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Grain and Feed

GHANA GRAIN AND FEED

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Report Highlights:

In an effort to increase rice production in Ghana, the Ghanaian Ministry of Food and Agriculture (MOFA), in the early 1990s, introduced appropriate technologies in rice production among Ghanaian rice farmers, who are mainly small holder operators, whose farming activities are at the mercy of the weather.

Includes PSD changes: Yes
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Annual Report
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RICE

In an effort to increase rice production in Ghana, the Ghanaian Ministry of Food and Agriculture (MOFA), in the early 1990s, introduced appropriate technologies in rice production among Ghanaian rice farmers, who are mainly small holder operators, whose farming activities are at the mercy of the weather. These new technologies seek to conserve land, and at the same time, make water (which is crucial for rice production) available during the vegetative growth of the rice plants.

The technologies introduced were: the 'Low Risk Rice' and the 'Valley Bottom Rice' production technologies. Under the 'Low Risk Rice Production' technology, rice fields were bounded with soil to form 'ponds' to retain water for the vegetative growth of the rice plants. In the 'Valley Bottom Rice Production' technology rice farmers are advised to cultivate rice in the valley bottoms where the water table was high enough to provide adequate water for the vegetative growth of the rice plants. These technologies seemed to have worked, and led to an increase in rice production from 1993 through 1995.

OUTPUT OF FOUR MAJOR CEREALS IN GHANA (METRIC TONS)

CROP\YR	**1993**	**1994**	**1995**	**1996**	**1997**	**1998***
MAIZE	961	940	1,034	1,008	1,021	850
SORGHUM	328	324	361	353	320	300
MILLET	198	168	209	193	139	125
RICE (PADDY)	157	162	221	216	197	180

SOURCE: MOFA
NOTE : * - POST ESTIMATES

However, rice production started to decline in 1996. The rainfall pattern in the grain producing belt of Ghana (the transitional and savannah zones) has been erratic for the past three seasons; this has affected farming and other agricultural activities in these two zones. Even though acreage under rice cultivation increased, yields decreased due to lack of adequate moisture.

AREA CULTIVATED FOR MAJOR CEREALS IN GHANA ('000 HECTARES, HA)

CROP\YR	1993	1994	1995	1996	1997	1998*
MAIZE	637	629	669	665	663	630
SORGHUM	310	299	335	314	317	280
MILLET	204	191	193	190	187	170
RICE	77	81	100	105	109	100

SOURCE: MOFA
NOTE : * - POST ESTIMATES

Due to continuous cropping on the same parcels of land over the years, soils fertility has declined, requiring increased use of fertilizer. With the removal of the subsidies on agricultural inputs, the price of fertilizers increased. Many farmers were not able to afford to buy the fertilizers. Reduced fertilizer usage is a probable contributing factor in the decline of rice production.

FERTILIZER PRICES IN ACCRA, 1990 - 1997 (CEDI/KG)

YEAR/ FERT.	NPK	UREA	AS	MOP	KNO	SSP
1990	84.00	84.00	62.00	76.00	146.00	60.00
1991	84.00	84.00	62.00	76.00	146.00	60.00
1992	140.00	84.00	128.00	200.00	146.00	60.00
1993	170.00	84.00	156.00	240.00	146.00	60.00
1994	347.40	321.80	262.00	300.00	480.00	120.00
1995	450.00	700.00	320.00	500.00	920.00	518.00
1996	620.00	700.00	500.00	700.00	1000.00	660.00
1997	680.00	840.00	480.00	760.00	1440.00	790.00

SOURCE: MOFA

As a result of the decrease in production, the price of rice and other cereals increased considerably.

NATIONAL AVERAGE WHOLESALE PRICE (CEDI/KG)FOR SOME CEREALS

YEAR/CROP	MAIZE	LOCAL RICE	MILLET	SORGHUM
1991	94.34	192.77	154.43	122.97
1992	100.62	211.79	157.33	133.43
1993	110.72	273.30	185.22	167.62
1994	138.63	351.63	197.39	164.39
1995	245.34	552.72	328.25	273.00
1996	328.14	802.70	427.54	437.10
1997	667.36	989.83	731.22	573.60

SOURCE: MOFA

The decline in the production of rice and other food crops is largely due to the fact that weather is the main determinant of rice (food/agricultural) production in Ghana. With no major structural changes expected in the dominance of rain fed agriculture in the country, the performance of the agricultural sector, especially rice production, will continue to depend largely on the type of weather which prevails. It is unlikely that Ghanaian rice production will reach anywhere near local consumption. Ghana can be expected to import rice to for the foreseeable future.

RICE TRADE

Ghana's agricultural sector growth continued to slow down, reaching 3.3% in 1997; it has been projected by an independent think-tank in Ghana, CENTER FOR POLICY ANALYSIS (CEPA), that agricultural growth for 1998 would decline further than in 1997, and that it would be between 2.5 and 2.8% of GDP following the poor (both major and minor season) rains in 1998.

AGRICULTURAL AND OTHER SECTORAL GROWTH RATES (1991-1998)

YEAR	AGRICULTURE	SERVICES	INDUSTRY	GHANA
1991	4.7	6.3	3.7	5.3
1992	-0.6	7.7	5.8	3.9
1993	2.5	7.2	4.3	5.0
1994	1.0	5.0	1.3	3.8
1995	4.2	4.9	3.3	4.5
1996	4.0	6.3	4.2	5.2
1997	3.3	6.2	5.7	5.1

SOURCE: MINISTRY OF FINANCE

INDICES FOR AGRICULTURAL AND FOOD PRODUCTION (1991 - 1997)

YEAR	TOTAL AGRIC PRODN	PER CAPITA AGRIC PRODN	TOTAL FOOD PRODN	PER CAPITA FOOD PRODN
1991	105.9	102.8	105.7	102.5
1992	110.9	104.5	110.3	104.0
1993	117.8	107.9	116.7	106.9
1994	132.1	117.6	131.2	116.8
1995	150.5	129.9	147.2	127.5
1996	151.5	127.6	148.8	125.3
1997	149.5	122.4	146.9	120.3

SOURCE: FAO (1997) QUARTERLY BULLETIN OF STATISTICS

The indices for both agricultural and food production in 1997 also declined as compared with that of 1996. The indices of total and per capita agricultural output declined by 2.0 and 5.2 points, while the indices of total and per capita food output declined by 1.9 and 5.0 points.

With population growth (3.2%) outstripping agricultural and food production over the past five years, the food security situation in Ghana is precarious. It is estimated that about 400,000 metric tons of grains (rice, corn, wheat) will be imported into Ghana in 1998/1999 to augment local production for local consumption.

Ghana imports rice mainly from the East Asian countries of Thailand, India, Pakistan, Japan and Taiwan, and from the U.S. Trade statistics are not very reliable in Ghana. However, discussions with Ministry of Trade and Customs officials, and rice importers, indicate rice imports to be about 150,000 metric tons for both 1996 and 1997, and 200,000 for 1998. The U.S. share of the rice market in Ghana has risen from about 30% in 1994 to between 40 and 45% in 1998.

Even though rice from the U.S. is more expensive than rice from other rice producing countries, the average Ghanaian rice consumer prefers rice from the U.S. to rice from other parts of the world. This is due to the fact that U.S. rice is viewed as tastier and of a higher quality than rice from other regions. U.S. rice does not easily get infested with weevils; US rice can be stored for longer periods. Presently, the TORM LINES and MAERSK LINES operate direct sea routes every fortnight from the U.S. to West Africa. Ghanaian rice importers have taken advantage of these direct routes to cut down on their freight charges, reducing the price of US rice on the Ghanaian market: ¢85,000.00 per 50 kg bag of US #5, 20%, rice, as against between ¢55,000.00 to ¢65,000.00 per 50 kg bag of East Asian rice.

Ghanaian rice importers usually source credit for their import operations from both local and off shore financial markets. Most of the indigenous Ghanaian operators source credit from the local financial market where interest rates are about 48%, while the expatriate operators source credit from off shore financial institutions where interest rates range between 8% and 15%. Presently, US$ 1.00 is equivalent to ¢ 2,350 (¢, Cedi, Ghanaian currency). With the depreciation of the Cedi and higher interest rates, credit is expensive in Ghana. As a result, presently there are only three main rice importers operating in Ghana, all of them being expatriates.

The foregoing reason accounts for the inability of Ghanaian importers using the GSM-102 PROGRAM to import rice from the USA. A 12,500 metric ton rice sale, at US$ 420 per metric ton, FOB, would be US$ 5.25 million. This would be about ¢12.34 billion. One would find it difficult to raise and profitably operate locally such credit levels in Ghana. Even raising half of this credit level in Ghana is a problem for potential importers. This has led to the near elimination of the indigenous Ghanaian operators from the rice import business, leaving expatriate operators who source their credit off shore as the principal rice importers.

Indigenous Ghanaian rice importers who are still in the rice imports' business, are importing rice mostly from East Asian countries; they usually import about two-forty-foot containers every month. They work out some form of supplier credit facility with their east Asian principals, whereby payments are made in three installments of 30%, 30% and finally 40%, in thirty day intervals, after the receipt of the consignment, with an interest rate of 1.5% on the outstanding balance. This accounts for the higher market share of rice from the East Asian countries in Ghana, even though their quality can not match that of the U.S. rice.

A USA-owned company, undertaking mechanized rice cultivation in the Volta Region in Ghana. They will start harvesting rice by the end of October 1998. The company has put 130 hectares, out of the 900 hectares cleared, under "Basmati" rice cultivation; the company has acquired 3,200 hectares of land for the project. The total cost of the project is estimated at US$ 27 million.

An Israeli company, has also activated an old rice mill, EDENIC MILLS, which is capable of milling 1,000 metric tons of rice per hour, at Avalavi, near Afife in the Volta region of Ghana. The mill is attached to the 2,000 hectare AFIFE RICE Project.

Production from these two rice projects will increase local rice production in Ghana but would not bring it near self-sufficiency. However, quality is expected to be a major determinant factor.

CORN

Corn continues to be the most important cereal grown in Ghana. It is used for both human consumption and as feed for livestock and poultry. Corn is grown in all the ecological zones of Ghana, but mainly in the transitional zones of the Ashanti and Brong Ahafo regions, the coastal savannah plains and parts of the interior savannah of northern Ghana.

The Ghanaian Ministry of Food and Agriculture has for the past two years indicated that corn production in Ghana has been about one million metric tons annually. However, according to the CENTER FOR POLICY ANALYSIS, CEPA, an independent Ghanaian think-tank, as a result of poor rains, agricultural activities for the past few years have not performed as expected (post observations agree with this assertion). This is clearly reflected in the decline in agricultural and food production indices over the past two years.

The decline in production is also corroborated by the decline in area cultivated in the face of the erratic rainfall pattern observed in the country over the past two years. The rainfall pattern was so erratic in the three northern regions of Ghana that the northern sector of the country was reported to be experiencing famine. So severe was the famine that the Government of Ghana (GOG) airlifted food from the southern sector of the country to the famine-affected areas.

Food production, particularly corn production, in Ghana for 1998 is so precarious that one weekly newspaper had for its lead news in the September 24-28, 1998, edition “GHANA FACES FAMINE -CEPA.” MOFA estimates corn production for 1998 to be about one million metric tons. However, due to poor rains (both major and minor season rains), which led to farmers reducing acreage cultivated by about 25%, the high cost of farm inputs, particularly fertilizers as a result of the removal of agricultural subsidy by GOG, corn production in Ghana is forecast to decline for a third consecutive year. Post estimates the 1998 corn production to be about 650,000 metric tons.

With a population of about 19 million, and a per capita corn consumption of about 35 kilograms (FAO estimates) for white corn, post estimates Ghana’s demand for white corn to be about 700,000 metric tons. With likely demand higher than what can be supplied from local production, it is likely that some corn will be imported to augment local production in the coming year. Considering that agricultural activities have declined as a result of the poor rains, Ghana’s overall food production for 1998 can be expected decline. Ghana’s food (corn, rice, wheat) imports for 1998/1999 will therefore have to increase to maintain stable prices for corn and other grains.

Only one corn producing company (the EJURA FARMS COMPANY LIMITED) cultivates both yellow and white corn on a commercial basis in Ghana. For the 1998 season, the company did not cultivate even one hectare of yellow corn. Livestock and poultry farmers in Ghana is forecast to import some yellow corn to

enable them feed their stock at current prices. Most Ghanaian maize imports are done from Argentina, due to lower prices.

WHEAT

Ghana's wheat requirements are met with imports since there is no local cultivation of wheat in Ghana. Ghana imports about 90% of her wheat requirement (HARD RED WINTER TYPE) from the U.S., with the remaining 10% being imported from Argentina, Canada and the EU. The wheat imported from the EU is usually the soft wheat type used in baking cake and other pastries.

The total installed capacity for flour milling still remains at 1,600 metric tons per day. Fiscal problems faced by millers and consumers alike in Ghana have forced flour millers to operate below their installed milling capacities. Presently, power outages have compounded the problems flour millers are facing, and has further lowered capacity utilization of flour mills. Flour millers are operating at the 1996 levels of between 30% and 35% installed capacity, having moved from these levels to about 65% in the latter parts of 1996, 1997 and early 1998.

As a result of the power outages, resulting from the low reservoir levels for hydro-electric generating plants, many industries are operating below capacity; some have even closed down. Ghanaian flour millers are not expected to move to increase their installed capacity in this environment. Imports of wheat have subsequently dropped from about 250,000 metric tons to about 120,000 metric tons on an annual basis.

SORGHUM AND MILLET

Available figures from MOFA indicate that sorghum and millet production in Ghana declined in 1997 by 9.3% and 27.5% respectively, as a result of poor rains which affected yields per hectare and also brought about a reduction in area cultivated. These two crops are grown and consumed mainly in the interior savannah zone in Ghana comprising the three northern regions (Northern, Upper East and Upper West Regions).

With the cessation of hostilities arising from the ethnic conflicts in these regions, most of the inhabitants from these regions who fled the conflict zones and took refuge in safer regions southwards are returning to their former homes. The population in the affected areas has thus increased, via migration, over the past two or three years. The decline in the production of sorghum and millet, the two main staple foods for the inhabitants of these regions, has led to an acute food shortage in these areas. The respective local, district and regional authorities and governments have requested food aid from the central government and from and non-governmental organizations (NGOs), notably the CATHOLIC RELIEF SERVICES (CRS) and ADVENTIST RELIEF AGENCY (ADRA).

With the current poor rains, post forecasts a further decline in sorghum and millet production (about 40%) in Ghana, as a result of both a reduction in acreage cultivated and decline in yields. These production shortfalls will likely increase Ghanaian demand for food imports (both rice and corn).

ON-GOING RESEARCH ACTIVITIES ON CEREALS IN GHANA

Research activities on cereals in Ghana center mainly on plant breeding, husbandry practices and economic viability. The various research activities are carried on under the direction and supervision of the COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH (CSIR). These collaborative research activities are conducted by the appropriate Research Institute under the CSIR (CROPS RESEARCH INSTITUTE, FOOD RESEARCH INSTITUTE, ANIMAL RESEARCH INSTITUTE, SOIL RESEARCH INSTITUTE) in conjunction with the Universities, and the CROPS SERVICES, and AGRICULTURAL ENGINEERING SERVICES DEPARTMENTS of MOFA. Most of the research activities are centered around the development of high yielding, early maturing, pests and disease resistant, and highly nutritious varieties of these four main cereals consumed in Ghana.

PSD - Rice, Milled
Ghana

	1/96		1/97		1/98	
	Revised 1996		Prelim 1997		Forecast 1998	
	Old	**New**	**Old**	**New**	**Old**	**New**
Area Harvested	100	100	105	105	0	100
Beginning Stocks	65	65	75	75	0	75
Milled Production	110	110	120	130	0	118
Rough Production	183	183	200	217	0	197
MILLING RATE (.9999)	6000	6000	6000	6000	0	6000
TOTAL Imports	160	160	180	170	0	200
Jan-Dec. Imports	160	160	180	170	0	200
Jan-Dec Import U.S.	45	45	80	80	0	80
TOTAL SUPPLY	335	335	375	375	0	393
TOTAL Exports	0	0	0	0	0	0
Jan-Dec Exports	0	0	0	0	0	0
TOTAL Dom.Consumption	260	260	300	300	0	303
Ending Stocks	75	75	75	75	0	90
TOTAL DISTRIBUTION	335	335	375	375	0	393

	Old	New	Old	New	Old	New