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SPECIAL EDITION

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INTERNATIONAL

RICE

COMMISSION

NEWSLETTER

Proceedings of the
FAO Rice Conference

Rice is life

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INTERNATIONAL
YEAR OF RICE

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Contents

Technical Editor:
Nguu Van Nguyen, AGPC, FAO, Rome.
 Editing, layout, desktop publishing and
 graphics:
Ruth Duffy, Rome.

The *International Rice Commission* (IRC), which works within the framework of FAO, was established on 4 January 1949 with the object of promoting national and international action in respect of production, conservation, distribution and consumption of rice. Matters relating to trade are outside the purview of the Commission. Membership of the Commission is open to all FAO Member Nations and Associate Members who accept the constitution of the IRC. The present membership of the Commission is 61 and represents all the rice-growing regions of the world. The Commission keeps under review the scientific, technical and economic problems relating to rice, encourages and coordinates research, organizes (where necessary) cooperative projects and reports to the member countries and the Director-General of FAO on appropriate action to be taken in furthering its objectives.

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Preface

The United Nations General Assembly (UNGA) declared the International Year of Rice 2004 during its 57th Session in December 2002. The dedication of an International Year to a single crop was unprecedented in UNGA's history. In declaring the Year, the General Assembly affirmed the need to focus world attention on the role that rice can play in providing food security and eradicating poverty.

Food security and poverty in rice are interlinked. Rice is the staple food for more than half of the world population, especially the poor in rural areas and urban centres in developing countries in Asia, Africa and Latin America. About four-fifths of the world's rice is produced by small-scale farmers in developing countries. Almost a billion households in Asia, Africa and the Americas depend on rice systems for their main source of employment and livelihood. The growth rate of the world's rice production has slowed down during recent years and rice production has been less than rice consumption since 2000. The insufficiency has been addressed by tapping into the rice from buffer stock.

The population of the world is still growing steadily and the primary resources of rice production – land and water – are becoming scarce. The world's population was projected to increase to 8.27 billion in 2030 with an accompanying rice demand of 771 million tonnes. In order to meet rice demand in 2030, global rice production (569 million tonnes in 2002) must increase by about 202 million tonnes. This is an enormous challenge.

Sustainable increase in rice production will be essential for food security and poverty alleviation in the near future. "Sustainable rice-based production systems: Challenges and opportunities" was the main theme of the second day

of the International Rice Conference, organized by the Food and Agriculture Organization of the United Nations, 12-13 February 2004, Rome, Italy to celebrate the International Year of Rice 2004. The theme of the first day of the Conference was "Rice in global markets". The International Rice Conference was attended by over 500 senior officers from member countries of the International Rice Commission, including ministers and deputy ministers, as well as heads and lead scientists from international centres of the Consultative Group for International Agricultural Research and major agricultural universities around the globe.

The *IRC Newsletter* Vol. 53 contains mainly the keynotes and papers presented during the second day of the International Rice Conference, which were presented by prominent scientists and authorities in rice research and development in order to share the current knowledge, thought and visions for sustainable rice production systems. The *IRC Newsletter* Vol. 53 aims to achieve the common objective of the implementation of the International Year of Rice:

The International Year of Rice promotes improved production and access to this vital food crop, which feeds more than half of the world population while providing income for millions of rice producers, processors and traders. The development of sustainable rice-based systems will reduce hunger and poverty and contribute to environmental conservation and a better life for present and future generations for whom Rice is Life.

Nguu Van Nguyen
Executive Secretary, International Rice Commission

Welcoming remarks

L.O. Fresco

Assistant Director-General, Agriculture Department, FAO

It is a pleasure to welcome all of you today. I wish to emphasize just how important it is to FAO (Food and Agriculture Organization of the United Nations) to have key figures in rice research and development here at this landmark meeting. We are all aware of the importance of rice, not just as a commodity but as a symbol of prosperity in many world cultures. Thus, rather than repeating the importance of rice, I would like to take this opportunity to outline some of the present and future challenges we must confront as an international team.

Over the past decades, we have made great progress in addressing the genetic, biological and ecological challenges associated with rice. We have reached a consensus as to the importance of stewarding diversity in our rice fields and gene banks. We are aware of the need to use water efficiently and we have methods to do so. We are aware of the need to watch methane emissions from our rice fields and of the importance of curbing climate change. The mapping of the rice genome has opened new possibilities for science and technology to help make the future of rice an ecologically sustainable future.

Now is the time to look ahead and expand our focus to include both environmental sustainability and food quality. The battle against hunger and poverty does not end when bellies are full, but when they are nourished. We must also look to science and new technologies to confront the need for added value and biofortification of this staple crop. In addition to treating rice as a staple, we must also focus on its value as a speciality food – a food that is treasured in developed and developing economies alike. Future consumers might not seek out rice because they are starving, but they may select it for quality and taste. In order to secure the future of rice we must include it in our vision of a more prosperous and healthy population.

It is also time to increase our focus on the rice plant within its ecosystem – we still do not have an integrated understanding of this crop's potential because we have not sufficiently studied how rice interrelates with fish, livestock and vegetable systems. The rice system is a hub

of biodiversity that can be harnessed to improve rural diets and livelihoods in an ecologically sustainable way. It is time to consider the rice system with vision. Are there properties of the rice plant that might be of interest to future consumers? There are a number of biological and ecological challenges to think about beyond sole survival. I do not refer to the next 5 years, but the next 10 years. We need to look ahead.

We also need to foster sustainable mechanization that respects the environment and that can help to keep young people interested in farming. Overcoming labour shortages and addressing the obvious need to reduce drudgery in the field are among our greatest challenges today. We must also clarify our goals. To what extent are we aiming for monocropping, crop rotations or more diversified systems? These decisions must be debated and addressed in the context of local conditions – labour is going to be the key driving factor in rice-based systems. There is no sense in building intensified-labour diversified systems if our future sources of labour come up short.

There are also socio-economic political challenges. How do we solve the issue of intellectual property rights, knowing full well that research funding for rice in the public domain has not increased? We are talking about a crop that is vitally important to over half of the world's population – how can we get the private sector involved to make a profit while at the same time guaranteeing access to technology for the poor? What can we do to make sure that the future of rice is really a sustainable future?

The fundamental challenge associated with rice production is that the crop is so necessary that it is often taken for granted. Rice has not received the high level attention that so many other crops receive, and yet its importance is indisputable.

These are the challenges I see for the future of rice. We need to start looking ahead at the rice crop as a whole and within its diverse socio-economic contexts, and find ways to ensure its future.

Thank you and I wish all of you a very successful Conference.

Closing remarks

M. Solh

*Director, Plant Production and Protection Division, FAO
Chairperson of the Steering Committee of the International Rice Commission*

On behalf of the FAO Director-General, Dr Jacques Diouf, I would like to thank all of you for what has been a very successful and productive 2 days. The very good attendance and contributions from a wide range of stakeholders in the presentations and discussions illustrates that rice really is life for people all over the world and from many diverse interest groups.

It is apparent from the presentations and discussions that when we talk about rice we are not talking about one single crop or one commodity, we are talking about people, about a style of life, about cultural heritage, about systems that involve livelihood, agrobiodiversity, the environment, value-added products, important local and global socio-economic as well as trade issues. In the words of the FAO Director-General: "Rice is a symbol of both cultural identity and global unity." We witnessed this at the Conference and I would like to recognize that we are all part of an international alliance to promote rice-based production systems to fight hunger and poverty. Rice is an excellent entry point for mobilization of national and international resources to achieve the Millennium Goals and the recommendations of the World Food Summit: *five years later* to cut poverty and hunger by 50 percent by 2015. Therefore, investment in the rice-based systems is an investment in the fight against hunger and poverty.

This Conference has walked us through the global trade trends, global trade complexities and their implications on the global market and production. We have also walked through advances in science and technology that show great potential and, certainly, some limitations for addressing challenges in rice systems. The potential is, however, far greater and it is up to us as policy-makers, traders, technicians, civil societies and farmers to fully exploit that potential. In this year, although we may be thinking globally, we need to plan and act locally to make a difference and have an impact.

For most of us here, rice is one option of many. For a large portion of the world population, however, it is the only option. This fact presents challenges to all of us. We need to enhance the nutritional value of rice through science and technology. We need to enhance the nutri-

tional value of the rice diet by intensifying and diversifying the rice production system – possibly through crop rotations and intercropping a wide variety of goods such as livestock, ducks, fish, frogs, fruits and vegetables. Post-harvest handling and value-added products are other avenues to increase the farming community's income. If we can meet the various challenges presented in the different regions of the world as presented this afternoon, we will help all stakeholders, particularly resource-poor farmers, their families and their communities. The move from subsistence rice monoculture to more diverse commercialized systems is a step in the right direction.

We already have the technology options, thanks to the NARS (National Agricultural Research Systems), CGIAR (Consultative Group on International Agricultural Research) centres – especially IRRI (International Rice Research Institute), WARDA (The Africa Rice Center) and CIAT (International Centre for Tropical Agriculture) – and other stakeholders, particularly the private sector. A major challenge for us is: How can we close the gap between actual and potential yield in the many countries that depend on rice as their major staple and source of livelihood?

In order to bridge that gap, we need greater investments in science and technology – including modern biotechnology – but we also need investments in effective technology transfer programme approaches such as the Australian "RiceCheck" and Farmer Field Schools linked to extension. We need to intensify our investment in technology transfer projects, at both national and subregional level.

We will all fail if we do not seize the opportunity provided by the International Year of Rice 2004 to develop a framework that enhances the sustainable development of the rice-based systems to enhance food security and increase the income of rice farmers. By capitalizing on the momentum of this year, we can initiate medium-term and long-term actions needed to overcome poverty in major rice-producing countries in which 50 percent of the world's 840 million poor and hungry people reside. We call on governments and the donor community to

provide special attention this year to support rice and rice-related prospects.

FAO is committed to working as an active member of the international alliance involving member countries, the CGIAR centres (particularly IRRI, WARDA and CIAT), non-governmental organizations and the private sector, to make the impact of the International Year of Rice a success that goes beyond 2004.

Beyond 2004, the International Rice Commission, hosted by FAO on behalf of its Member Governments, will continue to play an important role as a vehicle to provide the appropriate forum for the international alliances formed this year. We need to link research with

development in the interest of rice-based production systems. FAO looks forward to working with all of you, not just throughout the International Year of Rice in 2004, but as far ahead as the battle against hunger and poverty takes us. In closing the Conference, I would like to thank the Informal International Working Group, the IYR Secretariat and the FAO Agriculture and Economic and Social Departments for organizing such an important and timely event.

Thank you all for your invaluable contribution towards making this Conference a success. I hereby declare, on behalf of FAO, the International Rice Conference closed.

Rice situation update¹

C. Calpe

Basic Foodstuffs Service, FAO, Rome, Italy

RICE PRODUCTION

Global paddy production likely to reach a new high in 2004, but forecast still highly tentative

The FAO forecast for global paddy production in 2004 was raised marginally to an all-time high of 613 million tonnes, almost 21 million tonnes more than in 2003. The figure is still highly tentative, since most Northern Hemisphere countries (accounting for the bulk of world production) are in the process of planting their main crops at the time of writing. In the Southern Hemisphere and along the equatorial belt, however, harvesting of the 2004 main paddy crops is virtually complete, with excellent results generally reported.

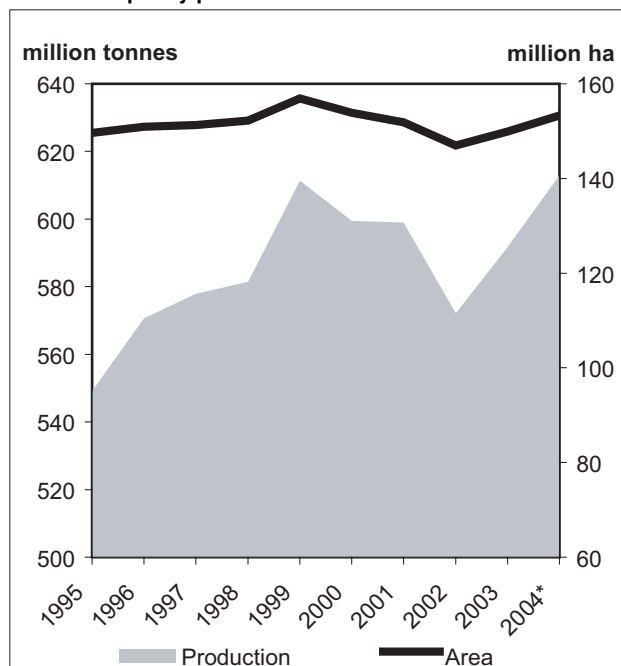
Asia

Favourable outlook for 2004 paddy crops in most of Asia
Since several Asian countries in the Northern Hemisphere are still gathering their 2003 secondary crops, production in 2003 remains subject to revision at the time of writing. The latest estimates reveal that paddy output in the region recovered strongly last season from the weather-induced setbacks that had depressed the sector in 2002. Although based on still highly tentative forecasts, further growth in output is anticipated in 2004, with all the major producers in the region heading towards bumper crops.

Bangladesh's official estimate of output in 2003 was raised to an all-time record of 39.9 million tonnes, despite severe floods in the northeast regions which caused a loss of 200 000 ha just a few weeks before the start of the boro crop harvest. The positive production performance was partly the result of government support towards increasing yields through improved input distribution. A further increase in production is projected to take place in 2004, especially if the Government confirms the stepping up of subsidies for fertilizer and seeds.

Cambodia also achieved a record output in 2003, following an excellent wet season crop. In 2004, a decline from that exceptional performance is anticipated, as yields fall to more normal levels (see Table 1).

FIGURE 1
Global rice paddy production and area



* Forecast.

After 4 years of steady contraction, output in mainland **China** is set to rebound by 7 percent (compared with 2003) to 177.2 million tonnes (i.e. unchanged from the previous forecast). The increase should be triggered by attractive market prices, but also by the Government's new support policies, which include the following:

- the re-introduction of protective prices for early and late rice crops (¥1 400 [US\$169] and ¥1 500 [US\$181] per tonne, respectively);
- the designation of specialized grain areas; and
- a reduction of fiscal pressure on farmers.

The Government also allocated some ¥10 billion (US\$1.2 billion) to finance direct income payments to grain farmers in 13 provinces, including Heilongjiang, Jilin and Henan, the three most important among the designated grain production bases. Launched on an experimental basis in Anhui Province over the last 2 years, about US\$36 per hectare have been transferred as direct payments to farmers benefiting from the scheme.

¹ The information contained in this article is as of May 2004.

TABLE 1
Cambodia – Rice paddy production by crop season ('000 tonnes)

	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04
Wet season	2 733.0	2 672.6	2 873.9	3 332.9	3 212.3	3 276.0	2 915.9	3 838.0
Dry season	657.0	742.3	636.0	708.0	813.8	823.1	906.6	873.0
Total	3 390.0	3 414.9	3 509.9	4 040.9	4 026.1	4 099.1	3 822.5	4 711.0

Source: Ministry of Agriculture, Forestry and Fisheries (MAFF), Cambodia.

By contrast, paddy production is expected to decline by about 100 000 tonnes in **Taiwan Province of China**, due to the severe drought that has affected the southern areas of the island.

In **India**, planting of the main kharif crop has already begun in the south, since the monsoon rains due to arrive on 31 May or 1 June actually reached the country 2 weeks early. Assuming a normal rainfall distribution in the coming months, production in 2004 could reach 136 million tonnes, up 3 percent from last year. On the policy front, the recently elected Government has announced the launch of crucial reforms to its agricultural sector, with the pledge to improve farmer incomes and to liberalize the marketing of agricultural products.

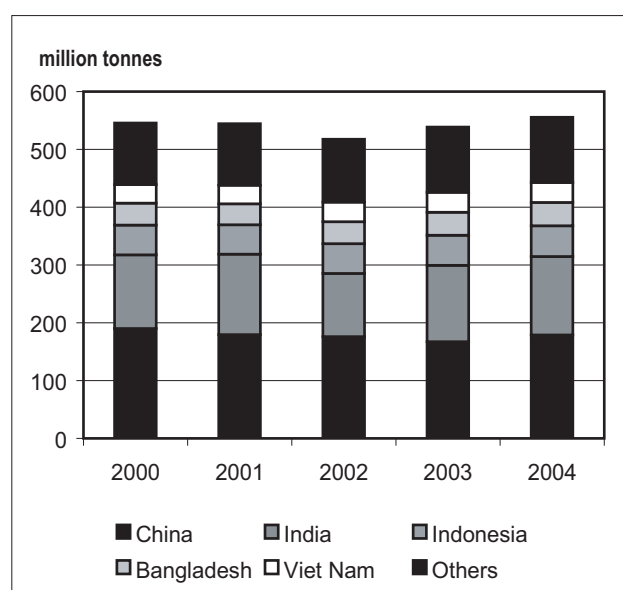
In **Indonesia**, the bulk of the 2004 main crop, which has benefited from excellent growing conditions, has already been harvested. Based on this positive outcome, the country is set to achieve the government production target of 53.1 million tonnes (i.e. 2 percent more than last year). Early in May, the Government announced it had allocated Rp1.3 trillion (US\$149.4 million) to subsidize fertilizers to small farmers; as a result, urea retail prices should remain at a low Rp1 050 (US\$0.11) per kg.

Following the 2003 production shortfall, **Japan** is expected to record a partial recovery to 10.7 million tonnes in 2004, assuming that normal weather conditions prevail. The country is proceeding along the path of gradually reducing rice output. This year, the rice production adjustment programme will be based on an output target set prefecture by prefecture, rather than on area diversion targets (as in the past).

Production is expected to recover in the **Republic of Korea** from the setback experienced last year. The rise is anticipated to stem from a rebounding of yields, while plantings may be discouraged by the reduction in the official procurement prices decided by the Government.

In the **Philippines**, the recent reports of damage to paddy crops from Typhoon Nida in May could lead to a downward revision of output for the 2003 season (July 2003–June 2004). Nonetheless, the country is still esti-

FIGURE 2
Rice paddy production in Asia, 2000–04



ated to have harvested a bumper crop last season, reflecting the rehabilitation of irrigated production systems, an extension of plantings to fallow or rainfed lands and the increased use of hybrid rice seeds. As for the 2004 season (about to begin), production in the country is expected to keep rising despite prospects of drought-induced delays in planting, mainly because of continued strong support from the Government. In addition to the hybrid seed distribution programme, the National Food Agency (NFA) recently launched a new procurement strategy aimed at sustaining prices to farmers and encouraging them to market a larger share of their output, by sending mobile procurement teams to distant areas. Procurement prices over the summer crop were reported to have been set at P20 000 (US\$360) per tonne. Farmers drying their own rice and transporting it to the NFA warehouses would be eligible to a supplementary payment of P150 (US\$27) per tonne for drying and P100 (US\$18) per tonne for transportation.

High prices are also expected to boost rice production in **Pakistan**, which should start gathering its main harvest

TABLE 2
Sri Lanka – Rice paddy production by crop season ('000 tonnes)

	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05
Maha	1 457	1 781	1 736	1 781	1 613	1 774	1 895	1 635
Yala	782	911	1 121	1 079	1 082	1 086	1 174	875
Total	2 239	2 692	2 857	2 860	2 695	2 860	3 069	2 510

Source: Dept. of Census and Statistics, Sri Lanka; FAO/WFP Crop Assessment Mission, Sri Lanka (7–26 March 2004).

in September. Production in 2004 is currently forecast at 7.6 million tonnes, up from 7.3 million tonnes last year.

By contrast, in **Sri Lanka**, paddy production this season may dip significantly, as low and erratic rainfall has severely impaired the main maha crop, and may also hinder the second, irrigated, yala crop (currently at the planting stage), by impeding the replenishment of reservoirs. Considering both crops, total output is anticipated to be in the order of 2.5 million tonnes (i.e. 18 percent below the previous year's level) (see Table 2).

Drought in **Thailand** during the first 3 months of the year had a negative impact on the 2003 second paddy crop, especially after the Government appealed to farmers in the affected areas to suspend planting to save water. With the arrival of the rains in May, the 2004 paddy season has just begun. A smaller increase in output than originally anticipated is currently foreseen, based on predictions of less than optimal weather conditions in the ongoing wet season. Production in the country is now set to reach 27 million tonnes in 2004 (2 percent up from last year).

In **Viet Nam**, the gathering of the winter/spring paddy crop – the first of the three crops to be harvested in 2004 – has been completed with good results. Overall, however, the Government is forecasting a smaller output during the 2004 season, as the positive impact of higher rice prices on plantings could be dampened by sharp increases in input costs, especially fertilizers and fuel. The official forecast of production in 2004 stands at 34.2 million tonnes (300 000 tonnes less than in the previous year) with part of the decline arising from a diversification out of rice into shrimps or other crops.

In Central Asia, the Government of **Turkmenistan** recently released the production estimates for the 2003 season: 109 500 tonnes (i.e. 37 percent more than in 2002). For the forthcoming 2004 season, the country is aiming at a 55 percent increase to 170 000 tonnes, in line with the government plans to boost rice production to 250 000 tonnes by 2010. To this end, new land for rice cultivation has been made available in the major rice-producing provinces of Doshoguz and Lebap. In addition,

farmers willing to join the programme are guaranteed: a minimum purchase price for the rice produced; quality seed; and credit at preferential interest rates. The increase in output was even more pronounced in **Uzbekistan**, where it rose by 68 percent to 311 200 tonnes in 2003. Further gains are anticipated in 2004.

AFRICA

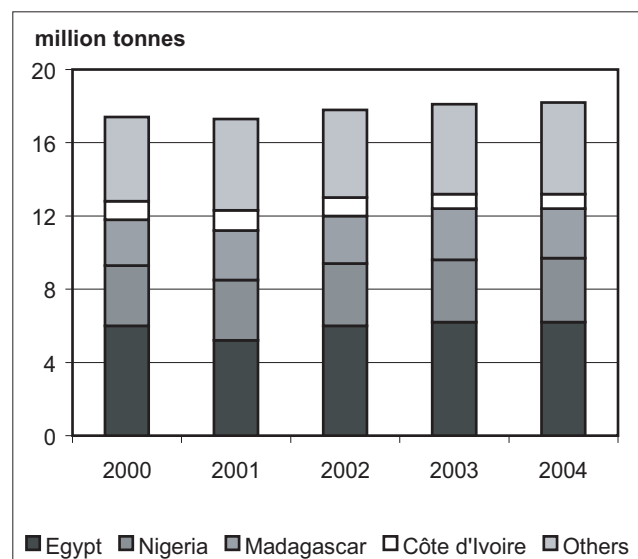
Little change in output currently anticipated in 2004

While the 2004 paddy season is virtually over in most southern African countries, crops in Egypt and western Africa are at an early stage of development, with some countries still seeding their crops. For the Africa region overall, rice production in 2004 is tentatively forecast at 18.2 million tonnes, marginally higher than 2003.

In the northern region, production in **Egypt** is forecast at a high 6.2 million tonnes, little changed from last year's record level. Domestic prices have been rising lately, despite the relatively large crop reaped in 2003, partly reflecting a strong demand for export.

In western Africa, most of the countries are expected to record some increase in production in 2004, fostered

FIGURE 3
Rice paddy production in Africa, 2000–04



by reduced competition from higher priced imports. In **Mauritania**, however, attacks from stalk borers are endangering prospects, particularly those of the walo crop. As a result, 2004 production might fall short by 11 percent of the level achieved in 2003.

Following an FAO/WFP (World Food Programme) mission, output estimates in **Côte d'Ivoire** have been upwardly revised since 2002, suggesting that the impact of internal conflict on paddy production is much less than estimated. The country has been assessed to have harvested around 850 000 tonnes in 2003, a level that might be matched this season (i.e. an 18 percent fall since 2000).

Production is projected to increase by 3 percent in **Nigeria**, reaching 3.5 million tonnes. Despite excellent weather last season, fertilizer shortages meant that only a modest increase in production was achieved. Last May, however, the Government renewed its commitment to reach rice self-sufficiency by 2005 and to produce surpluses for export by 2007. To boost production, 2 tonnes of NERICA (New Rice for Africa) foundation seed have been procured from The Africa Rice Center (WARDA) for multiplication and distribution.

In southern Africa, production is expected to decrease in **Madagascar** compared to last year's bumper level, reflecting the effects of the cyclones, Elita and Gafilo, which hit the country in January and February. The cyclone also battered the northeast region of Antalaha, one of the most important rice-producing districts.

The late arrival of rainfall in **Mozambique** deferred planting by 2 months, from October to January, and da-

maged rice in some districts, such as Zambesia. Problems were again faced in March, when heavy rains resulted in flood damage. As a result, the country is anticipated to experience a 10 percent production shortfall in 2004.

Latin America and the Caribbean

Good crops harvested in South America, but prospects remain uncertain in Central America and the Caribbean

While the season is virtually over in most of South America, planting of paddy crops is progressing across Central America and the Caribbean. In South America, most countries are reporting sizeable production gains, as rising prices have stimulated expansion of the rice-producing area, while generally favourable growing conditions have boosted yields.

In **Argentina**, the official production estimate has been raised to 990 000 tonnes – the highest level since 1999 and 38 percent more than in 2003 – reflecting an expansion in both area and yields.

In **Brazil**, the production forecast by CONAB (Companhia Nacional de Abastecimento) was upwardly revised to an all-time high of 12.9 million tonnes (a 24 percent increase compared with last year's depressed level). The outcome would have been even more positive without the cyclone that hit Santa Catarina, the third major rice-producing state, just before harvest, where it caused a 4 percent reduction in local yields, offsetting much of the gains arising from a 7 percent increase in plantings.

Uruguay is also poised to reap a record crop, mostly on account of exceptional yields, which are set to reach 6.75 tonnes of paddy per hectare.

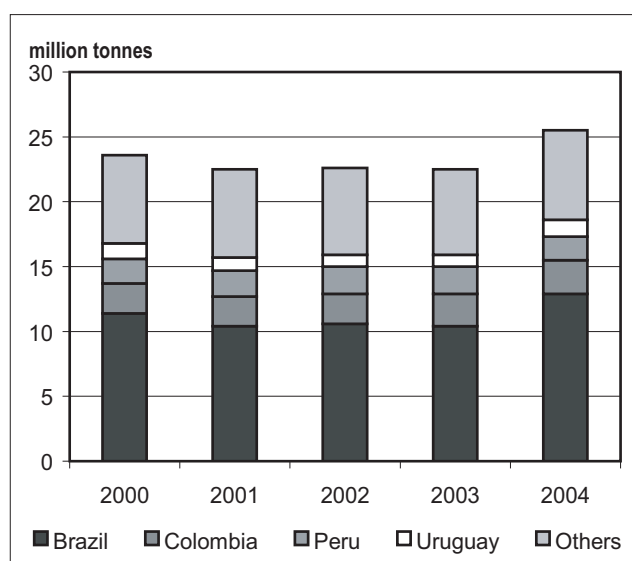
Recent rains were reported to have brought relief to rice crops in **Paraguay**, the development of which had been hindered by insufficient precipitation.

In **Colombia**, cold weather in April caused some delays in the start of the winter crop. Nonetheless, production is expected to increase by 2 percent over last year's level, reaching the all time high of 2.6 million tonnes in 2004, following an increase in plantings driven by relatively high prices since mid-2003.

By contrast, excessive rainfall in **Ecuador** is reported to have caused losses of up to 20 percent in the affected areas. As a result, production this year is anticipated to fall to 1.15 million tonnes, 7 percent down on last year and 150 000 tonnes less than previously forecast.

In **Guyana**, the outlook for the main crop, currently at the harvest stage, has also deteriorated due to persistent precipitation and floods in the Berbice area, which may

FIGURE 4
Rice paddy production in Latin America, 2000–04



result in a 100 000-tonne shortfall this season, bringing production down to 2000 levels.

In **Peru**, severe drought problems in Lambayeque have marred output prospects; production is forecast to drop by 15 percent to 1.8 million tonnes.

Although production in **Venezuela** is expected to rise in 2004, prospects have been downgraded because of lack of rainfall in Guarico, the country's main irrigated rice-producing area.

In Central America and the Caribbean, planting of the main paddy crops is about to be concluded. Production is projected to increase in **Cuba** to some 750 000 tonnes (up 5 percent on the previous year), despite reports of drought problems in April when planting for the wet season starts. The rise would be on account of an expansion in rice produced on small private plots, promoted in the past few years under the "People's Rice" programme. Similarly, in **Mexico**, rice output is expected to grow by 2.5 percent, to 250 000 tonnes – significantly below the late 1990s level. By contrast, in **Haiti** and the **Dominican Republic**, torrential rains and flooding in May are estimated to have caused considerable crop damage. The season's prospects in the two countries had already been flawed by drought problems in earlier months. As a result, the 2004 production forecast of the two countries has been reassessed downwards. In the case of the Dominican Republic, production is now forecast to fall by almost 10 percent compared with last year: to 580 000 tonnes (100 000 tonnes less than previously forecast).

Other countries

Favourable outlook for 2004 seasons in the United States of America and the European Union, but output still well below normal levels in Australia

The season is well underway in the **United States of America**, with 94 percent of the rice area reportedly planted by the end of May, well ahead of last year. The official forecast for this season's production has been raised marginally to 9.9 million tonnes (10 percent above the 2003 level) due to increases in both area and yields.

Production in an enlarged **European Union (EU)** will not differ much from the level achieved before the accession of the ten new members since, of these, only Hungary has a paddy sector of some relevance, yielding about 10 000 tonnes per year. In the EU-15 producing countries, official information points to a 1 percent output increase which, based on planting intentions, is projected to take place mostly in Spain and Greece. For the whole of EU-25, output is forecast to be some 40 000 tonnes greater than the level achieved in EU-15 in 2003.²

Despite a poor start to the season, **Australia** harvested a much higher crop in 2004. Yet, pegged at 600 000 tonnes, production did not fully recover from last year's drought-induced shortfall and remained at less than half the level harvested in 2002, again reflecting insufficient water allocations.

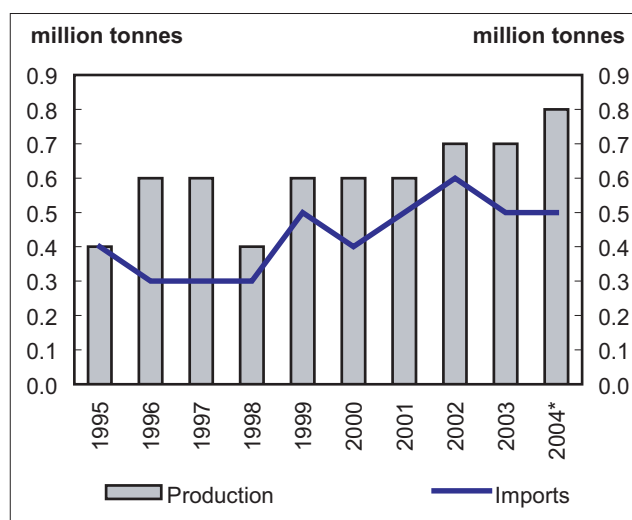
INTERNATIONAL TRADE IN RICE

International trade in rice set to fall in 2004, a reflection of tight export supplies

The forecast of international trade in rice in the 2004 calendar year, which is largely influenced by the outcome of production in the 2003 season, has been raised by 200 000 tonnes from the previous outlook and now stands at 25.7 million tonnes (2.3 million tonnes less than in 2003). Most of the revision for the current year's trade reflects upward adjustments of exports by mainland China and the United States of America, while from the import angle, it follows from higher forecast deliveries to the Philippines, the Islamic Republic of Iran, Iraq and Mozambique, which have more than offset reductions for Bangladesh, mainland China and Indonesia.

Compared with last year's near-record volume, the fall in trade in 2004 reflects mainly a tightening of export

FIGURE 5
Cuba: rice production and imports (milled equivalent)



* Forecast.

² EU-15 refers to the European Union when its members numbered 15 (i.e. until 30 April 2004). As of 1 May 2004, the EU comprises 25 members, following the entry of several East European nations, and is hence referred to as EU-25.

supplies, although some major importers also appear to have retrenched from the market following good harvests in the preceding or ongoing seasons.

Exports

Reduced supply availability and existing export restrictions in India and Myanmar expected to constrain rice trade in 2004

According to current prospects, **China** (mainland) is anticipated to deliver 1.7 million tonnes (down from last year's 2.6 million tonnes), reflecting a surge in domestic prices. The export forecast, which is still highly tentative, assumes that the pace of shipments will slow down in the coming months compared with the first quarter, when the country managed to post a 24 percent increase in exports compared with the same period in 2003.

Based on official USDA (United States Department of Agriculture) forecasts, the outlook for exports by the **United States of America** has been upgraded to 3.3 million tonnes, due mainly to an increase in the sales of long grain varieties. Despite the revision, the expected volume in 2004 is still 500 000 tonnes less than last year's record performance.

As for **Myanmar**, which has imposed an export ban until June, it is now anticipated to ship a mere 300 000 tonnes – down from a previous outlook of 500 000 tonnes – as there has been no sign that the Government intends to resume trade. Most of the other countries' export forecasts remain unchanged from the last assessment.

In 2004, sales by **India** are forecast at 2.5 million tonnes (almost 2 million tonnes less than in 2003), based on expectations that the export restrictions imposed to help rebuild rice reserves are to be revoked in the second half of the year. However, even that volume might not be achieved, should the lifting of the ban be further delayed. Despite the surge in international rice prices, the resumption of exports also appears to depend on the granting of subsidies, which in the past 3 years have been provided to exporters by the Food Corporation of India (FCI) through the sale of rice held in its warehouses at prices below market levels and the payment of domestic transport costs and ocean freights. The decision about whether and how the subsidies will be communicated to exporters once the ban is rescinded is subject to high uncertainty, especially following the decision in 2004 to let exporters purchase rice directly from the market rather than through the FCI.

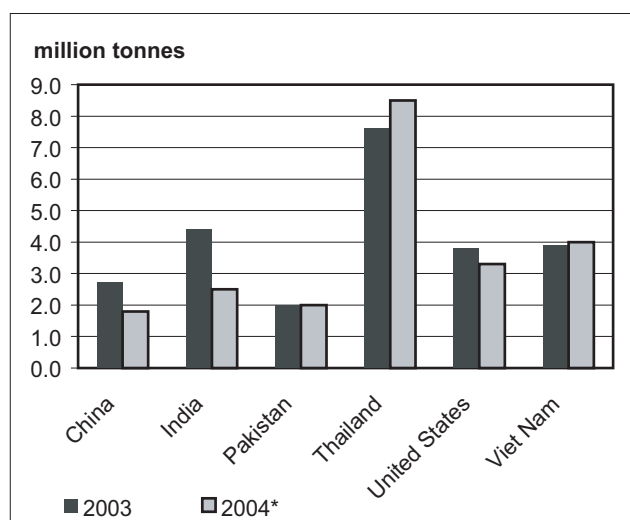
Exports by **Japan** and the **Republic of Korea** are set to halve, consistent with the production shortfalls faced by the two countries in 2003.

Pakistan is unlikely to have sufficient supplies to sustain a sizeable increase in shipments this year and exports are projected to remain in the order of 2 million tonnes.

By contrast, sales by **Thailand** are expected to rise substantially, sustained by buoyant demand and the recent tendering of 2 million tonnes of old rice from government stocks to exporters, which has eased supply scarcity problems. The Government has also announced the possibility of sourcing 1.5 million tonnes of rice supplies in neighbouring countries to help meet its export commitments. So far, however, there has been no confirmation of such trade. Between January and April, the country shipped 2.9 million tonnes of rice, 34 percent above the level recorded in the same period in 2003. For the year as a whole, exports are projected to meet the 8.5 million-tonne official target, up from 7.6 million tonnes in 2003 and an all-time high.

Larger exports from **Viet Nam** are also forecast, although rice scarcity is likely to limit the extent of the increase to 3 percent, reaching a volume of 4 million tonnes. Recently, the Government announced it would facilitate rice trade, through the provision of information services and promotion of high quality rice production for export. The Government is also considering liberalizing rice exports by authorizing all traders, including non-licensed rice exporters, to engage in rice trade. The

FIGURE 6
Rice exports by the major exporters (milled equivalent)



* Forecast.

move also reflects government concern over the signing of contracts by major domestic rice-exporting firms in previous months, at prices that now appear rather low.

The forecast for exports by **Egypt** also points to an increase, partly fuelled by a weakening of the domestic currency *vis-à-vis* the US dollar and stronger international prices. Prospects, however, might be impaired by import restrictions in Turkey where the Government has been reported to have delayed the issuance of import licences.

Bumper harvests in **Argentina** and **Uruguay** should also bolster exports from the MERCOSUR (Southern Common Market) area.

Imports

Higher prices and a tightening of import barriers likely to hinder imports in 2004

One of the most important changes in rice trade concerns **China** (mainland), which gained the headlines in the past few months when Chinese traders were reported actively buying rice from neighbouring countries, particularly Thailand and Viet Nam. This frenzy of buying was triggered by the surge in China's market prices – between February 2003 and February 2004, prices rose by around 63 percent for early rice and 54 percent for *japonica* rice. In the case of early *indica* rice, the increase was particularly manifest in the southern provinces, with wholesale prices peaking in March at ¥2 560 (US\$310) per tonne. Several local governments reacted to the spree by releasing old crop supplies from state-owned inventories to relieve pressure on prices, therefore dampening the incentive to import. As a result, the earlier forecast for purchases by the country has been lowered to 800 000 tonnes, nevertheless a threefold increase on last year.

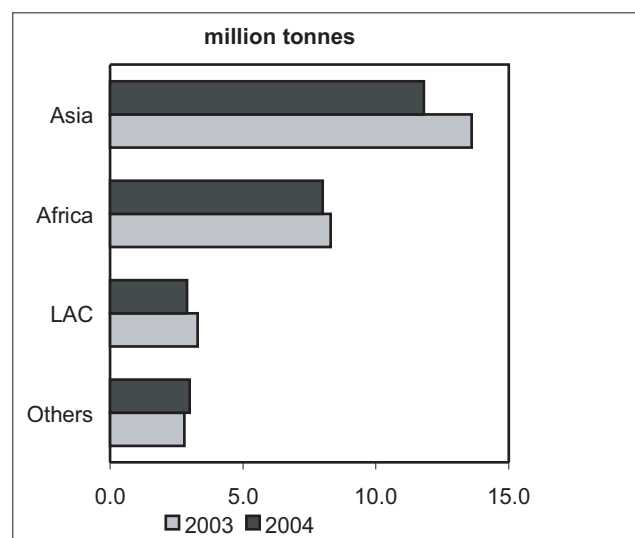
Following a further upward revision in last season's production, imports by **Bangladesh** were also cut by one-third to 400 000 tonnes, down from last year's 1.6 million tonnes. The new forecast reflects much higher world prices and the export ban imposed by India (Bangladesh's traditional supplier).

Improved production prospects in **Indonesia** have also caused a 500 000-tonne downward revision of the country's imports to 1.5 million tonnes (i.e. only half the volume taken by the country in 2003). The fall in imports is also the result of a strict enforcement of the import restrictions, planned to last until 1 June 2004. However, in May, the Government announced a 1-month extension of the ban until July and the decision to reassess its permanence or elimination month by month.

The official import forecast by the **Republic of Korea** remains 228 000 tonnes, up from 200 000 tonnes in 2003. Since the World Trade Organization (WTO) special treatment derogation that allowed the country to maintain quantitative restrictions on rice imports³ is to expire at the end of the year, the Government of the Republic of Korea has begun negotiating the terms of the opening of its rice market with interested WTO members (Argentina, Australia, Canada, China [mainland], Egypt, India, Pakistan, Thailand and the United States of America). The process should be completed before the end of the year.

Forecast deliveries to the **Philippines** have been raised to 950 000 tonnes, close to last year's level, reflecting the high level of purchases already committed this year by the National Food Agency and the announcement that the unused portion of the 310 000-tonne annual import rights allocated to farmers will be covered by the National Food Agency or private traders. Under the WTO agreement, the country is entitled to maintain quantitative restrictions on rice imports until 30 June 2005. Thus, like the Republic of Korea, the Philippines has embarked on negotiations to define the terms of the opening of its rice market and has already announced its wish to negotiate an extension of the WTO special treatment, which would allow the country to keep rice imports under government control.

FIGURE 7
Rice imports by region, 2003 and 2004 (milled equivalent)



Note: LAC = Latin America and Caribbean Region.

³ The country deferred tariffication under the "special treatment" provisions of Annex 5 of the Agreement on Agriculture.

Following confirmation of the 2004 production shortfall, **Sri Lanka**'s imports have been revised upwards to 190 000 tonnes, part of which could be made under emergency relief shipments.

FAO forecasts of imports by **Iraq** and the **Islamic Republic of Iran** were also raised to 700 000 tonnes and 1.2 million tonnes, respectively, while retained imports⁴ by **Saudi Arabia** were officially set at 865 000 tonnes this year, up from 813 000 tonnes in 2003.

Overall, rice imports to African countries are anticipated to fall somewhat compared with last year. Much of the decline would be on account of **Nigeria**, where shipments might drop from 1.5 to 1.3 million tonnes, since the country is reported to have tightened its controls against illegal rice inflows. Higher world prices could also prompt a decline in imports from **Kenya**, **Senegal**, **South Africa** and **Tanzania**.

By contrast, following a revision of recent years' figures, imports by **Côte d'Ivoire** are set to rise by some 15 percent to around 900 000 tonnes, as an outcome of the shortfall in the domestic crop. Official import forecasts in **Mozambique** point also to an annual 5 percent increase to 252 000 tonnes.

The Government of **Egypt** has announced the possibility of the country purchasing 100 000 tonnes of rice this year, a move that coincides with the announcement in May of a cut in rice import duty from 20 percent to 1 percent, following the rise of domestic prices.

In Latin America and the Caribbean, smaller overall imports are forecast compared to last year, with some increase in shipments to the **Dominican Republic** and **Peru**. Such increases will more than offset the expected retrenchment of **Brazil**, following the increased availability in this country.

In the rest of the world, purchases by the **United States of America** are projected to remain close to last year's level.

In the **European Union**, a revision of the trade statistics has been undertaken to take account of the enlargement of the EU to include ten new members. Since, for statistical purposes, the EU is considered a single "country", adjustments have been made to exclude what will be assessed as intratrade among the 25 EU members (and therefore excluded from the international trade aggregate) from May 2004 onwards. As a result of such

adjustments, EU-25 rice imports were estimated in the order of 880 000 tonnes in 2004, up from 674 000 tonnes in 2003 for EU-15.

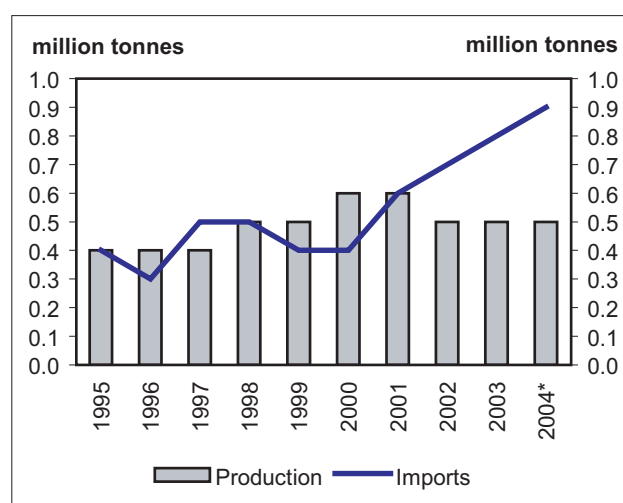
As of 1 September 2004, a new rice policy regime is to be implemented in all EU member countries, which will entail a 50 percent cut in the intervention price to €150 (US\$178) per tonne. The reduced intervention prices will lead to much lower import duties since, based on the 1994 Uruguay Round Agreement, the duty-paid import price cannot exceed by more than a given percentage the EU intervention price.⁵ The cut in the standard duties will erode the benefits of those exporters to the EU that enjoyed preferential access agreements and were subject to reduced import tariffs. To address those issues, the EU is in the process of negotiating new rice access arrangements under Article 28 of the WTO Agreement. Among the affected countries are Pakistan and India, whose exports of Basmati rice to the EU benefited from a €250-per-tonne duty abatement. This concession was withdrawn as of 31 March 2004 on imports of hybrid Basmati varieties, including "Pusa" rice from India and "Super Basmati" from Pakistan.

RICE STOCKS

Stocks set to fall by 11 percent at the end of 2003/04 – another contraction anticipated by the end of 2004/05

The estimate of world rice inventories at the close of the 2003/04 marketing season has been revised upwards from

FIGURE 8
Côte d'Ivoire: rice production and imports (milled equivalent)



* Forecast.

⁴ Imports excluding re-exports.

⁵ 80 percent for husked *indica*; 88 percent for husked *japonica*; 163 percent for milled *indica*; 167 percent for milled *japonica*.

101.7 to 103.4 million tonnes, which would still mean an annual contraction of 11 percent from the previous year and the fourth in a row of yearly declines. To a large extent, the changes sprang from new estimates for Indonesia, following an upward revision in the official 2003 production estimate. Following several adjustments to the pattern of rice utilization in mainland **China**, the level of the country's stocks at the end of the 2003 season has been lowered somewhat to 61 million tonnes, a 12 to 13 million-tonne drop from the previous year, reflecting the need for the country to draw further from its reserves to meet consumption requirements. This was recently confirmed by the auctioning of 1.01 million tonnes by the government of the Heilongjiang Northern Province last March to ease pressure on prices. The Government of **Thailand** also launched a tender to sell 1.7 million tonnes from inventories built up under its intervention purchases in 2001, 2002 and 2003. Overall, rising exports from the country should result in lower carryovers at the end of the 2003 season, unless imports of rice from the neighbouring Lao People's Democratic Republic, Cambodia and Myanmar are actually made. Among the other major exporters, rice inventories are forecast to close at lower levels in the **United States of America**, while export restrictions should help **India** and **Myanmar** to rebuild their reserves somewhat.

Stocks may diminish in **Japan**, following government efforts to reduce availabilities, and in the **Republic of Korea**, owing also to the recent policy change aimed at increasing market orientation. Among African importers, some depletion of reserves is expected to occur in **Côte d'Ivoire**, **Nigeria** and **Tanzania**, while across Latin America, stocks are down in **Brazil** and **Peru**.

As for stocks at the close of the ongoing 2004/05 season, there is still considerable uncertainty, since the bulk of the 2004 crops are at the planting stage. Based on expectations of a moderate recovery in global production in 2004 and steady growth in world rice utilization, global carryover inventories could fall another 4 million tonnes from their opening levels. **China** is likely to account again for much of the drop, as the production leap anticipated this season would not be sufficient to cover the rise in requirements, especially if, as expected, the country refrains from stepping up imports. Stocks in **Thailand** could also continue to fall, reflecting the sharp rise in exports anticipated this year. By contrast, assuming **India** sticks to its current trade policy, it might be successful in raising its end-of-season reserves. On the

other hand, smaller imports could lead to some depletion of stocks in **Indonesia**.

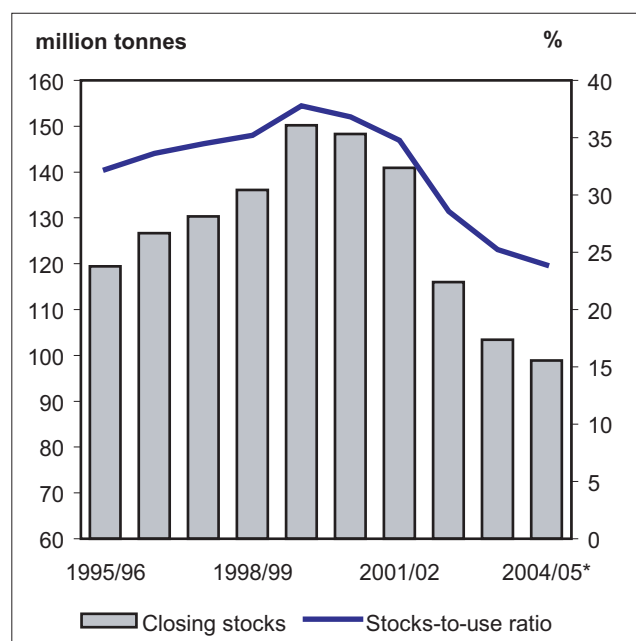
The continuous draw-down of global rice inventories will mean that the stock-to-use ration (which provides some indication as to how much of the foreseen consumption could be met just before the opening of a new season through existing reserves) will further decline, from 29 percent at the end of 2002 to 24 percent at the end of 2004.

INTERNATIONAL RICE PRICES

World rice prices continue on an upward trend

International rice prices have maintained an upward trend since December 2003, with the FAO All Rice Price Index (1998–2000 = 100) surpassing the 100-point threshold in March, for the first time since September 1999. The rise in the first 5 months of 2004 has been most pronounced for low and high quality *indica* rice, which, with the absence in the market of exporters such as India and Myanmar, has shown increasing signs of scarcity. In May, however, the price strength has been tempered by the release of rice from government inventories in Thailand and China, which have contributed to, respectively, a rise in export supplies and a drop in import demand. On the other hand, while Indonesia has remained out of the

FIGURE 9
Global rice closing stocks and stocks-to-use ratio
(milled equivalent)



* Forecast.

market, continued purchase interest has been shown by Iraq, the Philippines and Nigeria. The net effect was a one-point increase in the FAO All Rice Price Index between April and May as it rose to 109. The release of government stocks in Thailand depressed all rice quotations in the country, which declined in May compared with April, while export prices in the United States of America, Pakistan and Viet Nam held steady or even rose.

On a year-to-year basis, however, prices have posted important gains. For instance, in May 2004, Thai 100%B was quoted at US\$236 per tonne, 17 percent above the May 2003 level. The increase was even more pronounced for US 2/4% long grain, which was priced 46 percent higher (US\$420 per tonne in May 2004 compared with US\$287 per tonne a year earlier). As a result, the price gap between the high quality rice sourced in Thailand and the United States of America has widened, compared with 1 year ago.

Prospects for prices in the next few months are still positive, as import demand should remain strong relative to availabilities at least until August/September, when a number of the Northern Hemisphere producers will have harvested their main crop. In this respect, information regarding the state of crop development in major producing countries will be felt critically by the market in the coming months, given the low level of global stocks estimated to be available. Bad weather in countries such as mainland China, India, the Philippines or Bangladesh, for example, would have much greater consequences than in previous years, when the world rice situation was less tight.

Meanwhile, contrasting forces will create the price pattern, with additional strength expected should India and Myanmar carry on with their export restrictions. The surge of crude oil prices could also exert upward pressure on export rice quotations, as higher production and marketing costs are passed along the rice chain. Other factors, however, will tend to dampen the price strength. For example, there have been clear signs from China that the country still has sufficient reserves to keep its imports within reasonable bounds. The possibility that Indonesia refrains from importing for a longer period than originally foreseen would also contribute to cooling the market.

FIGURE 10
FAO price indices for rice

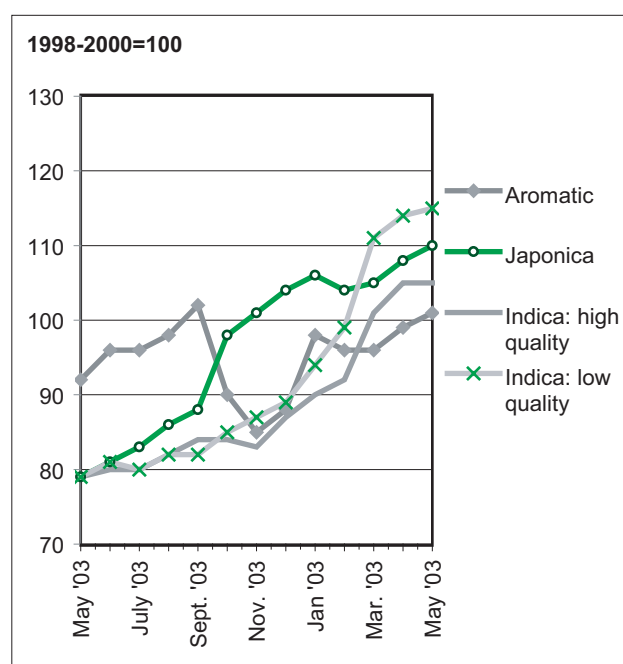
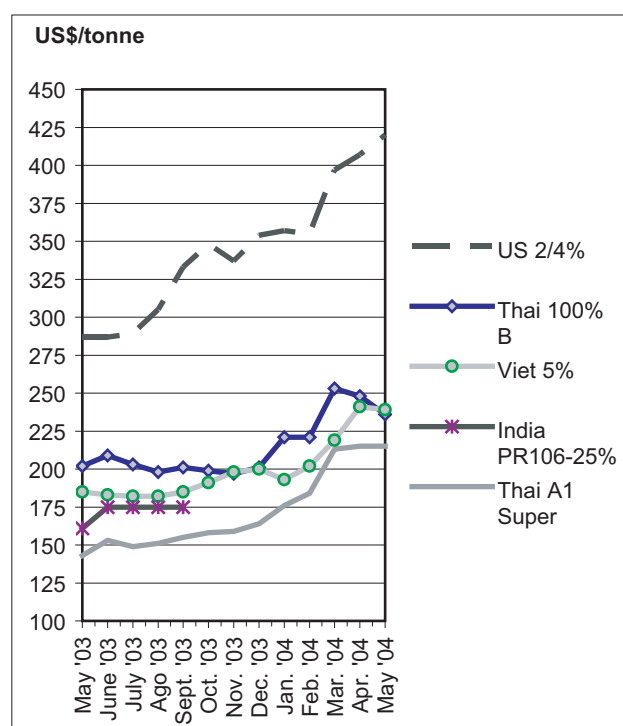


FIGURE 11
Export prices for rice



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TABLE 3
Export prices for rice

	Thai 100% B ^a	US 2/4% long grain	Viet 5%	Thai 25%	India 25%	Viet 25%	Pak 25%	Thai A1 Super ^b	US 2/4% medium grain ^c	Pak Basmati ^d	Thai fragrant 100%
<i>US \$/tonne, f.o.b.</i>											
1999	253	333	228	215	237	204	206	192	405	486	397
2000	207	271	183	172	232	159	163	143	289	418	428
2001	177	264	166	153	185	148	148	135	256	332	275
2002	197	207	187	171	140	168	159	151	219	366	306
2003	201	284	183	176	166	167	175	151	310	357	449
2003											
May	202	287	185	173	161	168	178	143	284	336	460
June	209	287	183	180	175	164	178	153	298	n.a.	486
July	203	289	182	176	175	162	179	149	309	n.a.	482
Aug.	198	305	182	172	175	162	187	151	309	n.a.	488
Sept.	201	333	185	176	175	166	185	155	n.a.	n.a.	543
Oct.	199	348	191	179	n.a.	173	175	158	419	n.a.	485
Nov.	197	337	198	178	n.a.	179	176	159	448	n.a.	429
Dec.	201	354	200	180	n.a.	180	186	164	463	n.a.	450
2004											
Jan.	221	357	193	195	n.a.	178	203	176	471	449	510
Feb.	221	355	202	200	n.a.	188	212	184	457	449	488
Mar.	253	397	219	232	n.a.	204	238	213	452	449	495
April	248	407	241	231	n.a.	223	239	215	463	486	504
May	236	420	239	223	n.a.	223	240	215	470	523	492
2003											
Jan.–May	200	231	175	174	153	163	166	145	229	356	406
2004											
Jan.–May	236	387	219	216	n.a.	203	226	201	463	471	498

^a White rice, 100% second grade, f.o.b. Bangkok. ^b White broken rice. ^c F.a.s. basis. ^d Basmati ordinary, f.o.b. Karachi. (f.o.b. = free on board and f.a.s. = free along sideship)

Source: Jackson Son & Co. (London) Ltd. and other public sources.

TABLE 4
FAO rice price indices (1998–2000 = 100)

	All	<i>Indica</i>		<i>Japonica</i>	Aromatic	All	<i>Indica</i>		<i>Japonica</i>	Aromatic	
		High	Low				High	Low			
1999	101	99	101	105	98						
2000	84	84	83	83	89						
2001	74	74	74	76	69						
2002	72	73	75	67	74						
2003	82	79	81	83	91						
2003						2004					
May	80	79	79	79	92	Jan.	97	90	94	106	98
June	82	80	81	81	96	Feb.	98	92	99	104	96
July	83	80	80	83	96	Mar.	105	101	111	105	96
Aug.	85	82	82	86	98	April	108	105	114	108	99
Sept.	86	84	82	88	102	May	109	105	115	110	101
Oct.	89	84	85	98	90						
Nov.	90	83	87	101	85						
Dec.	93	87	89	104	88						
2003						2004					
Jan.–May	75	74	76	70	88	Jan.–May	103	98	106	107	98

Note: The FAO Rice Price Index is based on 16 rice export quotations. "Quality" is defined by the percentage of broken kernels, with high (low) quality referring to rice with less (equal to or more) than 20 percent broken. The Sub-Index for Aromatic Rice follows movements in prices of Basmati and fragrant rice.

Source: FAO.

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TABLE 5
World paddy production

	2002	2003 (estimated)	2004 (forecast)
	<i>million tonnes</i>		
WORLD	572.2	591.7	613.0
Developing countries	546.5	568.6	587.2
Developed countries	25.8	23.1	25.4
ASIA	517.8	538.4	555.7
Bangladesh	37.8	39.9	40.5
Cambodia	3.8	4.7	4.7
China ^a	176.3	167.5	178.8
India	109.0	131.9	136.0
Indonesia	51.5	52.1	53.1
Iran (Islamic Republic of)	3.1	3.3	3.4
Japan	11.1	9.7	10.7
Myanmar	22.8	24.6	23.0
Pakistan	6.7	7.3	7.6
Philippines	13.0	14.1	14.6
Republic of Korea	6.7	6.0	6.4
Sri Lanka	2.9	3.1	2.5
Thailand	26.1	26.6	27.0
Viet Nam	34.4	34.5	34.2
AFRICA	17.8	18.1	18.2
North Africa	6.0	6.2	6.2
Egypt	6.0	6.2	6.2
Sub-Saharan Africa	11.7	12.0	12.0
Western Africa	7.4	7.5	7.6
Côte d'Ivoire	1.0	0.8	0.8
Guinea	0.8	0.8	0.8
Mali	0.7	1.0	1.0
Nigeria	3.4	3.4	3.5
Central Africa	0.4	0.4	0.4
Eastern Africa	1.1	0.9	1.0
Tanzania	0.8	0.7	0.8
Southern Africa	2.9	3.1	3.0
Madagascar	2.6	2.8	2.7
Mozambique	0.2	0.2	0.2
CENTRAL AMERICA	2.7	2.6	2.7
Mexico	0.2	0.2	0.3
SOUTH AMERICA	19.8	19.8	22.6
Argentina	0.7	0.7	1.0
Brazil	10.6	10.4	12.9
Colombia	2.3	2.5	2.6
NORTH AMERICA	9.6	9.0	9.9
United States of America	9.6	9.0	9.9
EUROPE	3.2	3.2	3.3
EU ^b	2.6	2.6	2.7
OCEANIA	1.3	0.4	0.6
Australia	1.3	0.4	0.6

Note (Tables 5–7): Totals computed from unrounded data.

^a Including Taiwan Province of China.

^b EU-15 until 2003, EU-25 in 2004.

^c Tentative.

TABLE 6
World imports of rice (milled)

	2002	2003 (estimated)	2004 (forecast ^c)
	<i>million tonnes</i>		
WORLD	28.1	28.0	25.7
Developing countries	23.8	23.7	21.3
Developed countries	4.2	4.3	4.4
ASIA	14.2	13.6	11.8
Bangladesh	0.5	1.6	0.4
China ^a	0.3	0.4	1.0
Indonesia	3.5	3.0	1.5
Iran (Islamic Republic of)	1.0	0.7	0.7
Japan	0.7	0.7	0.7
Malaysia	0.6	0.6	0.5
Philippines	1.3	0.9	1.0
Saudi Arabia	0.8	0.8	0.9
Sri Lanka	0.1	0.1	0.2
AFRICA	8.4	8.3	8.0
Côte d'Ivoire	0.7	0.8	0.9
Nigeria	1.8	1.5	1.3
Senegal	0.8	0.6	0.6
South Africa	0.7	0.8	0.8
SOUTH AMERICA	0.8	1.4	1.0
Brazil	0.6	1.1	0.6
Peru	0.0	0.0	0.1
NORTH AND C. AMERICA	2.5	2.6	2.7
Mexico	0.5	0.5	0.5
EUROPE	1.8	1.7	1.9
EU ^b	0.7	0.7	0.9
OCEANIA	0.3	0.4	0.4

TABLE 7
World exports of rice (milled)

	2002	2003 (estimated)	2004 (forecast ^c)
	<i>million tonnes</i>		
WORLD	28.1	28.0	25.7
Developing countries	23.9	23.1	21.7
Developed countries	4.2	4.9	4.0
ASIA	22.4	21.9	19.7
China ^a	2.1	2.7	1.8
India	6.6	4.4	2.5
Myanmar	0.9	0.4	0.3
Pakistan	1.6	2.0	2.0
Thailand	7.3	7.6	8.5
Viet Nam	3.2	3.9	4.0
AFRICA	0.5	0.6	0.7
Egypt	0.5	0.6	0.7
SOUTH AMERICA	1.2	1.1	1.5
Argentina	0.2	0.2	0.4
Uruguay	0.7	0.6	0.7
NORTH AMERICA	3.3	3.9	3.4
United States	3.3	3.8	3.3
EUROPE	0.3	0.2	0.2
EU ^b	0.3	0.2	0.2
OCEANIA	0.4	0.2	0.2
Australia	0.4	0.2	0.2

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TABLE 8
Supply and utilization of rice in main exporting countries (national crop years)

	2001/02	2002/03 (prelim.)	2003/04 (forecast)		2001/02	2002/03 (prelim.)	2003/04 (forecast)
	'000 tonnes				'000 tonnes		
	<i>China^{ab} (Oct./Sept.)</i>				<i>India^a (Oct./Sept.)</i>		
Opening stocks	90.580	F 83.350	F 73.690	F	25.000	F 26.400	F 12.000
Production ^c	122.901	G 120.876	G 114.778	*	93.080	G 72.660	G 87.940
Imports	340	G 402	G 950	F	10	F 30	F 50
Total supply	213.821	204.628	189.418		118.090	99.090	99.990
Domestic use	128.399	128.288	126.488		85.090	82.690	84.990
Exports	2.072	G 2.650	G 1.760	F	6.600	F 4.400	F 2.500
Closing stocks	83.350	F 73.690	F 61.170	F	26.400	F 12.000	F 12.500
	<i>Pakistan^a (Nov./Oct.)</i>				<i>Thailand^a (Nov./Oct.)</i>		
Opening stocks	970	F 550	F 340	F	1.810	F 2.400	F 2.100
Production ^c	3.882	G 4.479	G 4.871	G	17.558	G 17.250	G 17.626
Imports	0	F 0	F 0	F	1	G 7	F 7
Total supply	4.852	5.029	5.211		19.369	19.657	19.733
Domestic use	2.699	2.731	2.791		9.642	9.977	9.583
Exports	1.603	G 1.958	G 2.000	F	7.327	G 7.580	G 8.500
Closing stocks	550	F 340	F 420	F	2.400	F 2.100	F 1.650
	<i>United States^d (Aug./July)</i>				<i>Viet Nam^a (Nov./Oct.)</i>		
Opening stocks	887	G 1.216	G 829	G	4.020	F 4.500	F 4.900
Production ^c	6.718	G 6.536	G 6.369	G	21.416	G 22.976	G 23.024
Imports	412	G 459	G 448	G	2	F 2	F 2
Total supply	8.017	8.211	7.646		25.438	27.478	27.926
Domestic use	3.846	3.522	3.684		17.698	18.688	19.026
Exports	2.955	G 3.860	G 3.262	G	3.240	G 3.890	G 4.000
Closing stocks	1.216	G 829	G 700	G	4.500	F 4.900	F 4.900

Note: G = official figure; * = unofficial figure; F = FAO estimate/forecast. (Totals computed from unrounded data.)

^a Rice trade data refer to the calendar year of the second year shown.

^b Including Taiwan Province of China.

^c Milled basis.

^d Rice trade data refer to the August/July marketing season.