,609	1,449	1,179	1,627	3,430
Jordan	95	110	427	629	-331	-519
Korea	1,702	2,005	2,257	4,310	-555	-2,305
Malaysia	4,056	5,173	1,219	1,698	2,837	3,475
Pakistan	521	1,148	605	1,260	-84	-112
Philippines	1,815	1,551	473	670	1,342	882
Taiwan	407	669	1,718	2,241	-1,311	-1,572
Thailand	2,608	4,687	488	1,098	2,120	3,589

Source: FAO Trade Yearbooks, various issues.

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Diversity also characterized the experiences of these ten countries in the trends in agricultural trade over the period 1978-86. Agricultural imports increased sharply in several countries, including Thailand (15.6 percent per year), Pakistan (13.5 percent), Korea (11.4 percent) and Egypt (10.7 percent). Only Indonesia managed to reduce its agricultural imports by 2 percent per year. Malaysia, Jordan, and the Philippines experienced a steady growth of about 5 percent per year in agricultural imports (see Table 5). On the export side, Pakistan recorded growth of 15 percent per year, followed by Thailand (10 percent) and Bangladesh (9.3 percent). The Philippines and Egypt each had no growth in agricultural exports, and such growth was low in Korea, Malaysia and Jordan. Bangladesh (9.3 percent) and Indonesia (6.2 percent) experienced steady if not spectacular export growth.

Agricultural trade developments reflect the conditions in world commodity markets as well as the domestic situation in individual countries. The commodity composition of each country's trade is therefore an important link between world market developments and the trade pattern. Tables 6 and 7 indicate the major products in agricultural exports and imports for the selected countries. Many of these countries have an export interest in fish and fish products, rice, and forest products. All the selected countries import wheat and most import milk products, cotton, maize and animal fats. Rice and forest products are also imported by many countries in the sample. As one would expect, there is more diversity among export items than among imports, the former being linked to the natural conditions and agricultural specialization in the various countries.

In almost all countries the importance of agricultural products in total trade diminished over the decade, though there were signs of an upturn in the

Table 5: Growth in Agricultural and Total Trade, Selected ANE Countries, 1973-1987  
percent per year

country	Agricultural Imports	Agricultural Exports	Total Imports	Total Exports
Bangladesh	2.3	9.3	9.1	11.4
Egypt	10.7	0.6	8.9	8.6
Indonesia	-2.3	6.2	7.5	3.4
Jordan	5.9	1.9	7.8	18.3
Korea	11.4	2.2	13.9	21.6
Malaysia	4.9	3.4	8.4	9.0
Pakistan	13.5	15.0	12.6	17.3
Philippines	5.2	-1.8	1.7	5.2
Taiwan	3.8	8.0	14.9	26.7
Thailand	15.6	10.0	9.0	14.6

Source: FAO Trade Yearbooks, various issues.

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Table 6: Major Export Items by Country, 1987, Selected ANE countries

COMMODITY	C O U N T R Y									
	Bangladesh	Indonesia	Korea	Malaysia	Pakistan	Philippines	Taiwan	Thailand	Egypt	Jordan
Apples			X							
Bananas							X			
Cocoa beans, raw/roasted				X						
Cocoa butter				X						
Cocoa powder				X						
Coconut oil				X						
Coffee, green/roasted		X								
Copra						X				
Cotton lint					X				X	
Dessicated coconut						X				
Fish and fish products	X	X	X	X		X	X	X		
Forest products		X		X		X	X			
Hides and Skins					X					
Jute and bast fibers	X									
Lemon and limes										X
Maize								X		
Meat, fresh/chilled/froze	X									
Natural rubber		X		X				X		
Oilseed cake and meal		X								
Onions									X	
Oranges									X	
Palm kernel cake				X						
Palm oil		X		X						
Pears			X							
Pepper		X		X						
Pineapple, canned								X		
Potatoes									X	
Rice		X			X		X	X	X	
Sorghum								X		
Sugar, centrifugal						X		X		
Sugar, refined			X				X	X		
Tapioca								X		
Tea	X	X					X			
Tobacco, unmanufactured			X					X		
Tomatoes										X

Source:FAO Trade Yearbook, various issues.

Table 7: Major Import Items by Country, 1987, Selected ANE countries

COMMODITY	C O U N T R Y									
	Bangladesh	Indonesia	Korea	Malaysia	Pakistan	Philippines	Taiwan	Thailand	Egypt	Jordan
Animal oils and fats	X		X		X			X	X	
Butter	X							X		
Coconut oil	X									
Cotton lint	X	X	X	X		X	X	X		
Cottonseed oil									X	
Coconut oil	X		X							
Fish and fish products									X	X
Forest products			X		X		X	X	X	X
Hides and skins			X							
Jute and bast fibres					X					
Maize			X	X			X		X	X
Meat, bovine/fresh									X	X
Meat, fresh/chilled/frozen			X							
Meat, poultry/fresh									X	
Meat, sheep										X
Milk and cream, dry	X	X		X	X	X	X	X	X	X
Milk, condensed/evaporate	X									
Natural Rubber			X				X			
Palm oil	X		X		X				X	X
Pulses				X	X				X	
Rape and mustard oils	X									
Rice	X	X	X	X		X				X
Soybean cake and meal				X		X				
Soybean oil	X				X			X	X	X
Soybeans				X		X	X			
Sugar, raw/centrifugal			X	X						X
Sugar, refined	X				X				X	
Sunflower oil								X	X	
Tea					X					
Tobacco, unmanufactured								X		
Wheat and flour	X	X	X	X	X	X	X	X	X	X

Source:FAO Trade Yearbook, various issues.

share of agriculture in total imports in several countries toward the end of the period in several countries. (See Tables 8,9). Agricultural exports were most significant in Thailand, Egypt, and Bangladesh, with no strong trend away from this situation. Agricultural exports increased sharply as a share in total exports in Indonesia, due largely to the development in oil export earnings. Only Jordan suffered a rapid decline in agriculture's share in export earnings. The decline in agriculture's share in imports was most evident in Taiwan and Indonesia. In Korea, there was an increase in this share around 1981, followed by a later decline. By contrast, Pakistan showed a decline in agriculture's import share in the early 1980s, followed by a more recent rise in this share. Bangladesh showed most volatility in import shares, with no apparent trend.

#### Explaining Trade Patterns

The relationship between macroeconomic development, agricultural policy and trade is complex, and the detailed linkages can only be established by examination of particular countries. However, certain broad relationships can be expected, both from a priori reasoning and from experience. High growth in income will tend to be accompanied by higher imports, including imports of agricultural goods. Such imports are likely to include animal products to satisfy growing demand for meats, or animal feed to supply domestic livestock sectors. But this import growth will be conditioned by several factors. Export earnings must rise to provide the foreign currency for import growth, in addition to the service payments on foreign debt. The situation of the ten selected countries with respect to the debt burden is shown in Table 10. The percentage of export earning needed for debt service is above 20 percent in all the countries shown in the table, and above one-quarter for Indonesia,

Table 8: Agriculture's Share in Total Value of Exports, Selected ANE Countries, 1978-1987

country	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Bangladesh	37.8	36.9	32.1	30.3	35.2	33.4	36.5	32.4	34.5	na
Egypt	38.2	33.2	22.4	22.9	21.6	22.6	24.0	18.0	23.7	na
Indonesia	26.4	28.3	22.1	12.1	11.8	16.2	17.9	21.1	31.1	na
Jordan	32.1	38.8	35.1	33.6	27.3	26.3	16.6	13.5	15.0	na
Korea	13.4	12.6	10.6	9.6	7.2	6.1	5.1	4.7	5.8	na
Malaysia	50.4	55.1	46.8	44.8	42.8	42.5	38.2	36.0	37.4	na
Pakistan	39.8	35.6	41.5	44.9	37.1	31.8	31.2	30.9	36.8	na
Philippines	53.0	49.0	44.8	43.2	41.2	38.7	37.7	33.3	32.0	na
Taiwan	3.2	2.6	2.5	2.6	2.2	2.1	1.9	1.7	1.7	na
Thailand	63.8	62.1	57.3	63.0	64.3	62.0	60.4	55.1	52.8	na

Source: FAO Trade Yearbooks, various issues.

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Table 9: Agriculture's Share in Value of Imports, Selected ANE Countries, 1978-1987

Commodity	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Bangladesh	35.1	23.1	33.1	19.7	27.0	28.4	30.2	33.6	24.1	na
Egypt	36.0	50.0	57.7	48.4	42.0	38.7	43.4	47.0	39.0	na
Indonesia	21.7	19.8	15.8	14.5	10.0	10.4	9.9	10.9	11.0	na
Jordan	28.5	27.7	23.5	20.9	22.9	22.4	24.7	22.4	25.9	na
Korea	15.1	14.1	18.1	20.3	16.2	15.7	14.5	12.9	13.6	na
Malaysia	18.8	17.0	15.1	15.9	14.3	13.5	14.0	14.7	15.7	na
Pakistan	21.5	26.7	16.0	15.9	16.4	16.2	21.1	21.7	22.3	na
Philippines	10.0	9.0	9.1	9.9	11.5	10.4	10.2	12.7	12.4	na
Taiwan	15.6	15.4	12.7	12.3	12.5	11.8	11.6	11.2	9.3	na
Thailand	9.2	9.6	9.1	8.9	8.9	8.7	9.8	10.1	12.0	na

Source: FAO Trade Yearbooks, various issues.

Table 10:  
TOTAL LONG TERM DEBT SERVICES, SELECTED COUNTRIES, 1984-1986  
(PERCENTAGE OF GNP AND EXPORTS OF GOODS AND SERVICES)

COUNTRY	TOTAL LONG TERM DEBT SERVICE AS A PERCENTAGE OF GNP			TOTAL LONG TERM DEBT SERVICE AS A PERCENTAGE OF EXPORTS		
	1984	1985	1986	1984	1985	1986
Bangladesh	1.3	1.3	1.8	11.4	16.7	25.1
Indonesia	5.5	6.1	7.3	19.0	25.1	33.1
Korea	6.6	8.6	10.8	15.8	21.5	24.4
Malaysia		16.9	12.7		27.5	20.0
Pakistan	2.8	3.2	3.3	27.1	30.0	27.2
Philippines	4.5	4.9	6.1	17.9	19.5	21.3
Taiwan	11.7	7.9	7.7			
Thailand	5.4	7.0	7.7	21.5	25.4	25.4
Egypt	7.9	8.5	4.8	34.1	33.6	23.8
Jordan	7.5	12.0	12.1	14.8	22.1	28.7

SOURCE: World Development Report (World Bank), various issues  
and Economist Intelligence Unit, Country Profile Taiwan

Jordan, Pakistan, Thailand and Bangladesh. The need to sell abroad to service debt will clearly restrict imports. In addition to the growth in export earnings, trade policy must be such as to allow consumer demand to be reflected in imports, and exchange rate policy must reflect the true value of foreign exchange.

Growth will also impact on agricultural production, and may indeed have been in part a result of rural development. In these circumstances, the agricultural output increase will mute the import of competitive farm products and tend to promote agricultural exports. A policy that stimulates farm production through border protection or guaranteed domestic markets could lead to lower imports, offsetting in part the expansion due to income growth.

The countries discussed in this study show the full range of possible linkages between agricultural trade and growth patterns. Korea and Taiwan, with high growth rates and bouyant exports show high rates of growth of agricultural imports, and little expansion of agricultural exports. Thailand and Malaysia, with somewhat slower growth, have also increased imports of agricultural products over the decade as a result of this growth. The Philippines, with even lower growth, experienced a smaller import growth.

The greater the share of GDP represented by agriculture, the more likely it is that overall growth will have to include a strong agricultural performance. This also implies less of an increase in agricultural imports accompanying that growth. Indonesia, with a large agricultural component of GDP, actually reduced imports of agricultural products, in contrast to the experience of Taiwan and Korea. Bangladesh, with slow economic growth, a somewhat low rate of growth in agriculture and a large agricultural sector, showed a relatively high growth in agricultural imports--though in this case,

agricultural exports also increased. Egypt also experienced a steady growth in agricultural imports, despite government policy aimed at improving the performance of agriculture. The low agricultural growth, coupled with steady growth in the rest of the economy, led to the rise in imports and little growth in agricultural exports. Jordan had greater success with the growth in domestic agricultural production, but the small size of agriculture in the Jordanian economy coupled with high growth in non-agricultural exports, led the way to a steady increase in imports of agricultural products.

The generalizations that are suggested by these comparisons of trade experiences could of course be subject to more rigorous testing. But this would ignore the diversity that is evident in the ANE region in favor of the common strands. In the conduct of trade policy for agricultural products, this diversity is important. A large part of the explanation for changes in trade patterns is found at the level of the individual country. Accordingly, the remainder of this component of the ANE Agricultural Trade Study concentrates on the experiences of each of the selected countries.

## Part II

### Country Profiles

#### BANGLADESH

##### **Basic Information**

1. Bangladesh is nestled on the northeastern border of India, west of Burma, with its southern coastline facing the Bay of Bengal. It has a total area of 144,000 square kilometers, dominated by the rivers Ganges and Brahmaputra. Annual flooding of these two rivers provide rich alluvial soils. Of the total land area, 8.8 million hectares or 61 percent were cropped in 1985/86. A further 404,000 hectares were fallow and 270,000 hectares were classified as cultivable waste.
2. Bangladesh's climate is tropical monsoon. Rainfall is among the world's heaviest (on average exceeding 2,540 mm), often having catastrophic impact. Serious flooding is a constant threat, destroying crops and livestock and causing the loss of human life. In the last four years, the country has had to weather through severe floods in 1984, 1987 and 1988, and a cyclone and tidal wave in 1985.
3. Total population estimated in 1987 was 102.56 million, which for the period 1978-87 increased at an average rate of 2.24 percent. Thus high priority has been given to population control and family planning, with government initiatives supplemented by internationally funded programs. Income distribution is highly uneven with the highest quintile of households in 1981-82 receiving 45.3 percent of the income while the bottom 60 percent of the

households received approximately 33 percent.

4. Landholdings are typically small. Almost 30 percent of owned land were one hectare or less; an additional 39 percent were between one to three hectares. These landholdings are further fragmented into numerous smaller plots. The 1977 census suggested that less than three percent (by number) of farm holdings comprised a single plot; 35 percent comprised two to five fragments, 26 percent comprised six to nine fragments, 27 percent comprised ten to 19 fragments, and 10 percent comprised 20 or more fragments.

5. The *Bangladesh Economic Survey* indicates that about 85 percent of the population depend, directly or indirectly, on agriculture for their livelihood. In 1987, the total economically active population was 30.6 million of which 70.5 percent were in agriculture. Unemployment and underemployment (in both towns and rural areas) are very high. In 1983/84, the unemployment rate was 25 percent.

6. The local currency, issued since 1972, is the Taka, which is divided into 100 paisa. The US dollar replaced the sterling as the intervention currency in January 1983. The taka is now valued against a basket of currencies. The taka has depreciated against the dollar in recent years (See Table 1). As of September 1988, Tk 31.00 = \$1.00.

7. Foreign aid, mainly in the form of food, is an important component in the nation's economy. In 1985/86, Bangladesh received approximately 1.3 million tons of food aid, ranking second only to Egypt. This volume amounts to 20.2

Table 1: Exchange Rates, Bangladesh, 1981-87  
Taka per US\$ (period average).

1981	1982	1983	1984	1985	1986	1987
17.99	22.12	24.62	25.35	28.00	30.41	30.95

Source: IMF, International Financial Statistics

Table 2: Percentage distribution of gross domestic product by sector, Bangladesh, 1965-1986

YEAR	PERCENTAGE DISTRIBUTION OF GDP			
	Agriculture	Industry	Manufacturing	Services
1965	53	11	-	36
1978	57	13	8	30
1979	56	13	8	31
1980	36	13	7	35
1981	54	14	8	32
1982	47	14	7	39
1983	47	13	-	40
1984	48	12	-	39
1985	50	14	8	36
1986	47	14	8	39

Source: World Development Report (World Bank), various issues

Table 3: Inflation rates in Bangladesh, 1979-86 (%).

1979	1980	1981	1982	1983	1984	1985	1986
16.5	12.4	7.9	12.5	5.6	16.3	16.9	5.2

Note: Inflation rates were calculated from whole sale price indices.

Source: Wholesale price indices were from IMF, International Financial Statistics, various issues.

percent of food aid to lower income countries.

## The Economy

1. Bangladesh is among the world's poorest countries. The economy is predominantly agrarian, with most people engaged in farming or fishing and often falling outside the money economy. Agricultural production dominates the national product--contributing 47 percent to gross domestic product in 1986 (Table 2)--and is also a source the source of much of the small industrial sectors raw materials.

2. Meeting the nation's growing food requirements remains a central objective. There has been progress in increasing rice production and diversifying the crop base--wheat has been a success. But adverse weather, usually neavy flooding, constantly threatens to disrupt plans and make targets unattainable. Losses of both food and cash crops are a common occurrence, seriously disrupting the entire economy by precipitating unanticipated food import requirements and placing strains on industry as well as causing shortfalls in exports.

3. Bangladesh has used concessional imports and a large scale ration system to stabilize food grain consumption and prices and, indirectly the volatile political economy. Partly because large-scale food imports have contributed to rising foreign debt, more emphasis has been given to production and self-sufficiency in the 1980s. However, low domestic savings and a very small export base have limited the resources available to the government and foreign

aid remains an important component in agricultural development.

4. Gross domestic product increased from \$7.7 billion in 1979 to \$15.5 billion in 1986. The trade deficit declined in the 1980's as exports increased and imports were contained. But growth is constrained by a shortage of foreign exchange, a low rate of saving and a high debt ratio. Per capita GNP in 1986 was \$160, the lowest of the 10 countries in consideration.

5. Bangladesh suffers from a chronically weak foreign trade account. This reflects the nation's dependence on imports for most essential goods together with declining real prices for its traditional staple exports (e.g. jute, jute manufactures, and tea). Bangladesh's terms of trade in 1985/86 are estimated to have deteriorated to 80.1 from a base of 1979/80=100. In 1986/87, with other export prices displaying greater buoyancy than jute and the oil price falling, the overall terms of trade index improved to 91.2. According to World Bank projections, the terms of trade are expected to decline well into the 1990s.

#### The Macroeconomic Policy Environment

1. Bangladesh is now two years into its Third Five Year Development Plan (1986-90). Overall economic growth averaged about 4 percent per year in the 1980's. Macroeconomic management in the two years has been sound, and the government has embarked on a program to improve efficiency and competitiveness of the economy. Monetary expansion has been brought under control so that the rate of inflation fell below 10 percent in 1986 (Table 3) although higher food prices in 1987 caused it to rise to 12 percent.

2. The real effective exchange rate depreciated by about 10 percent between July 1986 and June 1987 so that the gap between the official and secondary exchange rate has narrowed from 15 percent in 1985 to 7 percent in 1987.

3. The deterioration in credit recovery has been the greatest threat to stability in 1987. With recovery rates falling to 27 percent in agriculture and 10 percent in industry, the situation has undermined long term growth prospects and permitted serious resource misallocation and inequities. The government has taken strong steps to improve recovery rates. Restoring discipline in the financial sector itself poses difficult issues of macroeconomic management for the government, since the denial of new credit to defaulters has inevitably resulted in a net contraction of formal credit available in some areas.

4. More emphasis has recently been given to production and self-sufficiency because of pressure from aid donors and because debt incurred by cereal imports have become a burden. Associated goals have been to diminish the fiscal burden of the fertilizer subsidy and reallocate such subsidies to investments like irrigation and water control, and to foster greater efficiency in fertilizer use. Thus, the internal distribution of fertilizer was transferred to the private sector to improve its timeliness and reliability. Investments in irrigation and transfer of fertilizer marketing to the private sector paid off in rice. About 25 percent of the land is now irrigated compared to 10 percent in 1971. As a result, per capita rice production has been rising.

5. In addition to input subsidies, output price supports have also been used to encourage production and to transfer income to the agricultural sector. However, the early price support programs were ineffective because prices were announced too late for farmers to use in making planting decisions, funding was inadequate, and administrators were inexperienced.

### Agricultural Exports

1. For the period 1978-87, agricultural exports accounted for approximately 30 percent of total exports. Despite some success in the diversification of its exports trade, Bangladesh remains heavily dependent on traditional exports-- jute, leather and tea (Table 4). Jute, in either raw or process forms, continues to dominate; in 1986 they accounted for 36.4 percent. Manufactured items include carpet backing and sacking. Earnings from raw jute, tea, and hides are highly susceptible to the fluctuating conditions in world markets. There has been some success in developing a sizeable export trade in frozen and processed fish, of which shrimps are the most important. More recently, made up garments have emerged as a significant export item although, given protectionist moves in export markets, the long term outlook for growth in this sector is in doubt (Table 5).

2. The US provides the main market for exports. The UK, Pakistan, Japan are also import buyers. The EC has become the principal source of imports, followed by Japan, Singapore, the U.S. and India.

3. The importance of jute as an industrial raw material and as an export

Table 4: Value of Agricultural Exports, Bangladesh, 1978-1987, (US\$ 000)

Commodity	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Jute and bast fibres	101,462	144,415	135,000	114,394	99,974	106,327	109,184	148,569	113,450	93,889
Tea	42,728	40,318	37,037	44,523	40,610	46,219	67,982	59,950	32,846	29,804
Meat: fresh/chilled/frozen	6,046	13,141	6,800	3,131	6,662	6,100	7,770	3,520	11,810	10,380
Hides and Skins	332	na	269	23	238	350	57	2,070	2,140	na
Fish and fishery products	17,723	29,758	42,746	39,724	45,519	67,962	80,099	82,310	117,738	na
Forest products	5,878	6,185	6,400	4,895	5,695	4,495	8,808	7,688	7,688	na
Total Agric. Exports	179,071	234,619	229,559	212,481	217,887	253,015	294,034	322,800	311,637	na
Total Exports	473,764	635,699	714,777	700,533	619,348	756,653	805,423	996,550	904,100	na
% Ag. Exports over Total	37.8%	36.9%	32.1%	30.3%	35.2%	33.4%	36.5%	32.4%	34.5%	na

Source: FAO Trade Yearbooks, various issues.

Note: Total Agricultural Import and Exports include the categories Food, Animals, Beverages, Tobacco, Crude Materials (eg oilseeds, textile fibers), Animal and Vegetable Oil, Fish and Fish Products and Forest Products

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Table 5: Value of Agricultural Imports, Bangladesh, 1978-1987, (US\$ 000)

Commodity	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Milk, dry	18,848	14,843	26,000	33,679	22,082	30,742	34,254	51,706	49,063	52,091
Milk, condensed/evaporated	343	1,155	1,800	2,639	3,848	3,956	4,035	12,118	12,060	17,629
Butter	3,437	1,452	1,927	7,314	9,353	2,960	2,703	274	950	1,300
Sugar, refined	76	99	48,000	16,814	23,236	1,330	210	3,780	4,400	5,600
Rice	73,120	8,200	162,500	18,503	56,146	432,490	382,030	151,700	10,976	42,530
Wheat+Flour (wheat equi.)	185,130	1,222,558	455,000	11,405	19,887	144,990	236,660	247,220	126,070	200,590
Cotton lint	38,431	75,000	72,000	88,942	69,311	68,656	105,908	81,179	53,285	39,598
Animal oils,fats,greases except lard	9,771	13,157	14,050	13,498	6,620	6,440	21,146	19,609	10,759	6,198
Soybean Oil	39,350	36,055	23,000	18,500	20,442	28,726	44,232	33,580	33,580	51,561
Rape+Mustard Oils	1,000	7,000	1,750	3,557	2,502	6,535	2,026	1,100	800	9,000
Palm Oil	0	818	49,000	66,499	48,267	35,362	53,402	107,607	105,303	62,513
Coconut Oil	10,593	11,748	12,000	14,447	13,443	15,062	18,283	24,090	21,682	13,587
Fish and fishery products	65	99	63	12	13	0	0	0	1	na
Forest products	3,108	4,430	4,430	2,034	3,945	4,198	13,318	15,972	14,916	na
Total Agric. Imports	421,989	331,504	609,581	448,141	523,624	540,153	615,156	872,668	500,963	na
Total Imports	1,202,273	1,433,956	1,839,800	2,274,540	1,936,470	1,901,124	2,034,940	2,593,990	2,076,700	na
% Ag. Imports of Total	35.1%	23.1%	33.1%	19.7%	27.0%	28.4%	30.2%	33.6%	24.1%	

Source: FAO Trade Yearbooks, various issues.

Note: Total Agricultural Import and Exports include the categories Food, Animals, Beverages, Tobacco, Crude Materials (eg oilseeds, textile fibers), Animal and Vegetable Oil, Fish and Fish Products and Forest Products

commodity makes the crop outturn of great significance. Bangladesh accounts for as much as 80 percent of world jute fibre exports and 40 percent of exports of jute manufactures. The area under jute tends to fluctuate with the relative government procurement prices of jute and rice. Jute area has declined from an average of 780,000 ha in 1971-75 to 580,000 ha in 1982/83. Jute yield is improving and is favorable compared to other producing countries. But yield improvement has not been sufficient to compensate the contraction in area.

4. In response to depressed prices in the world market, the government restricted production in 1986/87 to 900,000 mt, a 40 percent decline from the previous year. The restriction on quantity, however, created no problems in meeting the domestic and international demand for raw jute. In 1987/88, the crop was down to 684,000 mt and planted area was down to 450,000 ha. This time, the reduced production created problems in meeting demand of the domestic and international markets and exports were down 20 percent from 1986/87.

5. Jute manufacturing is the largest industrial employer in Bangladesh. Bangladesh is second to India as a producer of jute goods. Not only does the country face stiff competition from the more efficient Indian industry, but the long term future of the trade is threatened by synthetic substitutes. When the burden of high fibre prices pushes up the price of manufactures, jute's competitive position vis-a-vis polypropylene is eroded, and the resulting loss of market share has proved difficult to recapture. As part of the policy of promoting greater efficiency through denationalization, the

government has returned to the private sector a number of jute mills. As of 1984, 33 mills has be privatized.

6. Tea is an important cash crop. Output rose in 1983/84 and 1985/86, but was severely affected by the floods in 1984/85 and fell sharply again in 1986/87. More than half of output goes to export markets. The fall in output in 1984/85 was compensated by higher world prices, but earnings still declined in 1986 and 1987.

7. Poor climatic conditions, management problems in the tea estates and diversion of customers away from Bangladesh are some of the problems afflicting the tea industry. In 1983, a major rehabilitation program was announced for the tea industry. With financing from the UK and EC, the government, in association with major tea estate owners has prepared a plan to increase yields of quality tea, reduce production costs, rehabilitate and modernize existing factories, establish three new central factories for the processing of teas from the smaller estates, and improve land utilization through measures to stimulate crop diversification. Tea yield in Bangladesh lags well behind the two major tea producers, India and Sri Lanka.

8. The fisheries sector has emerged as a significant contributor to exports. The industrialized sector is small but expanding and centers upon shrimp catching and processing for export. Increasing world demand for prawns and shrimps suggests there is a considerable potential here for Bangladesh, but the major constraint has been the lack of raw materials--output can be increased if resources were invested in developing fish farming projects.

9. Garments have emerged as an important non-traditional export item, accounting for 17 percent of all exports in 1986/87. Bangladesh has been so successful in supplying cotton shirts to Europe and USA that protectionist measures were imposed against Bangladeshi exports. Growing protectionist sentiments towards garments from developing countries suggest that the industry cannot continue to expand as rapidly as it recently has.

#### Agricultural food imports

1. Agricultural imports comprise from 20 to 30 percent of total imports. Wheat, rice, dried milk and other milk products, and palm oil are the major agricultural imports of Bangladesh. Other commodities imported include: refined sugar, cotton lint, animal oils, fat and grease, soybean oil, rape and mustard oil, coconut oil and forest products.
2. Rice is the most important food grain in Bangladesh, with almost 80 percent of total cropland devoted to its production. As a result of the government's efforts to achieve self-sufficiency, rice yields have increased by 10 percent since the mid-1970s. Although the index of rice production indicates that the 1984/85 output was up 31 percent from 1976/77, production has barely kept up with population growth (Table 6). Adverse weather conditions, resulting in substantial crop losses, aggravated Bangladesh's food grain situation. Wheat is the other food grain produced in significant quantity.
3. Despite increasing food grain output, domestic production has not been sufficient to meet local demand--necessitating imports. Bangladesh imports a

Table 6: Rice and wheat production, 000 mt.

Year	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87
Rice	13,662	13,415	13,991	14,379	14,454	15,051	15,406
Wheat	1,075	952	1,078	1,192	1,463	1,043	1,091

Source: Economic Intelligence Unit, Country Profile Bangladesh, p. 21.

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little rice, but it generally covers its rice deficit by importing wheat under commercial and concessional terms, mainly from the U.S. The government is the sole importer of food grains. Concessional imports, tied to policy reforms, are available from donors at prices which allow the government to realize profit and subsidize consumers. Any subsidies on domestically procured grain comes at a cost to the treasury. In 1987, Bangladesh imported 1.5 million mt of wheat at a cost of \$200 million. The increasing food import bill has become a serious drain to foreign exchange.

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## INDONESIA

### Basic Information

1. Indonesia is a group of islands spread along the equator, south of the Malaysian peninsula and northwest of Australia. The major islands are Java, Madura, Sumatra, Sulawesi, Kalimantan, Bali, and Irian Jaya. It has a total land area of 1.92 million square kilometers of which 7.4 percent (142,000 sq. km.) are arable. Of the total arable land, 42.3 percent are in Java.

According to World Bank estimates, a further 400,000 square kilometers could be developed outside Java for cash crop cultivation.

2. Indonesia is the fifth most populous nation in the world. Total population as of mid-1987 was 170.2 million, which for the period 1978-87 grew at an average rate of 2.21 percent per year. The inter-island population distribution of Indonesia is extremely unbalanced. The islands of Java, Madura, and Bali, which account for just over 7 percent of total land area, contain 65 percent of the total population. Thus, the government has officially sponsored resettlement in the outer islands.

3. Agriculture, including forestry and fishery, is the most important sector in the economy in terms of labor absorption. As of 1981, 58 percent of the labor force were employed in agriculture.

4. The national currency of Indonesia is the rupiah, which technically comprises 100 sen. Inflation, however, has caused the effective disappearance

of the lesser currency unit. The rupiah has been devalued several times primarily to boost the competitiveness of Indonesia's non-oil exports and raise the rupiah value of the government's denominated oil tax revenues in the face of weakening oil markets. The rupiah was devalued by approximately 34 percent to Rp 625 = \$1.00 in 1978, following which its link to the dollar was severed in principle. A "managed float" exchange rate policy was adopted linking it to a basket of currencies composed of Indonesia's main trading partners.

5. The floating exchange rate permitted a gradual depreciation of the rupiah until 1983, when the \$5 a barrel cut in oil prices agreed by OPEC triggered a further 28 percent devaluation to Rp 970 = \$1.00. In the following years, the rupiah's value was floated until it reached Rp 1,134 = \$1.00 in 1986. At that point, the government was forced to respond to the oil price slump with a 31 percent devaluation to Rp 1,644 = \$1.00. This devaluation was followed by an official announcement that the rupiah's continuing close links to the dollar were to be cut and that it was to be linked to the SDR in order to mitigate the impact of international currency fluctuations on the Indonesian economy.

6. The 1986 devaluation, which followed several months of official denial that a realignment to overcome the balance of payments and budgetary constraints imposed by the oil price collapse of that year was imminent, resulted in a considerable erosion of public confidence. Persistent rumors of further devaluations triggered bouts of capital flight, the most serious of which occurred in December 1986 and May-June 1987 when some \$1.8 and \$1.7 billion respectively were expatriated. The government was able to stem the pressure on the rupiah through tight monetary control and resultant high

interest rates. With the subsequent stabilization of the dollar, the rupiah was allowed to slide against it, and the exchange rate fell to Rp 1,708 = \$1.00 in November 1988.

## The Economy

1. Indonesia's economy is the nineteenth largest in the world. During the 1970's, real GDP growth averaged about 7 percent. Booming petroleum revenues provided about 70 percent of total export earnings and government revenues, and the basis for rapid economic growth. This growth was "export led" in that exports grew faster than total output.

2. Agriculture and mining are the dominant sectors of the economy despite a considerable expansion of the other sectors. Agriculture remains the largest single source of income and employment opportunities, and through the production of a large number of internationally traded commodities is a significant earner of foreign exchange. The food crop sector, the most important component of the agricultural sector is composed predominantly of small landholders. The government has continuously directed its efforts toward increasing their productivity through the application of "green revolution" production technologies. Most comprehensive and successful in the case of rice, it involved the provision of chemical inputs, irrigation, and credit in combination with a variety of price incentives to ensure their use.

3. The cash crop subsector is composed of smallholder cultivators, large commercial estates, and state owned plantations. This subsector has only

recently emerged from a long period of neglect which began with the nationalization of foreign owned plantations in the 1950s and 1960s. The state agencies which took over these plantations generally lacked not only the administrative skills, but also the finances to manage them effectively as other sectors were given priority in the allocation of resources. The privately owned farms, whether an estate or small landholding, lacked investment funds to maintain productivity. It was only by the late 1970s and early 1980s when the priority was shifted to the development of non-oil exports, of which many of the most important were cash crops.

4. The manufacturing sector, which expanded greatly during the last 20 years, has been geared primarily to the production of import substituting goods and has benefited from a considerable degree of protection, rendering many parts of it inefficient and uncompetitive.

2. The oil industry is the most important source of export earnings and domestic budgetary revenue. At the same time, Indonesia had to contend with the "Dutch Disease". As the price of oil continued to rise relative to the price of non-oil exports, the trade balance of the oil sector moved into a surplus that led to a combination of nominal exchange rate appreciation and reserve inflow. Since most of the oil money was transmitted into the economy through the government budget, domestic inflation continued to rise and non-oil exports lost their competitiveness (Table 1). The terms of trade of tradable goods relative to non-tradable goods declined. The undervalued exchange rate also produced a bias in favor of capital intensive methods since the cost of labor tends to move along with inflation at a faster rate than the

Table 1: Inflation rate in Indonesia, 1979-86 (%)

1979	1980	1981	1982	1983	1984	1985	1986
33.8	18.5	9.9	8.5	19.7	13.1	4.3	8.5

Note: Inflation rates were calculated from wholesale price indices.

Source: Wholesale price indices were from IMF, International Financial Statistics, various issues.

change in the cost of the imported capital goods.

3. Growth since 1981 has generally been sluggish, peaking to 6.7 percent in 1984 before slumping to 1.9 percent in 1985 and turning negative in 1986. Slow growth and development, current account deficits, and government-imposed austerity seem likely to continue through the late 1980s, mainly because of generally dim prospects for primary export commodities.

### Macro-Economic Policies

1. Until the 1980s, the steady growth of the overall trade surplus permitted the rising deficit on the non-oil account to be overlooked. But following the slump in oil markets from 1982 onwards, a campaign was launched to reduce the non-oil deficit, both by cutting import demand and promoting non-oil exports. The government introduced a number of important economic reforms designed to increase the efficiency and competitiveness of non-oil export producers. These reforms were aimed at reducing production costs of non-oil exports by permitting export producers to use cheaper imported inputs. It was also followed by the devaluation of the rupiah, which effectively reduced the dollar price of exports by more than 31 percent.

2. Other measures included: the overhaul of the tax system in 1984, partial liberalization of the banking sector in 1983 and 1988, the gradual lifting of subsidies from most parts of the economy, a reform of the customs and port handling procedures in 1985 (which often collected unofficial taxes), and the

introduction of a series of policy packages designed to attract increased foreign investment and promote non-oil exports in 1986. Efforts have also been made to expand overseas markets, with special emphasis being placed on the CMEA countries and the restoration of direct trading links with China, which has been suspended for 18 years.

3. The effect of these reforms were felt quickly. Provisional data in 1987 indicated that the value of non-oil exports increased by 31.4 percent and, despite a modest increase in the value of oil exports, exceeded the latter by a small margin for the first time in 15 years. Although the impact of this increase in non-oil exports on the trade balance was partially offset by a corresponding rise in non-oil imports, principally of capital and intermediate goods as a result of the trade liberalization measures, it was an important breakthrough in Indonesia's efforts to reduce its export dependence on the hydrocarbon sector.

### **Agricultural Exports**

1. Indonesia's agricultural exports as a percentage of total merchandise exports increased from 12.1 percent in 1982 to 31.1 percent in 1986. Its external trade is heavily biased towards three countries: Japan, the United States, and Singapore--which between them bought 75 percent of Indonesia's exports and supplied more than 50 percent of its imports in 1986. Major export items include: natural rubber, palm oil, coconut oil, coffee, tea, pepper, and forest products.

Table 2: Agricultural exports of Indonesia, 1978-1987, value (US\$ 000)

Commodity	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Coffee:green+roasted	491,305	614,263	658,300	345,944	341,700	42,726	56,526	559,910	818,440	535,560
Tea	94,755	83,388	112,700	100,837	89,492	120,435	226,282	149,083	99,088	118,733
Pepper	69,190	46,814	50,106	47,151	44,873	51,998	64,237	78,372	136,935	148,147
Oilseed cake and meal	36,171	44,149	50,200	40,688	42,675	44,860	30,350	39,150	48,970	53,070
Palm Oil	208,804	204,403	215,355	106,938	96,247	134,612	113,083	236,965	139,776	185,480
Coconut oil	0	14810	22810	1534	0	2838	32740	113717	1211	50693
Rice	5	0	3,043	0	0	0	0	69,013	28,187	10,979
Natural Rubber	717,732	940,334	1,173,810	835,409	606,936	847,903	951,909	718,383	713,199	960,453
Forest Products	1,041,957	1,848,479	1,879,117	970,900	812,060	1,135,500	1,209,930	1,210,820	1,739,830	na
Fish and fish products	180,504	221,255	211,299	203,590	231,330	234,950	228,010	236,620	340,620	na
Total Agric. Exports	3,075,926	4,404,411	4,845,327	3,045,890	2,623,740	3,427,350	3,919,920	3,922,610	4,608,720	na
Total Exports	11,643,175	15,590,143	21,908,896	25,164,490	22,328,490	21,145,850	21,887,800	18,586,700	14,805,000	na
% Ag. Exports over Total	26.4%	28.3%	22.1%	12.1%	11.8%	16.2%	17.9%	21.1%	31.1%	na

Source: FAO Trade Yearbooks, various issues.

Note: Total Agricultural Import and Export Values = (Food + Animals)+(Beverages+Tobacco)

+ Crude Materials (eg oilseeds, textile fibers) + Animal Vegetable Oil + Fish and

Fishery Products + Forest Products

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2. Most of Indonesia's rubber is exported, and in the period up to 1980 earnings rose because of better prices rather than increased volume. Low prices in the world market brought a fall in both the volume and value of exports in 1981 and 1982, and in these two years total rubber production decreased by almost 12 percent because of the disincentive effect of the low prices on smallholder producers. The high prices in 1983 and 1984 resulted in a recovery of export earnings, but a renewed slump in prices in 1985 prevented the production target of 1.2 million tons from being reached. Since then, production has expanded as a result of expansion in acreage planted and the rehabilitation of existing plantations through the introduction of high yielding varieties--a part of the drive to boost non-oil exports.

3. Indonesia is the world's second largest producer of palm oil. Production derives mainly from plantations, and has increased rapidly since 1970. Annual exports fell sharply after 1980, reflecting a big increase in domestic consumption as users switched from coconut oil and government protection of domestic consumers through export restrictions. Exports recovered after 1984 as increased output of coconut oil permitted domestic demand to be met and export restrictions on palm oil to be relaxed. A major effort is under way to increase the acreage under oil palm with a target of 1.2 million hectares. Several incentive measures were implemented in 1986 to attract private investment into the industry. Weak international prices are, however, posing a threat both to export earnings and the expansion program.

4. Coconut oil exports fluctuated tremendously from 1978 to 1986 because of competition between domestic consumption and exports. The coconut industry,

however, has been permitted to decline, with most trees being old and low yielding. Replanting is being undertaken. Replanting in the 1970's was beginning to make an impact, but the drought in 1982 set back production in 1983 and 1984. Since then, output has increased, but production was overtaken by domestic demand. Exports have risen gradually since 1983.

5. Indonesia is now the world's third largest producer of coffee and accounts for almost 27 percent of world robusta coffee production. The area planted to coffee has been steadily increasing. In 1987, total area planted was approximately 943,000 has. The bulk of coffee output is exported and export earnings have been increasing substantially. The increase in volume of exports to 298,000 combined with the sharp increase in prices because of the Brazilian crop failure in 1986 resulted in a record \$818 million in revenue. The subsequent drop in price in 1987 caused a substantial reduction in export earnings.

6. A member of the International Coffee Organization (ICO), Indonesia has customarily been allocated export quotas far below its level of output. Efforts to compensate for these low quotas by turning to the non-quota market, to which it became a leading supplier, were further frustrated by the ICO's imposition of strict verification and price control measures on such sales in 1983 and 1985. Following the suspension of quotas in 1986, because of the Brazilian crop failure, Indonesia joined the other organization members in demanding a redistribution of quotas. This left ICO unable to resume its price stabilizing operations as bumper harvests triggered a collapse in coffee prices in 1987. A compromise was reached in 1987/88, but this did little to

increase Indonesia's export allocation.

7. Tea production and exports have been steadily increasing with the estate sector accounting for the bulk of the output. The increasing revenue from tea has triggered a major effort to increase output through the planting of new acreage and the replanting of existing acreage.

8. Indonesia is the main exporter of wood and wood products in Southeast Asia. Forests cover about 75 percent of total land area and represents one of the nation's most important economic assets. Private companies operate the logging concessions. Because of the damage caused by indiscriminate logging operations, the government has banned the practice of total tree felling and has initiated reforestation and greening programs. The main forestry product is timber. Most timber is exported to Japan, South Korea, Singapore and Taiwan. In 1980, the exports of logs was phased out and replaced by exports of processed wood.

### **Agricultural Imports**

1. Agricultural imports as a percentage of total merchandise imports have declined steadily from 21.7 percent in 1978 to 11.0 percent in 1986 (Table 3). Indonesia's main agricultural imports include: wheat, dried milk and cotton lint.

2. Rice, until 1980, was a major import item. At one point in the mid-1970s, Indonesia was importing one third of all rice sold in the world market. As a

Table 3: Agricultural imports of Indonesia, 1978-1987, value (US\$ 000)

Commodity	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Cotton Lint	118,865	129,954	190,825	182,773	172,584	175,162	214,428	179,876	171,480	265,596
Rice	591,505	596,303	650,424	206,386	103,144	384,029	132,064	8,807	5,944	12,312
Wheat+flour (wheat equi.)	88,150	100,193	163,426	1,522,730	151,040	334,730	277,590	262,500	274,360	24,591
Milk, dry	41,542	37,319	22,951	33,679	67,942	57,744	42,589	42,235	37,331	37,673
Fish and fish products	10,914	8,987	15,013	38,010	44,820	33,670	28,320	22,940	26,320	na
Forest products	147,990	139,152	145,846	170,030	208,810	252,020	230,050	188,590	217,550	na
Total Agric. Imports	1,449,239	1,429,166	1,716,155	1,921,960	1,686,710	1,708,240	1,375,440	1,115,050	1,178,590	na
Total Imports	6,690,400	7,202,279	10,834,400	13,272,100	16,858,890	16,351,700	13,882,100	10,259,100	10,718,400	na
% Ag. Imports over Total	21.7%	19.8%	15.8%	14.5%	10.0%	10.4%	9.9%	10.9%	11.0%	

Source: FAO Trade Yearbooks, various issues.

Note: Total Agricultural Import and Export Values = (Food + Animals)+(Beverages+Tobacco)

+ Crude Materials (eg oilseeds, textile fibers) + Animal Vegetable Oil + Fish and Fishery Products + Forest Products

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result of government programs to increase production, Indonesia was able to achieve self-sufficiency in 1980. Production increases, however, cause severe problems of storage. At the same time, Indonesia's exit as an importer from the world market caused world prices to decline, thereby reducing its ability to export its surplus without incurring large losses. The government actively tried to discourage production in 1985 and 1986, with exhortations to diversify cultivation patterns reinforced by a shift in price policy. The floor price was not raised during these years and in 1986, a substantial cut in fertilizer and pesticide subsidies was announced. The resulting slowdown in output, aggravated by the effects of pest attack and drought in 1987, however, prompted a resumption of earlier output prompting policies in 1987.

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## KOREA

### Basic Information

1. South Korea is bounded in east by the Sea of Japan, north by North Korea and west by the Yellow Sea. It has a total land area of 98 square kilometers. Korea's arable area is limited. Of the total land area in 1986, only 21 square kilometers (21%) were cultivated, while 65 square kilometers were covered by forests and woodlands.

2. As of mid-1987, Korea had an estimated population of 42.1 million, which for the period 1978 to 1987 grew at an average annual rate of 1.5 percent. As of 1987, the economically active population numbered 17.5 million. Of these, the percentage in agriculture has declined drastically from 42.8 percent in 1975 to 27.8 percent in 1987.

3. Korea's 1.95 million farms are small, averaging 0.9 hectares in 1983. Farm size is relatively uniform: 37 percent of all farms between 0.5 and 1 hectare, 29 percent are smaller than 0.5 hectares, and 33 percent are between one and three hectares. The small size and uniform distribution reflect the effects of a thorough land reform program carried out by the government after the Korean War. Although land reform legislation, which mandates a 3 hectare maximum farm size, is a barrier to increasing area per farm, other factors are also important. These factors include: reluctance of farm families to sell their land and the country's hilly terrain which limits the area suitable for large-scale mechanized farming.

4. The currency of South Korea is the won. The won is now officially tied to a basket of foreign currencies, but the dollar dominates the basket. The dollar's strength against other major currencies since 1980 has hurt Korea's exports, for the dollar has risen faster than the won has depreciated. Table 1 present the won to US dollar exchange rate for the period 1981 to 1987.

### **The Economy**

1. Korea's real GNP growth (at constant 1980 prices) averaged about 6 percent during the period 1978-86 with per capital GNP rising to 2,370 in 1986. The driving force behind the country's economic expansion has been export led industrialization.

2. In 1980, South Korea was hit by external shocks and adverse domestic developments, including the second OPEC oil price hike, poor harvests, and the political instability following President Park Chung Hee's assassination. However strong economic growth resumed in 1981 and continued until 1987, with year to year variations from changes in export demand. But despite high economic growth rates, Korea has long suffered a deficit-ridden balance of payments position until 1985. Its external debt stood at about 45 billion at the end of 1986.

3. South Korea owes much of its economic growth to its ability to manufacture imported raw materials and components into finished or semi-finished products for export. However, the country has faced deficits during the past decade due to it large imports of mineral fuels (mainly petroleum) and agricultural

Table 1: Exchange rates in Korea, 1981-1987, Won per US Dollar

1981	1982	1983	1984	1985	1986	1987
681	731	776	806	870	991	823

Note: Annual Average Rates

Source: IMF, International Financial Statistics.

Table 2: Inflation rate per year (%)

1981	1982	1983	1984	1985	1986	1987
20.4%	4.7%	0.2%	0.6%	0.9%	-1.5%	0.5%

Note: Inflation rates were calculated from the wholesale price index which were obtained from the IMF International Financial Statistics Yearbook 1988

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products. In all other classification of merchandise trade with the exception of these two categories, Korea had a trade surplus.

4. The two major goals of government agricultural policy are a high degree of self-sufficiency in major food products to reduce foreign exchange expenditures on farm imports and to achieve parity between farm and urban households. The government has been able to achieve these goals only through large scale government crop procurement reinforced by tight control on imports. Tariffs, quotas, and other trade barriers are used to influence prices of other crops, livestock products, and processed foods. These policies have led to generally higher yields, but have also resulted in production costs far above prices in international markets.

5. Government efforts to reduce the disparity between rural and urban incomes require government intervention in commodity markets. Because of Korea's prominence in international trade, there is increasing foreign pressure to liberalize its agricultural markets. But the government has been quite slow in this regard for social and political reasons, and since the early 1980s, agriculture has been substantially excluded from market liberalization moves. The government contends that it will have to wait until after 1990.

6. The government has acknowledged that constantly escalating farm prices to maintain agricultural income parity is not a sustainable policy in the long run. Because South Korea's farm households obtain about a third of their income from off-farm sources, more effort is planned to develop off-farm income sources. The rural development fund was established in 1986 to develop

rural industries, sideline businesses, and other nonfarm income sources for rural residents, among other purposes. The sixth five year plan (1987-91) calls for financial and tax incentives for locating business in the rural areas.

### **Macro Policy Environment**

1. South Korea's inflation rate has declined from 38.9 percent in 1980 to 0.47 in 1987. From 1962-78, the government placed higher priority on income growth than on price stability and allowed money supply to increase rapidly to ensure steady growth in demand. The government sharply cut back money growth in 1979, intentionally restraining demand growth to reduce inflation.

2. Money supply was allowed to increase rapidly in 1980-81 to stimulate economic growth in the wake of a recession partly induced by the tight monetary policy in 1979. But again, money growth has been reduced since 1981, leading to a rapid drop in inflation (Table 2). Since then, the government has shifted its priority to placing greater emphasis on price stability. Planners hope to keep inflation levels at no higher than those in the developed world.

### **Agricultural Exports**

1. South Korea exports few agricultural commodities. The major items are apples, pears, refined sugar, tobacco, and fish and fishery products (Table 3). In the case of sugar, however, raw sugar is imported, processed, then re-

Table 3: Agricultural exports of Korea, 1978-1987, value (US\$000)

Commodity	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Apples	823	21	17	314	840	660	1,974	2,281	4,363	15,875
Pears	2,519	1,197	1,756	3,831	5,305	1,990	1,828	2,490	4,893	6,072
Sugar, refined	21,991	30,422	212,775	230,736	80,857	83,480	53,920	57,260	53,570	64,550
Tobacco	111,464	91,326	83,977	101,814	105,045	105,605	28,887	91,433	75,047	63,290
Fish and fishery products	639,363	795,385	677,722	839,030	764,100	739,850	781,780	796,880	1,188,390	na
Forest products	513,312	596,811	533,372	550,540	299,260	188,660	145,990	131,520	226,400	na
Total Agric. Exports	1,701,878	1,895,195	1,848,961	2,032,510	1,570,220	1,489,460	1,489,800	1,430,630	2,004,650	na
Total Exports	12,710,642	15,055,453	17,504,864	21,253,760	21,853,390	24,445,050	29,244,860	30,283,120	34,714,460	na
% Ag. Exports over Total	13.4%	12.6%	10.6%	9.6%	7.2%	6.1%	5.1%	4.7%	5.8%	na

Source: FAO Trade Yearbooks, various issues.

Note: Total Agricultural Import and Export Values = (Food + Animals) + (Beverages + Tobacco)

+ Crude Materials (eg oilseeds, textile fibers) + Animal Vegetable Oil + Fish and

Fishery Products + Forest Products

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exported. During the period 1978 to 1986, agricultural exports accounted for a very small percentage of total merchandize exports, and exhibited a continuous decline from 13.4 percent in 1978 to 5.8 percent in 1987.

2. Export of marine products grew strongly during the period 1978-87. Besides its off-shore waters in the Sea of Japan, South Korea has important fishing rights in U.S. waters and has negotiated fishing rights as far away as Mauritania. Japan buys most of Korea's marine exports. Korea's expertise in freezing, canning, and trading marine products may help expand its agricultural products processing.

3. South Korea produces several light manufactures out of cotton: cotton yarns, textiles and clothing. Dramatic growth in Korean exports of cotton yarns, textiles, and clothing during the 1970's made the nation one of the world's leading exporters of cotton goods by 1979. Korea's cotton goods rely almost exclusively on imported cotton, most of which are from the U.S. More than 80 percent of Korea's exports of cotton garments and other finished goods are sold to developed countries. Protectionist quotas, however, led to reduced sales of cotton finished goods to Japan in 1978-83 and limited export growth to the European Community and Oceania. Growth in sales to the US, Canada, and the Middle East (principally Libya, Egypt, Kuwait and Saudi Arabia) slightly outweighed the reduction in sales.

4. South Korea exports cotton yarn to Japan, Hong Kong, Europe, South and Southeast Asia. Yarn exports, however, appear to be deteriorating. Korea undertook voluntary restraints on yarn exports to Japan beginning 1983. Much

of the yarn shipped to Hongkong and Southeast Asia go into fabrics and garments for export, which have also been strongly constrained by quotas in developed country markets. The indirect effects of developed country quotas appear to have been chiefly responsible for a decline in Korean yarn exports to Hongkong and Southeast Asia, which in 1981 took 28 percent of Korea's exports of all- and part-cotton yarn. No growth markets are likely to replace Hongkong and Japan, so Korea's yarn exports are forecast to decline in 1990.

### **Agricultural Imports**

1. Korea's imports consist largely of raw materials for the nation's manufacturing industries, plus heavy industrial goods and chemicals too sophisticated to be produced economically at home. Imported agricultural raw materials--cotton and wool for textile products; hides and skins for footwear, luggage and other leather goods; crude rubber for tires and rubber for footwear--serves as Korea's inputs to several leading export industries. Together with wood and lumber (mainly for use in plywood), these raw materials will largely mirror the growth of their associated exports. Food (meat, rice, wheat, palm and coconut oil), feed ingredients (maize, soybeans, animal oils and fats), beverages, and tobacco make up the major import categories that are totally unrelated to export production.

2. South Korea's imports as a percentage of total merchandise imports have remained steady at around 13 to 15 percent. The US, Malaysia and Australia are Korea's three leading agricultural suppliers. The US is the major supplier of feed grains, wheat, soybeans, raw cotton, and cattle hides.

Malaysia has become the leading supplier of fats and oils and the bulk of Korea's natural rubber requirement. Australia supplies wool, sugar, beef tallow and beef. Korea also imports mutton from Australia, wholly for re-export after processing.

3. Other suppliers and their specialties in 1982 include: Taiwan ( sugar, spices, fresh and canned vegetables); Thailand (sugar, rubber, corn, cassava chips); New Zealand (wool, beef tallow, hides and skins, milk powder, casein); Canada (live cattle, beef tallow, wheat flour); Japan (rice, fatty acids, essential oils); the Philippines (sugar, coconut oil); Brazil (soybean meal)

4. Although rice is a dominant crop in Korea, inadequate domestic production has necessitated imports (Table 4). However, it has been the government's long run objective to achieve self sufficiency in rice. Paddy land account for roughly 60 percent of total cultivated area and the government has invested heavily in converting upland areas to paddyland and to providing irrigation where possible.

5. Policies pertaining to rice (and barley) have been central to farm policy. The grain management law legislated in 1950 enables the government to secure sufficient grain from farmers through the control of grain distribution and manipulation of government stocks so as to stabilize the national economy. Its purchase price policy since 1969 has been to increase the prices paid to farmers. Moreover, a dual system for rice and barley was adopted wherein higher prices are paid to farmers while a price below the costs of acquisition and handling is paid by consumers. The price differential is paid by the

Table 4: Agricultural imports of Korea, 1978-1987, value (US\$000)

Commodity	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Meat:fresh/chilled/frozen	102,112	160,051	22,511	89,001	158,651	15,440	72,110	20,510	11,580	13,740
Rice	0	14,000	328,428	1,085,487	131,897	33,350	42,416	441,570	424,760	429,710
Maize	230,753	364,594	376,218	438,490	384,866	594,840	491,250	421,530	369,880	415,450
Wheat+flour (wheat equi.)	238,496	302,328	368,585	405,564	35,536	333,500	424,160	441,570	424,760	429,760
Sugar, raw centrifugal	143,172	165,153	491,403	427,420	214,494	203,070	187,520	143,820	171,430	186,430
Natural Rubber	109,766	156,074	180,128	155,338	108,146	133,759	156,536	130,870	152,373	199,928
Cotton lint	447,455	461,515	604,065	623,619	529,057	533,611	615,853	531,050	402,362	514,299
Animal oils/fats/greases	78,999	105,318	79,334	80,185	66,598	60,554	92,593	55,208	34,012	42,357
Palm oil	2,129	8,853	21,321	31,516	43,359	47,023	39,110	53,112	37,057	58,147
Coconut oil	10,602	22,396	3,665	7,533	9,246	11,764	16,949	10,350	5,917	5,569
Hides and skins	189,817	20,594	16,080	20,728	23,317	26,140	37,012	40,634	64,815	
Fish and fishery products	16,514	42,468	65,546	59,140	57,680	57,170	68,040	89,780	117,080	na
Forest products	659,703	799,210	1,220,963	933,550	870,360	839,200	947,550	863,060	928,230	na
Total Agric. Imports	2,257,323	2,858,001	4,041,570	5,307,010	3,918,120	4,119,770	4,445,110	4,025,220	4,309,530	na
Total Imports	14,971,930	20,338,608	22,292,000	26,131,424	24,250,840	26,192,220	30,631,440	31,135,640	31,583,900	na
% Ag. imports over Total	15.1%	14.1%	18.1%	20.3%	16.2%	15.7%	14.5%	12.9%	13.6%	na

Source: FAO Trade Yearbooks, various issues.

Note:Natural rubber include similar natural gums. Animal oils/fats/grease exclude lard  
 Note:Total Agricultural Import and Export Values = (Food + Animals)+(Beverages+Tobacco)  
 + Crude Materials (eg oilseeds, textile fibers) + Animal Vegetable Oil + Fish and  
 Fishery Products + Forest Products

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government.

6. A Grain Management Fund finances the purchase by the National Agricultural Cooperative Federation (NACF) of a significant share of total rice output. The share of the total rice crop purchased under this program increased steadily from 9 percent in 1971 to 20 percent in 1983. Together with the limits on rice imports imposed by the Office of Supply (the only legal importer of rice), these purchases bid up the price of the entire rice crop. Rice, out of government stocks (held by NACF), are sold to consumers below the purchase price.

7. This has led to mounting deficits of the GMF which has forced the government to slow down the increase in purchase price. The government deficit (1.9 billion in 1986) is primarily due to the dual price system for rice and barley. In the long run, the government would like to reduce its grain purchases to reduce expenditures, if this is politically feasible.

8. The prices of several commodities are stabilized by the government besides rice and barley: beef, pork, milk, wheat, corn, flavor vegetables, etc. The government also controls imports of some of these commodities for the purpose of stabilizing prices. These include flavor vegetables (garlic, onions, and red pepper) and meats. The National Livestock Cooperative Federation (NLCF) handles all beef imports. The government sets retail prices while allowing NLCF a profit on its transactions. By controlling imports and the release price to wholesalers, the government is able to influence the prices of domestically produced meats.

9. Wheat is used in a number of ways in Korea. Most are milled into flour for use in noodles, bread, and pastries while a limited amount is used in processed foods such as sausage, syrup, molasses, hotdogs, and fried foods. Some flour is also used for alcoholic beverages. Domestic production has always been limited (Table 5), thus increasing consumption has had to be met by imports, most of which is from the U.S.

10. South Korea's grain consumption per person has long been one of the highest in the world. Grain consumption continued to increase thus leading to further increases in grain imports. The majority of rice imports is from the US. Although real incomes have reached a level that would normally have been expected to stimulate a shift away from grain toward animal products, grains continue to occupy a dominant role in the Korean diet because of trade barriers limiting the availability of supplies of other foods (particularly meats).

11. Tariff rates tend to be lower for agricultural commodities, such as feed grains and natural fibers, that serve as inputs to agricultural or industrial processes. Rates are higher for processed and/or packaged final products, such as cheese; canned meats, fruits, vegetables; leather; and articles of wood. In principle, as of 1983, the maximum tariff was 100 percent. However, some were as high as 150 percent--under the "temporary" tariff system. Temporary tariffs, set higher than basic duties, are supposed to be eliminated at some indeterminate time. Temporary tariffs apply to imports of alcoholic beverages, tropical fruits and nuts, citrus fruits, and raisins, frozen fish, and sawn tropical wood.

Table 5: Production of selected agricultural commodities (000, mt)

Commodity	Y E A R							
	1980	1981	1982	1983	1984	1985	1986	1987
Rice, paddy	5,311	7,149	7,308	7,608	7,970	8,806	9,247	8,683
Barley	811	859	749	518	508	571	453	516
Wheat	92	57	66	112	17	11	5	5
Soybeans	216	257	233	233	226	254	234	257
Beef and Veal	133	99	88	94	123	166	208	196
Pork	294	262	297	369	429	434	322	368
Poultry	181	185	186	176	169	190	176	183
Eggs	2,533	10,386	2,533	5,100	5,800	6,000	8,500	9,500
Milk	458	513	576	712	840	966	1,050	1,100

Source: FAO Production Yearbook, various issues.

12. Until 1984, a number of key agricultural imports were subject to the tariff quota system: wheat, feed grains, soybeans, corn for industrial use, palm oil, beef tallow, tapioca chips for alcohol manufacture and cotton for domestically sold products. In 1984, these were removed from the tariff quota system and a new general tariff was applied to most of them, particularly: wheat, soybeans, beef tallow, palm oil and tapioca chips. Cotton and feed grains were assigned temporary tariff rates lower than general rates.

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## MALAYSIA

### Basic Information

1. Malaysia is located on the southern end of the Malay peninsula and on the north-eastern part of the island of Borneo. It is composed of 11 states and a federal territory known as Peninsular Malaysia. Its total land area is approximately 330,000 square kilometers. Two states, Sarawak and Sabah, on the island of Borneo, account for 60 percent of the land area.

2. As of mid-1987, Malaysia had an estimated population of 16.5 million. From the period 1978 to 1987, it grew at an average annual rate of 2.52 percent. Agriculture continues to be the sector with the largest share of employment (35.1 percent in 1986), but is now encountering labor shortages due to the urban drift of rural workers. The unemployment rate in 1986 was 8.5 percent increasing from 4.7 percent in 1981.

3. Malaysia's dual agricultural sector consists of: 1) a relatively small number of large export-oriented estates that account for more than 50 percent of overall agricultural output by mainly producing natural rubber, palm oil, and/or cocoa, and 2) thousands of smallholders that produce mostly subsistence crops including rice. Agriculture accounts for 20 percent of GDP and contributes 40 percent of export earnings.

4. The monetary unit is the ringgit or Malaysian dollar. It is subdivided into 100 sen. The value of the ringgit is determined by a basket of

Table 1: Average exchange rate in Malaysia (M\$ per US\$)

1981	1982	1983	1984	1985	1986	1987
2.30	2.34	2.32	2.34	2.48	2.58	2.52

Source: IMF, International Financial Statistics

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currencies of Malaysia's main trading partners. As of 1987, the average exchange rate was M\$ 2.52 = \$1.00. Table 1 shows the ringgit to the dollar exchange rate from 1981 to 1987.

### The Economy

1. Malaysia had one of the highest average annual growth rates of per capita income in the world over the last two decades (4.5 percent per annum from 1965-84). In 1987, GNP per capita was \$1,938.
2. The structure of the economy has increased in diversity since independence in 1957, lessening its reliance on the primary sector. The share of agriculture in GDP has declined from 25.1 percent in 1978 to 21.9 percent in 1987 (at constant 1978 prices) when it was overtaken by manufacturing whose share of output doubled from 10 percent in 1965 to 22.5 percent in 1987. Manufacturing has been the main source of Malaysia's growth in recent years. The mining sector previously relied on the tin industry which has been in decline in recent years. However, it has been boosted by crude oil and LNG production allowing its share in GDP in constant prices to be maintained at about 10 percent since 1978.
3. Malaysia's national agricultural policy (NAP) formulated in 1983 and which extends through the year 2000 calls for increasing focus on more highly profitable crops, such as palm oil and cocoa, and for increasing farm productivity through such innovations as mechanization and pooling of land. Policy guidelines for the palm oil sector emphasize that production should be

expanded through the establishment of well-managed estates, the adoption of improved technology, and increased efficiency. The NAP has dropped the long-held goal of self-sufficiency in rice production. It also discourages stepped-up beef and dairy production and planting crops for animal feed.

4. The NAP calls for opening more new agricultural land. It seeks solution to rural poverty by encouraging migration away from overpopulated rural areas to government resettlement lands. It also recommends continued government support services for farmers, such as credit and extension services. Continuing diversification will emphasize the production of fruits, vegetables, and other food crops.

#### **Macro-Economic Policy Environment**

1. Malaysia, like other Asian countries, also pursued an import substitution strategy--tax holidays for pioneer investors, substantial tariff protection, and the use of cascaded tariffs to enhance effective protection relative to nominal protection. But unlike other countries, Malaysia avoided the overvaluation of its exchange rate which usually accompanies such a strategy.

2. Overprotection of import substituting industries lead to serious losses in efficiency because it diverts resources from being invested in areas of the nation's comparative advantage and tends to increase rather than decrease dependence on the international system because of the concentration of industrial investment in production of final products whose primary or secondary inputs must come from abroad. Glassburner (1984) points out that

Malaysia, like Thailand, avoided doing any serious damage to its economy by not discriminating against its other traded goods.

3. As an oil exporter, Malaysia's problems with the oil shocks were similar to that faced by Indonesia. However, it approached the problem of sudden surges of foreign exchange earnings and monetary complications attendant upon the accumulation of reserves differently. While Indonesia undertook a major devaluation in 1978, following an extended period of fixed nominal exchange rates, Malaysia allowed her rate to appreciate in nominal terms by 10 percent.

4. Malaysia's inflation rate measured by the consumer price index was 6.3 percent during 1973-80. World inflation was 15.3 percent per year over the same period. But by good luck and prudent monetary and fiscal management, Malaysia was able to avoid the problem of loss of international competitiveness for which Indonesia suffered. Because internal inflation was markedly below that of her trading partners and competitors, Malaysia gained in competitive strength. In terms of real purchasing power, the Malaysian dollar was actually depreciated during the inter-oil shock period, even though the nominal value was rising.

5. Under its New Economic Policy, the manufacturing sector has been accorded top priority. It is viewed by the government as the sector that will spearhead growth in the Malaysian economy and further the country's move to an industrial economy. The Industrial Master Plan (IMP) 1986-95 focuses on 12 industries and outlines the strategy for their development. The resource based industries covered are rubber products, palm oil products, processed

food, wood-based products, chemicals and petrochemicals, non-ferrous metal products and non-metallic products. The non-resource based industries under study are electronic and electrical products, transport equipment, machinery and engineering products, ferrous metal, and textiles and apparel.

### **Agricultural Exports**

1. Agricultural exports as a percentage of total merchandise exports continuously declined from 50.43 percent in 1978 to 37.36 percent in 1986 (Table 2). In 1987, Japan (19.5%), Singapore (18.2%) and the US (16.6%) were the major destinations of Malaysia's exports. Malaysia's major exports include: natural rubber, palm oil and palm kernel cake, coconut oil, cocoa beans, cocoa powder, cake, and butter, pepper, and forest products.

2. Malaysia is the world's leading producer of natural rubber. But its share of world output has fallen from 40.8 percent in 1980 to 34.8 percent in 1987. This may be partly due to the fact that there has been large scale conversion of rubber holdings into oil palm and cocoa growing areas. A variable levy is charged on all rubber exports. The levy is a primary source of revenue for the government. In addition, a cess is also collected to finance the operations of the Rubber Research Institute of Malaysia and the current rubber replanting program.

3. There is growing concern in the industry that the country's advantage in production technology, infrastructure and management are being eroded by the cost of production, of which wages account for around 50 percent. Higher

Table 2: Agricultural Exports of Malaysia, 1978-1987, value (US\$ 000)

Commodity	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Natural Rubber	1,556,106	2,048,000	2,110,651	1,607,719	1,137,149	1,578,516	1,567,094	1,157,044	1,233,625	1,554,139
Palm oil	790,336	1,092,050	1,155,920	1,179,915	1,137,555	1,282,114	1,933,984	1,591,484	1,166,533	1,289,971
Palm kernel cake	10,723	28,300	31,571	28,575	43,618	57,457	49,997	54,746	70,994	63,700
Coconut oil	14,588	63,221	45,983	36,588	28,799	48,046	77,663	36,681	17,050	22,444
Cocoa beans (raw/roasted)	56,480	72,092	74,384	74,262	84,850	98,523	144,295	164,946	192,277	271,509
Cocoa powder and cake	6,501	4,510	1,545	1,092	931	1,214	3,742	4,398	7,531	9,000
Cocoa butter	7,067	9,700	15,963	17,701	18,312	20,567	42,675	47,264	48,059	56,600
Pepper	56,980	62,341	49,514	35,688	28,631	34,137	34,303	57,105	64,117	63,131
Forest products	1,176,179	2,148,286	1,987,252	1,661,260	2,091,370	2,223,980	1,560,310	1,701,330	1,740,120	na
Fish and fish products	103,827	167,538	127,743	129,750	118,280	104,250	105,550	99,730	132,550	na
Total Agric. Exports	4,055,667	6,103,133	6,056,320	5,270,020	5,158,240	5,999,930	6,307,680	5,519,600	5,172,500	na
Total Exports	8,042,000	11,078,566	12,944,692	11,770,350	12,040,140	14,122,740	16,495,460	15,314,640	13,845,460	na
% Ag. Exports over Total	50.4%	55.1%	46.8%	44.8%	42.8%	42.5%	38.2%	36.0%	37.4%	

Source: FAO Trade Yearbooks, various issues.

Note: Total Agricultural Import and Export Values = (Food + Animals) + (Beverages + Tobacco)

+ Crude Materials (eg oilseeds, textile fibers) + Animal Vegetable Oil + Fish and

Fishery Products + Forest Products

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yielding clones requiring less frequent tapping and mechanization are being developed to contain labor costs. Production started to recover in 1987 as a result of yield improvements, an increase in planted area as smallholders responded to high prices, and the lack of employment opportunities elsewhere. Output was also boosted by better tapping techniques and new trees coming into production in Sabah and Sarawak.

4. Malaysia is the largest producer of palm oil, accounting for 60 percent of total world production. Crude palm oil (CPO) production increased by 24.4 percent in 1982 to 3,511,000 mt following the introduction of the Cameroon weevil to stimulate production (Table 3). CPO production increased until 1986, but declined in 1987 as a result of tree stress following the rapid increase of output in the past three years, reduced application of fertilizer because of poor prices in 1985-86, and bad weather in 1987.

5. Palm oil has been exported by Malaysia since the 1920's. The government's desire to move away from total dependence on rubber and to diversify the agricultural sector contributed to the shift to palm oil. The government encouraged extensive replantings by the private sector in the newly opened jungle land (for resettlement schemes). At the same time, the heavy tax on rubber compared to the negligible tax on palm oil further accelerated the shift of resources from the planting of rubber to the cultivation of palm oil.

6. A graduated tax is levied on all palm oil exports. A research cess is also collected to finance the operations of the Palm Oil Research Institute of

Table 3: Production of selected agricultural commodities, (000 mt)

Commodity	Y E A R						
	1981	1982	1983	1984	1985	1986	1987
Natural Rubber	1,510	1,494	1,564	1,531	1,470	1,539	1,581
Estates	586	572	548	518	504	500	498
Smallholding	924	922	1,016	1,013	965	1,039	1,083
Palm Oil	2,654	3,511	3,017	3,716	4,133	4,544	4,532
Cocoa	51	66	69	79	97	130	182
Pepper	29	26	24	17	19	16	15
Coconut oil	66	69	71	59	45	34	31
Timber (000 cu.m.)	5,489	6,241	7,139	5,845	5,575	5,090	5,982

Source: Economic Intelligence Unit, Country Profile 1988-89 and Quarterly Economic Review, Annual Supplement: Malaysia and Brunei, various issues.

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Malaysia. In 1980, the government established the Palm Oil Registration and Licensing Authority (PORLA). It is financed by a cess from the industry and its functions include regulating, coordinating and promoting palm oil production, supply, purchase, sales, storage, milling, refining, transporting, marketing and shipping. Representatives from the industry sit on the board of directors. PORLA issues licenses, but more for statistical purposes rather than regulation. Presently, its concern is to insure that quality standards are met by industry participants.

7. Malaysia is the third largest cocoa producer in the world after Cote d'Ivoire and Brazil, accounting for approximately 10 percent of total world production. A massive program beginning in the early 1980s involving planting as both a single crop and as an intercrop with coconut has borne fruit in recent years, making Malaysia a major producer (Table 4). Increasing volume was sufficient to offset falling export prices in 1987 when earnings increased by 38 percent. But continued decline in cocoa prices combined with a more modest increase in output was expected to lead to lower earnings in 1988.

8. After five consecutive years of decline, pepper production in 1985 increased by 13.8 percent. The turn around was the result of favorable prices since mid-1984, but production has been slow to respond due to the decline in planted area. To promote production, the government has initiated the Pepper Subsidy Scheme which provides assistance to pepper growers who continue to face problems of labor shortages and increased cost of production. The coming into production of about 8,500 ha in 1988 was anticipated to boost output to 17,000 mt, a 23 percent increase from 1987.

Table 4: Agricultural Imports of Malaysia, 1978-1987, value (US\$ 000)

Commodity	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Milk and Cream, dry	2,400	2,000	94,278	121,741	108,465	115,142	101,774	76,170	79,622	93,920
Wheat+flour (wheat equi.)	76,714	81,551	99,486	106,207	99,670	107,860	105,880	99,160	81,700	85,280
Rice	138,937	85,295	59,537	129,382	141,419	101,708	117,650	103,474	45,760	41,559
Maize	58,996	99,877	75,817	81,899	98,622	115,660	129,910	144,510	123,320	139,090
Pulses	11,197	10,920	12,780	16,204	16,142	16,747	15,458	14,401	14,963	15,477
Sugar, raw/centrifugal	105,509	117,769	192,980	211,398	141,653	159,590	156,620	126,040	133,680	132,480
Soybean cake and meal	29,295	36,500	35,880	10,454	19,997	28,300	40,680	24,660	31,300	33,460
Soybeans	7,485	8,000	28,462	62,259	49,211	47,560	52,310	49,180	55,400	62,510
Cotton lint	48,740	493,251	493,800	50,318	44,020	39,097	52,947	36,558	28,823	41,586
Fish and fish products	53,579	66,667	71,270	80,680	99,990	88,280	123,240	119,200	126,600	na
Forest products	130,297	146,211	191,627	216,300	216,500	217,010	219,760	226,730	262,530	na
Total Agric. Imports	1,219,065	1,330,221	1,624,687	1,835,690	1,783,290	1,791,000	1,974,370	1,799,400	1,697,720	na
Total Imports	6,483,000	7,842,594	10,763,500	11,550,830	12,432,000	13,271,190	14,053,590	12,261,560	10,822,180	na
% Ag. Imports over Total	18.8%	17.0%	15.1%	15.9%	14.3%	13.5%	14.0%	14.7%	15.7%	

Source: FAO Trade Yearbooks, various issues.

Note: Total Agricultural Import and Export Values = (Food + Animals) + (Beverages + Tobacco) + Crude Materials (eg oilseeds, textile fibers) + Animal Vegetable Oil + Fish and Fishery Products + Forest Products

1987

9. The production of coconut oil has been declining in recent years as land devoted to it has been converted to other crops, primarily palm oil and cocoa.

10. Timber is one of Malaysia's major exports, accounting for 13.4 percent of total exports in 1987. But in order to prevent further overexploitation and to ensure a continuous supply of timber in the future, a National Forestry Policy was launched in 1978 to encourage reforestation and conservation. The rate of logging has also been reduced in recent years. In early 1985, a total export ban on logs from Peninsular Malaysia was announced by the government to try and alleviate the severe shortage of logs available domestically. In 1986, the Sabah government froze new licenses for logging activity and imposed an export quota.

#### **Agricultural Imports**

1. Agricultural imports as a percentage of total imports have declined slightly from 18.8 percent in 1978 to 15.7 percent in 1986 (Table 4). In 1987, Japan, the US, and Singapore supplied about 55 percent of Malaysia's imports. Malaysia's major agricultural imports include: milk and milk products, wheat, rice, maize, pulses, sugar, soybeans and soybean cake and meal, and cotton lint. Malaysia imposes little or no duties on such basic commodities as rice, corn, wheat, soybeans, and cotton. Higher duties, averaging 30-40 percent, apply to most processed products. The government is seeking growth of local food processing to dampen rising food imports.

2. The Malaysian government has reduced its rice self-sufficiency target from

80 to 85 percent as outlined in the NAP to 60 to 65 percent in 1985. This target was to be achieved through a reduction in government intervention in the rice industry. In 1988, however, despite an expected increase in output of 3.7 percent, domestic production was anticipated to meet only 59 percent of domestic consumption needs. Thus, the government is once again taking steps to encourage the return of idle paddy land to cultivation.

3. Malaysia's rice policy involves an input subsidy and a support price for rice. The rationale of the policy is food security, raising the income of Malay farmers, and ensuring stable rice supplies at reasonable prices to consumers. At one point, the rice program included free seeds and fertilizer, low-interest production credit, free irrigation water, and subsidized fertilizer to small farmers. Malaysia's rice policy is administered by the National Padi and Rice Board (LPN) which operates a network of rice drying complexes and mills, purchases rice from growers at a "floating" support price above the government guaranteed support price. LPN is the sole importer of rice. To protect consumers, the board establishes the ex-mill, wholesale, and retail ceiling prices for many grades of rice.

4. Although the program had been successful in increasing rice production, it also contributed to the consolidation of farms into larger units leading to the displacement of both owner-operators and tenants and increasing the number of landless laborers (Tamin 1986). The guaranteed minimum price removed the incentive for farmers to produce good quality rice since LPN paid the same price regardless of quality.

5. The increasing volume of imports of corn, soybeans, and soybean meal and cake is a result of the rapidly growing animal feed industry. Domestic milk production is only about four percent of total requirements thus necessitating imports. The government has limited sponsorship of smallholder dairy production.

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## PAKISTAN

### Basic Information

1. Pakistan is bounded on the west by Iran, north by Afghanistan, east by Jammu and Kashmir, and south by India and the Arabian Sea. It has a total area of 804,000 square kilometers. In 1986/87, 208,000 square kilometers were cultivated, 77.4 percent of which were irrigated. It is believed that cultivable area could still be expanded through the extension of the irrigation system and the existing areas improved by better management. However, 84 percent of irrigated area relies on an aging and inefficient canal system heavily dependent on unreliable monsoon (July-August) and winter (January-February) rains. Over-irrigation and poor drainage have also led to increasing problems of waterlogging and salinity.

2. As of January 1988, Pakistan had an estimated population of 103.8 million (excluding Afghan refugees). It is the ninth most populous nation in the world. The total size of the labor force in 1987/88 was estimated at 30.5 million, fifty percent of whom were employed in agriculture. There has been a large number of Pakistanis who have migrated to the Middle East to work. As of 1984, an estimated 2.5 million Pakistanis were working in the Middle East. Their remittances in the early 1980s exceeded the value of merchandise exports. In 1987/88, the unemployment rate was three percent, but there is great concern that the expected fall in net migration during the coming years may create greater unemployment.

3. The local currency is the rupee, divided into 100 paisa. Prior to 1981, the rupee was pegged to the US dollar. In 1982, it was delinked from the dollar and pegged to a trade weighted basket of currencies. The rupee has subsequently depreciated steadily against the dollar, reaching PRs 18.30 per \$1 in March 1988, 45.5 percent of its January 1982 value. Table 1 presents the PRs/dollar exchange rate from 1981 to 1987.

4. Average farm size is 5.3 hectares, but two-thirds of all farms are smaller than 4.1 hectares.

### The Economy

1. The Pakistan economy exhibited steady growth during the past decade. During the fifth five year plan period (1978/79-1982/83), real GDP grew at an annual average of 6.4 percent. During the sixth five year plan period (1983/84-1987/88), it grew at the targeted average of 6.5 percent and would have exceeded it if it had not been for severe droughts in 1986 and 1987. However, it continues to be beset by constraints: extremely low domestic savings ratio; narrow and thus perennially vulnerable export base; a tax system which largely exempts the agricultural sector and relies heavily on indirect taxes, particularly import duties; and the burden of debt service.

2. The manufacturing sector grew at annual average of 7.7 percent during the sixth plan period. In 1987/88, manufacturing accounted for 17.5 percent of GDP in current factor costs. In 1986/87 it accounted for 53 percent of all exports, the bulk of which came from the textile and garment industries. The

Table 1: Average exchange rate, Pakistan, Rupee per US Dollar

1981	1982	1983	1984	1985	1986	1987
9.90	11.85	13.12	14.05	15.93	16.65	17.40

Source: IMF, International Monetary Statistics.

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textile industry, however, has been declining in relative terms to other industries and modernization programs have so far failed to stem the decline.

3. Agriculture, including forestry and fishing, accounted for 23.3 percent of GDP at current factor costs in 1987/88. In 1984/85, the sector supplied around 26 percent of exports and indirect agricultural products (cotton yarn, textiles, leather and carpets) accounted for a further 45 percent (Table 2). While agriculture now forms a smaller proportion of the economy, it has grown recently at around four percent per annum, thus outstripping population growth.

4. For decades, it has been the government's aim to achieve self-sufficiency in all major food crops. By 1982/83, this objective had been largely achieved, with only edible oils, tea, and occasionally sugar and pulses remaining as substantial imports. During the sixth plan period, the government has been aiming to increase the surplus available for export (especially of rice, wheat, and cotton) and to develop oilseed production so as to be able to substitute the domestic product for the present high level of edible oil imports.

5. The growth in agricultural output came primarily from technical improvements; agriculture is given more priority in investment terms. Considerable effort went to extending irrigation facilities, the production and distribution of fertilizers (much of which is still imported) and improved seeds, the encouragement of mechanization, and the provision of better facilities for storage. Subsidies for agricultural inputs, most

Table 2: Share of semi-manufactures and manufactures in total exports (%).

Commodity	Y E A R					a
	1976/77	1983/84	1984/85	1985/86	1986/87	1987/88
Cotton yarn	10.4	7.8	10.4	9.1	13.8	11.8
Cotton cloth	14.2	13.0	12.2	10.2	9.4	11.8
Readymade garments/ hoisery	3.7	7.9	7.0	8.5	12.3	11.6
Carpets	1.8	6.2	5.3	5.4	5.4	3.8
Leather	5.7	5.3	6.1	5.8	6.4	6.7
Semi-manufactures and manufactures	59.6	71.1	71.1	65.4	73.6	74.6

a - July to March

Source: Economic Intelligence Unit, Country Profile Pakistan 1988-89

notably fertilizer, have been significantly reduced in recent years under the influence of the World Bank and the IMF. Minimum procurement prices are fixed by the government for major crops, and have been raised steadily in recent years. Government agencies play a major role in the marketing process, although there is no attempt to impose monopoly procurement. The agricultural sector's most important privilege is its virtual exemption from direct taxation.

6. Pakistan has a large merchandize trade deficit and it is financed by remittances from workers employed in the Middle East, increasing foreign borrowing, and foreign aid, of which the United States is the largest donor.

#### Macro Policy Environment

1. The 1987/88 budget initially provided substantial increases in taxes and administered prices in order to reduce the size of the nation's deficit. Widespread protests forced the government to withdraw most of the increases. The 1988/89 budget made limited changes to tax and expenditure levels and resulted in a fiscal deficit initially estimated at PRs 69.5 billion. This budget tried to introduce significant measures to reduce tax evasion by the business and trading classes, but these had to be watered down in the face of opposition.

2. Evasion of income and corporate tax is widespread, and the agricultural sector is totally exempt from income tax. The government has had to rely mainly on indirect taxes for its revenue, of which customs duties account for

the largest share. Dependence on indirect taxes has been criticized for its regressive and inflationary effects and also, in the case of import duties, runs counter to the policy of encouraging import liberalization by granting duty concessions.

### **Agricultural Exports**

1. Agricultural exports as a percentage of total merchandise exports peaked at 44.9 percent in 1982 then declined to 30.9 percent in 1986 (Table 3). It improved slightly in 1987 to 36.8 percent. This variability is explained by the fact the Pakistan is still dependent primarily on two agricultural products, cotton and rice, which are both subject to great variations in output and demand (Table 3).

2. Pakistan has emphasized the production of rice in order to increase exports to the Middle East. The government has increased procurement prices of basmati rice in order to encourage exports and has allowed private traders back into rice export alongside the public sector Rice Export Corporation. However, rice production has fluctuated in recent years (1983/84, 1984/85, 1986/87) as a result of drought and pest infestation (Table 4). In addition, rice yields are low compared with other countries enjoying comparable conditions.

Despite, extensive irrigation, input use remain low. This is partly attributable to the fact that the fertilizer subsidies have, in large part, accrued to domestic fertilizer producers rather than to farmers, and the main beneficiaries of farm-level subsidies on fertilizer, credit, and water have been large farmers.

Table 3: Agricultural exports of Pakistan, 1978-1987, value (US\$000)

Commodity	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Rice	256,782	341,381	422,107	565,764	392,152	290,921	420,912	220,423	342,689	293,053
Cotton, lint	110,464	66,179	335,424	525,546	279,127	307,834	131,115	288,289	514,041	445,188
Hides and skins	0	0	5395	2316	670	193	409	231	256	na
Fish and fish products	40,806	57,684	49,097	72,399	79,287	69,290	79,491	79,824	97,037	na
Forest products	0	0	0	0	0	0	0	0	0	na
Total Agric. Exports	521237	608924	980790	1326754	925735	865119	862737	775317	1148113	na
Total Exports	1,310,980	1,709,426	2,364,422	2,957,228	2,495,650	2,720,920	2,763,050	2,506,640	3,122,530	na
% Ag. Exports over Total	39.8%	35.6%	41.5%	44.9%	37.1%	31.8%	31.2%	30.9%	36.8%	na

Source: FAO Trade Yearbooks, various issues.

Note: Total Agricultural Import and Export Values = (Food + Animals) + (Beverages + Tobacco) + Crude Materials (eg oilseeds, textile fibers) + Animal Vegetable Oil + Fish and Fishery Products + Forest Products

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3. Cotton is Pakistan's major cash crop and its largest agricultural export. However, production has been erratic because of poor weather and crop infestation. The area planted to cotton has increased from 2.1 million ha in 1980/81 to 2.6 million ha in 1987/88, but the major part of the increase in production has come from higher yields. The increases in yields are attributed to the availability of inputs, pesticides in particular, and to the introduction in 1985/86 of a new high yielding variety of seed, Nayab-78. In 1986/87, 49 percent of the total crop was exported, but the remainder was processed into cotton yarn and textiles, which also form major export items.

4. Rice and cotton exports are both subject to export duties. The cotton export corporation handle all aspects of the trade.

5. Leather is an increasingly important export product, in 1987/88 exports amounted to PRs 3,727 million. There are also government plans to make poultry a major export, with the Middle East as the primary market. Livestock rearing is, however, still relatively undeveloped (85 percent of the animals are raised mainly for its motive power). The government in recent years has increased the size of cross-breeding programs and taken other measures to increase productivity.

6. In 1987/88, the majority of Pakistan's exports went to the US (11.5%), Japan (10.8%), West Germany (7.2%), UK (6.8%), Italy (6.1%) and Saudi Arabia (5.3%).

Table 4: Production of selected major crops per cropyear July-June, 000 mt.

Commodity	Y E A R								
	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88 <sup>a</sup>
Rice	3,216	3,123	3,430	3,445	3,340	3,315	2,919	3,486	3,271
Wheat	10,857	11,475	11,304	12,414	10,882	11,703	13,923	12,016	12,926
Maize	875	970	930	1,005	1,014	1,028	1,009	1,111	1,128
Pulses	313	337	286	491	522	524	586	583	367
Sugarcane	27,498	32,359	36,580	32,534	34,287	32,140	27,856	29,926	31,239
Cotton	728	715	748	824	495	1,008	1,208	1,309	1,513

a - provisional.

Source: Economic Intelligence Unit, Country Profile Pakistan 1988-89 and Quarterly Economic Review Pakistan, Bangladesh, Aghanistan Annual Supplement 1984.

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## Agricultural Imports

1. Agricultural imports as a percentage of total merchandise imports declined from 21.5 percent in 1979 to 15.9 percent in 1982, then increased to 22.4 percent in 1986 (Table 5). Pakistan's major imports include: dried milk, wheat, pulses, sugar, tea, animal oils and fats, soybean and palm oil, and jute fibers.

2. Wheat was the major farm import until the late 1970s, but is now normally imported only on a grant basis, partly to help feed Afghan refugees. Wheat production has shown an increasing trend, except when setback by adverse weather conditions (droughts). The area devoted to wheat and wheat yields have increased. Yield increases are due to increased use of irrigation, fertilizers, pesticides and improved varieties of seeds. Despite the increase in production, Pakistan has not achieved self-sufficiency and imports of wheat have been made to maintain stocks.

3. Intervention in the domestic wheat market consists of price support purchasing, buffer stocking, open market sales, and sales in remote areas. About two-thirds of production is handled by the private sector. The government has a monopoly on wheat importation to ensure protection of the producer and consumer.

4. Pakistan is one of the largest importers of edible oils, a growing importer of pulses, and an emerging importer of feedstuffs. It is not clear whether these shifts reflect true comparative advantage or a lack of incentives and

Table 4: Agricultural imports of Pakistan, 1978-1987, value (US\$000)

Commodity	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Milk and Cream, dry	22,119	15,638	28,888	1,022	1,032	42,530	25,607	76,170	79,622	93,920
Wheat+flour (wheat equi.)	135,001	354,025	105,372	63,900	76,290	68,950	63,530	181,720	292,640	68,670
Pulses	202	377	811	9,976	66,567	40,485	23,862	10,315	21,500	33,064
Sugar, refined	104	271	49,877	47,770	54	1,120	na	na	57,640	160,230
Tea	99,303	100,960	96,304	119,555	103,608	132,379	189,945	231,442	1,334,861	153,601
Animal oils/fats/greases	26,072	30,665	27,104	6,040	4,634	33,785	46,922	56,010	40,969	35,860
Soybean oil	87,826	141,086	94,921	135,340	192,185	121,866	259,882	160,542	143,913	98,730
Palm oil	68,683	126,887	135,531	128,502	129,417	154,875	239,084	42,091	246,357	222,335
Jute and bast fibres	14,039	16,865	16,362	18,494	17,943	24,658	32,046	45,649	45,649	28,080
Forestry products	53,111	64,692	79,759	83,539	87,746	83,318	84,884	99,793	117,451	na
Fish and fish products	113	61	117	350	224	114	339	79	102	na
Total Agric. Imports	605,157	982,498	758,117	857,780	925,534	870,572	1,195,214	1,286,240	1,260,015	na
Total Imports	2,809,315	3,675,194	4,739,843	5,407,913	5,650,790	5,383,930	5,676,320	5,925,360	5,638,670	na
% Ag. Imports over Total	21.5%	26.7%	16.0%	15.9%	16.4%	16.2%	21.1%	21.7%	22.3%	na

Source: FAO Trade Yearbooks, various issues.

Note: Animal oils/fats/grease exclude lard.

Note: Total Agricultural Import and Export Values = (Food + Animals)+(Beverages+Tobacco)

+ Crude Materials (eg oilseeds, textile fibers) + Animal Vegetable Oil + Fish and Fishery Products + Forest Products

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institutional support for these crops.

5. Edible oil imports are conducted by both the government and private sectors subject to a regulatory import duty. Imports of breeding cattle, soybean meal for poultry feed face relatively small duties, but imports of most other farm commodities are either banned, face prohibitive tariffs, or are government controlled.

6. Government controlled forests produced 320,00 cubic meters of timber and 510,000 cubic meters of fuel wood in 1985/86. Estimated demand for timber and fuel wood was 1.98 and 16 million cubic meters respectively. The gap was largely filled by imports and by cutting on private land and scrub for fuel wood. Imports have been necessary because forests cover only 3.2 million hectares in Pakistan, 3.9 percent of the country's area, and productive forests cover only 1.3 million hectares. Even these are difficult to exploit because of their location in the mountainous north. Afforestation schemes to develop fast growing species are being implemented. The government has launched a tree plantation program which includes the development of irrigated tree plantations in the Indus basin.

7. In 1987/88, the majority of Pakistan's came from Japan (15.1%), the US (10.7%), West Germany (7.6%), Kuwait (7.5%), UK (6.8%), and Saudi Arabia (5.3%).

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## PHILIPPINES

### Basic Information

1. The Philippines, located in Southeast Asia, is an archipelago of about 7,107 islands. It has a total land area of 300,000 square kilometers of which 40 percent is under agricultural cultivation. Total population estimated for 1987 was 57 million, and from 1978 to 1987 increased at an average annual rate of 2.53 percent. Income distribution is highly uneven. The top 20 percent of the households received 52.5 percent of the income, while the bottom 60 percent of households received 27.3 percent.
2. In the third quarter of 1986, the labor force was 22.07 million, of whom 10.6 million or 48 percent were engaged in agriculture, forestry, or fishing. Underemployment and unemployment are serious problems: one out of five is officially estimated to be visibly underemployed and over a third of the employed are estimated to be wanting additional work. As of 1987, the unemployment rate was estimated at 9.5 percent.
3. The local currency is the peso which has been floating since 1970. It was depreciated in 1983-85 as the overall balance of payments situation deteriorated and exacerbated by the political upheaval caused by the Aquino assassination in August 1983. It remains on float and as of mid-June 1988, it was P20.09 = \$1.00.
4. The Philippines is a member of the ASEAN. From the beginning of 1978, a

mutual preferential agreement with other ASEAN members (Indonesia, Malaysia, Singapore, Thailand and Brunei) came into effect covering commodities like rice and sugar. Over 18,000 items are now covered, of which a 50 percent discount on import tariffs is granted.

## The Economy

1. The Philippine economy's growth rate has tended to lag behind that of other middle income countries in the region. While trends in world commodity prices have been a factor, these have sometimes worked in favor of the Philippines as well as against, and poor economic management is largely to blame.

Agriculture, which is the most important sector, lost out to an extremely ambitious investment program, introduced by the Marcos regime and directed at giving the Philippines a capital intensive industrial base. This was belatedly seen as inappropriate to the country's factor endowment-- particularly since it is very dependent on foreign sources of capital and material inputs.

2. This orientation was revised in the economic development plan for 1983-87, with greater emphasis placed on more efficient and less externally dependent economic structure, most notably the development of agriculture and agribusiness. The targets of the 1983-87 plan were, however, superseded by events following the Aquino assassination.

3. The flight of capital which took place after the assassination of Benigno Aquino led to a balance of payment crisis (which was already in the offing as

a result of the progressive deterioration of the trade balance). In October 1983, the peso was devalued by 21.4 percent. This was followed by a severe austerity package, introduced as a condition for IMF agreement to the provision of stand-by credit and rescheduling of the Philippine external debt. Over the next two years, the economy went into sharp decline.

4. When Aquino took over in 1986, the government reoriented its strategy to enhancing agricultural productivity as a basis for self-sustaining economic growth. The dismantling of the "crony" run sugar and coconut monopolies is only one element of a general decontrol of agricultural pricing which is to be the key to raising production. Further stimulation is sought through the liberalization of trade and imports and from a looser monetary policy.

#### **Macro Policy Environment**

1. The Philippines before the 70's established a classic case of the "Import Substitution Syndrome", which involves an initial stage of rapid industrialization based on expansion of production of consumer goods for the domestic market behind very high effective protection barriers. At the same time, exports were strongly discriminated against, with negative protection to value-added for traditional exports (e.g. sugar and coconuts), and low to negative for new exports (e.g. bananas and pineapples). The rapid growth spurt which derived from this concentration of effort on the import-competing sector lost momentum as the limits of the domestic market to absorb such goods were approached.

2. The result of these policies was a concentration of investment to supply the urban market and utilizing imported techniques which were capital intensive, The industrial complex not only utilized capital inefficiently, but became increasingly dependent on imported capital goods and raw materials, exacerbating further the burden on the balance of payments.

3. The trade regime during the 1970s remained biased toward import substitution increasingly at the intermediate goods level, although it provided a window for a few nontraditional manufactured exports. But more importantly, it remained biased against the traditional export sector with the institution of new export taxes and the maintenance of an overvalued peso which reduced export earnings.

5. A tariff reform (toward rate reduction and uniformity) and an import liberalization program was started in 1981 to run until 1985. However, the 1983-1985 crisis stalled the import liberalization program. Foreign exchange controls and nontariff barriers during 1983-84 made tariff reductions ineffective. The Aquino government revived the import liberalization program in 1986 by initially substituting equivalent tariffs for nontariff barriers (to run until April 1988) and then instituting gradual tariff reductions (to run until the early 1990s).

### **Agricultural Exports**

1. Unprocessed and processed agricultural products historically dominated

Philippine exports. However, the percentage share of agricultural exports has declined substantially since 1978. In 1986, agricultural exports accounted for only 32.4% of total merchandise exports, from 53.0% in 1978 (Table 1). At the same time, exports of garments and electronic parts and components (largely semiconductors) displayed a sharp rise. A large share of the gross value of garments and electronics is accounted for by imported raw materials, however. In net value terms, the share of agriculture to total exports remain substantial.

2. Aside from forest product exports, Philippine agricultural exports are dominated by coconut oil and centrifugal sugar (Table 1). Other significant exports include copra, desiccated coconut, bananas, coffee, fish and fish products, and for a brief period, rice. The volume of copra exports decreased as the volume of coconut oil exports increased. This could be attributed to the government promotion of processed as opposed to unprocessed exports. Sugar exports decreased as production declined--primarily in response to the low price of sugar in the world market. The Philippines achieved rice self-sufficiency in the late 1970s enabling the country to export rice, but the combination of bad weather and government policy led to rice imports during the mid-1980s.

3. Sugar is one of the traditional exports of the Philippines. However, over a quarter of sugar area is controlled by just 600 farms. Prior to 1974, the domestic sugar industry was insulated from world market price fluctuations through the protection afforded by the US government. Under the Laurel-Langley Agreement, the Philippines exported a basic quota of 1.1 million

Table 1: Major agricultural exports of the Philippines, 1978-1987, value (US\$ 000)

Commodity	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Copra	135,684	89,128	47,253	33,634	49,218	8,850	9,600	12,000	17,600	31,993
Coconut oil	620,572	742,513	566,848	533,466	401,026	515,812	580,241	347,377	332,783	380,543
Dessicated coconut	81,888	107,001	115,991	101,788	68,283	87,909	105,965	75,666	44,269	75,293
Sugar, centrifugal	196,903	211,553	557,274	416,147	370,803	264,630	293,140	144,820	86,810	60,370
Bananas	84,775	97,905	115,602	125,447	147,361	106,058	122,996	113,492	130,222	121,243
Coffee, green/roasted	33,595	43,817	44,576	39,376	49,445	46,690	76,150	69,540	118,760	32,120
Rice	14,548	46,471	76,351	29,845	200	9,386	1,392	27	11	24,697
Fish and fish products	63,275	95,494	141,605	146,163	120,141	133,687	116,782	151,748	200,100	na
Forest products	312,534	471,862	473,550	444,810	372,126	357,815	326,146	229,399	206,505	na
Total Agric. Exports	1,814,661	2,255,801	2,592,544	2,471,016	2,067,970	1,937,550	2,031,157	1,542,629	1,551,396	na
Total Exports	3,424,870	4,601,190	5,787,800	5,720,400	5,020,593	5,005,290	5,390,650	4,628,950	4,841,780	na
% Ag. Exports over Total	53.0%	49.0%	44.8%	43.2%	41.2%	38.7%	37.7%	33.3%	32.0%	na

Source: All data except hemp figures were from FAO Trade Yearbooks, various issues.  
 Note: Total Agricultural Import and Export Values = (Food + Animals) + (Beverages + Tobacco) + Crude Materials (eg oilseeds, textile fibers) + Animal Vegetable Oil + Fish and Fishery Products + Forest Products. Coffee includes coffee substitutes containing coffee.

Table 2: Major agricultural imports of the Philippines, 1978-1987, value (US\$ 000)

Commodity	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Milk and Cream, dry	45,047	74,384	88,641	100,703	133,541	97,650	44,767	63,636	77,574	113,288
Wheat+flour (wheat equi.)	87,348	110,350	151,160	154,110	160,980	137,160	133,550	125,410	171,770	103,390
Rice		15	2	12	2		10	123,455	410	15
Maize	11,345	3,904	35,117	42,080	42,669	70,750	28,860	38,230	80	6,140
Soybean cake and meal	23,776	22,481	52,364	62,375	78,621	59,890	81,930	41,400	75,290	80,400
Soybeans	1,920	3,051	2,851	79	7,796	739		5,810	1,300	2,180
Cotton lint	43,771	33,294	42,772	33,224	19,519	28,799	19,548	26,330	34,643	51,341
Fish and fish products	31,219	28,107	36,570	36,535	52,322	11,158	2,717	6,325	19,019	na
Forest products	60,989	79,864	85,129	74,146	79,647	79,200	77,368	74,618	74,460	na
Total Agric. Imports	472,900	550,788	700,044	837,159	949,689	831,118	656,583	692,895	669,895	na
Total Imports	4,732,200	6,141,730	7,726,910	8,478,672	8,263,302	7,978,585	6,427,908	5,445,451	5,394,295	na
% Ag. Imports over Total	10.0%	9.0%	9.1%	9.9%	11.5%	10.4%	10.2%	12.7%	12.4%	

Source: FAO Trade Yearbooks, various issues.  
 Note: Total Agricultural Import and Export Values = (Food + Animals) + (Beverages + Tobacco) + Crude Materials (eg oilseeds, textile fibers) + Animal Vegetable Oil + Fish and Fishery Products + Forest Products

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annually and any ex-quota allocations granted. The assured market offering premium prices in addition to the price boom in 1973-74 led to substantial investments in the construction of sugar mills with little regard to improving yield or reducing production costs. The number of operating mills rose from 33 in 1969-70 to 42 in 1978-79.

4. After the expiry of the Laurel-Langley Agreement, the sugar industry was exposed to the volatile world sugar market. The government responded by taking complete control of domestic and export market. Sugar marketing was handled by the Philippine Exchange (PHILEX) until 1978 and by the National Sugar Trading Corporation until 1986. Markets were diversified to include Japan, USSR, China, South Korea and Indonesia. Poor market forecasting, however, led to substantial losses by PHILEX. Large quantities of sugar were withheld from the market for future sale when world sugar prices took a downturn.

5. The weakening of the world sugar prices to below domestic production costs led to a decline in output and a switch to other crops (encouraged by the government). Output currently represents less than half the country's milling capacity and the Department of Agriculture has recommended closure of 15 mills.

6. Government fertilizer and credit policies also contributed to declining yields. Fertilizer policy largely benefited the domestic fertilizer producers with the farmer paying prices above the world price. At the same time Nelson and Agcaoli (1983) showed that sugar producers on average received less than

the world price for sugar between 1972 and 1981. Even in 1981-1984, when producers received prices higher than the world price because NASUTRA sold under long term contracts, the larger increase in fertilizer costs resulted in the worsening of the fertilizer-sugar price ratio. In addition, minimal crop loans to producers (due to the credit squeeze in 1985-1986) and NASUTRA's arrears in payments to producers were serious problems facing the sugar industry.

7. The Philippines account for 75 percent of world coconut oil production, but only contributes 5 percent of world fats and oils. While there are some large plantations, around three quarters of all holding devoted to coconut average less than 5 hectares. Coconut exports declined in the early eighties as a result of drought but recovered in 1986-87. Exports of coconut products are sold mainly to the US, Europe and Eastern bloc countries.

8. Productivity of the coconut industry has been declining due to increasing maturity of a large segment of the tree population compounded by institutional and socio-economic factors. The government launched a nationwide hybrid coconut tree replanting program in 1974. Adoption of the new variety was slow partly due to mismanagement of the program. In addition, lack of capital, lack of extension services and share tenancy made the program unattractive to the small farmers.

9. A coconut levy was imposed on producers (initially designed to generate revenues to subsidize domestic producers of coconut based consumer products, eg cooking oil and soap) to support a vertical integration and the coconut

replanting program. The levy funds were used by the government to purchase a bank (which became the United Coconut Planters Bank) and the purchase of about two-thirds of the oil mills in the country under the umbrella of the UNICOM.

10. The objectives of UNICOM were to reduce milling capacity in the country and achieve influence in export prices and pass the benefits to farmers in the form of higher copra prices. The first was necessary because of over-investment in coconut oil mills in the late 1970s. This was in response to incentives by the Board of Investment, whose projections of the country's copra supply, however, proved faulty. By 1982, UNICOM owned 93 percent of milling capacity and handled 80 percent of coconut exports. Mismanagement of UNICOM led to substantial losses. This resulted from attempts at hoarding supplies and miscalculation of price trends, which also led to charges by the US Justice Department of trying to create artificial shortages. A study by Habito (1986) showed that from 1979-82, in spite of UNICOM intervention, domestic prices were below competitive levels.

11. Rice is the basic staple food in the Philippines. In the 1970s, the Masagana 99/Intensified Rice Production Program enabled the country to achieve rice self-sufficiency. Substantial exports were made in 1979-1981. This program was supported by credit and technology (e.g. high yielding varieties). Substantial credit arrearages under the program led to its abandonment. In the early 1980s, the combination of output price controls, high fertilizer prices, typhoons and drought led to a decrease in production. Since 1981, the Philippines again resorted to imports.

12. Given the close competition in the world sugar and vegetable oil markets, productivity gains in the sugar and coconut sectors must be achieved in order to remain competitive in these markets. Thus, in order to improve efficiency and production incentives, the government in 1986 removed the trading monopolies (NASUTRA and UNICOM included), export taxes and price controls; increased government expenditure on infrastructure, particularly farm-to-market linkages; and consolidated the institutions involved in agricultural planning, credit and policy.

### **Agricultural Imports**

1. Agricultural imports, on the other hand, displayed a slight increase from 10.0 percent in 1978 to 12.2 percent in 1986 (Table 2). Wheat and flour, soybean cake and meal, dried milk and cream, and maize are the major agricultural imports in the Philippines. Other significant imports include soybeans, cotton lint and rice.

4. The increasing imports of wheat and dried milk are a response to increasing population and subsequent demand for these commodities. The growing imports of soybean cake and meal, soybeans, and maize primarily sustain the increasing consumption of livestock products, particularly hogs and poultry. As shown in the Table 3, the number of chickens, hogs and cattle slaughtered for food increased substantially in the period 1978 to 1983. Despite the government launching of the Maisagana/Expanded Corn Program to promote maize production (which increased corn production by 11 percent between 1983 and 1985), domestic production still lags behind the demand for

Table 3: Number of animals slaughtered by kind, 1978-86.  
(000 head)

YEAR	CATTLE	HOGS	CHICKENS
1978	200	2,036	9,982
1979	198	1,564	18,049
1980	278	3,251	19,488
1981	240	3,890	26,420
1982	308	3,713	48,059
1983	361	3,198	54,455
1984	280	4,258	47,779
1985	286	3,347	48,059
1986	393	4,098	46,944

Source: Philippine Statistical Yearbook 1987.

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maize for animal feed and thus necessitating imports.

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## TAIWAN

### Basic Information

1. The Republic of China, also known as Taiwan, consists of 86 islands off the coast of the People's Republic of China on the Pacific Ocean. It has a total area of 36,000 square kilometers. The main island, Taiwan is 394 kilometers long and 142 kilometers wide, and more than 60 percent of the area is mountainous. Only approximately 25 percent of the island is cultivable, most of which lies along the west coast, and cultivated area has remained essentially constant since 1952. In 1986, 55.7 percent of cultivated land were devoted to rice paddy.
2. As of the end of 1987, Taiwan had an estimated population of 19.7 million. In 1986, on average, 29 percent of the population were under 15 years of age, 5 percent were over the age of 65 and the remainder, 66 percent, were of working age. In the same year, agricultural labor accounted for 17 percent of the total labor force and agricultural population accounted for 21.8 percent of the total population.
3. In 1987, around 8.1 million people were employed, representing 98 percent of the labor force. Taiwan reportedly has had virtually full employment for over a decade. One of the most important trends in employment has been the concentration of the labor force in the manufacturing sector. At the beginning of the 1960s, half the workforce was engaged in agriculture, and only 15 percent in manufacturing; a decade later the proportions were 33 and

Table 1: Exchange rate for Taiwan, 1980-1987

NT dollar per US dollar							
1980	1981	1982	1983	1984	1985	1986	1987
36.0	36.85	39.12	40.07	39.6	39.85	37.84	31.59

Note: Period average exchange rate.

Source: Economic Intelligence Unit, Country Profile  
Taiwan 1988-89, p. 20

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25 percent, while in the 1980s, less than 20 percent worked on the land and almost a third were employed in manufacturing.

4. The number of agricultural workers and of days worked by agricultural labor has fallen since 1964. The use of farm machinery has increased steadily during the last decade. The use of fertilizer, which rose substantially until the end of the 1970s, has since stabilized and a widespread and effective irrigation system has been in place since the Japanese occupation during the first half of this century. These factors have all contributed to the productivity of land, labor and capital which are high by regional standards.

5. The local currency is the New Taiwan Dollar. In 1979, the currency was unpegged from the US Dollar and has since been allowed to float daily in a managed float on average rates for interbank transactions in the US dollar, the Japanese yen, the Deutschmark, and the Hong Kong and Singapore dollars. The rate is determined by the Central Bank and the five leading exchange banks. In 1987, the exchange rate was NT\$ 31.59 to US\$ 1.00. Table 1 shows the New Taiwan dollar exchange rate per US dollar from 1980 to 1987.

### The Economy

1. From 1952 to the end of 1986, Taiwan's average real GDP growth was 8.6 percent. During this time, the economy was transformed from being predominantly agricultural to manufacturing and service based, while keeping its foreign debt very low and improving its distribution of income. In 1986, the per capita gross national product reached \$3,744.

Table 2: Production of main crops in Taiwan (000 mt).

Commodity	1981	1982	1983	1984	1985	1986
Sugar cane	8,422	8,275	7,070	6,545	6,823	6,002
Sweet Potatoes	834	741	560	424	369	324
Rice (brown)	2,375	2,483	2,485	2,244	2,174	1,974
Maize	96	118	143	190	226	272
Bananas	185	203	196	203	199	151
Pineapples	181	145	115	124	150	158
Groundnuts	82	83	62	87	89	77
Soybeans	16	12	9	10	12	15
Tea	25	24	24	24	23	24
Citrus Fruits	389	391	386	354	419	387
Mushrooms	67	60	57	600	60	55

Source: Economic Intelligence Unit, Country Profile 1988-89, p.18.

Table 3: Availability of selected commodities in Taiwan (000 mt).

Commodity	1984		1985		1986	
	Supply	% Domestic Supply	Supply	% Domestic Supply	Supply	% Domestic Supply
Rice	2,102	107	2,221	100	2,172	97
Wheat and rye	689	-	736	-	806	-
Other cereals	4,330	5	4,359	7	4,620	8
Meats	1,202	85	1,292	105	1,361	106
Fats and oils	276	97	287	101	332	105
Nuts and pulses	2,282	38	2,421	38	3,782	34

Source: Economic Intelligence Unit, Country Profile 1988-89, p.19.

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2. Taiwan's economy is currently dominated by foreign trade on the demand side and manufacturing on the supply side. Exports accounted for 60 percent of currently price GDP in 1986 while imports were 41 percent. Nearly all exports are manufactures and the manufacturing sector accounted for 43 percent of GDP in 1986. Small and medium size industries dominate the economy.

3. In the 1960s, the Taiwanese government pursued export-promoting industrialization involving development of low-technology light industry and the assembly of imported inputs for consumer goods. It involved taking advantage of its most abundant resource--labor. But during the 1970s, rising real wages has been eroding Taiwan's comparative advantage in labor intensive industries. Thus the economy has been changing to more technology and/or capital intensive industries, which has to some degree also meant secondary import substitution, e.g. the manufacture of steel, petrochemicals, and goods for the information industry.

4. Agriculture's share of GDP has declined significantly since the 1950s when Taiwan's economy began to be transformed from one based predominantly on agriculture to one which has a fairly diversified industrial base. Despite its limited cultivable area, there has been a modest decline in the area cultivated since 1978, mainly due to increased industrialization and urbanization and a change in government policy. This shows up in the decrease in output in several commodities during the 1980s (see Table 2). Nevertheless, agricultural production still increased at an average 3.7 percent during 1952-86, but this was due to increases in intensity of production.

5. The government's current agricultural policy concentrates on narrowing the income gap between farmers and non-farmers and the rural and urban sectors and promoting the small farm economy. The means adopted include improvements in agricultural research, marketing, rural infrastructure, access to credit and the promotion of agriculture based industries in rural areas. In order to raise the income level of farmers, there are guaranteed prices on a limited quantity of rice (970 kg/ha) purchased by the government and on domestically produced maize, soybeans, and sorghum. There are also stabilization funds for sugarcane and pigs raised by small farmers, but generally prices are determined by the free market.

6. Taiwan is almost self sufficient in food (Table 3). Food exports have always exceeded imports. The country is more than self-sufficient in rice, fruits and vegetables, fishery products, eggs, poultry, and pork, but must import over half of the beef consumed and almost all of its non-rice food grains.

### **The Macro Policy Environment**

1. One of the chief aims of the government's economic policy has been low inflation, and in the last decade it has met with considerable success (Table 4). Because Taiwan is highly dependent on imports of raw materials, particularly energy, it is vulnerable to external price shocks. Consequently, inflation has been highest in those years with substantial oil price increases. Since the oil price started to fall in 1984, Taiwan has had virtually no inflation in consumer or wholesale prices. However, the

Table 4: Inflation rates in Taiwan, 1979-86.

1979	1980	1981	1982	1983	1984	1985	1986
13.8	21.5	7.6	-0.2	-1.1	0.5	-2.6	-3.4

Note: Inflation rates were calculated from whole sale price indices.

Source: Wholesale price indices were from IMF, International  
Financial Statistics, various issues.

ballooning of the current account surplus in 1986 and early 1987 renewed the threat of inflation from another direction. Sterilization of money supply growth arising from the current account surplus has so far removed the threat of inflation, aided by the appreciation of the NT dollar against the US dollar.

2. The Taiwanese government, until 1987, controlled the movement of foreign exchange. All foreign exchange receipts had to be surrendered to the Central Bank. So the export boom was accompanied by money supply growth. This was accompanied by strict regulations--which were frequently evaded--on the export of capital. But in 1986 and 1987, foreign reserves soured to almost \$75 billion. This was inspite of a series of radical reforms in 1987 designed to slow the build up of foreign exchange reserves, which were translated into increasing money supply growth and thus created inflationary pressures. Finally, in 1987, a suspension of foreign exchange controls was put into effect.

3. The foreign exchange controls, however, remain on the statute book, and could be reimposed at any time. In the mean time, Taiwan businesses and individuals are allowed to hold and remit foreign exchange without immediate surrender to the Central bank and will be permitted to invest overseas, though hedged with an initial limit of \$5 million annually.

### **Agricultural Exports**

1. In the 1950s, exports were predominantly of agricultural products,

especially rice, sugar, canned fruits and vegetables, and wood products. As the manufacturing sector developed, light industrial goods became the principal export, at the expense of agriculture. At the same time, limited land and rising production costs in agriculture (mainly due to rising labor costs) made Taiwan's formerly prominent agricultural exports such as sugar, canned mushrooms, asparagus and pineapple increasingly uncompetitive in the world market. Thus by 1986, farm and fisheries products made up only 1.4 percent of merchandise exports. Processed goods were 5.1 percent of the total. Manufactured goods, on the other hand, accounted for 93.5 percent of all merchandise exports.

2. Agricultural, fishery, hunting and forest products accounted for only 3.2 percent of total exports in 1978. This further declined to 1.7 percent in 1986. Taiwan's principal agricultural exports currently consist of bananas, rice, canned food, tea, sugar, fishery products and forest products (see Table 5).

3. Taiwan has a large forest area, some 1.87 million hectares, and reserves are estimated at 325.2 million cubic meters. However, the timber industry is hampered by inaccessibility of the forests and the poor quality of the timber. Official policy is one of conservation and there has been a steady decline in timber production since 1971. As a result, Taiwan has had to rely on increasing lumber imports to sustain its wood products exports.

4. Taiwan's export market remains heavily dependent on the US, which took 44.2 percent of exports by value in 1987 and accounted for 84 percent of the

Table 5: Principal agricultural exports of Taiwan, (US\$ 000).

Commodity	Y E A R								
	1978	1979	1980	1981	1982	1983	1984	1985	1986
Bananas	17,542	24,809	25,585	25,056	38,954	32,969	40,567	42,876	35,106
Rice	53,127	86,545	59,998	26,824	63,429	94,269	41,752	6,235	30,229
Sugar	68,481	82,559	228,247	140,141	99,765	41,978	30,249	28,377	30,250
Tea	29,173	27,156	28,543	27,952	16,290	18,041	23,384	24,545	29,106
Fishery Products	271,215	261,694	303,928	368,250	248,171	285,178	287,515	286,956	395,961
Forest products	897,359	1,211,151	1,184,226	1,212,423	1,110,428	1,307,039	1,351,050	1,322,527	1,760,791
Plywood	325,388	420,884	372,599	399,419	333,908	362,067	280,464	246,629	239,417
Wood and products	571,971	790,267	811,627	813,004	776,520	944,972	1,070,586	1,075,898	1,521,374
Canned Food	2,555,211	244,268	281,895	216,836	198,854	164,351	169,615	129,782	163,390
Textile products	2,989,872	3,628,510	4,480,127	5,031,363	4,787,553	5,000,264	6,086,804	6,053,054	7,304,782
Total Ag. Exports	407,000	419,000	492,000	595,000	484,000	531,000	570,000	533,000	669,000
Total Exports	12,687,104	16,103,426	19,810,618	22,611,197	22,204,270	25,122,747	30,456,390	30,722,789	39,789,198
% Ag. Exports over Total	3.2%	2.6%	2.5%	2.6%	2.2%	2.1%	1.9%	1.7%	1.7%

Note: Total agricultural exports also include fishery products, hunting, and forestry exports.

Source: Taiwan Statistical Data Book 1987.

1987

trade surplus. Other major export trading partners are Japan (13%), Hong Kong (7.7%) and West Germany (3.7%). With increasing protectionist sentiment in the US, Taiwan is seeking to diversify its export markets, particularly Europe, Japan, the Soviet bloc and even the People's Republic of China.

### **Agricultural Imports**

1. Taiwan has limited natural resources and primary resource products, especially mineral fuels. Thus, these make up most of its imports.

Agricultural imports make up a small percentage of total merchandize imports as shown in Table 6. Major food imports consist: wheat, corn, soybeans, dairy products. Others are cotton (for the textile industry), timber, rubber products (for the footwear industry), textile products, and pulp and paper. The percentage of agricultural, forestry, hunting and fishery imports over total merchandize imports declined from 15.6 percent in 1978 to 9.3 percent in 1986. However, this decline is more due to increased imports of non-agricultural commodities, since the value of agricultural imports have remained steady at about \$2.3 million.

2. Taiwan is almost self-sufficient in food, and imports of wheat, corn, soybeans are mainly to fill in the small gap left by domestic production. The dairy industry in Taiwan is insignificant, thus nearly all dairy products are imported.

3. Japan (34.3%) and the US (22.1%) are the main sources of imports. Other countries supplying import goods include: West Germany (4.7%), Saudi Arabia

Table 6: Principal agricultural imports of Taiwan, (US\$ 000).

Commodity	Y E A R									
	1978	1979	1980	1981	1982	1983	1984	1985	1986	
Wheat	92,304	118,418	146,228	133,153	143,958	131,979	125,061	133,103	125,375	
Corn	266,024	363,737	436,975	499,327	373,750	489,771	475,894	422,237	354,502	
Soybeans	241,635	316,720	291,920	383,165	339,542	370,127	438,175	390,769	398,685	
Cotton	321,846	287,697	400,918	320,773	384,084	328,174	424,368	359,872	342,067	
Timber	386,000	632,700	633,500	589,800	453,300	462,900	433,800	312,500	347,300	
Dairy Products	84,234	99,758	109,945	135,993	140,189	144,337	147,531	149,696	158,952	
Rubber products	16,606	25,725	29,931	32,581	24,695	26,695	25,855	27,089	38,196	
Textile Products	211,274	280,388	321,249	373,771	338,891	375,008	475,597	405,638	584,074	
Pulp and paper	125,290	170,980	198,935	210,360	222,298	279,958	349,341	339,122	468,107	
Total Agric. Imports	1,718,000	2,273,000	2,504,000	2,612,000	2,353,000	2,393,000	2,553,000	2,243,000	2,241,000	
Total imports	11,026,931	14,773,700	19,773,135	21,199,551	18,888,375	20,287,078	21,959,086	20,102,049	24,164,595	
% Ag. Exports over Total	15.6%	15.4%	12.7%	12.3%	12.5%	11.8%	11.6%	11.2%	9.3%	

Note: Total agricultural imports include forestry, hunting and fishery products exports.

Source: Taiwan Statistical Data Book 1987.

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(3.1%) and Australia (2.9%).

4. Taiwan's limited agricultural exports coupled with increasing agricultural imports have led to growing farm trade deficits. However, this signifies more the progress that the nation has achieved. It represents the increasingly affluent public's demand for more sophistication, variety and high quality in its diet which is outrunning agriculture's ability to meet that demand--given the limited quantity of land and the competing demands on the agricultural labor force.

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## THAILAND

### Basic Information

1. Thailand is bordered on the west by Burma, north by Laos, east by Cambodia and south by the Gulf of Siam and Malaysia. It has a total land area of 514,000 square kilometers, of which 38 percent are cultivated and 20 percent are forested areas. Of the cultivated area, 60 percent are paddy land, 22.8 percent are under field crops, and 9.4 percent under fruit and other tree crops.

2. As of mid 1987, Thailand had an estimated population of 53.9 million. In 1987, Thailand's economically active population was about 28.9 million people or 52 percent of the population. Of this total, 26.97 were actually employed, although it is suggested that many of these are fully employed only on a seasonal basis.

3. The bulk of the labor force is in agriculture, where employment in 1986 was estimated at 17.43 million. The labor force employed in manufacturing was just 2.54 million. Labor absorption in agriculture has shown signs of slowing down in recent years, and despite a steady growth in industrial employment, the number of unemployed has been rising steadily. In 1987, the unemployment rate was approximately 2.9 percent.

3. The local currency is the baht which is divide into 100 satang. Up until 1978, the baht was pegged to the US dollar. In 1979, it was unpegged from the

dollar and tied to a basket of currencies. This policy was reversed in 1981 when the baht was once more linked to the dollar. As a consequence of the strength of the dollar in 1984 and the growing balance of trade problems, the government devalued the baht by 14.8 percent against the dollar. It also returned to a controlled floating rate against a basket of currencies. In 1987, the average exchange rate was Bt25.72 per US\$1.00 (Table 1).

## The Economy

1. Thailand's economy has undergone dramatic change over the last 25 years. From an agricultural economy based upon a narrow range of export commodities--rice, rubber, tin and teak--the country has begun to be numbered among the world's "newly industrialized countries". Manufacturing and the service sector, particularly tourism, has gradually reduced the dominance of agriculture. Nevertheless, agriculture still remains important. Despite considerable diversification, Thailand is still one of the leading agricultural exporters in Asia.

2. Thailand has experienced a high rate of real GDP growth since the 1970s. Annual real GDP growth from 1975-79 was 8.9 percent despite the oil price rises during the period. After 1979, there was some slowing down in the rate of growth to about 4.9 percent from 1982-87. The rapid growth has brought about a significant restructuring of the national economy. Agriculture's share in GDP has declined sharply from the 1970s, while industry and the service sector have become important.

Table 1: Average exchange rate, Thailand, Baht per US\$.

1980	1981	1982	1983	1984	1985	1986	1987
20.48	21.82	23.00	23.00	23.64	27.16	26.30	25.72

Source: IMF International Financial Statistics Yearbook 1988.

3. The period 1985-88 is the first in Thailand's modern development in which it may be said that agriculture has not been the driving force behind economic growth. The closure of the land frontier, poor weather (floodings), and low commodity prices have contributed to the stagnation of the agricultural sector. Meanwhile, manufacturing and construction have more than made up for the current poor performance of agriculture.

4. The dynamic growth of agriculture in the 1970s has been led largely by the private sector. The private sector actively encourage production by not only providing key services (such as transportation, financing, storage, input supply, and processing facilities), but by locating export markets. The government encouraged agricultural output and complemented the private sector's efforts in several ways. The government expanded irrigation by 7 percent each year between 1961-76; invested in crop research, notably for distributing improved rice, soybean, rubber, and cassava varieties; constructed roads and highways; and expanded institutional sources of farm credit.

5. In balancing demand between home and abroad, export taxes have been used to support the government's cheap food policy, pay for public investment projects, and regulate the food surplus. This policy tended to protect urban consumers from high domestic and world prices, while exposing farmers to low prices--since studies have shown that the export tax was not transferred to foreign buyers.

6. Thailand's foreign trade position has worsened in recent years. From a

relatively favorable situation in the mid-1970s, the impact of oil price increases and larger imports of both capital and consumer goods offset the effect of a steady rise in export earnings to produce a worsening of the trade deficit. Although imports were reduced in 1982 by high interest rates, 1983 brought a resurgence of demand to allow restocking. This was accompanied by a fall in export earnings resulting from depressed commodity prices and the limited export surplus available resulted in a record overall balance of trade deficit. Although the situation improved slightly in 1984-87, it widened again in 1988 to an estimated Bt 70 million.

### Macro-Policy Environment

1. Thailand has followed a fiscal policy which has produced regular budget deficits, while adopting a passive monetary policy. In the late 1970s, the oil price rise and the need for increased military expenditure (because of increasing tension with Cambodia) led to a more rapid increase in government expenditure as a whole resulting in a substantial widening of the public sector deficit which rose to over 6 percent of GDP by 1979/80. An increasing proportion of this deficit was financed by foreign borrowing which has led to a growing foreign debt service problem. This policy was less than prudent, and in the recession years 1983-85, the government sought to moderate growth and to rein in its budget deficits through austerity programs. This has been relaxed somewhat since 1986.

2. In order to tackle the problem of the trade and balance of payments deficits, the major emphasis of the fifth plan (1982-86) was the intensified

promotion of exports, particularly by enhancing the competitiveness of industrial production, the intensification of energy conservation measures and development of alternative sources; and the reduction of the budget deficit through efforts to increase government revenues.

3. Under the sixth plan (1987-91), these emphases have continued, but with increased stress on drawing the private sector into playing a more central role in the development process through involvement in infrastructural development and partnership in commercial agriculture.

### Foreign Exports

1. The percentage of Thailand's agricultural exports over total merchandize exports has declined from 63.9 percent in 1978 to 52.8 percent in 1986 (Table 2). Its major agricultural exports include rice, maize, canned pineapple, sugar, tapioca, natural rubber, tobacco, and fish and fish products. The private sector is the primary trader of agricultural products, although weak agricultural export prices have prompted the government to become more open to countertrade and long-term bilateral agreements.

2. Rice remains Thailand's most valuable agricultural export commodity. Although earnings from rice have been exceeded by such crops as rubber and tapioca in particular years in the past decade, more recently rice exports have been booming as Thailand has eaten into the market previously supplied by the US. Unfortunately, Thailand's success has brought a reaction from the US in the form of subsidies of rice exporters. This and the general glut in the

Table 2: Major agricultural exports of Thailand, 1978-1987, value (US\$000).

Commodity	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Rice	512,654	763,622	934,232	1,211,221	978,673	876,394	1,100,573	829,656	772,713	882,239
Maize	208,080	272,656	356,322	378,335	357,861	3,364,640	426,550	28,027	34,904	15,026
Pineapple, canned	59,072	60,905	69,000	93,668	86,665	81,361	120,802	121,219	121,075	144,882
Sugar, raw equi.	195,259	234,936	175,288	439,709	562,241	27,557	22,162	23,010	276,590	333,160
Tobacco, unmanufactured	57,043	60,892	66,371	80,145	110,692	77,864	69,533	58,221	56,551	49,970
Tapioca	535,491	325,154	726,916	753,736	858,781	668,997	704,738	551,141	725,703	803,305
Natural Rubber	396,384	604,887	603,191	497,994	413,323	512,466	551,900	499,722	574,961	798,153
Fish and fish products	252,885	362,759	358,261	412,452	482,010	544,920	632,940	675,060	1,011,900	na
Forest products	35,203	30,157	27,963	27,170	29,950	29,490	36,560	43,480	77,150	na
Total Agric. Exports	2,608,305	3,288,742	3,730,253	4,429,600	4,462,830	3,949,410	4,490,830	3,921,200	4,687,000	na
Total Exports	4,085,138	5,297,957	6,505,083	7,028,540	6,944,660	6,368,310	7,437,580	7,122,430	8,872,100	na
% Ag Exports over Total	63.8%	62.1%	57.3%	63.0%	64.3%	62.0%	60.4%	55.1%	52.8%	

Source: FAO Trade Yearbooks, various issues, Statistical Summary of Thailand (National Statistics Office) and the Economic Intelligence Unit, Country Profile Thailand 1988-89, p.29.

Note: Total Agricultural Import and Export Values = (Food + Animals) + (Beverages + Tobacco) + Crude Materials (eg oilseeds, textile fibers) + Animal Vegetable Oil + Fish and Fishery Products + Forest Products

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world market, have meant that Thai producers in 1985-87 were getting prices as low as in the early 1970s. Although have prices improved due to a drought in 1987 and floods in 1988, long term prospects for rice remain unfavorable.

3. Production of rice has grown steadily since 1960 as a result of increases in planted area, the use of high yielding varieties, and yield stabilization through irrigation (Table 3). But yields on a national basis are still below other countries in Asia. Although pump and other small scale irrigation projects are expanding the area of greater environmental stability, productivity continues to be depressed by frequent floods and droughts now exacerbated by the recent excessive deforestation.

3. Maize is now second to rice in terms of area planted. Originally cultivated in response to East Asian demand for cattle feed, it is increasingly being used in Thailand's feed industry. Thailand's maize exports have been running at high levels since 1980, but it is now faced by problems of quality control and increasing competition from US producers.

4. Tapioca products are also exported as animal feed, mainly to the EC. Demand in this market led to marked expansion of cultivation and production in the 1970s. However, further expansion is limited by the imposition of an EC quota, which now allows Thailand to export some 5.5 million ton a year. Attempts have been made to seek other markets, but production is still running higher than demand. Efforts are being made with EC aid to encourage farmers to diversify into other crops. Nevertheless, in terms of value, tapioca remains the country's second most important agricultural export.

Table 3: Production of selected commodities, 000 mt.

Commodity	Y E A R					
	1982	1983	1984	1985	1986	1987
Rice	17,200	19,436	19,888	20,599	19,026	17,072
Rubber	552	587	629	722	790	910
Maize	3,350	3,900	4,500	5,030	4,300	2,310
Tapioca roots	20,000	19,000	20,000	19,263	15,255	19,550
Sugarcane	23,916	23,325	25,053	24,000	24,441	27,200
Soybean	153	207	253	308	350	312
Coconuts	861	882	902	981	1,024	850
Tobacco	47	40	39	35	31	27

Source: Economic Intelligence Unit, Country Profile Thailand  
1988-89, p. 8.

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5. Sugarcane was another boom crop in the 1970s when Thailand took advantage of supply problems in the world market. However, it has suffered from the recent volatility in world markets. But domestically guaranteed prices have consistently exceeded world prices, reflecting a powerful local sugar lobby.

6. Thailand is the largest marine fishing nation in Asia after Japan and China. The sector comprises some 350,000 fishermen manning 40,000 vessels, of which as many as 20,000 are deep sea trawlers. Traditional small scale enterprises have given way to large scale commercial operations with refrigeration facilities which allow extensive exports of frozen shrimp, lobster, squid, cuttlefish and tuna. Thai fishery enterprises have sought to enter into agreements with countries like India and Oman for joint exploitation of distant waters.

7. Tradition on-shore fisheries, however, have not been faring well as fishing grounds have been affected by storage dams and siltation. However, efforts are now being made to restore the situation and on the coasts, the period 1985-88 has seen a rapid expansion of brackish water prawn culture for export. This has also led to the widespread destruction of mangrove forests by large scale agro-industrial enterprises with serious social and environmental consequences.

8. The US remains Thailand's biggest export market accounting for 18.6 percent of all exports in 1987. The US was followed by Japan (14.9%), Singapore (9.0%), and the Netherlands (6.7%). Most of the country's trade is directed at the OECD industrial countries, although rice exports find a much

wider market and there has been increasing efforts to diversify markets for other items as well. Exports within Asia have been growing, while there have been encouraging developments in links with Eastern Europe and the Middle East (in addition to imports of petroleum from the latter).

### **Agricultural Imports**

1. The percentage of agricultural imports over total merchandize imports have remained at about 8 to 11 percent for the period 1978-86. This is partly due to the fact that Thailand uses tariffs, quotas and licensing arrangements to restrict the flow of agricultural commodities. However, it became a charter member of the Group of 14 "Free Traders in Agriculture" in 1986.

2. The main agricultural imports of Thailand are: milk, butter, wheat, tobacco, cotton, animal oils, fats and greases, soybean oil, and forest products (Table 4). Thailand imports most of its dairy products, although dairy farming is now being promoted by the government and the private sector agroindustrial concerns.

3. Cotton imports sustain the country's textile industry, which has already managed to make the transition to export production. Thailand's late arrival in international markets meant a relative absence of import quota restrictions in its developed country markets. The export momentum was also aided by artificially low energy costs and cheap labor. However, the industry is increasingly troubled by protectionist measures in the US, its main market in terms of export value.

Table 4: Major agricultural imports of Thailand, 1978-1987, value (US\$000).

Commodity	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Milk and Cream, dry	40,691	51,116	64,000	86,940	62,344	80,695	76,742	71,791	70,175	82,818
Butter	5615	7280	9200	11990	8204	11157	9562	7541	8348	10368
Wheat+flour (wheat equi.)	20,119	32,717	31,491	48,850	29,780	38,820	30,320	29,430	29,930	35,440
Tobacco, unmanufactured	35,913	39,734	49,773	39,724	71,275	26,202	41,339	51,894	47,623	15513
Cotton, lint	43,771	33,294	42,772	146,955	88,225	158,957	192,726	174,029	170,265	267,388
Animal oil/fat/grease	3,708	4,186	3,400	2720	2,178	2,097	3,855	1,879	513	987
Soybean oil	955	2,713	10,075	8,420	5,198	11,203	31,587	9,350	1,822	505
Forest products	139,985	238,638	199,103	263,690	220,450	274,870	283,000	249,470	242,810	na
Fish and fish products	8,606	20,998	23,378	22,220	28,210	42,820	85,810	138,310	283,660	na
Total Agric. Imports	488,090	689,339	856,711	892,530	759,280	896,430	1,019,880	935,650	1,097,550	na
Total Imports	5,326,136	7,158,103	9,455,930	10,061,610	8,548,470	10,287,290	10,405,110	9,251,580	9,180,530	na
% Ag. Imports over Total	9.2%	9.6%	9.1%	8.9%	8.9%	8.7%	9.8%	10.1%	12.0%	

Source: FAO Trade Yearbooks, various issues.

Note: Total Agricultural Import and Export Values = (Food + Animals)+(Beverages+Tobacco)  
+ Crude Materials (eg oilseeds, textile fibers) + Animal Vegetable Oil + Fish and  
Fishery Products + Forest Products

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4. Thailand has had to rely on increasing timber imports as its forests are quickly getting depleted. The country's forests, which covered 50 percent of total land area in the 1960s, are now down to as little as 20 percent as a result of extensive clearance for agricultural purposes in the 1970s and failure to control illegal logging by powerful interest groups.

Reafforestation efforts have thus far fallen short of the requirements and the government has turned to the army and the private sector concessionaires for an emergency "regreening" program for the worst affected northeast region.

5. The countries which supplied the majority of Thailand's imports in 1987 were: Japan (25.9%), US (12.3%), Singapore (7.7%), West Germany (5.9%) and Malaysia (4.1%).

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## EGYPT

### Basic Information

1. Egypt is located on the northeastern edge of the African Continent. It is bordered on the west by Libya, south by Sudan, east by Israel and the Red Sea and north by the Mediterranean Sea. Composed of four geographic regions, the Nile River Valley and its Delta is the most important and is where the population is concentrated. Second in importance is the Sinai Peninsula, which is the site of most of Egypt's present oil production. The two other regions are the Western Desert and the Eastern Highlands. Egypt has a total area of 997,668 square kilometers of which only 4 percent is inhabited and cultivated territory.

2. About a third of Egypt's arable land is serviced by main and secondary drains, but such drainage has not been sufficient to counter waterlogging and high soil salinity--the unforeseen consequences of a rise in the water table as a result of the construction of the Aswan Dam. In addition, only 2 percent of total arable land is irrigated by modern methods, methods which employ selective watering rather than flooding. Water usage has not been very efficient in the past, and in the long term, there is a critical need for conservation measures if the country is to overcome possible water shortages and continue the reclamation of the desert.

3. As of 1988, Egypt had an estimated population of 54 million, which for the

period 1978-1987 increased at a yearly average rate of 2.73 percent. Since a large portion of Egypt is uninhabited desert, the population density in non-desert areas is quite high--about 1,381 per square kilometer in 1985.

4. Recent government estimates place the number of Egyptians employed within the country at 14.9 million with another 1.41 million working abroad, although independent observers estimate expatriate workers at 2-4 million. Agriculture remains Egypt's largest employer. About 4.4 million are employed in agriculture while 1.7 million are in industry and mining.

5. The local currency is the Egyptian pound (£E) = 100 piastres = 1,000 milliemes. Egypt has for many years run a multiple exchange rate regime, with official rates linked to the dollar. A Central Bank rate of £E0.70 = \$1 was originally introduced in 1979 after an official 44 percent devaluation to unify the system. But various incentive and special rates were introduced over the succeeding years in an effort to keep in touch with the black market rate offered in the streets. In May 1987, the government finally opened what amounted to a free foreign exchange market in line with a package of reforms agreed with the IMF. The new exchange rates were as follows:

**Central Bank rate:** £E0.70 = \$1. Not altered during the reforms, it applies to receipts such as cotton sales, petroleum exports, and most foreign assistance. It is also applied to imports of fertilizer and key food stuffs, notable wheat, and to government debt servicing.

**Commercial Rate:** This was inaugurated following the May 1987 agreement

with IMF. Set daily at a meeting of eight banks (four public and four private), it has fluctuated between  $\text{£}2.17$  and  $\text{£}2.30 = \$1$ . Banks can purchase foreign exchange at this rate from all sources apart from those confined to the Central Bank rate domain. Major inflows are tourist expenditures in Egypt and remittances from Egyptians working abroad, plus revenues from exports not restricted to the Central Bank rate. Sales, however, are restricted: more than 90 percent go towards the issuance of import letters of credit.

Own rate: This amounts to a much diminished continuation of the black market. Fluctuating in the spring of 1988 at  $\text{£}2.30$  to  $\text{£}2.38 = \$1$ , the rates have remained remarkably stable for large commercial users (mainly private purchasers of letter of credit).

Rate for trade with the Soviet Union.  $\text{£}2.00 = \$11$ . This was raised during 1987 from the longstanding rate of  $\$1 = 40$  piastres, and is valid only for transactions concluded after December 10, 1987.

National accounts statistics have traditionally been converted using the Central Bank rate of exchange. This substantially overvalues the Egyptian currency and thus exaggerates real per capita income expressed in dollars. Trade and balance of payments statistics are also exaggerated.

## The Economy

1. After an average rate of increase of 6 percent in the early 1960s, the

economy stagnated in the late 1960s and early 1970s. The economy grew at an average rate of 3 percent per year, barely sufficient to keep pace with population growth. With the start of the open door economic policy in 1974, the average rate of growth of GDP from 1975-80 (at constant 1975 factor costs) improved to 9.4 percent per year. In the mid-1980s, the economy took a serious downturn. Estimates of GDP growth, however vary according to the source--6.8 percent from 1982-87 according to government sources and virtual stagnation since 1985 according to a US embassy report.

2. Egypt's current problems are largely brought about by low productivity and inefficient allocation of resources resulting from excessive government control and a very high rate of population growth. The Egyptian government since the time of President Nasser has been committed to providing its people with cheap food, free education, basic services, and jobs. But as Egypt's population grew, the achievement of these commitments has stretched the means of the government.

3. The official breakdown of the origins of GDP in 1987 shows little change in the relative importance of the sectors in the preceding five years, apart from some decline in agriculture's share from 19.6 to 16.7 percent. The oil and oil products sector exhibited some contraction as international oil prices collapsed. This, together with the recession in the construction industry, helped to slow the economy as a whole.

4. For some years, agriculture has been in heavy decline, partly as a result of price and quota policies. Agriculture's share of GDP fell from 30 percent

in the mid-1970s to 17 percent in 1986/87. From being self-sufficient in food and a net exporter of agricultural commodities in the early 1970s, by the early 1980s, Egypt was running an annual net deficit of \$3 billion on agricultural trade. Agriculture's current growth rate is 2 percent per year, which has not kept pace with population growth which is at 2.7 percent. The country now imports half of its food needs.

5. In 1987, Egypt was self-sufficient in fruit and vegetables as well as rice and beans. It produces only 22 percent of its wheat consumption, 66 percent of maize, 52 percent of sugar, 34 percent of vegetable oil, 48 percent of lentils, 63 percent of chicken, and 75 percent of beef. The small quantities of onions, potatoes, rice and fruit that Egypt exports make only the smallest dent in a food import bill that currently runs well over \$2 billion a year.

### Macro Policy Environment

1. In May 1987, the government relaxed its control of foreign exchange. It raised the commercial bank rate to parallel the free (black) market rate in an effort to divert the flow of foreign exchange into the hands of banks and away from the black market. However, this has not increased the flow of foreign exchange, but has only altered the direction in which it is channeled.

2. Egypt's inflation rate has also been accelerating, informally estimated at 30-35 percent during 1988 (Table 1). Depending on the indicator, and the exact time period, the rate of inflation for 1981-87 lies in the range 16-18 percent as against 11-14 percent for 1973-80. This shows the influence of

Table 1: Annual inflation rate in Egypt, 1979-1987

1979	1980	1981	1982	1983	1984	1985	1986	1987
9.7	21.7	8.0	9.4	15.9	10.1	13.2	17.2	13.7

Note: Inflation rates were calculated from wholesale price indices.

Source: Wholesale price indices were from IMF, International Financial Statistics, various issues.

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domestic conditions and is not wholly imported inflation. It is widely blamed on excessively rapid growth in money supply. In March 1987, the government imposed stringent limits on loans to public and private sector companies to restrain the growth of credit. However, banks largely ignored the government imposed ceiling on loans to the private sector. At the same time, the government did not impose limits on the amounts the banks could lend to the government itself. Thus, money supply remained high driving the inflation rate up.

3. Price distortions are also pervasive. Subsidies are both hidden and open. Direct control of prices of basic commodities to protect the poor have resulted in subsidies reaching £2.0 billion in 1981/82 from £155 million in 1973. Subsidies have also been expanded to encompass energy, transport, public utilities, financial services and public sector companies. In 1985/86, the US embassy estimated food subsidies of about £3 billion. Under pressure from the IMF, the government is gradually reducing subsidies on energy, but has refused to touch the subsidies on food stuffs--fearing renewed popular unrest.

4. Egypt's external trade deficit has persisted without interruption since the Second World War. The open door policy proved a great stimulus to imports. During the early 1980s, with foreign aid increasing, oil income doing well, and private international credit readily available, a high level of imports could be maintained. By the middle of the decade, a severe shortage of foreign exchange--combined with the pressure of debts coming due created constraints. In 1987, the government launched an active program of promoting

exports. The long standing policy of exporting goods that could not be sold at home was abandoned and restrictions on exports now apply only to a brief list of "strategic" products, such as wheat and other basic food supplies. Especially important in opening new markets has been the 63 percent devaluation of the Egyptian pound, making Egypt's products more competitive.

### **Agricultural Exports**

1. Egypt has very few major agricultural exports. They consist of cotton, oranges, potatoes, rice, and onions (Table 2). The value of agricultural exports as a percentage of the total value of merchandise exports has also declined from 38.2 percent in 1979 to 23.7 percent in 1986. This is partly due to decreasing surplus for export as a result of government intervention. With the view of providing cheap food for urban consumers, the government has provided key inputs, dictated cultivation practices, fixed producer prices, and laid down controls on distribution and marketing. Such policies failed to create adequate incentives for farmers.

2. In the case of rice, cotton and sugar, low and rigid farmgate prices led farmers to shift into growing animal fodder from which they can get a better return. With Egypt's deteriorating economic situation, combined with pressure from the IMF and donor nations, the government has begun to allow farmers more discretion in deciding what crops to plant. Controls remain, but have been loosened on the production of wheat, rice, cotton, lentils, and sugarcane.

3. Cotton remains the most regulated crop, with 100 percent government

procurement. But in early 1987, the procurement price was raised 25 percent and a further increase occurred later in the year. Towards the close of the year, the authorities announced that mandatory rice procurement would be reduced from 50 percent of output to 25 percent. Some steps were also taken to decrease subsidies on inputs, notably maize to be used as feeds.

4. Many of these measures, however, were insufficient to stimulate real improvements in output or were taken too late to affect current production--the farmers already having made their cropping decisions. In the case of cotton, despite the 25 percent price increase, farmers found it more attractive to grow maize.

5. Cotton is Egypt's main agricultural export. Cotton output has steadily declined since the early 1970s. This and growing domestic consumption have squeezed the availability of cotton for export. For the first time in 1985, the government sanctioned medium staple cotton imports to free premium longer staples for export. The government hopes that the improved price signals would reverse the decline in area and output.

6. Egypt's major markets for its exports are Italy, Japan, West Germany, France, the UK and the US.

### **Agricultural Imports**

1. Agriculture imports remains a major component of total merchandise imports (Table 3). As discussed above, this is mainly the result of rising domestic

Table 2: Major agricultural exports of Egypt, 1978-1987, value (\$000).

Commodity	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Cotton lint	336,172	381,824	423,413	457,091	408,724	441,239	485,949	427,247	440,762	388,872
Oranges	53,144	223,351	38,940	47,364	52,816	73,779	76,424	86,541	56,166	93,000
Potatoes	6,855	1,575	2,752	16,629	15,588	30,632	36,787	8,221	11,466	19,000
Rice	50,818	31,540	35,223	42,609	11,617	7,081	22,515	5,398	16,022	39,658
Onions	12,980	4,720	20,096	6,771	5,287	11,715	5,706	8,498	6,554	25,334
Fish and fish products	421	751	550	76	1,190	990	850	680	4,690	na
Forest product	0	0	0	0	0	0	0	0	0	na
Total Agric. Exports	664,206	610,862	681,621	740,606	674,110	727,350	752,890	669,010	696,860	na
Total Exports	1,737,451	1,840,284	3,046,880	3,232,182	3,121,110	3,215,670	3,140,850	3,715,310	2,935,110	na
% Ag Exports over Total	38.2%	33.2%	22.4%	22.9%	21.6%	22.6%	24.0%	18.0%	23.7%	

Source: FAO Trade Yearbooks, various issues.

Note: Oranges include tangerines and clementines.

Note: Total Agricultural Import and Export Values = (Food + Animals) + (Beverages + Tobacco)

+ Crude Materials (eg oilseeds, textile fibers) + Animal Vegetable Oil + Fish and Fishery Products + Forest Products

Table 3: Major agricultural imports of Egypt, 1978-1987, value (\$000).

Commodity	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Meat, bovine/fresh	72,335	47,441	84,268	166,950	167,619	165,383	207,808	170,841	233,093	240,000
Meat, poultry/fresh	14,441	23,254	69,814	117,481	52,107	28,018	67,800	75,614	72,830	72,000
Milk, dry	33,791	25,872	28,555	70,458	60,177	55,029	81,922	65,809	58,077	65,000
Wheat+flour, (wheat equi.)	706,000	720,000	1,035,000	1,398,000	1,265,950	124,600	136,900	1,393,000	1,166,200	1,209,000
Maize	97,061	44,790	102,516	314,091	300,324	221,000	324,000	290,000	239,000	189,000
Pulses	12,580	7,644	10,339	32,353	49,376	31,592	22,794	21,009	37,000	27,000
Sugar, refined	104,438	49,820	278,000	428,000	178,000	191,200	178,000	135,300	211,000	141,000
Animal oils/fats/grease	83,862	93,093	101,000	122,322	121,440	113,120	140,000	104,065	78,428	93,000
Soybean oil	39,449	6,920	11,569	77,987	18,518	32,202	54,831	17,800	3,980	8,500
Cottonseed oil	119,700	97,000	112,000	126,500	152,200	88,745	116,000	121,800	65,000	50,000
Sunflower oil	29,000	81,000	18,253	32,000	10,405	23,770	41,194	169,000	170,667	131,000
Palm oil	28	300	0	8,857	2,127	19,602	42,000	29,000	22,000	24,000
Fish and fish products	54,400	21,768	33,226	66,700	66,600	81,030	94,260	55,600	82,880	na
Forest product	368,503	230,554	390,629	572,630	5,312,500	588,850	648,830	782,360	822,920	na
Total Agric. Imports	2,419,794	1,919,991	2,804,887	4,274,870	3,814,570	3,973,540	4,668,630	4,684,650	4,491,320	na
Total Imports	6,727,852	3,838,596	4,861,450	8,839,460	9,080,610	10,278,310	10,769,040	9,964,500	11,505,490	na
% Ag Imports over Total	36.0%	50.0%	57.7%	48.4%	42.0%	38.7%	43.4%	47.0%	39.0%	

Source: FAO Trade Yearbooks, various issues.

Note: Animal oils/fats/grease exclude lard.

Note: Total Agricultural Import and Export Values = (Food + Animals) + (Beverages + Tobacco)

+ Crude Materials (eg oilseeds, textile fibers) + Animal Vegetable Oil + Fish and Fishery Products + Forest Products

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food deficits. For example, the assigned production of cotton on approximately 20 percent of Egypt's land per year reduces the area devoted to food production. Agricultural imports include: bovine meat, chicken, milk, wheat, maize, pulses, sugar, animal oils/fats/greases, soybean oil, cottonseed oil, sunflower oil, palm oil, and forest products.

2. Although wheat and sugarcane are grown domestically, domestic production has not kept up with domestic demand, partly as result of government intervention. In 1987, the government relaxed its procurement policy with respect to wheat and wheat deliveries became voluntary. Consequently, most wheat was sold at prices higher than those set by the government.

3. In 1987, feed stocks, particularly maize, were to have been stabilized through private sector imports. But in fact, the Ministry of Agriculture itself imported 90 percent of all maize, thus discouraging private sector imports. Major shortages of maize resulted and the free market price shot up. The broiler industry had to resort to mass slaughter and shutdowns. The operations of the beef and dairy industries suffered as well, since they had to resort to expensive alternative feeds, such as birsim and wheat.

4. Maize prices are also subsidized. Imported corn is sold at prices far below world market levels, but in limited quantities. It has been argued that the corn subsidy effectively keeps dairy, poultry, and livestock production down--contributing to the importation of these commodities. Since feed is scarce, and imported privately on a limited basis, production of livestock products is limited by feed availabilities, which in turn is limited

by the amount of money the government can devote to the corn subsidy. At the same time, the demand for these products and the diversion of land to feed and forage production mentioned above, effectively reduces total food production.

5. Egypt is also the one of largest recipient of food aid. A large proportion of wheat imports is from the US obtained at concessionary terms.

6. Egypt's major trading partners in order of value of imports are the US, West Germany, France, Italy, Japan, and the UK. The US and Australia is the main sources of wheat. The US, Argentina, and Thailand are the main sources for maize.

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## JORDAN

### Basic Information

1. Jordan is bordered on the north by Syria and Iraq, the south and east by Saudi Arabia, and west by Israel. The Gulf of Aqaba, in the southwest, provides a gateway to the Red Sea. Jordan has a total area of 97,740 square kilometers including 5,880 square kilometers of the West Bank (currently under Israeli control). About 80 percent of the East Bank is desert. Only about 5 percent or 5,238 square kilometers of the total land area are cultivable. Of this about, 400 square kilometers are irrigated and situated in the Jordan Valley.

2. Since 1986, state land has been provided in the arid south east of the country for development of the private sector. Underground aquifers are tapped via central pivot irrigation to water the area, which is estimated at more than 200 square kilometers. While farming is capital intensive and highly productive in the valley area, methods are far more primitive and labor intensive in the uplands where the unreliability of rainfall results in erratic harvests and little capital for investment. Much prime rainfed land, especially around the cities of Amman and Irbid, has been lost as the urban areas have expanded.

3. As of 1986, Jordan (East Bank only) had an estimated population of 2.67 million. In the period 1978 to 1987, it had an annual average population

growth rate of 3.6 percent. The sedentary population is concentrated in the northern and central highlands, where the major towns are located near the River Jordan System, and where the rainfall is sufficient to support cultivation. Greater Amman contains about 45 percent of the population.

4. In the absence of large mineral deposits, Jordan considers its manpower as its most treasured natural resource. The regional oil boom saw the country exporting its skilled labor force. Together with their families, Jordanian expatriates numbered about 800,000 to 1 million. However, Jordan is also an importer of manpower. There were about 178,000 (legal and illegal) foreign workers in 1987. Around 75,000 mainly unskilled Egyptian workers work in agricultural and construction industries performing jobs considered demeaning by Jordanians. Remittances from overseas workers are still the single largest source of foreign exchange for the government.

5. As of 1986, agriculture employed about 8 percent of the labor force. Public service employs the largest proportion of the labor force--46.6 percent. In 1987, the official unemployment rate was 10 percent of the domestic work force.

5. The currency on both the East and West Bank is the Jordanian dinar. It has been pegged to the SDR since 1975. As of July 1988, the dinar to US dollar exchange rate is JD0.37 = \$1.00 (Table 1).

### The Economy

1. Ever since its foundation, the Jordanian economy has relied on foreign aid-

Table 1: Exchange Rate of the Jordanian dinar, 1982-1987

JD per Dollar					
1982	1983	1984	1985	1986	1987
0.35	0.36	0.38	0.39	0.35	0.34

Source: IMF, International Financial Statistics.

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-from the UK, the US, and, more recently, the Arab oil producers--to make good the shortfall of national income. In the late 1960s and early 1970s, the economy encountered severe setbacks. The loss of the West Bank to Israel in 1967 entailed the loss of much of the kingdom's agricultural base, while the loss of such holy places as Bethlehem and Jerusalem resulted in the effective collapse of the tourist trade.

2. In the 1980s, Iraq's demand for goods and transit routes, after its own ports had been closed by the war against Iran, has helped to keep the Jordanian economy vigorous. But by 1983, the kingdom had become deeply affected by the regional recession. By the mid-1980s, Jordan began to suffer increasing public sector cash flow problems, with the government sources of income--especially Arab aid--steadily falling. In response to the situation, the state has had to postpone development projects and cut capital spending, while increasing its borrowing to settle the adverse political effects of the recession.

3. After impressive growth rates of 9-10 percent in 1975-81, rates declined to an average of 2.6 percent from 1983-86, mainly because of lower oil revenues in neighboring countries who were Jordan's main sources of foreign exchange in the form of remittances and foreign aid.

4. Growing urbanization and the occupation of the West Bank has meant that agriculture is no longer the cornerstone of the economy that it once was. In 1986, the share of GDP at market prices contributed by agriculture was just 7.5 percent and 14 percent of exports. But a large food bill, which in 1987

exceeded \$460 billion--makes it of economic and strategic importance.

5. Jordan's crop production fluctuates widely because most crops are rainfed, with only 10 percent partially or fully irrigated. Jordan's crop production is mainly cereals (wheat and barley), vegetables (including tomatoes, cucumbers, and eggplant), and fruits (citrus, melons and bananas). The country produces about 50 percent of its food requirements.

6. The 1986-1990 5 year development plan projects total investment of \$10 billion. It aims to improve productivity through private investment in export-oriented, labor-intensive industries to increase exports and reduce the balance of payments deficit; and increase the productivity of the agricultural sector to reduce food imports. Major domestic programs include purchasing wheat, barley, chickpeas, and lentils at subsidized prices, setting minimum retail prices on many agricultural products, encouraging use of agricultural inputs, forgiving taxes or tariffs on imported inputs, and renting land to private individuals at nominal prices for up to 15 years. The government offers incentives, particularly for import substitution crops.

7. In spite of the capital injected into the sector, agriculture remains poorly managed. One reason for this has been the multitude of agencies and corporations with responsibility for different but often overlapping areas of farming activity and the lack of coordination between them. Crop planning was recently introduced, though incentives to farmers to diversify have been somewhat neutralized by the offer of guaranteed prices for such glut crops as tomatoes. The marketing of fruit and vegetables both internally and abroad

has also been chaotic, year after year. The absence of quality control is also a barrier, for example, to breaking into the European winter market.

### **Macro Policy Environment**

1. Through out its history, Jordan has relied on foreign aid to sustain capital investment, whether for building a modern army in the 1950s or for the considerable economic developments of the 1970s. In the 1980s, as donors have become increasingly reluctant to dispense largesse, there has been a concerted and painful attempt to increase domestic revenue to match recurrent spending. In 1987, domestic receipts formed over 90.9 percent of recurrent expenditure, It has also been government policy to develop the financial base of the country, with the Central Bank spearheading such attempts, and to galvanized the considerable personal liquidity for productive private investment.

2. Since 1981, Jordan has been facing balance of payment deficits, primarily due to the decline in Arab aid. As a result of the successive current account deficits, there has been a steady decline in foreign exchange reserves. Consequently, more attention is being paid to countertrade as a way of conserving precious foreign currency reserves.

### **Agricultural Exports**

1. As a result of limited arable land, Jordan has few major agricultural exports (Table 2). These include tomatoes, cucumbers, lemons and limes. Tomatoes are grown in abundance during the winter season in the Jordan Valley,

Table 2: Major agricultural exports of Jordan, 1978-1987, value (\$US 000).

Commodity	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Tomatoes	12,554	18,903	22,000	35,353	21,084	16,542	16,182	13,532	12,640	14,073
Lemon and limes	1,778	2,704	3,400	3,879	2,498	2,329	2,389	3,057	2,496	1,600
Fish and fish products	303	156	64	148	156	0	0	28	0	na
Forest products	1,183	4,131	4,131	10,452	8,056	8,056	8,056	596	9,267	na
Total Agric. Exports	95,177	156,237	201,600	250,234	204,511	152,754	125,838	106,200	109,565	na
Total Exports	296,552	402,480	574,450	745,610	750,464	580,344	756,872	789,033	731,728	na
% Ag Exports over Total	32.1%	38.8%	35.1%	33.6%	27.3%	26.3%	16.6%	13.5%	15.0%	

Source: FAO Trade Yearbooks, various issues.

Note: Total Agricultural Import and Export Values = (Food + Animals)+(Beverages+Tobacco) + Crude Materials (eg oilseeds, textile fibers) + Animal Vegetable Oil + Fish and Fishery Products + Forest Products

Table 3: Major agricultural imports of Jordan, 1978-1987, value (\$US 000).

Commodity	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Meat, bovine	0	0	0	33,686	28,611	23,918	31,869	35,463	28,489	31,395
Meat, sheep	27,188	28,760	26,250	45,515	49,864	26,938	28,314	44,155	32,330	44,115
Milk and Cream, dry	10,132	2,733	9,500	15,677	23,211	16,542	16,182	22,026	27,254	28,000
Wheat+flour (wheat equi.)	45,693	64,493	58,000	70,880	88,440	90,550	102,030	71,620	4,532	8,475
Rice	11,682	11,682	16,900	16,671	23,958	13,865	21,476	18,529	27,937	21,418
Maize	13,543	20,174	23,000	27,122	23,785	22,641	21,707	30,690	30,710	21,400
Sugar, refined	21,744	29,238	60,000	71,518	54,146	17,900	13,390	9,240	24,830	24,270
Soybean oil	2,553	2,256	1,400	1,253	2,067	2,691	8,996	4,117	5,343	5,007
Palm oil	3,138	3,858	3,900	3,700	3,764	2,275	7,545	6,838	4,802	6,638
Fish and fish products	6,837	5,165	6,641	9,477	8,744	9,977	9,021	10,720	9,264	na
Forest products	38,707	81,456	63,081	55,861	71,318	71,318	77,805	51,250	60,949	na
Total Agric. Imports	426,673	539,464	564,376	673,999	741,367	682,311	690,138	620,448	628,833	na
Total Imports	1,497,071	1,948,500	2,397,092	3,218,980	3,241,250	3,040,723	2,789,770	2,766,940	2,429,869	na
% Ag Imports over Total	28.5%	27.7%	23.5%	20.9%	22.9%	22.4%	24.7%	22.4%	25.9%	

Source: FAO Trade Yearbooks, various issues.

Note: Total Agricultural Import and Export Values = (Food + Animals)+(Beverages+Tobacco) + Crude Materials (eg oilseeds, textile fibers) + Animal Vegetable Oil + Fish and Fishery Products + Forest Products

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and despite the high fixed cost of hot houses, are then sold in the lucrative markets of the Gulf states. The lack of a proper marketing system and negligible quality control, combined with competition from Turkey and the growth of indigenous agricultural sectors, have jeopardized these traditional markets. Plans are afoot, however, to penetrate the winter market in Europe. The EC has offered favorable import conditions.

2. The value of agricultural exports as a percentage of total merchandise exports has shown a continuous decline from 32.1 percent in 1978 to 15.0 percent in 1986. This may be partly due to the increasing domestic consumption (the result of high population growth) thus reducing available surplus for export.

3. Jordan's most important trading partners continue to be its Arab neighbors. In 1987, Arab countries purchased over 52 percent of the kingdom's domestic exports, with Iraq remaining as the largest market in accounting for more than 24 percent of the grand total. Saudi Arabia came second and India came third--mainly due to its purchase of phosphates.

### **Agricultural Imports**

1. The value of agricultural imports as a percentage of total merchandise imports remain high at around 25 percent. Agricultural imports consist mainly of food items: dairy products, wheat, rice, sugar, feed grains, red meat, fish and fish products, edible oils (Table 3).

2. Wheat is Jordan's staple food and the most important food produced and imported. In 1986, imports of wheat, rice, corn and soybean meal from the US amounted to \$45 million. Wheat and maize are grown exclusively in the rainfed upland areas. This makes the success of the crop heavily dependent on the weather, thus resulting in fluctuating output. Thus imports of grain and grain products is determined by the season's harvest.

3. Jordan also imports a significant amount of red meat. The country produces less than 30 percent of its beef and lamb requirements owing to the lack of grazing land and the high cost of imported feed stuffs. Little success has been achieved in increasing beef production as high local costs mean that cattle rearing cannot be put in competitive footing with fresh or frozen imported meat. Likewise, large quantities of imported skimmed milk make domestic dairy production unprofitable. However, the national sheep flock, which was until recently a neglected asset, is gradually being built up and stand at about 1.3 million. It is only in poultry and egg production that the country is self sufficient, though supply is sometimes interrupted by disease, insufficient slaughterhouse facilities and a shortage of refrigeration facilities.

4. The EC was collectively Jordan's largest single supplier, providing \$849 million out of the total imports of \$2.7 billion in 1987. Iraq was the single largest individual source of imports with \$293 million worth, followed by the US, Saudi Arabia and West Germany.

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