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Regional Rice Annual

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Report Highlights:
Rice is grown in various ecosystems in West Africa, and most production schemes are subsistence-based with farm size below 1 ha per household. Total rough rice production across select countries in the region is estimated at 4 million tons. Consumption has increased steadily over the last decade as the result of population growth and urbanization. West Africa is a major player in the global rice market as it imports about 8 percent of the world's imports. Rice imports are subject to various duty tariffs with WAEMU countries applying relatively lower tariffs.

Includes PSD Changes: Yes
Includes Trade Matrix: Yes
Annual Report
Dakar [SG1]
[SG]

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Executive Summary

Rice is grown in various regions and ecosystems in West Africa, and most production schemes are subsistence-based. Average farm size is below 1 ha per household. Upland, hydromorphic and lowland regions represents more than 70% of area planted. Irrigated schemes are also expanding, especially in the valleys of the delta of the Niger River in Mali and along the Senegal River. The low rice production in West Africa is due to the very low yield despite the breakthroughs in rice research in the region. During the period 2003-2006, area harvested has been stagnant for most of the countries, and total acreage is about 2.2 million ha per year. In 2005 total production of paddy rice for these countries was approximately 4 million tons (Benin, Burkina Faso, Chad, Cote d'Ivoire, Gambia, Guinea, Guinea Bissau, Liberia, Mali, Niger, Senegal, and Sierra Leone). With milled rice imports of over 3.3 million tons for these countries, total milled rice consumption is estimated at nearly 5.5 million tons. (See Table I.)

In West Africa, rice consumption has been increasing steadily over the last decade as the result of changing eating patterns caused by population growth and rapid urbanization. Most consumers prefer imported rice, because of its low price and better milled quality. The rice milling industry in West Africa is hampered by inadequate and inefficient processing equipment and lack of incentive for the private sector in invest in this sector.

West Africa is among the leader in the world rice markets because this sub-region imports about 8% of the global imports. West Africa imports the most rice by value in the continent, followed by Eastern Africa. Most imported rice is broken or semi-milled or wholly milled rice. Imports of husked brown rice and paddy are limited, particularly through donations. Senegal is the leading rice importer in the region after Nigeria and followed by Cote d'Ivoire. Despite the implementation of government policies aiming at increasing domestic rice production to meet the growing demand and reducing imports, rice imports have been increasing for most countries. These imports are subject to various tariffs, with WAEMU countries applying harmonized and lower duties on rice imports, which create incentive for smuggling in neighboring non-WAEMU countries such as Nigeria.

The market of domestic rice is still less competitive than that imported rice, primarily because of lack of support for market reforms; instability of government rice policies; lack of institutional marketing support; lack of efficient market outlets and marketing infrastructure; and lack of access to credit for producers, millers and traders.

Exchange Rate: U.S. $1 = CFA Franc 502 on February 2, 2007.

Production

Rice is grown in various regions and ecosystems in West Africa. Most rice production schemes in West Africa are subsistence-based with average farm size below 1 ha per household. Upland, hydromorphic and lowland regions represents more than 70% of area planted. Irrigated schemes are also expanding, especially in the valleys of the delta of the Niger River in Mali and along the Senegal River. Rain fed upland farms account for about 40% of the total planted area. Yields in this ecosystem yields are low—about 1.5 tons/ha. Drought, weeds, low soil fertility, pests and diseases are major impediments to rice productivity in this ecosystem. In addition, farmers in this ecosystem, particularly women, have limited access to or lack inputs such as improved seeds, fertilizers and pesticides.[1]

[1] P. Kormawa ET all, Rice Research and production in Africa, WARDA, June 2004.

The rain fed lowland ecosystems accounts for about 20% of total area planted. These are hydromorphic soils, inland valley swamps, and river flood plains. The inland valley swamps offer among the best conditions for rice production. Yields are also low in these ecosystems, ranging from 1-2 tons/ha. Major biophysical constraints include iron toxicity, low soil fertility, poor water management, weeds, diseases and pests.

West Africa has also large irrigation schemes in the valleys of the Senegal River in both Mauritania and Senegal; around the Lake Chad basin in Chad; and in the valley of the Niger River in Mali. Depending on the level and efficiency of inputs used and the quality of the management of production resources, average yields could range from 4 to 6 tons/ha. Major natural constraints related to this ecosystem are nitrogen deficiency, iron toxicity, salinity, alkalinity, diseases, nematodes, weeds, and birds. Deep-water ecosystems are found in Mali along the Niger River, and in Niger and Chad. Mangrove swamps are found in Guinea-Bissau, Guinea, Sierra Leone, Gambia, and Senegal. Yields in this ecosystem are also low (1-2 t/ha) and rice production is impeded by weeds, salinity, acidity, iron, aluminum and manganese toxicity.

The low rice production in West Africa is due to the very low yield achieved by rice farmers despite steady increase in area planted. During the period, 2000/02, area planted in West Africa has increased by about 11% (against 5% for the continent) while yield has decreased by 12.6%. Consequently, production has decreased by 6% (against 4% for Africa) during this period. During the period 2003-2006, area harvested has been stagnant for most of the countries, and total acreage is about 2.1 million ha per annum[2]. Area harvested has increased slightly in major production countries such as Senegal, Guinea, and Sierra Leone. It has been fairly stable in Mali. This trend was observed for Cote d'Ivoire until the beginning of the political conflict in 2003 when 60% of the planted area was abandoned by farmers because of insecurity. 23% of the major rice producing region is reported to be held by the armed opposition New Forces. This persistent low and declining productivity confirms that increased rice production has been realized mainly through area expansion.

In 2005 total production of rice paddy for these countries was approximately 4 million tons, with Mali the leading producer (32%), followed by Guinea and Cote d'Ivoire (30% each), Senegal (9%) and Sierra Leone (8%). In Cote d'Ivoire, the armed conflict has disrupted rice production, which was below average in certain regions, especially the western and northern regions in 2003/04. However, government estimates for 2005 and 2006, respectively 958,000 tons and 1,076,480 tons indicate that rice production is being resumed in those regions. In 2006, forecasts for Mali indicate that rough production is also expected to be greater than 1 million tons. Estimates of rice production in most Sahelian and coastal countries are trending up except in Benin, Chad and Senegal.

Despite significant breakthroughs achieved by national and regional research institutions, for instance with the creation high yield varieties such as NERICA (New Rice for Africa) by WARDA (The Africa Rice Center), farmers have still limited capacity to achieve optimal yields. The planting of low yield varieties (due to unavailability of improved seeds), modest use of inorganic fertilizers (mainly due to high price and irregular supply); and limited use of irrigation because of increasing population are among the main constraints that lead to low yield. The downsizing of most government support mechanisms, including the extension services provided to rice farmers has also contributed in keeping rice yields lower. This also explains why most rice production schemes in West Africa are subsistence-based with average farm size below 1 ha per household. The small portion of production sold at low

[2] FAO statistics for Benin, Burkina Faso, Chad, Cote d'Ivoire, Gambia, Guinea, Guinea Bissau, Liberia, Mali, Niger, Senegal, and Sierra Leone.

priced does not produce enough income to meet family needs, and this limits the capacity of these farmers to invest in improved and more efficient technologies.

Summary Table I.
Production, Imports, Consumption

Countries	Area Harvested (x1000 ha)		Production, Milled (X 1000 MT)		Imports (x 1000 MT		Consumption (x 1000 MT)	
	2005	2006	2005	2006	2005	2006	2005	2006
Benin	28.9	26.9	47	52	406[3]	485[4]	184	193
Burkina	49.5	49.5	41	70	224	195	255	272
Chad	109.8	80.8	91	81	19.4	12.4	69	71
Cote d'Ivoire	500	500	527	592	850[5]	750	1320	1380
Guinea	525	525	585	585	221	200 est	592	621
Guinea-Bissau	65	65	54	58	40	40	90	92
Liberia	120.0	120.0	66	96	225	225	380	389
Mali	390	414	624	660	130	125	754	785
Niger	14.0	23.0	39	43	195.6	303.9	348	365
Senegal	95	97	165	160	1113	800	800	825
Sierra Leone	210.0	370.0	217.0	260	190	200.1	474	485
TOTAL	**2,107.2**	**2,271.2**	**2,456**	**2,657**	**3,618**	**3336.4**	**5,266**	**5,478**

Consumption

Rice has become a strategic commodity in West Africa as the result of changing eating habits in urban and rural areas caused by increasing population and rapid urbanization. Rice consumption has been steadily increasing at an annual rate of 6% for the last three decades. It accounts for 26% of total cereal consumption and provides a significant level of caloric intake in countries like Senegal, Cote d'Ivoire, Guinea Bissau, Gambia, Sierra Leone and Liberia. In 2003 Average per capita consumption was estimated at 35 kilograms in West Africa[6]. Depending on the dietary habits, it varies significantly from 119 6kg in Liberia, Guinea Bissau, 104 kg, to 8.5 in Chad. Major consumer countries such as Senegal, Sierra Leone, Cote d'Ivoire, Guinea and Mali have per capita consumption about twice the regional average.[7]

Rice quality issues have become very important among consumers in most West African countries who have shown preference for imported rice, because of both the low price and quality. Rice processing in most West African producing areas is constrained by inadequate and inefficient processing equipment, especially at the farm or village level. This has led to the production of poor quality and substandard rice that is not competitive vis-à-vis imported rice.

[3] 284,000 MT re-export, primarily to Nigeria
[4] 339.580 MT re-export, primarily to Nigeria
[5] Imports figures for RCI are Post's estimates.
[6] Source: FAOSTATS, 2004
[7] Food For Progress/Food for Peace UMR Conference FY07

Trade

West Africa is a major player in the world rice markets because its increasing share in global rice imports, which accounts for about 8%. West Africa imports the most rice by value in the continent, followed by Eastern Africa. Rice production is still far from meeting the growing demand in West African countries. Usual Market Requirement analysis conducted by U.S. NGOs, USAID and USDA involved in food aid in the region estimate total maximum food aid import programming at over 480,000 tons for fiscal year 2007 for Benin, Burkina Faso, Chad, Liberia, Mali, Niger, Senegal and Sierra Leone. In other words, despite significant commercial trade in the region, rice remains a viable commodity for food aid programs. Senegal is the leading rice importer behind Nigeria and followed by Cote d'Ivoire. Other major importers include Sierra Leone, Benin, and Guinea. Most imported rice is broken or semi-milled or wholly milled rice. Imports of husked brown rice and paddy are limited, particularly through donations.

Imports of broken rice totaled 1.1 million tons for Senegal, Benin, Burkina Faso and Cote d'Ivoire in 2005. Senegal is the largest importer of broken rice, with 889,269 tons imported, part of which was re-exported to Mali and Guinea Bissau (see GAIN report SG6002). None of the major export countries has reported direct export to landlocked Mali since 2002 (source: Global Trade Atlas). Senegal imports nearly 83% of total imports of broken rice in the C4 plus Cote d'Ivoire. Cote d'Ivoire and Burkina are other significant importers of broken rice. Thailand is the leading export country supplying 54% of the broken rice imported in 2005 in Senegal, Cote d'Ivoire, Benin and Burkina Faso. India ranks second with 20% followed by Brazil (17%), Uruguay (5%) and Argentina (3%). Brazil and Uruguay are new to the market and they have outpaced traditional Asian export countries such as Vietnam. These Latin American countries have exported regularly to Senegal since 2003. Argentina started to export to West Africa in 2005.

Imports of semi or wholly milled rice to Benin, Burkina Faso, Cote d'Ivoire, Mali and Senegal totaled 1.4 million tons in 2005. Cote d'Ivoire and Benin are the leading importers of these rice grades with respectively 646,031 tons (45%) and 593,404 tons (40%). Imports of these grades are lower in Senegal, at only about 200,000 tons. The leading export countries are India with nearly 52% of the total, followed by Thailand (42%) and China (3%). U.S. exports to these countries totaled approximately 25,000 tons in 2005 consisting mostly of food aid. Other small concessional exporters include Japan and France. Brazil has entered this market in 2005 with shipments totaling about 20,000 tons to Benin.

United States is the main exporter of brown husked and paddy rice to the sub-region, primarily to Benin, Burkina and Cote d'Ivoire. U.S. shipments to these countries were nearly 30,000 in 2004 and declined to 6,000 tons in 2005.

Trade Policy

Increasing domestic rice production to meet the growing demand for rice and reducing imports has been a priority for most West African governments. Through the creation of state-run companies, the governments have made significant investments. Unfortunately, increase in rice production has been limited in most of these countries even in those with greater potential such as Senegal and Cote d'Ivoire. With the liberalization of the global market, West African states have withdrawn gradually from the sector and adopted a free rice market policy. These policies have direct impact on rice production, consumption and trade in major rice consumer countries such as Senegal where rice is a politically sensitive staple food requiring government intervention to regulate prices and protect the consumers. These regulations measures have largely been in the form of price stabilization and border measures.

Imports of commodities in West Africa are subject to various tariffs. These tariffs differ from the member countries of the West African Economic and Monetary Union (WAEMU)[8], and non-member countries in West Africa. The WAEMU countries apply the Common External Tariff (CET) which ranges for rice from 7.7% to 45% depending on the type and grade and on the added taxes applied in each country. Rice imports in WAEMU countries attract a maximum customs duty rate of 10% plus a 1% statistics fee and solidarity tax of 0.5% for imports from outside member countries. Value-added taxes, service fee and overcharge taxes apply in some countries, but countries where rice is politically sensitive such as Senegal the government does not apply VAT on all imported rice. However, Senegal applies an ECOWAS community tax of 0.5% and an ocean freight tax of 0.2%. Cumulative taxes applied in Senegal on imported rice are the following: paddy seeds 7.7%, husked and brown rice 27.7%, semi and wholly milled rice 32.7%, and broken rice 12.7%. The lower tariff for broken rice is due the decision by the government to lift overcharge tax on imported broken as it is the main staple in urban areas. This has had a major impact on the composition of imports and prevented the development of a local milling industry.

In non-WAEMU countries, tariff rates on imported rice are set independently, and may be very high like in Nigeria where the tariff rate is estimated at 120%. In Ghana, total tariff on imported rice is about 38%. The components of the tariffs are also slightly different from those of WAEMU countries. For instance in Ghana, it includes among other charges 20% customs duties, 12.5% Value Added Tax, 2.5% National Health Insurance Levy, 0.5% ECOWAS levy, 0.5% Export and Development and Investment Fund.

The high tariffs applied in Nigeria has developed smuggling of rice from neighboring Benin where rice imports attract only 35 percent duty (about $200 per ton price advantage over imports through Nigerian ports). Nigerian importers unload their imports in Benin and then smuggle them into the country. Some importers ship to Benin and declare their produce as transit goods destined to the landlocked countries of Niger and Chad. Parts of these shipments, which attract only five percent duty, are then smuggled into Nigeria. Trade sources estimate that approximately 300,000 tons of rice is smuggled into Nigeria annually. Nigeria is the only market for parboiled rice in the West African sub-region; neighboring countries are markets for regular milled white rice (See GAIN Report NI6007).

Stocks

The Sahel and West Africa Club (SWAC/OECD), on its Information Note 5 – November 2006, based on forecasts made by forecasts by CILSS, FEWSNET, FAO and WFP, reports that cereal production in the Sahel is increasing. Average production per capita in 2006 is up by 9% in Mali, by 7% in Niger, 17% in the Gambia, 10% in Burkina Faso, 29% in Guinea Bissau, 10% in Mauritania, 1% in Cape Verde and 24% in Chad. It is only in Senegal where production per capita declines by 9%. Cereal supply including imports is in excess in most CILSS countries except Senegal and countries where there is a structural deficit, namely Cape Verde and Mauritania. The situation in West Africa's coastal countries is also satisfactory. This should result in increased availability of cereals throughout the region if markets function correctly. This should also reduce imports staple grains such as rice in countries with surplus. In Senegal, the shortfall in the production of other coarse grains (corn, sorghum, millet) will likely induce an increase in rice imports.

Marketing

8 The WAEMU treaty includes Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Togo and Senegal.

A survey conducted by WARDA in 2004 amongst rice farmers, millers and traders in Burkina Faso, Mali, Niger and Nigeria revealed that "market failure" is the major reason for both the low productivity and uncompetitive market for domestic rice. This finding applies also for the other major rice producer countries such as Mali, Guinea and Senegal. Because of the weakness of the market of local rice, smallholder farmers' capacity to use high yield and efficient milling technologies is undermined. The lack of competitiveness of the market of domestic rice derive from lack of support for market reforms; instability of government rice policies; lack of institutional marketing support for farmers to have access to market information and reduce their marketing costs; lack of efficient market outlets and marketing infrastructure (roads, transport logistics, storage facilities, electricity, communication tools, etc..); and lack of access to credit for producers and traders. All these factors create uncertainties for farmers and traders and therefore limit investment in the sector.

Through a long history of food aid donations through Food for Peace, Food for Progress, Title I and Food for Education, U.S. rice has a good reputation in West Africa. However, the current price and tariff structure will continue to favor broken rice imports.

Burkina Rice, Milled										
	2004	Revised		2005	Estimate		2006	Forecast		UOM
	USDA Official	Post Estimate	Post Estimate New	USDA Official	Post Estimate	Post Estimate New	USDA Official	Post Estimate	Post Estimate New	
Market Year Begin		01/2004	01/2004		01/2005	01/2005		01/2006	01/2006	MM/YYYY
Area Harvested	50	0	50	45	0	50	45	0	50	(1000 HA)
Beginning Stocks	0	0	0	0	0	0	0	0	0	(1000 MT)
Milled Production	49	0	52	70	0	41	59	0	70	(1000 MT)
Rough Production	75	0	80	108	0	63	91	0	108	(1000 MT)
Milling Rate (.9999)	6500	0	6500	6500	0	6500	6500	0	6500	(1000 MT)
MY Imports	100	0	197	100	0	224	100	0	195	(1000 MT)
TY Imports	100	0	197	100	0	224	100	0	195	(1000 MT)
TY Imp. from U.S.	11	0	3	0	0	12	0	0	5	(1000 MT)
Total Supply	149	0	249	170	0	265	159	0	265	(1000 MT)
MY Exports	0	0	0	0	0	0	0	0	0	(1000 MT)
TY Exports	0	0	0	0	0	0	0	0	0	(1000 MT)
Total Consumption	149	0	249	170	0	265	159	0	265	(1000 MT)
Ending Stocks	0	0	0	0	0	0	0	0	0	(1000 MT)
Total Distribution	149	0	249	170	0	265	159	0	265	(1000 MT)
Yield (Rough)	1.5	0	1.6	2.4	0	1.26	2.02	0	2.16	(MT/HA)

Cote d'Ivoire Rice, Milled										
	2004	Revised		2005	Estimate		2006	Forecast		UOM
	USDA Official	Post Estimate	Post Estimate New	USDA Official	Post Estimate	Post Estimate New	USDA Official	Post Estimate	Post Estimate New	
Market Year Begin		08/2004	08/2004		08/2005	08/2005		08/2006	08/2006	MM/YYYY
Area Harvested	500	0	500	500	0	500	500	0	500	(1000 HA)
Beginning Stocks	186	0	186	163	0	190	150	0	196	(1000 MT)
Milled Production	495	0	522	468	0	527	468	0	592	(1000 MT)
Rough Production	900	0	949	851	0	958	851	0	1076	(1000 MT)
Milling Rate (.9999)	5500	0	5500	5500	0	5500	5500	0	5500	(1000 MT)
MY Imports	743	0	743	800	0	800	800	0	750	(1000 MT)
TY Imports	867	0	867	850	0	850	800	0	750	(1000 MT)
TY Imp. from U.S.	10	0	52	0	0	0	0	0	0	(1000 MT)
Total Supply	1424	0	1451	1431	0	1517	1418	0	1538	(1000 MT)
MY Exports	1	0	1	1	0	1	0	0	0	(1000 MT)
TY Exports	1	0	1	1	0	1	0	0	0	(1000 MT)
Total Consumption	1260	0	1260	1280	0	1320	1285	0	1380	(1000 MT)
Ending Stocks	163	0	190	150	0	196	133	0	158	(1000 MT)
Total Distribution	1424	0	1451	1431	0	1517	1418	0	1538	(1000 MT)
Yield (Rough)	1.8	0	1.898	1.702	0	1.916	1.702	0	2.152	(MT/HA)

Mali Rice, Milled										
	2004	Revised		2005	Estimate		2006	Forecast		UOM
	USDA Official	Post Estimate	Post Estimate New	USDA Official	Post Estimate	Post Estimate New	USDA Official	Post Estimate	Post Estimate New	
Market Year Begin		01/2005	01/2005		01/2006	01/2006		01/2007	01/2007	MM/YYYY
Area Harvested	370	0	390	403	0	414	370	0	425	(1000 HA)
Beginning Stocks	0	0	0	0	0	0	0	0	0	(1000 MT)
Milled Production	475	0	474	597	0	624	594	0	660	(1000 MT)
Rough Production	720	0	718	905	0	945	900	0	1000	(1000 MT)
Milling Rate (.9999)	6600	0	6600	6600	0	6600	6600	0	6600	(1000 MT)
MY Imports	150	0	156	125	0	130	125	0	125	(1000 MT)
TY Imports	150	0	156	125	0	130	125	0	125	(1000 MT)
TY Imp. from U.S.	0	0	0	0	0	0	0	0	0	(1000 MT)
Total Supply	625	0	630	722	0	754	719	0	785	(1000 MT)
MY Exports	0	0	0	0	0	0	0	0	0	(1000 MT)
TY Exports	0	0	0	0	0	0	0	0	0	(1000 MT)
Total Consumption	625	0	630	722	0	754	719	0	785	(1000 MT)
Ending Stocks	0	0	0	0	0	0	0	0	0	(1000 MT)
Total Distribution	625	0	630	722	0	754	719	0	785	(1000 MT)
Yield (Rough)	1.9	0	1.8	2.3	0	2.3	2.4	0	2.4	(MT/HA)

Senegal Rice, Milled										
	2004	Revised		2005	Estimate		2006	Forecast		UOM
	USDA Official	Post Estimate	Post Estimate New	USDA Official	Post Estimate	Post Estimate New	USDA Official	Post Estimate	Post Estimate New	
Market Year Begin		08/2004	08/2004		08/2005	08/2005		08/2006	08/2006	MM/YYYY
Area Harvested	83	83	83	95	95	95	97	97	97	(1000 HA)
Beginning Stocks	476	235	476	802	320	395	617	178	160	(1000 MT)
Milled Production	151	151	151	165	165	165	173	173	160	(1000 MT)
Rough Production	232	232	232	254	254	254	266	266	246	(1000 MT)
Milling Rate (.9999)	6500	6500	6500	6500	6500	6500	6500	6500	6500	(1000 MT)
MY Imports	1225	735	735	750	900	900	850	750	800	(1000 MT)
TY Imports	1200	518	518	750	1113	1113	850	750	800	(1000 MT)
TY Imp. from U.S.	3	10	3	0	5	5	0	0	6	(1000 MT)
Total Supply	1852	1121	1362	1717	1385	1460	1640	1101	1120	(1000 MT)
MY Exports	0	217	217	0	507	500	0	187	200	(1000 MT)
TY Exports	0	0	0	0	0	0	0	0	0	(1000 MT)
Total Consumption	1050	584	750	1100	700	800	1125	700	825	(1000 MT)
Ending Stocks	802	320	395	617	178	160	515	214	95	(1000 MT)
Total Distribution	1852	1121	1362	1717	1385	1460	1640	1101	1120	(1000 MT)
Yield (Rough)	2.8	2.8	2.8	2.7	2.7	2.7	2.77	2.7	2.5	(MT/HA)