



Africa Rice Trends

Africa Rice Center Brief

October 2007

Overview of recent developments in the Sub-Saharan African rice sector

This brief is a summary of the 2007 Africa rice trends full publication that will be published by WARDA in December 2007.

In accordance with its mandate, WARDA continuously monitors developments in the regional rice sector and periodically updates key data on the dynamics of rice production and consumption in Africa with particular focus on its member states. This brief provides an overview of the rice sector situation in Sub-Saharan Africa (SSA), by synthesizing its development in terms of production, consumption, imports and self-sufficiency—measured as the ratio of production over consumption; with a focus on the 2001–2005 period. Relative changes in key aggregate indicators such as harvested areas and land productivity are presented to highlight the most salient features of SSA rice sector. Data utilized to calculate the indicators presented in this brief were retrieved online from FAOSTAT and USDA websites.

The characterization of the overall rice sector situation in SSA is complex due to the diverse status that rice holds for African consumers, the great diversity of ecosystems under which it is grown (upland, rainfed lowland, irrigated lowland, mangrove swamp, etc.), the different rice production technologies used, and government policies. Moreover, factors affecting the global rice sector, i.e. the increasing interlinkages among global agricultural economies and the net importer status of SSA, have a strong bearing on the rice sector in SSA. For instance, current market developments do not bode well for food security in SSA. Global rice consumption has been outstripping global rice production since 2002. This is causing a gradual drop in globally held rice inventories coupled with rising rice prices in the global market. The current market situation has the potential of further complicating the food security equation of many SSA countries.

Overview of recent developments in the Sub-Saharan African rice sector

Production: In 2006, paddy rice production in SSA was estimated at 14.2 million tonnes (Table 1). Rice production in SSA grew at 3.23% per annum from 1961 to 2005. This *growth rate* was higher than the yearly population growth rate of 2.90% during the same period.

Over the 5 years (2001–2005), expansion of rice production stepped up, with a yearly growth rate of 5.81%. The average quantity of milled rice produced in SSA during 2001–2005 was 8.1 million tonnes¹ per year. West Africa and East Africa are the main rice-producing sub-regions in SSA (Figure 1). These two sub-regions account for 95% of the total rice produced in SSA. But, the Southern Africa sub-region had the highest rate of production expansion since the 1990s (Figure 2).

Table 1. Average paddy production during selected periods (million tonnes).

| Sub-region | 1970s | 1980s | 1990s | 2001–05 | 2006† |
|-----------------|-------|-------|-------|---------|-------|
| West Africa | 2.73 | 4.50 | 6.73 | 7.55 | 9.32 |
| Central Africa | 0.23 | 0.36 | 0.44 | 0.45 | 0.48 |
| Eastern Africa | 2.41 | 2.81 | 3.36 | 3.89 | 4.60 |
| Southern Africa | 0.12 | 0.11 | 0.15 | 0.18 | 0.20 |
| SSA | 5.49 | 7.78 | 10.69 | 12.07 | 14.20 |

† Estimate obtained by multiplying production level in 2005 by the average growth rate of production during the previous decade.

Harvested rice area and yield trends in SSA:

Sub-Saharan Africa harvested an average of 7.86 million hectares of rice per year during 2001–2005, with 3.29% per annum growth rate. It is the expansion in total areas cultivated that explains much of the increase in production, as the average annual growth of aggregate rice yield was negative (–1.14 %) and stood at 1.51 t/ha (see Table 2).²

The rate of growth of harvested

areas has been faster than the rate of yield increase—this is consistent with the historical pattern of rice-sector dynamics in SSA, where increase in total output is driven mainly by extensification, i.e. bringing more land into rice cultivation. The limited growth of the aggregate productivity of rice in SSA is due to the large share of rainfed rice and subsistence-based rice farming systems. Rainfed production systems (upland and lowland) account for 63% of rice planted areas in SSA compared to 37% worldwide.

The low aggregate yield figures do, however, suggest a strong and mostly untapped potential for boosting the productivity of rice in SSA, should the region apply the appropriate technologies and adopt an enabling rice policy environment, including due support to rice farming. The current surge in rice price in the international market should give new impetus for enhancing investment in the rice sector in order to expand production and reduce reliance on imports.

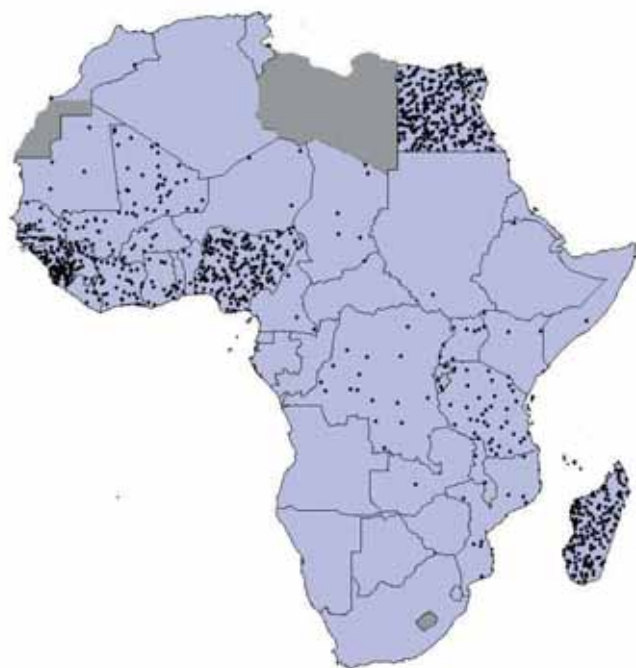
Consumption: Among the major cereals, rice is the most rapidly growing food source on the continent. Between 1961 and 2005, the annual increase in rice consumption was 4.52% in SSA—mostly faster than rice production growth during the same period. In 2006, the total quantity of milled rice consumed in SSA was 14.7 million tonnes.

During 2001–2005, rice consumption in SSA grew at 5.84% per year. This positive development in rice consumption can be largely attributed to strong demand in Southern and West Africa, where rice consumption grew (on average) at 11.58% and 6.55% per year, respectively (Figure 3).

Average per-capita rice consumption in SSA was 18.33 kg/year in 2001–2005. Although average per-capita rice consumption increased from 13 kg to 18 kg between the 1970s and 2001–05, there was great disparity among sub-regions.

Self-sufficiency: The self-sufficiency ratio in rice in SSA, measured by the ratio of production over consumption, declined steadily from 112% in 1961 to 61% in 2006. Consequently, the continent relied on the international rice market to satisfy about 39% of its rice consumption needs

² A caveat is warranted regarding the interpretation of rice yield data in Africa, because it constitutes an average across all rice-growing ecologies: the high predominance of upland rice farming substantially lowers aggregate rice yield in Africa.



Each dot represents 20,000 tonnes Data source FAO

Figure 1. Paddy rice production in 2006

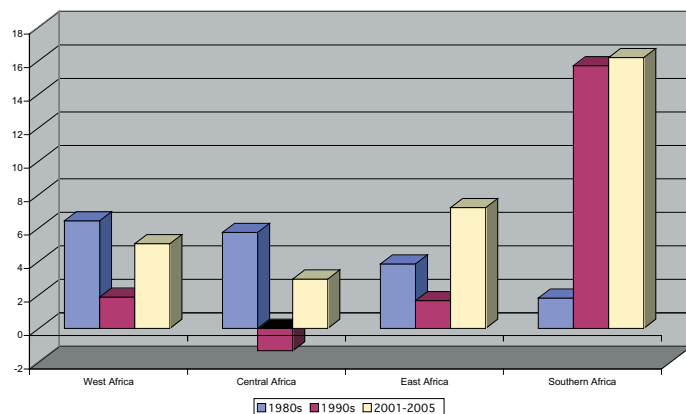


Figure 2. Production growth rates

Table 2. Average paddy yield and harvested area, 2001–2005.

| Sub-region | Yield (t/ha) | Harvested area (million ha) |
|-----------------|--------------|-----------------------------|
| West Africa | 1.62 | 4.66 |
| Central Africa | 0.96 | 0.47 |
| Eastern Africa | 2.20 | 1.77 |
| Southern Africa | 0.91 | 0.19 |
| SSA | 1.51 | 7.86 |

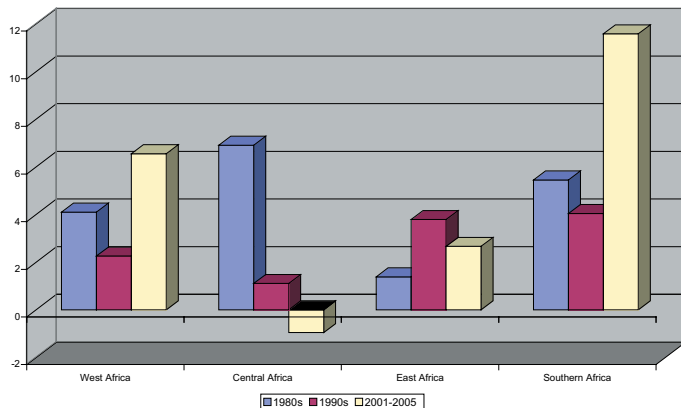


Figure 3. Rice consumption growth rates

Table 3. Annual growth rate of yield and harvested area, 2001–2005.

| Sub-region | Yield (t/ha) | Harvested area (million tonnes) |
|-----------------|--------------|---------------------------------|
| West Africa | 0.20 | 4.84 |
| Central Africa | 2.78 | 0.16 |
| Eastern Africa | 6.73 | 0.45 |
| Southern Africa | 11.19 | 4.49 |
| SSA | -1.14 | 3.29 |

in 2006. Figures 4, 5 and 6 illustrate, respectively, the country-level rice self-sufficiency, major rice importing countries, and the widening gap between rice production and consumption in SSA.

At 3.18% per annum from 1961 to 2006, rice production average growth rate in SSA has been higher than the yearly average population growth rate of 2.90% per annum, but substantially lower than the rice consumption growth rate, which has been increasing steeply at 4.52% per annum. This explains the widening rice supply gap in SSA and the growing imports of rice into SSA to bridge the strong demand for rice.

Outlook for 2007: The production outlook appears favorable, as the *FAO Rice Monitor* edition of June 2007 forecasts that paddy production for the 2007 rice campaign will reach 22.1 million tonnes. This will mark the sixth consecutive year of production increase in Africa. The fact that production increases in the past 2 years are attributed to “positive effects of the adoption of NERICA rice varieties,” and “strong institutional support” in some rice-producing countries such as Nigeria, underscores the qualitative progress that the African rice sector is accomplishing. Moreover, rising rice prices may have provided sufficient incentive to motivate further increase in rice planting.

Overview of recent developments in West Africa

Production: In 2006, West Africa produced 6.24 million tonnes of milled rice and had a yearly average of 5.06 million tonnes of white rice produced over the period 2001–2005 (Table 4). West Africa remains the leading rice producing and consuming sub-region within the continent: its paddy production accounted for 65% of total rice produced in

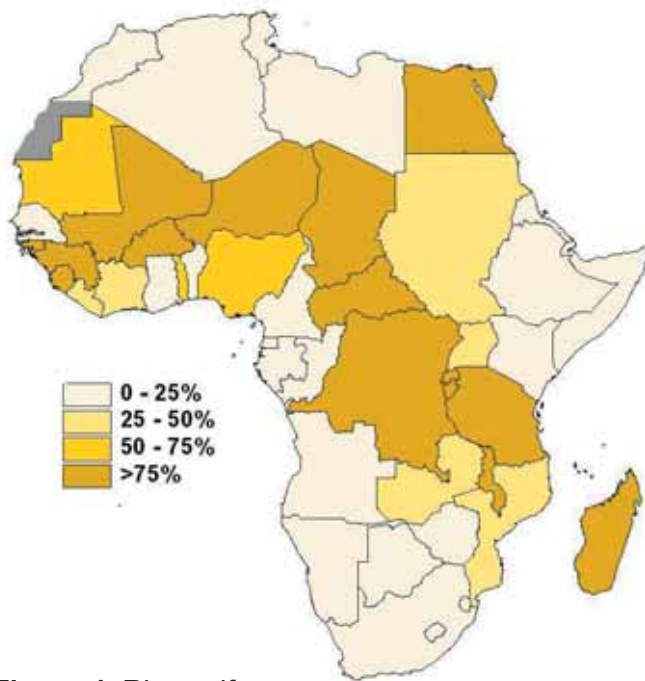


Figure 4. Rice self-sufficiency status, 2006

Data source FAO

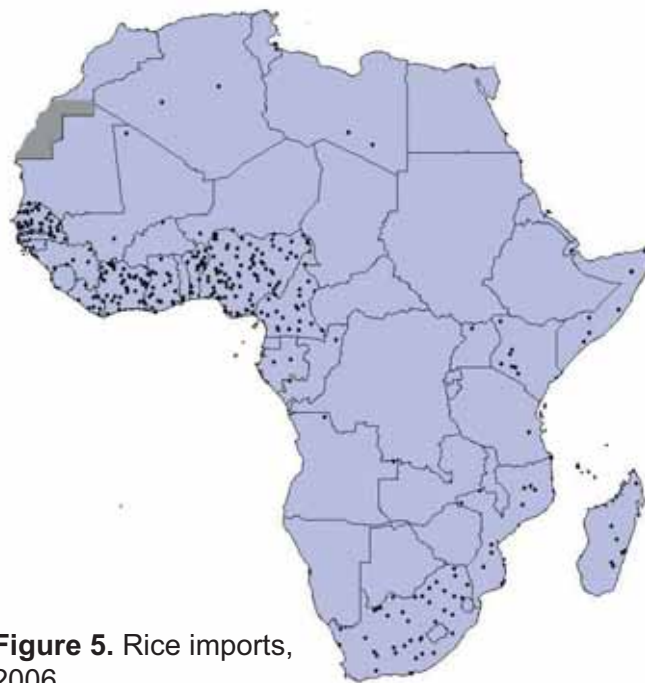


Figure 5. Rice imports, 2006

Each dot represents 20,000 tonnes

Data source FAO

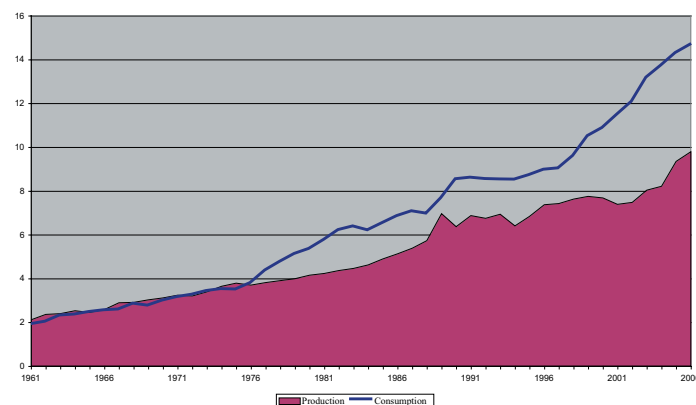


Figure 6. Rice production and consumption in SSA, 1961–2006

Table 4. Average milled rice production (thousand tonnes) for selected periods in West Africa.

| Country | 1970s | 1980s | 1990s | 2001–2005 |
|---------------|---------|---------|---------|-----------|
| Benin | 7.25 | 5.57 | 15.38 | 42.65 |
| Burkina Faso | 25.90 | 27.32 | 51.71 | 61.97 |
| Cameroon | 23.48 | 47.67 | 29.78 | 34.38 |
| Chad | 24.92 | 25.83 | 65.67 | 82.12 |
| Côte d'Ivoire | 290.58 | 355.06 | 453.54 | 444.60 |
| The Gambia | 19.10 | 17.86 | 13.87 | 16.63 |
| Ghana | 52.87 | 48.10 | 125.20 | 177.18 |
| Guinea | 266.77 | 411.24 | 633.95 | 770.41 |
| Guinea Bissau | 30.22 | 68.67 | 75.76 | 57.20 |
| Liberia | 157.38 | 186.76 | 82.62 | 75.17 |
| Mali | 122.39 | 147.15 | 377.07 | 569.13 |
| Mauritania | 2.99 | 23.16 | 44.74 | 49.95 |
| Niger | 20.47 | 38.09 | 42.35 | 49.23 |
| Nigeria | 357.24 | 1177.95 | 2086.25 | 2103.40 |
| Senegal | 62.20 | 94.56 | 116.98 | 146.33 |
| Sierra Leone | 356.73 | 329.84 | 255.06 | 336.06 |
| Togo | 10.41 | 13.29 | 39.72 | 45.07 |
| West Africa | 1830.90 | 3018.13 | 4509.65 | 5061.48 |

SSA during 2001–2005. In fact, rice production in West Africa more than doubled in 20 years, from 2.76 million tonnes in 1985 to 5.75 million tonnes in 2005 (milled-rice equivalent).

The aggregate performance of rice production in West Africa, measured by the average annual growth rate of rice production, was substantial (5.06%) during 2001–2005. Production expansion in West Africa grew faster than the overall growth rate of production on the continent. But, with annual rice consumption increasing at 6.55%—well above production growth rate over the 2001–2005 period—the shortfall in local rice production in West Africa has increased significantly. As a result, the main rice producing and consuming sub-region of the continent imports up to 42% of its consumption requirements via the international market.

The growth rate of production increased the most in Sierra Leone, followed by Senegal, Benin, Nigeria and Guinea (Table 5). Largest negative growth rates in production were recorded in Liberia, The Gambia, Niger and Burkina Faso.

Yield and harvested rice area: During 2001–2005, West Africa recorded a positive rate of harvested area expansion and a marginal rate of yield expansion. Thus, rice production increase is mainly attributable to the reclamation of new lands. Although production increases in West Africa have been driven mainly by area expansion, cultivated areas actually decreased in Benin, Burkina Faso, Ghana, Guinea Bissau, Liberia and Niger. In most countries, area expansion has happened along with a drop in yield. In Nigeria and Senegal, substantial improvement

Table 5. Growth rates (%) of yield, harvested area and production, 2001–2005.

| Country | Yield | Area | Production |
|---------------|--------|-------|------------|
| Benin | 7.24 | -0.11 | 7.13 |
| Burkina Faso | -3.38 | -1.56 | -4.89 |
| Cameroon | -14.58 | 14.72 | -2.01 |
| Chad | -1.88 | 3.68 | 1.73 |
| Côte d'Ivoire | 2.45 | 0.06 | 2.51 |
| The Gambia | -15.53 | 10.06 | -7.03 |
| Ghana | 2.23 | -2.75 | -0.58 |
| Guinea | 0.55 | 4.76 | 5.34 |
| Guinea Bissau | 4.79 | -1.61 | 3.10 |
| Liberia | -6.43 | -1.59 | -7.92 |
| Mali | 0.43 | -0.22 | 0.21 |
| Mauritania | -2.68 | 8.08 | 5.17 |
| Niger | 2.94 | -7.64 | -4.92 |
| Nigeria | 2.52 | 4.08 | 6.70 |
| Senegal | 4.68 | 3.02 | 7.84 |
| Sierra Leone | -7.96 | 28.59 | 18.35 |
| Togo | 1.99 | 0.62 | 2.62 |
| West Africa | 0.20 | 4.84 | 5.06 |

has been recorded in both the growth rate of areas harvested and yield.

Per-annum rice yield exhibited positive rates of increase in 10 West African countries; while 7 countries had negative yield progression during 2001–2005. Strong rice yield increases were recorded in Benin, Guinea Bissau, Senegal, Niger and Nigeria. Substantially negative changes of land productivity (i.e. yield) were recorded in The Gambia, Cameroon, Sierra Leone, Liberia and Burkina-Faso (Table 5). Rice yield in West Africa tends to be highly variable and generally higher in the Sahel owing to the larger share of irrigated rice areas (Table 6). From the 1980s to 2001–05, eight countries have recorded continue improvement in aggregated rice yield: Benin, Côte d'Ivoire, Ghana, Guinea, Mali, Niger, Senegal and Togo.

Table 6. Rice yield for selected periods (t/ha).

| Country | 1980s | 1990s | 2001–05 |
|---------------|-------|-------|---------|
| Benin | 1.19 | 1.71 | 2.39 |
| Burkina Faso | 1.72 | 2.10 | 1.81 |
| Cameroon | 4.23 | 3.36 | 1.57 |
| Chad | 1.17 | 1.50 | 1.25 |
| Côte d'Ivoire | 1.16 | 1.36 | 1.95 |
| The Gambia | 1.63 | 1.53 | 1.89 |
| Ghana | 1.11 | 1.87 | 2.15 |
| Guinea | 1.71 | 1.71 | 1.74 |
| Guinea Bissau | 1.53 | 1.74 | 1.32 |
| Liberia | 1.24 | 1.15 | 0.92 |
| Mali | 1.17 | 1.86 | 2.03 |
| Mauritania | 4.53 | 3.66 | 4.28 |
| Niger | 2.60 | 2.93 | 3.07 |
| Nigeria | 2.08 | 1.69 | 1.38 |
| Senegal | 1.98 | 2.35 | 2.52 |
| Sierra Leone | 1.33 | 1.26 | 2.42 |
| Togo | 0.99 | 1.69 | 2.13 |
| West Africa | 1.59 | 1.64 | 1.62 |

Consumption: In 2006, West Africa consumed 9.87 million tonnes of rice. During 2001–2005, rice consumption increased annually at 6.55%, well above production growth rate over the same period.

Using an arbitrary threshold of 45 kg per-capita rice consumption,³ West African countries can be divided into two groups: a group of countries in which annual per-capita rice consumption could be considered low (less than 45 kg; Table 7) and another group of countries in which yearly rice consumption is high (i.e. more than 45 kg per capita; Table 8). Rice consumption growth rate tended to be faster in coastal countries having low per-capita consumption levels such as Cameroon and Ghana. Data problems and the practices of unofficial re-exports from coastal to landlocked Sahelian countries might explain the high rate of consumption growth in countries such as Benin and the low rate of consumption change in Niger and Burkina Faso (Table 9).

Self-sufficiency ratio: The sub-regional self-sufficiency ratio was 58% during 2001–2005. Three countries (Chad, Guinea and Niger) appeared to be self-sufficient in rice (Table 10). During this period, the countries with the lowest self-sufficiency ratios were Senegal (18%), Cameroon (19%) and Benin (23%). Compared to the 1990s, the rice self-sufficiency ratio improved for 8 countries, but dropped for 9 countries. The best performer in terms of *improvement* in self-sufficiency was Niger, followed by Mauritania.

Table 7. Countries with low per-capita rice consumption.

| Country | Per-capita consumption (kg/year) |
|--------------|----------------------------------|
| Ghana | 33 |
| Mauritania | 32 |
| The Gambia | 25 |
| Nigeria | 25 |
| Cameroon | 15 |
| Togo | 15 |
| Burkina Faso | 11 |
| Chad | 7 |
| Niger | 2† |

† A figure of 14 kg/year is used for Niger in many documents.

Table 8. Countries with high per-capita rice consumption.

| Country | Per-capita consumption (kg/year) |
|---------------|----------------------------------|
| Sierra Leone | 83 |
| Guinea | 69 |
| Senegal | 69 |
| Côte d'Ivoire | 66 |
| Mali | 59 |
| Guinea Bissau | 56 |
| Liberia | 50 |
| Benin | 47.9 |

Table 9. Growth rate of rice consumption in West Africa, selected periods.

| Country | 1980s | 1990s | 2001–2005 |
|---------------|-------|-------|-----------|
| Benin | 9.09 | –3.06 | 46.87 |
| Burkina Faso | 10.22 | 4.68 | –5.91 |
| Cameroon | 6.24 | 3.84 | 19.93 |
| Chad | 10.26 | 1.60 | 0.78 |
| Côte d'Ivoire | 4.17 | –0.99 | 7.46 |
| The Gambia | 1.61 | –0.16 | –2.94 |
| Guinea | 0.89 | 3.23 | 1.71 |
| Guinea Bissau | 2.68 | 0.65 | 1.16 |
| Liberia | –1.00 | –2.28 | –0.16 |
| Mali | 6.37 | 8.10 | 14.03 |
| Mauritania | 8.01 | 5.40 | –2.89 |
| Niger | 4.16 | –1.12 | –14.24 |
| Nigeria | 4.22 | 3.39 | 5.08 |
| Senegal | 3.60 | 3.25 | 0.11 |
| Sierra Leone | 2.47 | –1.72 | 4.64 |
| Togo | 15.89 | –4.42 | –0.70 |
| West Africa | 4.10 | 2.25 | 6.55 |

Table 10. Self-sufficiency ratio by decade.

| Country | 1980s | 1990s | 2001–05 |
|---------------|-------|-------|---------|
| Benin | 0.13 | 0.18 | 0.23 |
| Burkina Faso | 0.33 | 0.32 | 0.36 |
| Cameroon | 0.57 | 0.29 | 0.19 |
| Chad | 0.71 | 1.04 | 1.18 |
| Côte d'Ivoire | 0.54 | 0.74 | 0.42 |
| The Gambia | 0.30 | 0.27 | 0.39 |
| Ghana | 0.47 | 0.61 | 0.33 |
| Guinea | 1.39 | 1.23 | 1.28 |
| Guinea Bissau | 0.84 | 0.90 | 0.66 |
| Liberia | 0.74 | 0.64 | 0.45 |
| Mali | 0.82 | 1.13 | 0.80 |
| Mauritania | 0.27 | 0.38 | 0.67 |
| Niger | 0.55 | 0.65 | 1.10 |
| Nigeria | 0.87 | 0.93 | 0.64 |
| Senegal | 0.22 | 0.20 | 0.18 |
| Sierra Leone | 0.96 | 0.65 | 0.79 |
| Togo | 0.37 | 0.39 | 0.48 |
| West Africa | 0.71 | 0.76 | 0.58 |

³ Source FAOSTAT, last accessed 17 September 2007.

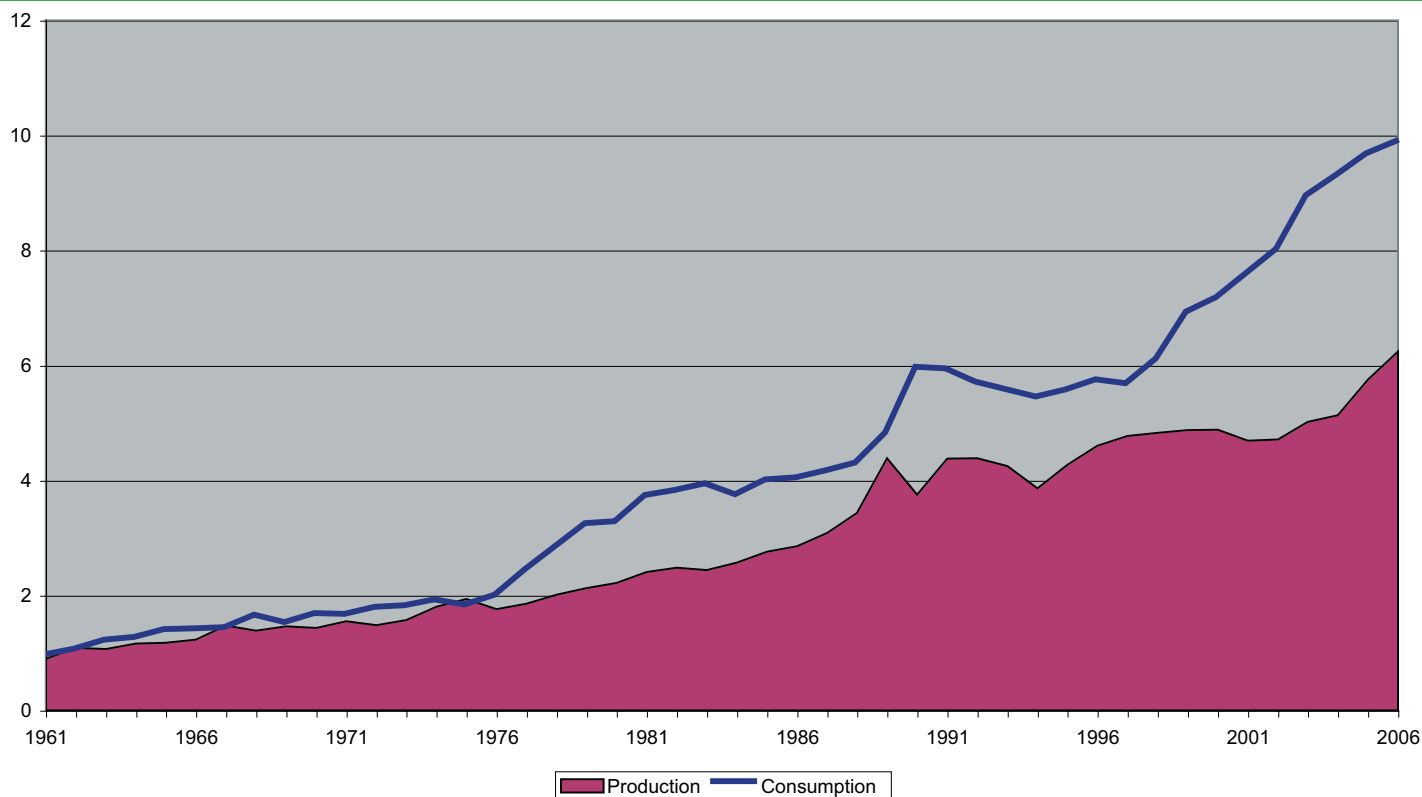


Figure 7. Rice production and consumption in West Africa, 1961–2006

Overview of rice sector developments in other African sub-regions

Central Africa

Production: In Central Africa, paddy production averaged 447,000 tonnes over the period 2001–2005 and was estimated at close to 480,000 tonnes for 2006. The countries that contributed most to the positive trend in paddy production in 2006 were Rwanda (42.68%), Central African Republic (6.19%) and Burundi (2.51%). The leading paddy rice in producer in Central Africa is the Democratic Republic Congo with slightly over 315,000 tonnes.

Yield and harvested rice area: A positive mean annual growth rate for harvested area was observed in Central Africa for the period 2001–2005 (0.16%). The average harvested area for the period was estimated at 466,000 hectares. Rwanda showed the strongest positive annual growth rate of 30.36% in rice harvested area. The sub-regional yield growth was 2.78%. Positive growth rates of yield during the period were recorded in Rwanda (9.45%) and Burundi (1.8%).

Eastern Africa

Production: Paddy production in Eastern Africa showed a continuous upward trend in the period 2001–2005, with average annual production of 3.8 million tonnes of paddy. The average growth rate of paddy was positive at 7.21% during the same period. Thus, paddy production growth rate in Eastern Africa was higher than that of Central Africa and West Africa. The performance recorded in the region is due to increases in rice production in Kenya, Tanzania, Uganda and Madagascar.

The dissemination and adoption of NERICA in Kenya and Uganda may have contributed to this performance. Strong positive production growth rates between 2001 and 2005 were recorded in Madagascar, the largest producer in the region (6.6%), Tanzania (12.24%), Uganda (6.15%) and Sudan (31%), reflecting perhaps that rice production had resumed in areas previously unsafe for agricultural activities.

Yield and harvested rice area: On average, Eastern Africa harvested more than 1.7 million hectares of paddy rice per year over the period 2001–2005, with an average yearly growth rate of 0.45%. Uganda was the most significant contributing country to the increase in cultivated land area, with an area growth rate of 7.67% per year. Eastern Africa recorded a remarkably high rate of increase in yield during 2001–2005, at 6.73% per year.

The considerable increase in Eastern African rice production was mainly driven by significant gains in productivity. Aggregate rice yield averaged 2.20 tonnes/ha during 2001–2005.

Southern Africa

Production: Southern Africa produced 176,518 tonnes of paddy rice over the period 2001–2005, with a growth rate of 16.18%. In this region, Mozambique is the leading rice producing country with an average paddy production of 152,000 tonnes over the period.

Yield and harvested rice area: Out of a total harvested rice area of 204,000 hectares in 2005, Mozambique accounted for 180,000 hectares. On average, 192,000 hectares of paddy rice were harvested during 2001–2005, with an upward growth rate of 4.49%. Angola (40.84%), Mozambique

(3.38%) and Zambia (2.26 %) showed substantial positive growth rates of harvested rice areas.

Major rice exporters to Africa in recent years

The global rice export market is thin, with only 7% of global production traded on the international market. The global rice market is also characterized by its high level of concentration with the five leading rice exporters (Thailand, Pakistan, Vietnam, India and the USA) accounting for

more than 66% of global rice exports, and the 10 leading exporters more than 90% of the total shipped rice (FAO). Since African rice imports represent a third of the total quantity traded on the global market, all the major rice exporters value the African market. However, it is Thailand which provides the lion's share of rice shipped to Africa. Apart from Thailand, the continent's main rice suppliers are China, Pakistan, the USA, India and Vietnam (Table 11). There are four African countries among the 10 largest rice importers in the world (Table 12).

Table 11. Major rice exporters to Africa.

| Exporter | No. importing African countries | 2000 | 2001 | Average 2000–2002 | Share of total exports to Africa |
|----------|---------------------------------|-----------|-----------|-------------------|----------------------------------|
| Thailand | 38 | 2,558,600 | 3,546,100 | 3,063,350 | 60% |
| China | 16 | 1,103,300 | 1,077,900 | 1,090,600 | 22% |
| Pakistan | 39 | 331,500 | 534,500 | 450,200 | 9% |
| USA | 27 | 206,100 | 203,400 | 213,600 | 4% |
| India | 10 | 91,000 | 194,900 | 145,250 | 3% |
| Vietnam | 9 | 105,100 | 28,600 | 105,250 | 2% |
| Total | – | 4,395,600 | 5,585,400 | 5,068,250 | 100% |

Source: FAOSTAT, 2005.

Table 12. Top 10 world rice importers in 2006.

| Country | Import quantity (million tonnes) |
|-----------------|----------------------------------|
| The Philippines | 1900.0 |
| Nigeria† | 1600.0 |
| Iran | 1200.0 |
| Iraq | 1200.0 |
| Saudi Arabia | 1000.0 |
| Indonesia | 900.0 |
| Côte d'Ivoire | 850.0 |
| Malaysia | 850.0 |
| South Africa | 800.0 |
| Senegal | 750.0 |

† According to the July 2007 edition of *FAO Rice Monitor*, Nigeria and The Philippines were joint largest rice importers in 2006, with 1.8 million tonnes.

About Africa Rice Center (WARDA)

Africa Rice Center (WARDA) is an autonomous intergovernmental research association of African member states. WARDA is also one of the 15 international agricultural research Centers supported by the Consultative Group on International Agricultural Research (CGIAR).

WARDA's mission is to contribute to poverty alleviation and food security in Africa through research, development and partnership activities aimed at increasing the productivity and profitability of the rice sector in ways that ensure the sustainability of the farming environment.

The modus operandi of WARDA is partnership at all levels. WARDA's research and development activities are conducted in collaboration with various stakeholders—primarily the national agricultural research systems (NARS), academic institutions, advanced research institutions, farmers' organizations, nongovernmental organizations and donors—for the benefit of African farmers, mostly small-scale producers, as well as the millions of African families for whom rice means food.

The New Rice for Africa (NERICA), which is bringing hope to millions of poor people in Africa, was developed by WARDA and its partners. The success of the NERICAs has helped shape the Center's future direction, extending its horizon beyond West Africa into Eastern, Central and Southern Africa.

WARDA hosts the African Rice Initiative (ARI), the West and Central Africa Rice Research and Development Network (ROCARIZ) and the Inland Valley Consortium (IVC). It also supports the Coordination Unit of the Eastern and Central African Rice Research Network (ECARRN) based in Tanzania.

Since January 2005, WARDA has been working out of the International Institute of Tropical Agriculture (IITA) Benin station in Cotonou, having relocated from its headquarters in Bouaké, Côte d'Ivoire, because of the Ivorian crisis. WARDA has regional research stations near St Louis, Senegal and at IITA in Ibadan, Nigeria.

For more information, please visit www.warda.org

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