Part II

WORLD AND REGIONAL REVIEW

Facts and figures

Part II

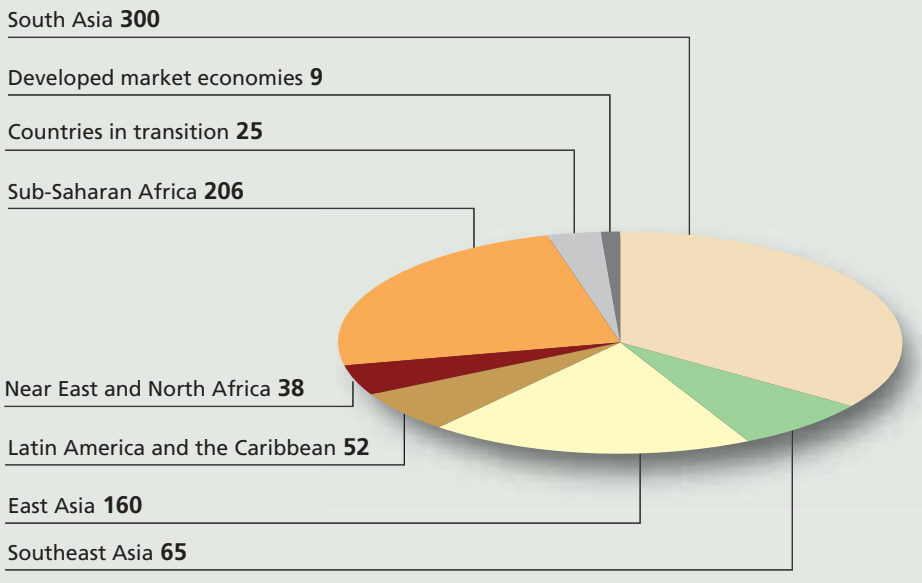
1. TRENDS IN UNDERNOURISHMENT

- The total number of chronically undernourished people in the world is estimated by FAO at 854 million for the period 2001–03, of whom 820 million live in developing countries, 25 million in countries in transition and 9 million in developed market economies (Figure 13). As in previous years, more than half of the total number of undernourished, 61 percent, live in Asia and the Pacific, while sub-Saharan Africa accounts for 24 percent of the total. The highest prevalence of undernourishment is found in sub-Saharan Africa, where FAO estimates that 32 percent of the population is undernourished (Figure 14). Long-term trends show that the absolute number of undernourished people in developing countries has somewhat declined while the prevalence of undernourishment has fallen significantly, from 37 percent of the total population in 1969–71 to 17 percent in 2001–03 (Figures 15 and 16). Although this constitutes important progress, it has been very uneven and has slowed down in recent years.

- Most of the improvement in undernourishment over the past 35 years has been concentrated in Asia and the Pacific, where the prevalence of undernourishment has been reduced by almost two-thirds. In sub-Saharan Africa, the very limited reduction in the prevalence of undernourishment has been more than offset by population growth, resulting in a large increase in the absolute number of undernourished people.

- The regional aggregate trends, however, conceal significant subregional differences. Within sub-Saharan Africa, all the subregions except Central Africa have made impressive progress in reducing the prevalence of undernourishment. In Central Africa,

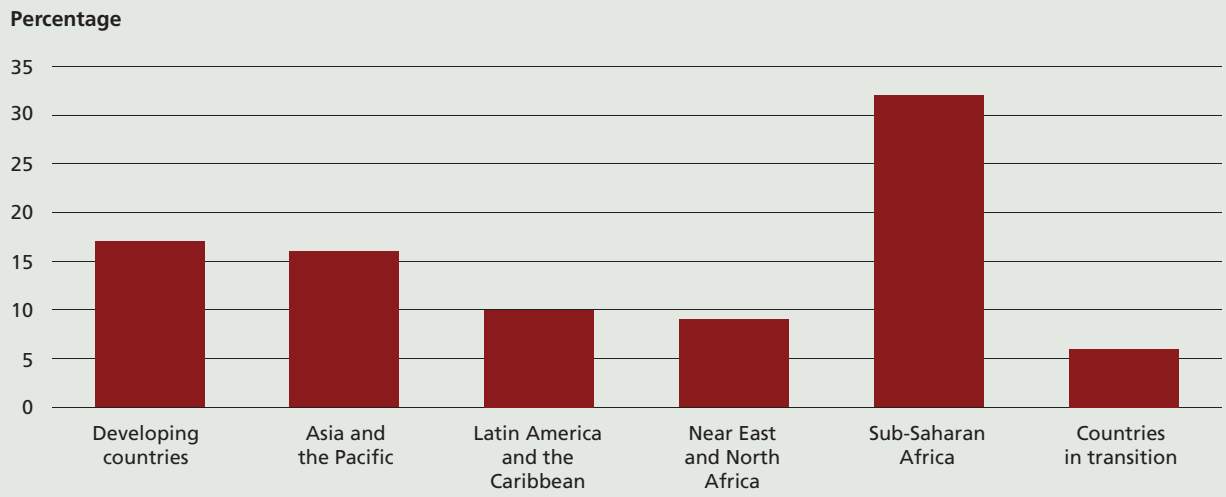
FIGURE 13
Undernourished population by region, 2001–2003 (millions)



Note: Figures are rounded.

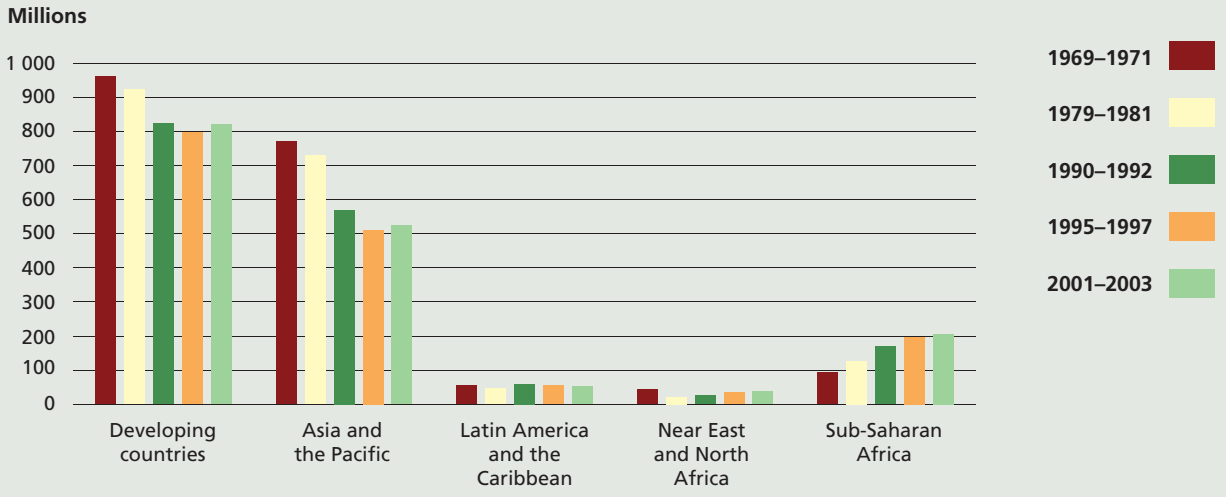
Source: FAO.

FIGURE 14
Percentage of undernourished in the population by region, 2001–2003



Source: FAO.

FIGURE 15
Trend in number of undernourished in developing countries, by region

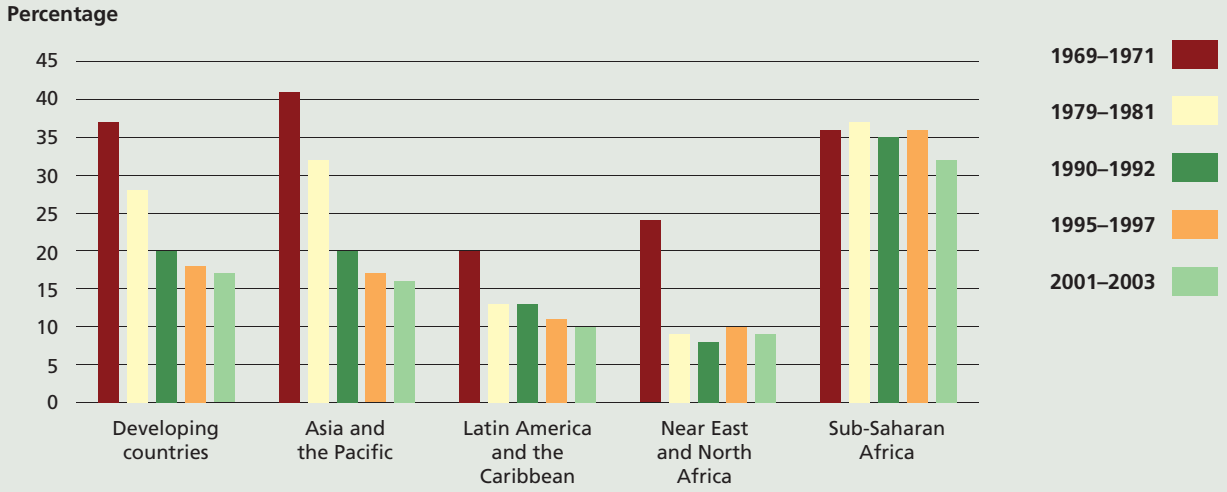


Source: FAO.

the share of undernourished people in the total population has increased dramatically, to 56 percent, against 36 percent in the early 1990s.

- An analysis of changes in the prevalence of undernourishment at country level between the 1995–97 and 2001–03 periods shows that the percentage of undernourished people declined in the majority of countries in all regions, while a few countries (the Democratic Republic of the Congo, Liberia, Comoros, Guinea-Bissau, Sierra Leone and Eritrea) experienced substantial increases due to economic mismanagement and political turmoil, combined with the effects of the wars in the late 1990s and early 2000s.

FIGURE 16
Trend in percentage of undernourished in developing countries, by region



Source: FAO.

2. FOOD EMERGENCIES AND FOOD AID

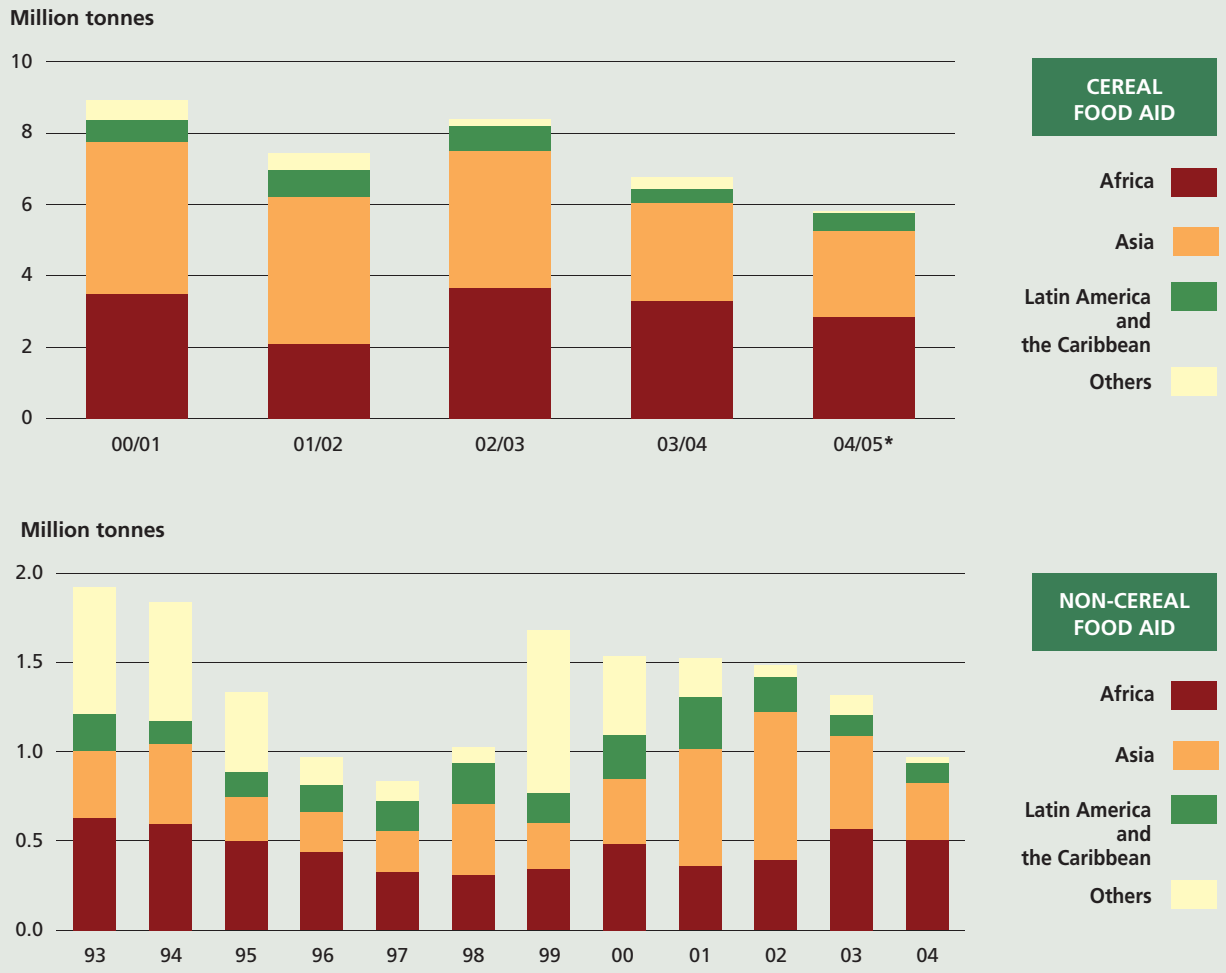
- A large number of countries and people continue to be affected by food emergencies. As of May 2006, the number of countries facing serious food shortages throughout the world stood at 39. Twenty-four of these were in Africa, 9 in Asia, 5 in Latin America and 1 in Europe.[1] The causes are varied, but civil strife and adverse weather, including drought, predominate. In many of these countries, food shortages are compounded by the impact of the HIV/AIDS pandemic on food production, marketing, transport and utilization.

- Civil strife and the existence of internally displaced people or refugees account for more than half of the reported food emergencies in Africa as of May 2006. Worldwide, the proportion of food emergencies that can be considered human-induced has increased over time. Indeed, human-induced factors, including conflict and economic failures, were cited as the main causes of 48 percent of food emergencies between 1997 and 2006, compared to around 41 percent in the period from 1986 to 1996. In many cases, natural disasters have been compounded by human-induced disasters, leading to prolonged and complex emergencies.

- The recurrence and persistence of emergencies often exacerbate the severity of their impact. Twenty-eight countries experienced food emergencies during more than half of the years of the period 1986–2006. In particular, many conflict-induced complex emergencies have been persistent and have turned into long-term crises. No fewer than 12 countries suffered emergencies during 15 or more years of the period 1986–2006 and, in the majority of the cases, war or civil strife was a major factor.

[1] FAO, 2006b. The countries of the Near East in Asia are classified with Asia, whereas the countries of the Near East in North Africa are classified with Africa.

FIGURE 17
Recipients of food aid
(In grain equivalent)



* Estimate
Note: Years for food aid in cereals refer to the 12-month period July/June.
Countries of the Near East in Asia are classified with Asia. Countries of the Near East in North Africa are classified with Africa.

Source: WFP.

- In contrast, many countries that enjoy relatively stable economies and governments but are plagued by unfavourable weather have implemented crisis prevention and mitigation programmes and established effective channels for relief and rehabilitation efforts. For these countries, a natural disaster need not result in a prolonged humanitarian crisis.

- Food aid shipments in the form of cereals declined to 5.8 million tonnes (in grain equivalent)[2] in 2004/05 (July to June), down almost 1 million tonnes (or 14 percent) from the already reduced level in 2003/04 (Figure 17). This level of food aid was close to the historic low reached in 1996/97. The decline in cereal food aid shipments in 2004/05 contrasted with the sudden increase of

[2] To express cereal food aid in grain equivalent, wheat, rice and coarse grains are counted on a one-to-one basis; for grain products, appropriate conversion factors are used to determine the grain equivalent.

TABLE 1

Shipments of food aid in cereals, July/June

(In thousand tonnes of grain equivalent)

	2000/01	2001/02	2002/03	2003/04	2004/05*
Total shipments	8 940	7 422	8 383	6 767	5 809
by type:					
Wheat	5 797	4 770	5 677	4 082	3 621
Rice	1 399	1 058	1 498	1 177	1 064
Coarse grains	1 744	1 594	1 208	1 507	1 124
by region:					
Africa	3 476	2 091	3 667	3 299	2 840
Asia	4 283	4 116	3 820	2 725	2 420
Latin America and the Caribbean	596	758	725	401	502
Others	585	458	171	342	47

*Estimated.
Source: WFP.

around 15 million tonnes (or 18 percent) in cereal imports by the group of 82 low-income food-deficit countries (LIFDCs).

- Major cereal food aid recipients in 2004/05 were East Africa, East Asia and the Near East. Out of the total number of almost 90 countries receiving food aid in 2004/05, the top five recipients were the Democratic People's Republic of Korea, the Sudan, Ethiopia, Bangladesh and Eritrea. In the previous year, Iraq ranked first, followed by Ethiopia, the Democratic People's Republic of Korea, Zimbabwe and Bangladesh. Food aid is also provided in the form of non-cereals, although the amount (in tonnage) is relatively small. In 2005, non-cereal food aid rose to just over 1 million tonnes, up slightly from 969 000 tonnes in 2004 (see Part 1, Figure 2 and Figure 17).

- Based on the latest (January 2006) estimates reported by the Food Aid Committee (FAC), total food aid shipments in 2005/06 are expected to remain unchanged from 2004/05, at 8.7 million tonnes (in wheat equivalent)[3] (Table1 and Figure 17). It is important to note that total food aid reported by the committee not only includes food aid in the form of grains, but also processed grain products, pulses and other eligible products, micronutrients and fortified products, as well as contributions of cash for the purchase of eligible products, all of which are expressed in terms of their wheat equivalent. Furthermore, the level of food aid in 2004/05, and most likely also in 2005/06, is well above the members' aggregate minimum annual commitments, set at around 5 million tonnes under the Food Aid Convention 1999.

- On the policy front, the renegotiation of the Food Aid Convention started in 2004 but, with the members feeling strongly that they should await the outcome of the Doha Round before agreeing to a new convention, they decided to extend the existing Convention (FAC 1999) for a further two years from July 2005.[4]

[3] The methods for the calculation in terms of wheat equivalent are laid down in the Rules of Procedure of the Food Aid Convention 1999.

[4] The specific food aid commitments of FAC members are expressed either in tonnage, in value or in a combination of both. Members' total minimum annual commitments include 4 895 000 tonnes (wheat equivalent) plus €130 million.

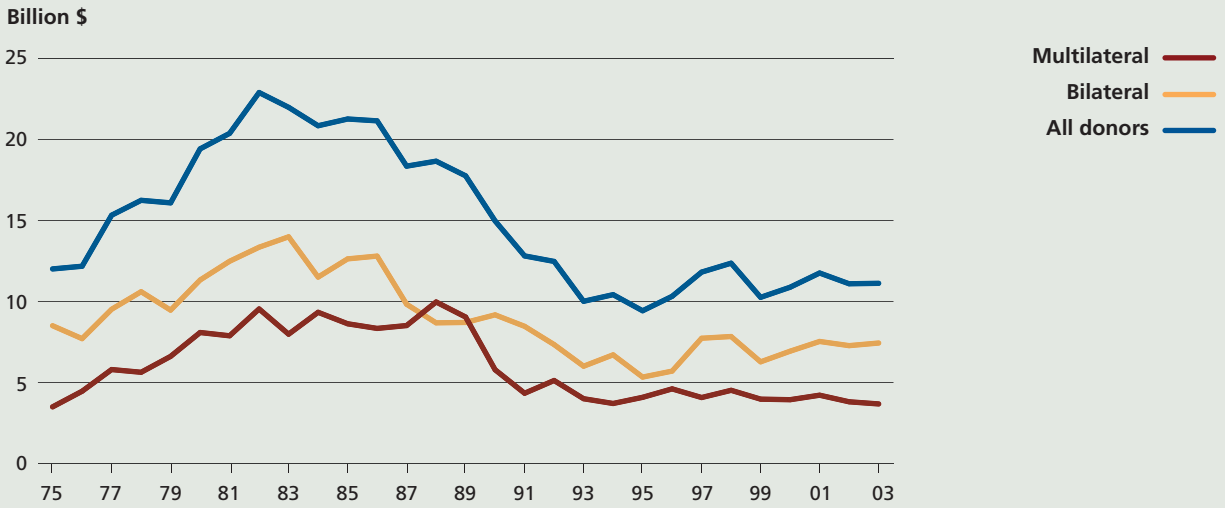
3. EXTERNAL ASSISTANCE TO AGRICULTURE

- External assistance commitments to agriculture have ranged between $10 and $13 billion (in real terms) in recent years, after declining sharply during the 1980s and early 1990s. Total external official commitments, measured in constant 2000 prices, reached $11.1 billion in 2003, which represents a decline of 10 percent since 1998, the steepest in the last decade (Figure 18). Data for 2004 are preliminary.

- The distribution of assistance by geographic region varies relatively little from year to year, with Asia, Latin America and the Caribbean and the transition countries experiencing the greatest variability in recent years. External assistance to sub-Saharan Africa has decreased by 17 percent from $3.7 billion in 2002 to $3.0 billion in 2003 (Figure 19).

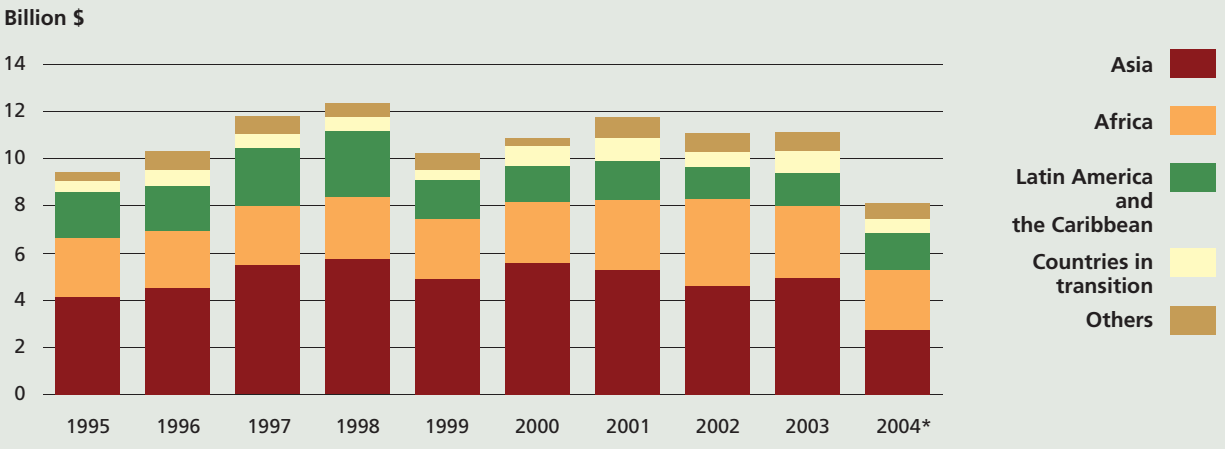
- Declines in both bilateral and multilateral assistance have contributed to the significant contraction in levels of assistance compared with those of the early 1980s. Overall, multilateral assistance has been fluctuating more over the last few years, while bilateral assistance has remained relatively more constant. The share of concessional assistance in the total varies from year to year but has risen somewhat, ranging from 70 to 80 percent in recent years compared with 60 to 70 percent up to the mid-1980s.

FIGURE 18
Long-term trend in external assistance to agriculture, 1975–2003
(At constant 2000 prices)



Source: FAO.

FIGURE 19
Commitments of external assistance to agriculture, by main recipient regions
(At constant 2000 prices)



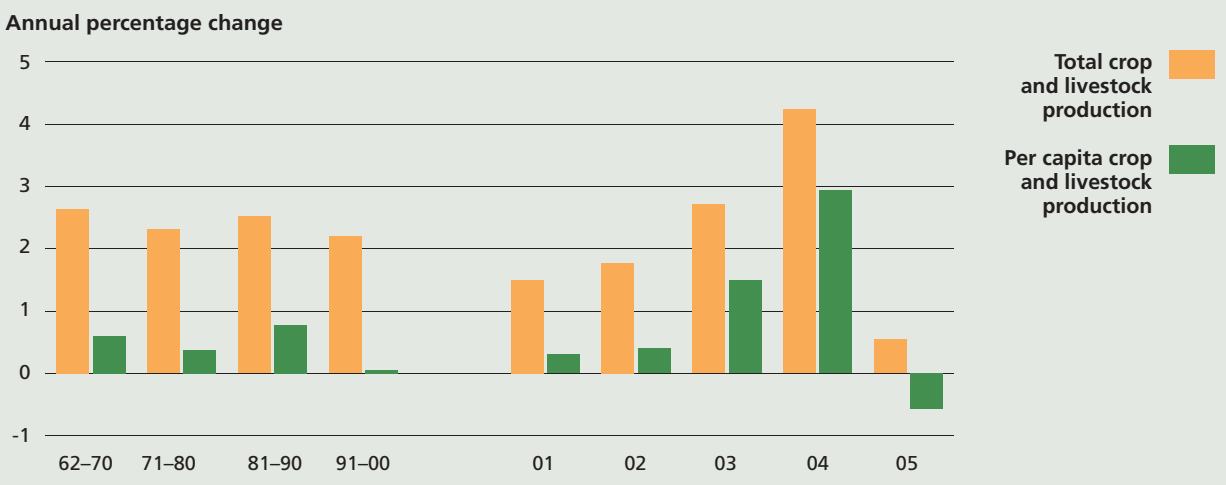
*Preliminary

Source: FAO.

4. CROP, LIVESTOCK AND FOOD PRODUCTION

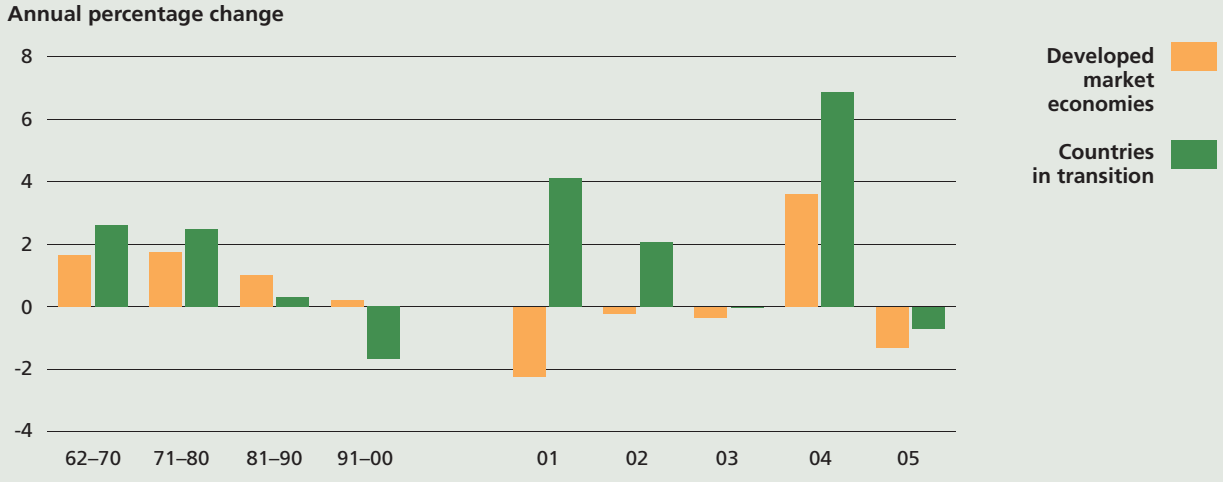
- World crop and livestock output growth fell in 2005 to the lowest annual rate since the early 1970s, and well below the rates reached in 2003 and 2004 (Figures 20 and 21). The decline was particularly strong in developed countries as a group, where the peak annual output growth of over 5 percent in 2004 was followed by negative 1.6 percentage growth in 2005. The overall decline was mainly due to a drastic drop in the crop sector, especially in developed countries, where output growth declined from over 12 percent in 2004 to negative 4 percent in 2005. Developing countries' total crop and livestock output growth also lagged below the average of the previous several decades. The crop and livestock output growth of transition countries continues to fluctuate dramatically, from positive 6.9 percent in 2004 to a small negative figure in 2005 (Figures 20 and 21).
- Although output growth for Asia and the Pacific was the highest among the regions, it was still well below the 2003 peak levels. Sub-Saharan Africa suffered yet another year of weak growth, reaching only 1.3 percent. The region of Latin America and the Caribbean, with less than 2 percent growth in 2005, was far away from the 4.7 percent output growth reached in 2003.
- While still growing more rapidly than crop agriculture, the rate of growth of global livestock production has slowed in the last two years and is below the averages of the last four decades. In per capita terms, however, the provisional figures for 2005 indicate output growth to be slightly above the average of the previous decades. For developing countries as a group, output growth in both absolute and per capita terms continues to increase, but at lower rates compared to previous years.

FIGURE 20
Changes in world total and per capita crop and livestock production



Source: FAO, FAOSTAT.

FIGURE 21
Changes in crop and livestock production



Source: FAO, FAOSTAT.

The expansion of the livestock sector in developing countries, which saw growth rates of 5 percent in the 1990s, seems to have passed its peak growth rates.

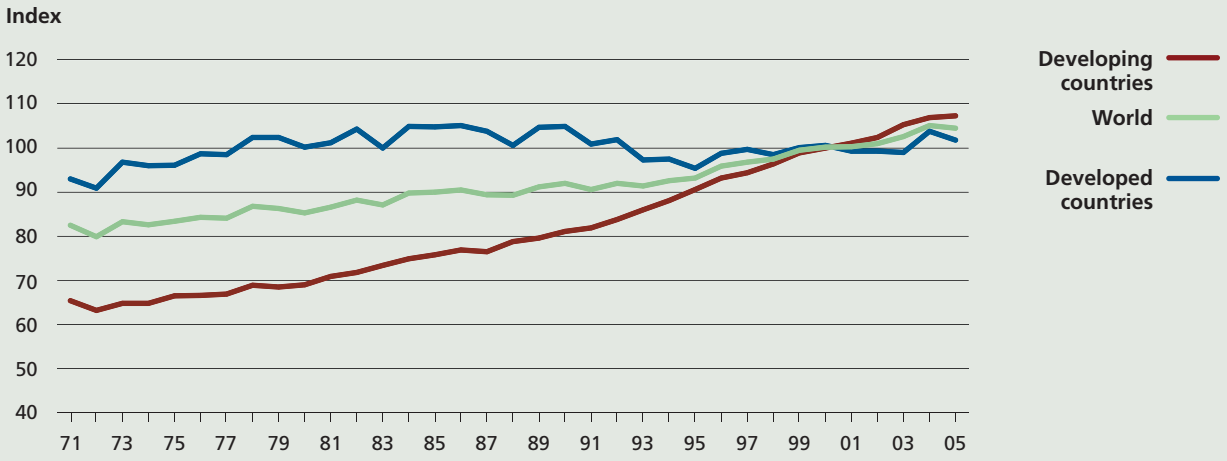
- Slowing rates of growth in livestock output have been caused by animal disease outbreaks, in particular of avian influenza, and subsequent consumer fears, trade bans and price declines for poultry. Many of the major poultry-consuming and importing countries of Europe, the Near East and Africa have experienced avian influenza outbreaks since late 2005, the market impact of which has been translated globally into immediate and dramatic consumer responses and an escalation of trade bans. Consumers shifted to other livestock products, the output of which grew but did not compensate for the slowing growth rate in poultry for developing countries as a group.

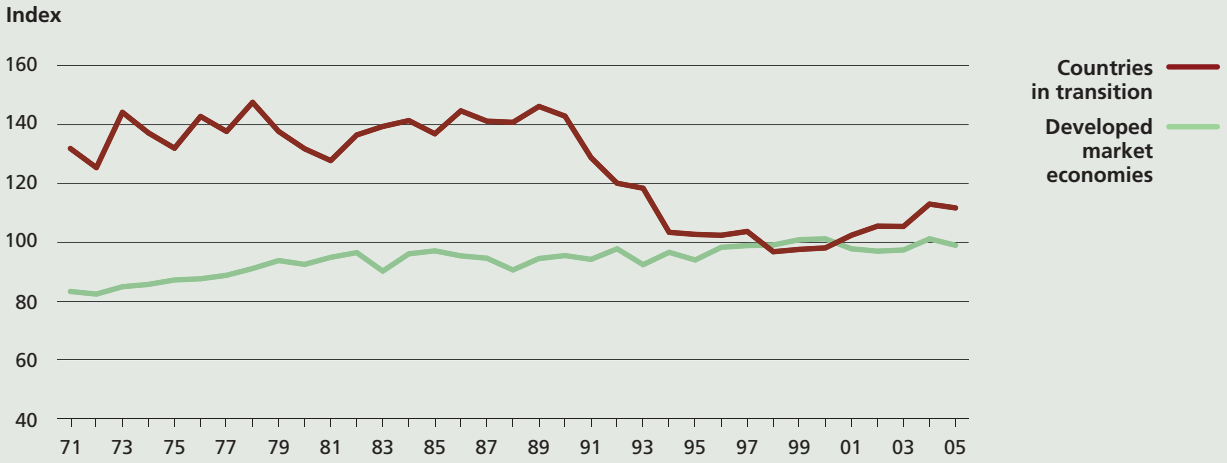
- Livestock output trends for developing countries are dominated by Asia and the Pacific and, more specifically, China, where the very high rates of livestock output growth recorded since the beginning of the economic reform process in the late 1970s have been tapering off in recent years. China has indeed attained a high level of per capita animal product consumption (compared to other countries with similar per capita income levels), which is expected to slow growth in demand for livestock products in future. While India has a rapidly growing meat output, albeit still at comparatively low levels, its milk output growth rates are slowing down. Asia appears to have reached peak growth rates in the 1990s and is experiencing more modest growth rates, although still high by international comparison.

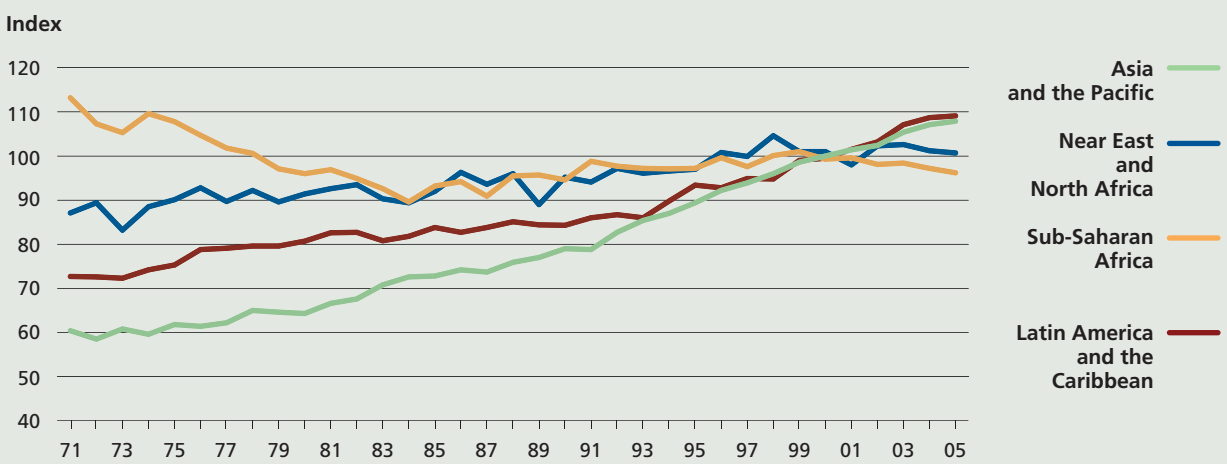
- Latin America recorded strong growth in 2004, followed by weaker growth the following year, partly because of lowered international demand for poultry products. The regional picture is strongly influenced by Brazil, and the export-led growth of its livestock industry in all major livestock products. The Near East–West Asia region recorded lower growth rates in 2004 and 2005 compared to previous decades, resulting in stagnating per capita output. The region is characterized by very pronounced fluctuations due to variable climatic conditions in many countries of the region where grazing livestock are important. Likewise, in sub-Saharan Africa, total output grew moderately but per capita output declined slightly, continuing a trend of decreasing per capita output over the past three years for the region as a whole. In developed and transition countries, both total and per capita output hardly changed, which is a reflection of stagnating populations and saturated markets.

- In 2005, food production in per capita terms fell globally, as a result of regional declines in sub-Saharan Africa, the Near East and North Africa, as well as in the developed countries as a whole (Figure 22).

FIGURE 22
Long-term trend in per capita food production by region and country group
(Index 1999–2001 = 100)







Source: FAO. FAOSTAT.

5. WORLD CEREAL SUPPLY SITUATION

- World cereal production, after several years of stagnation, increased sharply in 2004/05, reaching 2 065 million tonnes, a 9 percent increase over the previous year. Global utilization continued its upward trend, but it has not exceeded production (Figure 23). FAO's latest estimate of the world cereal production in 2005/06 indicates a decline.[5] This was mainly due to lower average yields caused by unfavourable weather conditions in some developed countries. In the low-income food-deficit countries (LIFDCs), 2005 recorded a significant increase of 4.4 percent from the previous year's level. Excluding China and India, the aggregate production of the rest of the LIFDCs expanded at a higher rate of 8 percent. This reflects good cereal crops in almost all subregions of the world, with the exception of countries in southern Africa, Morocco and Somalia, which were affected by drought.

- In the season ending 2006, world cereal stocks are anticipated to decline to 462 million tonnes, down 7 million tonnes, or 1.6 percent, from the opening level. This decline would have been much higher, but the fall in world cereal production in 2005 was mitigated by a slow increase in total cereal utilization in 2005/06. Based on the latest supply-and-demand estimates for 2005/06, the global cereal stocks-to-utilization ratio, which compares the level of inventories at the close of a season to utilization in the next, would stay at around 23 percent, similar to the previous season and 2 percentage points above the low reached in 2003/04 (Figure 24).

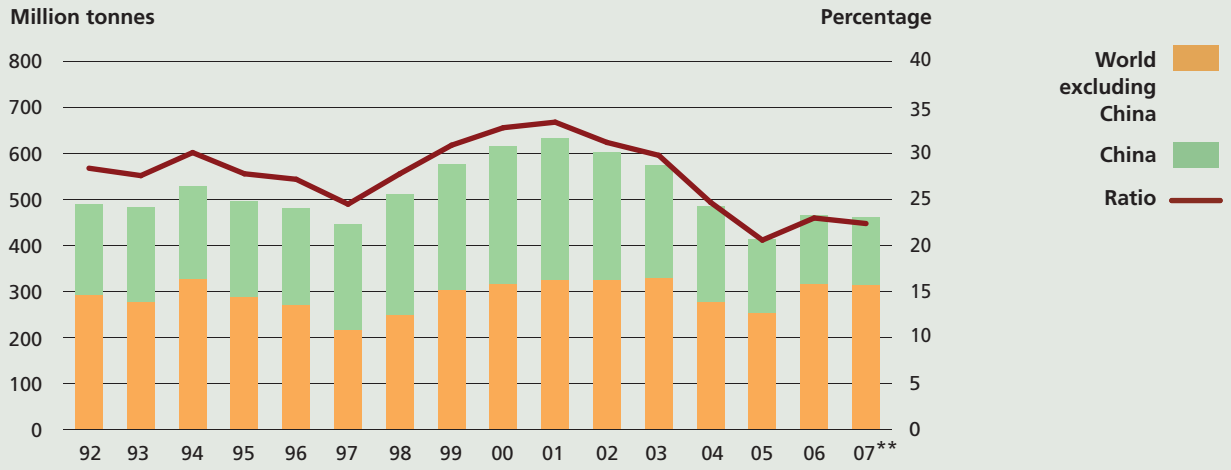
FIGURE 23
World cereal production and utilization

* Data refer to the calendar year of the first year shown.
** Forecast

Source: FAO.

[5] FAO. *Crop prospects and food situation,* No.1, April 2006.

FIGURE 24
World cereal stocks and stocks-to-utilization ratio*



* Stock data are based on aggregate carryovers at the end of national crop years and do not represent world stock levels at any point in time.
** Forecast

Source: FAO.

6. INTERNATIONAL COMMODITY PRICE TRENDS

- In 2005, prices of several basic food commodities reached their highest levels since the early part of this decade. Prices for dairy products led this trend, rising 67 percent, followed by sugar, 43 percent, and meat, 26 percent. In contrast, prices for cereals and oils and fats recorded price declines in 2005 (Figure 25).

- During 2005, international prices for vegetable **oils and fats** fell as a result of record global soybean and palm oil production. World consumption of oils and fats fell short of supplies, causing global inventories to rise and the stocks-to-utilization ratio to rise. Compared with 2004, the annual price index for oils and fats fell by eight points in 2005. In 2006, prices initially increased as a rise in global utilization coincided with a marked slowdown in palm oil production and a shortage of crushing capacity for seed crops. This upward pressure on prices is not expected to last because large supplies are anticipated to push inventories to record levels.

- Cereal prices increased by 21 percent between 2000 and 2005 and continued rising in the first half of 2006. The world price increase is caused by the prospect for lower **wheat** production and limited stocks and a strong demand outlook. The world balance sheet for 2006/07 is expected to show a sharp drop in ending stocks as well as a decline in the stocks-to-use ratio to about 20 percent, the lowest in over three decades. Against this background, and even barring any major or unexpected weather problems in the coming months, wheat prices are likely to remain high and volatile in the new season.

- **Coarse grains** markets are also being affected by lower stocks and prospects for reduced production. International prices changed little during the first half of the 2005/06 season but increased thereafter, supported by a robust demand from the ethanol sector, a potential recovery in feed use and tighter export supplies. On current production indications, the new season's supply-and-demand balance will be tight. This is evidenced in an anticipated sharp fall in world stocks and a near-record low stocks-to-use ratio.

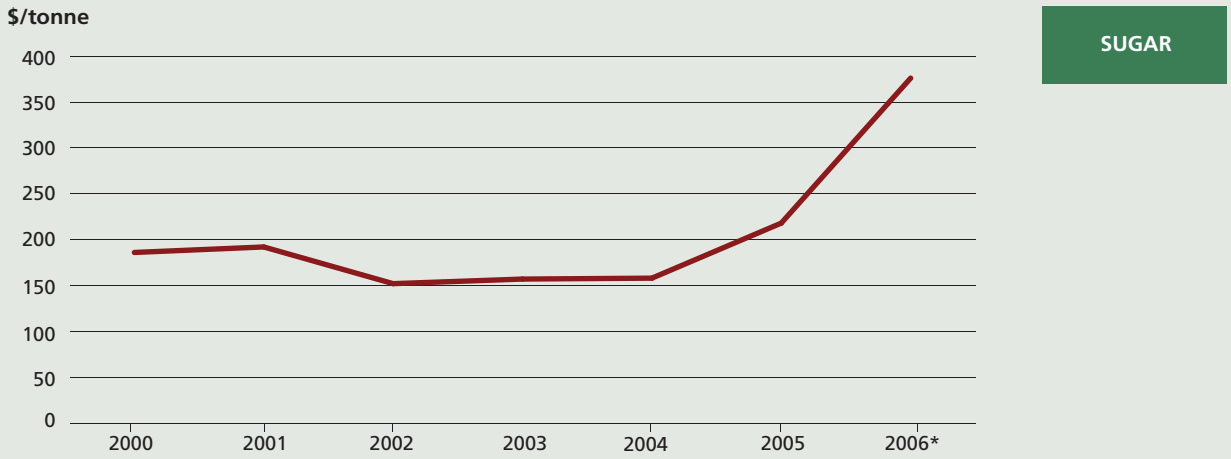
- The 2006 prospects for paddy **rice** production point to modest growth, reflecting concerns over rising production costs and falling profitability. The end-of-season rice stock, which started increasing in 2005, is likely to continue to grow in the current season, particularly in China. The expectation of a limited production increase may cause a decline in the per capita rice availability as food in 2006/07. International rice prices, which were particularly buoyant in the first quarter of 2006, are expected to remain firm for some months.

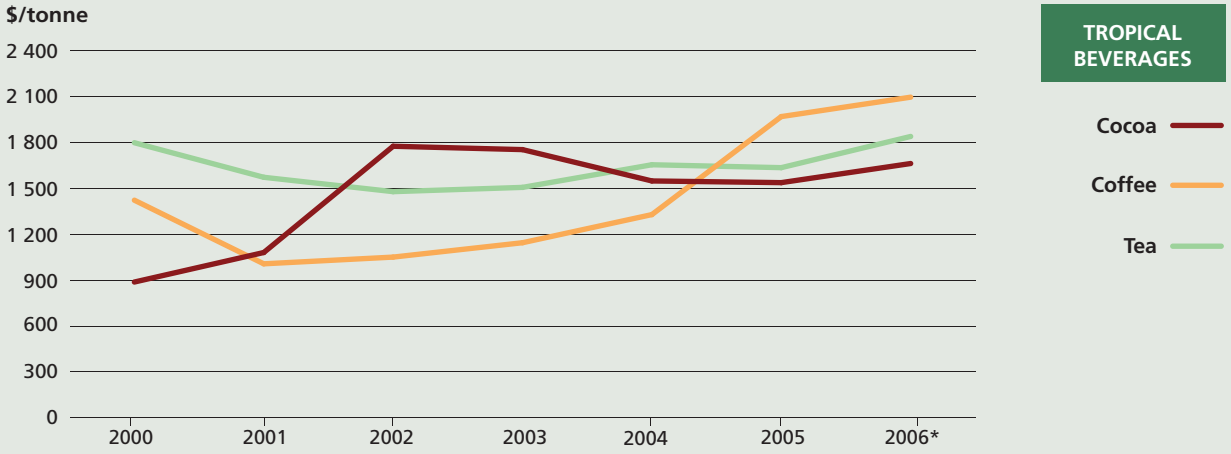
- After a brief recovery in 2005, global **meat** markets were again affected by animal disease concerns. As mentioned above, consumer response to the increasing incidence of avian influenza has dampened demand and prices for poultry. North American beef exports have faced bans due to bovine spongiform encephalopathy (BSE) and South American red meat exports have been affected by foot-and-mouth disease (FMD). Expectations of the lowest meat consumption gains in 25 years and escalating trade restrictions in 2006 are expected to limit global meat output, trade and prices.

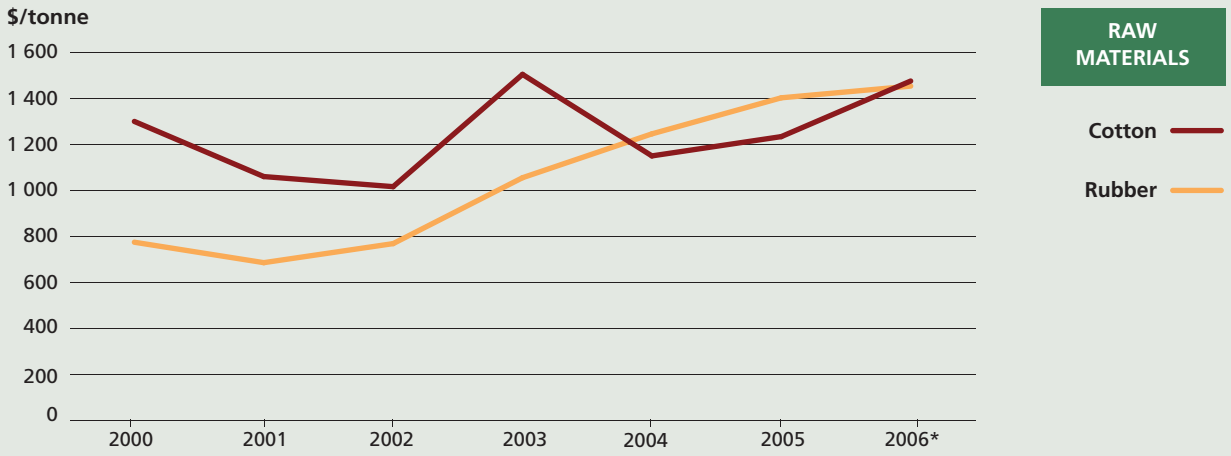
- World **sugar** prices reached their highest level in 25 years in February 2006, when raw sugar prices exceeded US¢19 per pound. The increase was mainly caused by higher energy prices and, for the third consecutive year, the continued supply deficit in the world sugar market. For the remainder of 2005/06, world sugar prices are expected to remain firm at present levels because the current supply-and-demand outlook does not support a further strengthening.

FIGURE 25
Commodity price trends

FIGURE 25 *(cont.)*
Commodity price trends







* Data for 2006 are based on a five-month average for sugar, cocoa, coffee, cotton and rubber, and a four-month average for tea.

Source: FAO.

- **Coffee** prices continued their upward trend and are expected to remain firm, mainly because of a shortage of supply caused by weather-induced damage to crops, especially in Colombia, Mexico, Peru and Viet Nam. The Brazilian supply is also reduced because of the natural biennial production cycle for Arabica trees and the strength of the *Real,* which is reducing competitiveness and leading farmers to turn to other crops. A 20 percent reduction of stock levels is expected for 2005/06, and consumption is forecast to increase by 2 percent.

- **Cocoa** bean prices are expected to remain firm because of a supply deficit. Cocoa bean production is forecast to be stable, as an increase in Côte d'Ivoire will likely offset smaller crops in Cameroon and Ghana. Cocoa grinding will expand because Brazil, Ghana and Indonesia have invested in processing facilities in order to increase their exports. World demand for cocoa products, in particular cocoa butter, is on the increase.

- **Tea** prices declined in 2005 and are well below their high level of the late 1990s, stimulating sustained demand by all major buyers but the United Kingdom, which has moved some processing plants to the south and has decreased its re-exports. Most producing countries have invested in promotional programmes to stimulate demand. Some have also chosen product differentiation and value-adding strategies such as the marketing of packed tea products and specialty teas.

- In 2005/2006 the world **cotton** price fluctuated between $1.00/kg and $1.45/kg, down sharply from $1.90/kg reached during late 2003 and early 2004; the decline was due to rapid supply expansion. Approximately two-thirds of world cotton is produced by small farmers with a great potential to expand their cotton areas swiftly in response to price changes. Moreover, the rapid adoption of transgenic insect-resistant cotton by major cotton producers has contributed significantly to reducing production costs and increasing yields. In 2006/07, world cotton production is projected to reach 25.5 million tonnes, almost 5 million tonnes more than in 2000/01.

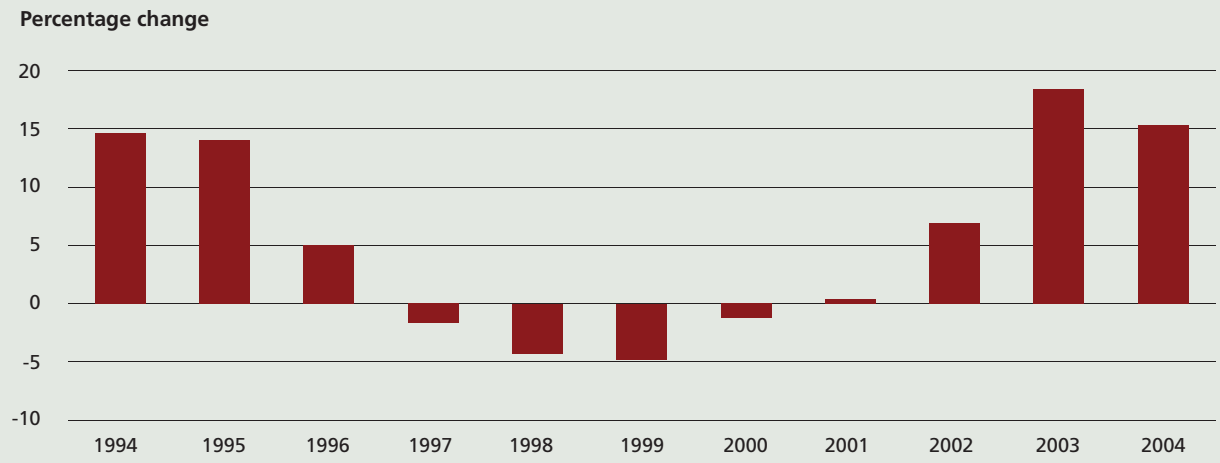
- The natural **rubber** price has improved significantly from its record low in 2001. The 2005 average price[6] was more than double what it was in 2001. This increase reflects higher global consumption, especially in China, India and Southeast Asia. China, the world's largest importer of natural rubber, imported 1.26 million tonnes in 2005, a 215 percent increase over 1999. World natural rubber production has continuously increased over the past three years, reaching 8.7 million tonnes in 2005. The high price and larger production has increased incomes and improved food security for natural rubber farmers worldwide. It is expected that global demand for natural rubber will continue to increase as global economic growth continues to stimulate demand and as high oil prices continue to make natural rubber more attractive than synthetic rubber.

- Towards the end of 2006, commodity markets as a whole became more volatile, with a steady upward trend in prices for many commodities. In agricultural markets, some important food and feed commodities gained on supply rigidity and stronger demand, while in the energy complex, the tighter supply-and-demand balance resulted in a steep increase in prices. Amid political uncertainties and surging energy prices, agricultural markets over the past year have also had to face abnormal incidences of natural disasters, such as hurricanes and fast-spreading animal diseases.

- The current signals indicate that several agricultural commodities are likely to experience even further gains in prices. This is especially probable for cereals, for world cereal demand is forecast to surpass its supply in the new season and reduce stocks to an uncomfortably low

[6] RSS3 in London.

FIGURE 26
Annual change in value of global agricultural exports
(In US dollar terms)



Source: FAO.

level. With regard to sugar, the main risk remains the continuing price volatility. For the oilseed complex, as well as meat and dairy, the short-term price prospects are instead more on the downside.

- Against this background of mixed outlook but generally firm prices, FAO is forecasting an increase of over 2 percent in the world food import bill in 2006 compared to 2005. The increase is expected to be strongest for cereals and sugar but smallest for meat. Given their higher share as importers of food and feed, the developing countries' bill is forecast to grow by 3.5 percent, while that of the LIFDCs is forecast to increase by nearly 7 percent.[7]

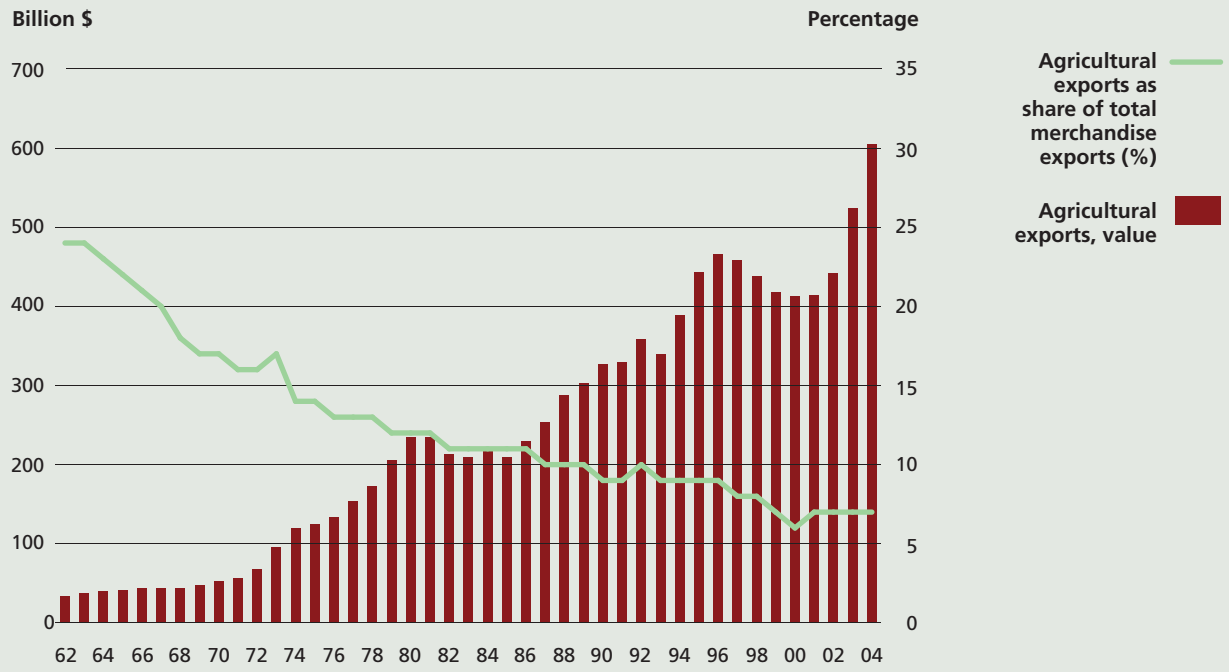
7. AGRICULTURAL TRADE

- The value of global agricultural exports expanded strongly between 2002 and 2004 after several years of stagnation (Figure 26). The share of agricultural trade in total merchandise trade continued a long-term downward trend throughout the 1990s, as agricultural trade has expanded more moderately than manufactured goods. The recent upturn in agricultural exports has stabilized agriculture's share of total merchandise trade at 7 percent, compared to around 25 percent in the early 1960s (Figure 27). For the developing countries, the share of agricultural exports in total merchandise exports has dropped from 50 percent in the early 1960s to less than 7 percent since 2000. The declining share of agriculture in the total merchandise exports of developing countries reflects both a shift of their trade towards manufactured goods and the relatively slow growth of agricultural trade.

- Until the early 1990s, the developing countries recorded an agricultural trade surplus in most years (Figure 28). The trend towards a widening agricultural trade deficit is even more pronounced for the least-developed countries (LDCs). The LDCs became net importers of agricultural products in the mid-1980s,

[7] FAO. *Food outlook,* No. 1, June 2006.

FIGURE 27
Global agricultural exports



Source: FAO.

and by the end of the 1990s imports were more than twice as high as exports. Quite different agricultural trade positions are found in the different developing regions. In particular, the Latin America and Caribbean region has seen a widening of its agricultural trade surplus, starting around the mid-1990s. At the same time, the region of Asia and the Pacific has become a net agricultural importer, while the significant structural deficit of the Near East and North Africa shows no signs of diminishing.

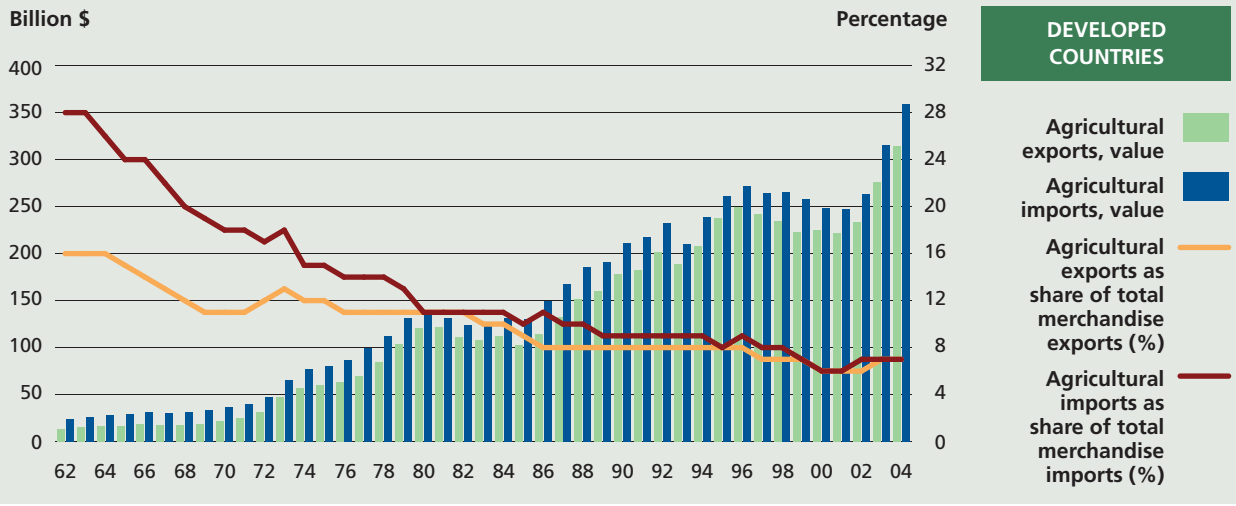
- In 2004, the WTO members approved a Framework Agreement[8] for establishing modalities in agriculture aimed at the successful conclusion of the Doha Round. The following WTO Ministerial Conference[9] also agreed that domestic support should include three bands for reductions in the Final Bound Total AMS[10] and in the overall cut in trade-distorting domestic support. With regard to export competition, it was agreed to eliminate all forms of export subsidies and all export-restrictive regulations, to be completed by the end of 2013. On market access, it was agreed to introduce four bands for structuring tariff cuts. It was agreed that the developing countries should have the flexibility to self-designate an appropriate number of tariff lines for special products essential for food security, livelihood security and rural development. Furthermore, the developing countries will be able to have recourse to a special safeguard mechanism based on import quantity and price triggers. Similarly, for cotton, the producers' right to an explicit decision within the agriculture negotiations and through the Sub-Committee on Cotton was reaffirmed.

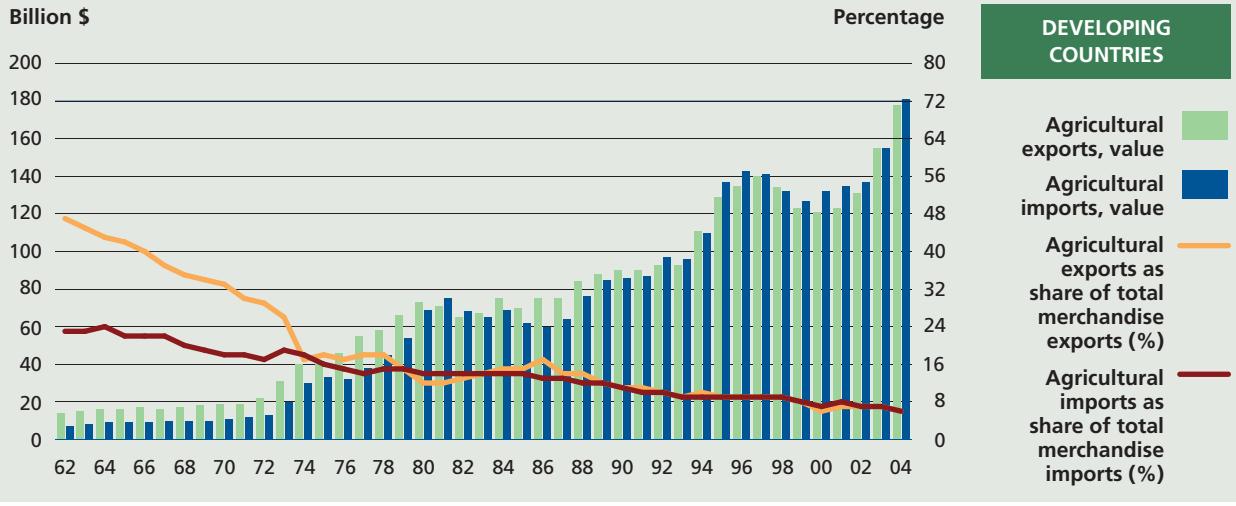
- No agreement was reached on numerous numerical parameters required for finalizing the above modalities.

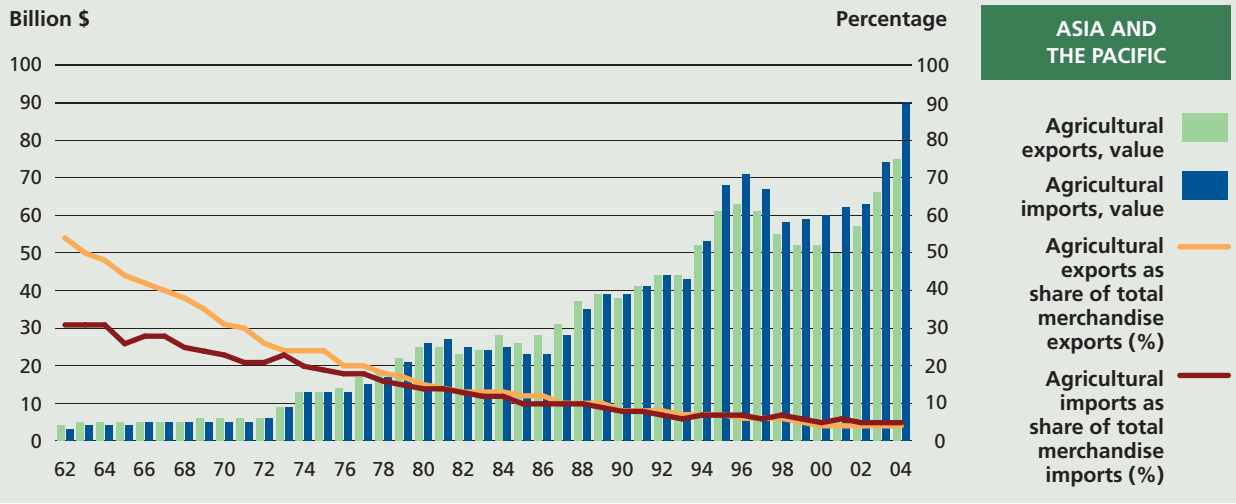
[8] WTO, Doha Work Programme, Decision Adopted by the General Council on 1 August 2004, WT/L/579, Geneva.
[9] Hong Kong Special Administrative Region, December 2005.

[10] Aggregate measure of support.

FIGURE 28
Agricultural imports and exports, by region and country group

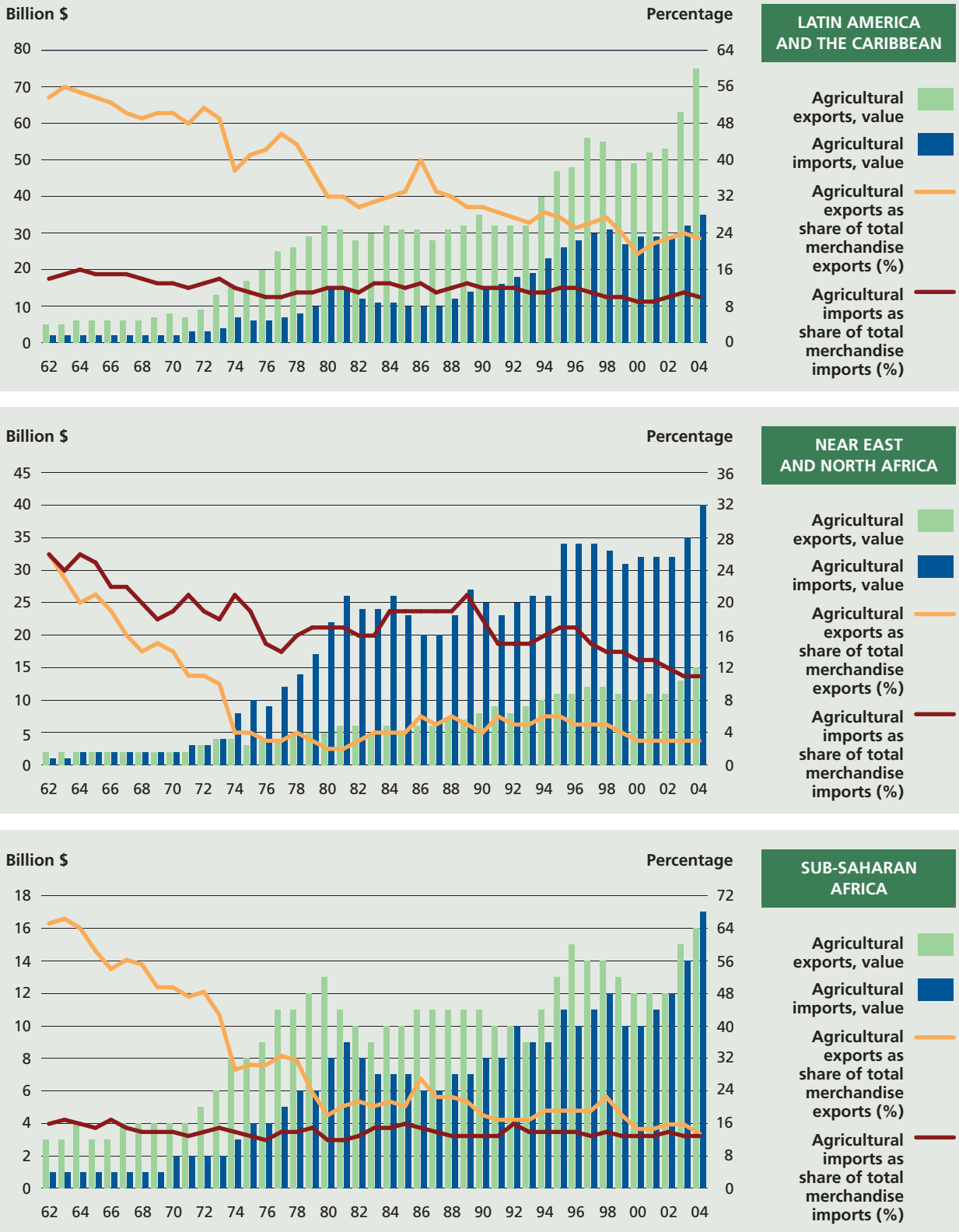






(Cont.)

FIGURE 28 *(cont.)*
Agricultural imports and exports, by region and country group



Source: FAO.

8. FISHERIES: PRODUCTION, UTILIZATION AND TRADE

- Fisheries play an important role in the world food economy. About 40 million fishers and fish farmers gain their livelihoods from capture fisheries and aquaculture. Globally, fish provide about 16 percent of animal proteins consumed, with variations from an average of 22 percent in Asia to approximately 19 percent in Africa and around 7 percent in Latin America and the Caribbean. Developments in the world supply of fish over the last decade have been overshadowed by trends in China, which has reported very strong growth in fish production, in particular from inland aquaculture, and has become the world's largest fish producer.

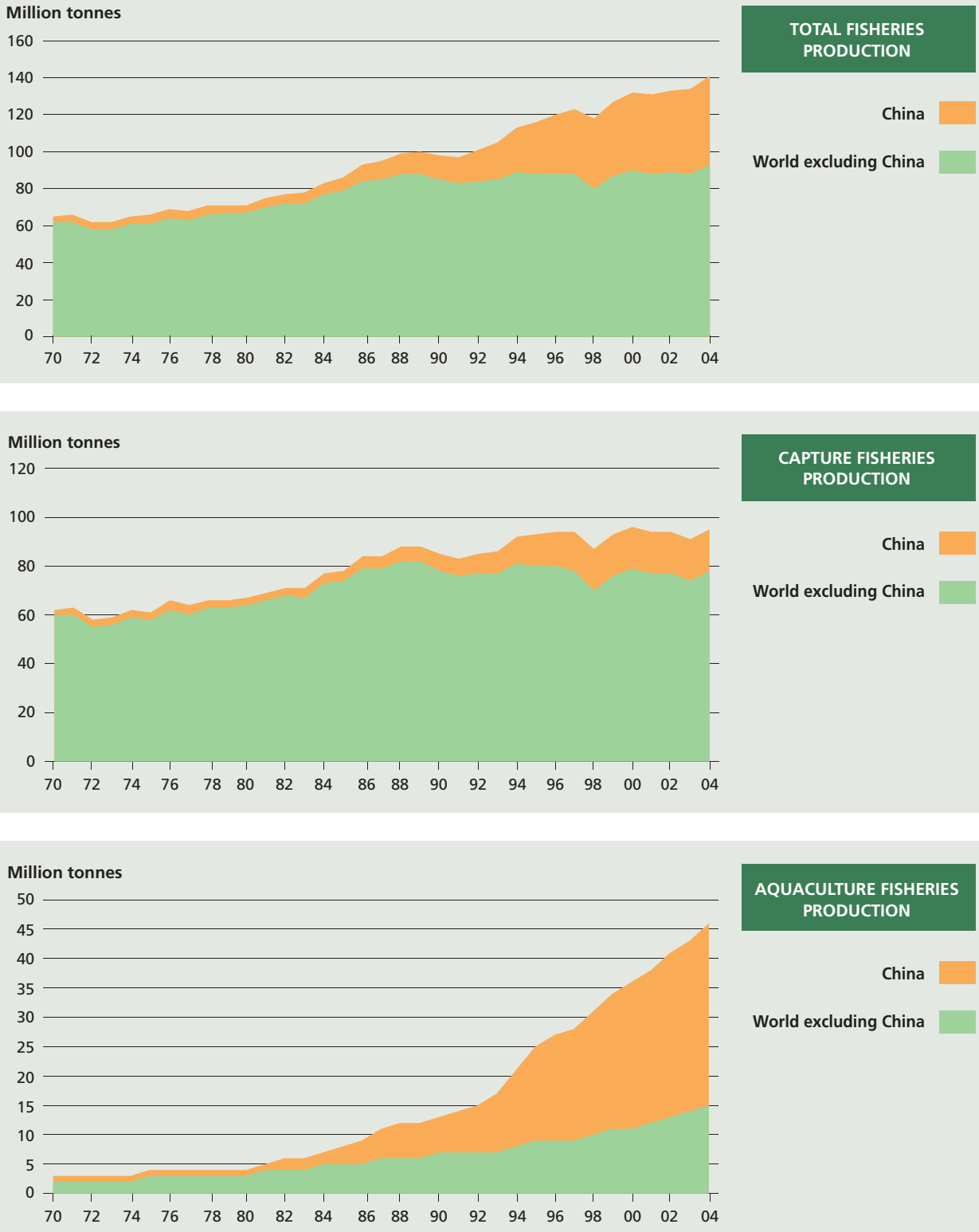
- Total fishery production in 2004 was 140.5 million tonnes, of which 45.5 was from aquaculture (Figure 29). World capture fisheries production was 95 million tonnes, about a 5 percent increase from 2003 (Figure 29). Most of the fluctuations in capture production in recent years have been due to variations in catches of Peruvian anchoveta, which are driven by climatic conditions (i.e. El Niño). In 2004, China reported a production of 16.9 million tonnes, a slight increase from 2003. Peru (9.6 million tonnes), the United States (5 million tonnes), Chile (4.9 million tonnes), Indonesia (4.8 million tonnes) and Japan (4.4 million tonnes) were other large producers.

- World aquaculture production has been increasing rapidly in recent years and now accounts for 32 percent of total fisheries production (Figure 29). Most of the expansion has been attributable to China, which now contributes over two-thirds of total aquaculture production in volume terms (30.6 million tonnes in 2004).

- In 2004, the 40 percent (live weight equivalent) of world fish production that enters international trade reached a value of $71.5 billion. Developing countries contributed slightly less than 50 percent of such exports, with the first nine exporters accounting for two-thirds of the developing country total. The developed countries absorbed more than 80 percent of total world fisheries imports in value terms (Figure 30). Japan and the United States together accounted for as much as 35 percent of total world imports of fisheries products. The importance of fisheries exports as a foreign currency earner for developing countries has increased significantly. Currently, cumulated net exports of fisheries products from developing countries ($20.4 billion in 2004) far exceed export earnings from major commodities such as coffee, bananas and rubber.

- In 2004, an estimated 34.5 million tonnes of world fishery production, all from capture fisheries, were used for non-food purposes; the majority was reduced to meal for the livestock and aquaculture industries. The remaining 106 million tonnes of world production were destined for direct human consumption. In per capita terms, while total supplies of fish for food from capture have been stagnating in recent years, per capita supplies from aquaculture have increased strongly (Figure 31). This is particularly so in China, where per capita supplies from aquaculture provide about 83 percent of total per capita food fish supplies, as compared to only 21 percent in the rest of the world.

FIGURE 29
World fish production, China and rest of the world



Source: FAO.

FIGURE 30
Exports and imports of fishery products, developed and developing countries

Note: Data exclude trade of marine mammals, crocodiles, corals, sponges, shells and aquatic plants. *Source:* FAO.

FIGURE 31
Per capita fish supply from capture and aquaculture, China and rest of the world

Note: Data exclude production of marine mammals, crocodiles, corals, sponges, shells and aquatic plants. *Source:* FAO.

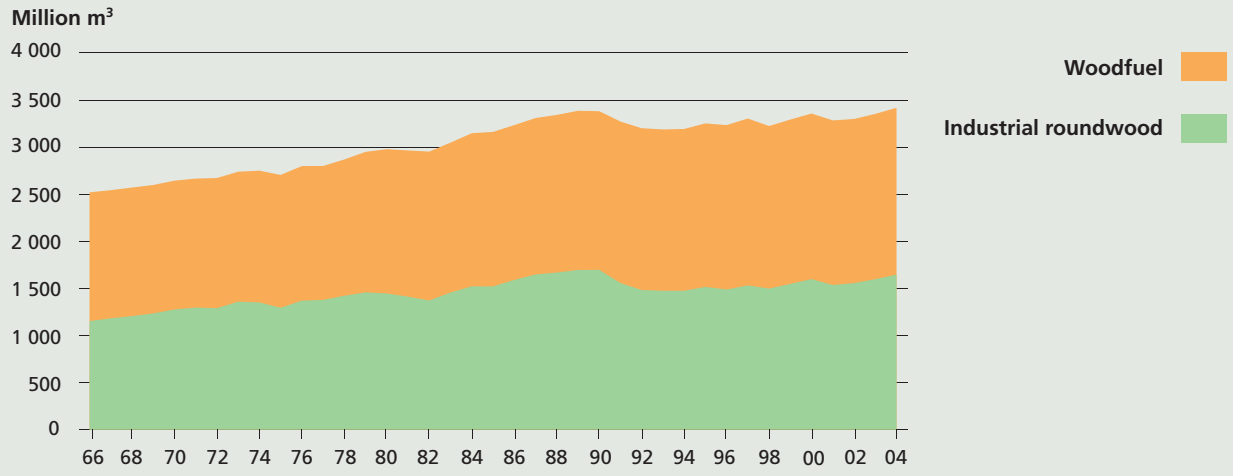
9. FORESTRY

- World roundwood production in 2004 reached an estimated 3 418 million cubic metres, about 1.9 percent more than in the preceding year (Figure 32). Total roundwood production has been steadily growing since 2002, and this is the highest level ever reached. Globally, about half of roundwood is burned as fuel (52 percent of total roundwood production in 2004). The vast majority of woodfuel is used in developing countries, where wood is often the most important source of energy. Although the developed countries' share of the total roundwood production is declining, they still account for the largest share of industrial roundwood production (over 70 percent of the total).

- In 2004 developing countries produced 2 098 million cubic metres, or 60 percent of total roundwood production (Figure 33). Almost 80 percent of this was woodfuel production, which continues to increase each year. Developing countries' production of industrial roundwood declined by 5 percent during 1996–2001, but has recently returned to the level of production in 1995. This is partly due to the expansion of planted forests in developing countries.

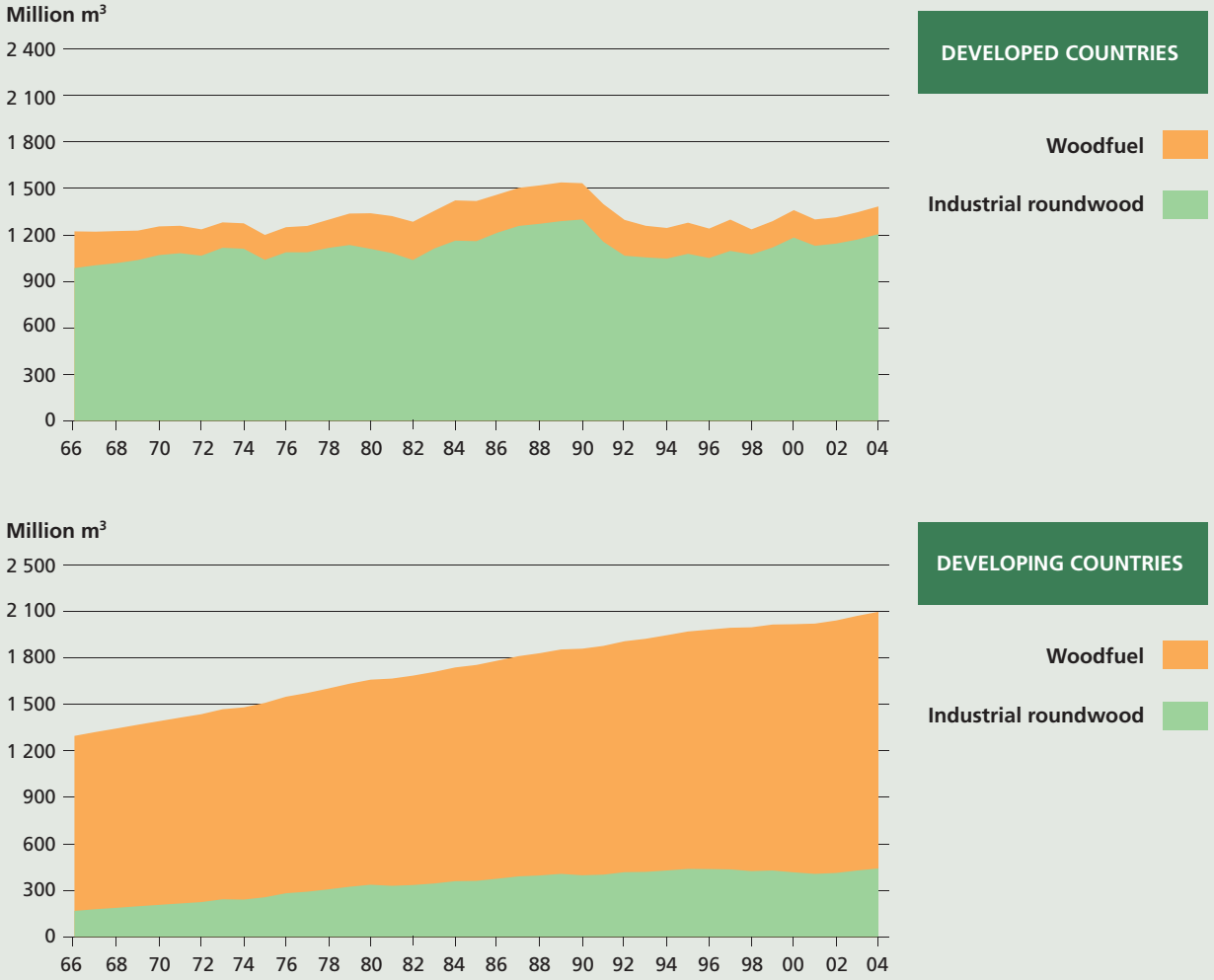
- In developed countries, industrial roundwood accounts for about 87 percent of roundwood production, while woodfuel production is of relatively marginal importance. Production in developed countries also declined significantly in the early 1990s, and is still well below the peak levels of 1989–90. This trend is largely due to changes in production in the Russian Federation and countries in Eastern Europe.

FIGURE 32
World roundwood production, 1966–2004



Source: FAO.

FIGURE 33
Roundwood production, developed and developing countries, 1966–2004



Source: FAO.