

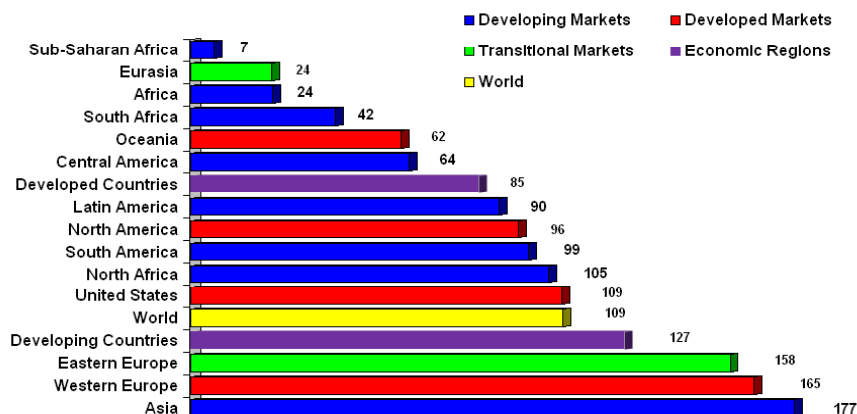
Overview of Fertilizer Production and Consumption in Southern Africa (excluding RSA)

Meeting of the IFA Africa Forum
June 11, 2009
Durban, South Africa
L. L. Hammond, IFDC

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Challenges in African Agriculture: Fertilizer Use (kg nutrients/ha)



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Fertilizer production

Southern Africa (excluding RSA)

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Fertilizer Capacities in SADC Region

January 2008 (product tons)

	NPKs	Blends	Super Phosphate	AN CAN	AS	Total
Zimbabwe	300,000	300,000	205,000	250,000		1,055,000
Zambia	142,320	147,650		140,000	50,000	479,970
Malawi	80,000	100,000				180,000
Tanzania			150,000			150,000
Mauritius		100,000				100,000
Mozambique		50,000				50,000
	522,320	697,650	355,000	390,000	50,000	2,014,970

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Fertilizer Production in SADC Region

Estimated 2008 (product tons)

	NPKs	Blends	Super Phosphate	AN CAN	AS	Total
Zimbabwe	60,000	30,000	100,000	50,000		240,000
Zambia	0	20,000		0	0	20,000
Malawi	23,000	60,000				83,000
Tanzania			30,000			30,000
Mauritius		61,000				61,000
Mozambique		3,000				3,000
	83,000	174,000	130,000	50,000	0	437,000

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Fertilizer Capacity Utilization in SADC

Estimated 2008 (%)

	NPKs	Blends	Super Phosphate	AN CAN	AS	Total
Zimbabwe	20	10	49	20		23
Zambia	0	14		0	0	4
Malawi	29	60				46
Tanzania			20			20
Mauritius		61				61
Mozambique		6				6
	16	25	37	13	0	22

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Summary of Causes for Low Fertilizer Production Capacity Utilization

- Reduced market demand in major markets
- Lack of working capital to purchase raw materials and spares
- High cost and limited access to finance
- Lack of access to foreign exchange in countries where FX is allocated
- Low levels of profitability due to past price controls that subsequently reduced essential maintenance and re-investment for improved efficiencies

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Summary of Causes for Low Fertilizer Production Capacity Utilization

- Competition from imports for production companies without access to domestic energy and/or feedstock resources
- Lack of reliability of essential water and electricity supplies to fertilizer production plants
- Inefficient and deteriorating transport infrastructure that increases production costs and reliability of production and delivery schedules

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Summary of Causes for Low Fertilizer Production Capacity Utilization

- The losses of skilled industry manpower as production and profitability have fallen
- Barriers to regional trade that do not allow individual companies to market across borders and increase total sales and capacity utilization
- Recently imposed export bans to safeguard leakage of subsidized fertilizers

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New fertilizer projects

Southern Africa (excluding RSA)

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IFDC Pre-Feasibility Study of Regional Fertilizer Warehouse in Beira

- In 2007, IFDC conducted study of building a warehouse near Beira to consolidate and stock fertilizers in bulk, then forward them to markets in the four countries. The economies of scale would lower procurement costs, speed delivery for dealers, and thus make fertilizer cheaper for farmers.
- The study showed that a Beira fertilizer warehouse seems economically feasible. Its success will depend on:
 - Constant dredging of the port's channel to ensure draft of 14–15 meters so large vessels can enter.
 - More shore equipment such as mobile cranes and machines that can bag 50-kg as well as 1- and 2-mt bags.
 - Removal of the 2.5% customs duty on imports to facilitate fertilizer movement• Permission to freely import and re-export fertilizers into and from the holding warehouse.
 - Restoration of rail links from Beira to Malawi and from Michinji, Malawi, to Chipata, Zambia, to shorten the rail connection from Beira to Zambia.
 - Freer currency exchange.
- Findings of the feasibility study were presented to both the public and private sectors in a February 2008 workshop in Maputo.

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Yara International to build fertilizer terminals

- Will develop the port facilities in Beira, Mozambique and Dar es Salaam, Tanzania into regional distribution hubs for agricultural inputs.
- The current ports system in these countries is highly ineffective, with fertilizer shipments taking three to four times longer to clear customs and be delivered to the farmers than at other ports.
- The port projects aim to speed up this process and make fertilizer available all-year-round by establishing a holding warehouse that can streamline effective distribution.

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Fertilizer Imports through the Port of Beira

<u>Destination</u>	<u>2,005</u>	<u>2,006</u>	<u>2,007</u>	<u>2,008</u>
Malawi	104,252	52,977	113,390	118,930
Zimbabwe	62,430	41,696	103,477	31,532
Mozambique	19,647	23,646	72,959	14,885
Zambia	6,800	29,525	27,678	25,963
Total/Year	193,129	147,844	317,504	191,310

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New Production Projects

- Mozambique
 - Mozambique Fertilizer Company initiated operation in October 2007
 - Currently the only fertilizer blending plant in Mozambique
 - Imports 70% of raw materials (both bulk & bagged) through the Port of Beira
 - CAN, urea, MOP, SOP, DAP, MAP and filler
 - Uses rail and truck for the transport from Beira to Gondola
 - Can produce 150 MT/8 hour shift (35,000 MT/year with one shift)
 - Expects 50 – 60,000 MT/year

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New Production Projects

- Tanzania
 - Tanzania definitely plans to build a plant - of what size we do not know (1000 tons/day to 3500 tons/day)
 - Location could be near Matwara or Dar.
 - There is no progress so far as the gas supplier (Artumas), the govt and the investors are unable to come with a right pricing for the gas
- Angola
 - Nothing definite

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Fertilizer consumption

Southern Africa (excluding RSA)

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FERTILIZER CONSUMPTION IN SOUTHERN AFRICA (Derived from FAO Data)

Country	2000				2006			
	N	P ₂ O ₅	K ₂ O	Total	N	P ₂ O ₅	K ₂ O	Total
	(mt)				(mt)			
Angola	1,400	-	-	1,400	6,641	1,378	4,059	12,078
Botswana	4,100	300	200	4,600	-	-	-	-
Lesotho	3,420	2,426	2,148	7,994	-	-	-	-
Madagascar	3,796	2,961	2,354	9,111	3,784	2,037	1,703	7,524
Malawi	34,588	11,416	3,787	49,791	33,595	10,580	10,682	54,857
Mauritius	13,300	6,100	18,100	37,500	12,192	4,007	7,548	23,747
Mozambique	9,700	3,400	1,200	14,300	17,168	2,835	2,748	22,751
Namibia	100	200	-	300	1,897	217	222	2,336
Swaziland	2,000	1,900	1,900	5,800	-	-	-	-
Zambia	8,000	13,391	10,000	31,391	44,909	8,534	19,629	73,072
Zimbabwe	87,400	43,400	34,500	165,300	60,543	45,301	26,817	132,661
Total Southern Africa	167,804	85,494	74,189	327,487	180,729	74,889	73,408	329,026
South Africa	415,900	187,000	137,400	740,300	374,299	177,609	137,716	689,624
Total	583,704	272,494	211,589	1,067,787	555,028	252,498	211,124	1,347,676

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Comparison of Malawi & Mozambique

■ Fertilizer Production

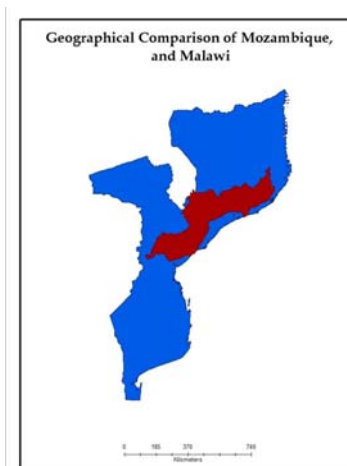
(Product tons, 2008)

- Malawi - 83,000
- Mozambique - 3,000

■ Fertilizer Consumption

(Total N-P2O5-K2O, 2006)

- Malawi - 54,857
- Mozambique - 22,751



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Comparison of Malawi & Zambia

■ Fertilizer Production

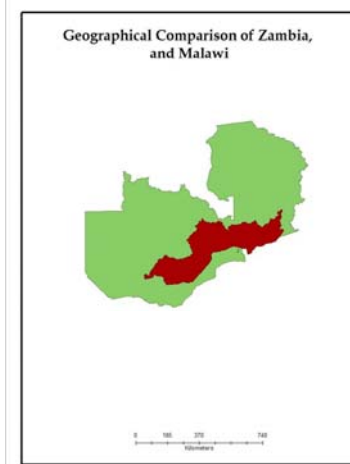
(Product tons, 2008)

- Malawi - 83,000
- Zambia - 20,000

■ Fertilizer Consumption

(Total N-P2O5-K2O, 2006)

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- Zambia -- 73,072



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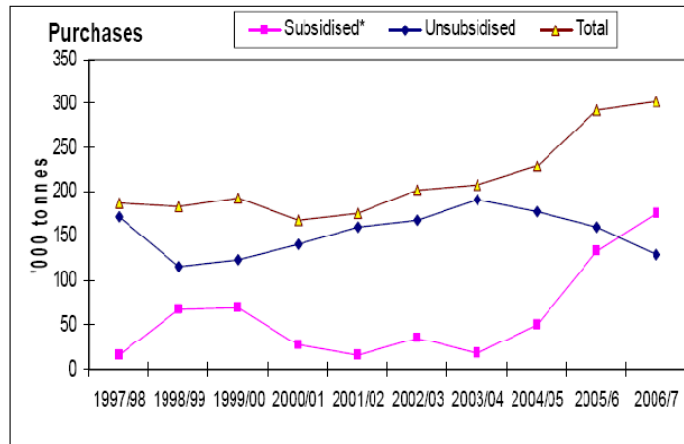
Fertilizer Subsidy Programs

- In the 2008/2009 agricultural season, Malawi is spending \$186 million to subsidize fertilizer and seeds for poor farmers, tripling the previous year's figure of \$62 million. AfricaFocus Bulletin, Jan 22, 2009

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Farmer fertilizer purchases, Malawi



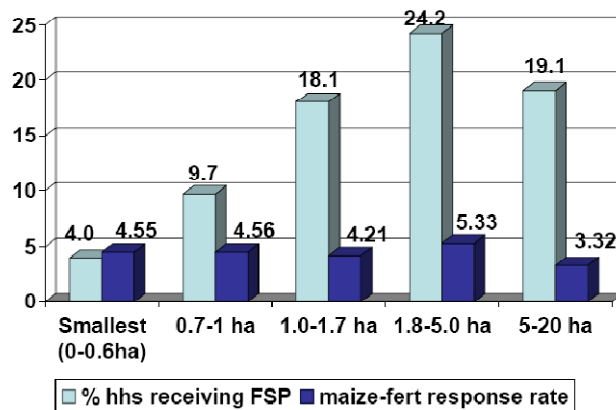
Isaac Minde, T.S. Jayne, Joshua Ariga, Jones Govereh, and Eric Crawford

IFDC workshop on "strengthening Trade in Agricultural Inputs in Africa: Issues and Options" Taj Pamodzi Hotel, Lusaka, 1-4 July, 2008

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Zambia: % of farms receiving FSP and maize-fertilizer response rates, CFS, 2007/08



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Estimated Market in Mozambique

2006 (Total = 28,800 MT)

Fertilizer Type	Private Companies	Sugar Producers	Tobacco Producers
NPK (12:24:12)	400		7,000*
Urea (46%)	700	7,000	5,000
CAN	100		7,000
Superphosphate	50	1,000	
MAP		500	
KCI	50		
Total	1,300	8,500	19,000

Source: Agrifocus & MLT

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Projected EU/FAO Subsidy Program in Mozambique (2009/10)

- Pilot Program targeting 25,000 farmers
 - 70% maize growers in Sofala, Manica and Tete
 - 30% rice growers in Zambezia
- Total Fertilizer to be Subsidized
 - Urea – 1,250 MT
 - N-P-K – 1,250 MT
- Voucher Distribution
 - 50-kg bag of Urea; 50-kg bag of N-P-K; Maize or Rice Seed
 - Voucher Value 50-70% of retail cost

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Thank you !

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