significant negative impact in terms of destroying the rural economy in the maize growing areas of Kenya.

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Appendix I
Case Study of the Githunguri Farmers Dairy Cooperative Society

Githunguri DFCS is an example of the many DFCSs country-wide that could be affected by the collapse of the dairy industry in Kenya if the influx of cheap dairy products into Kenya was not controlled. It is located in the Githunguri Division of Kiambu District in the Central Province of Kenya and is just over 40 km away from Nairobi, the capital city of Kenya. The Githunguri DFCS used to deliver its milk to the KCC when the latter was still performing well and paying the farmers promptly for the milk deliveries. However, after the collapse of the KCC in the late 1990s, the dairy farmers started to experience extremely difficult conditions in selling their milk, and the DFCS had to look for alternative outlets, including selling its milk to those who came to buy milk at factory gate and any others who could process it, including deliveries to the new or upcoming processors, such as Brookside and Spin Knit dairies. The farmers get premium prices because their milk is centrally collected and is of good quality.

The DFCS inaugurated its own dairy processing plant in 2004, and is now producing pasteurized milk (fresh milk), butter, cheese, and yoghurt. According to Mr. Mutisya, the DFCS's Sales and Marketing Manager, the DFCS targets the low-income market segment, by delivering its products in cheap packages. For example, whereas the major and established dairy processors package their pasteurized (fresh liquid) milk in tetra-pak containers that retail at KShs 25 per half-litre, the DFCS packages its pasteurized milk in polythene satchets that retail at KShs 20 per half-litre. Bulk deliveries of pasteurized milk are also organized for mass retail outlets, especially within the low-income areas of the City of Nairobi and the neighbouring Athi River Township.

According to Mr. Baiya, the Chairman of the DFCS's management committee, the society has a membership of 6 000 dairy farmers, whose average monthly income in 2004 was estimated at KShs 6 600/= (equivalent to about just under US$100 per month). The DFCS's daily milk intake is 75 000 litres and employs a labour force of 130 people. The milk received at the society's processing plant is processed into fresh liquid milk (pasteurized), butter, cheese and yoghurt. Hence the DFCS has an annual turnover of about 27 million liters worth over KShs 540 million. According to the sales and marketing manager of the DFCS, Mr. Mutisya, the milk market over the last three years has been relatively stable, even though it is vulnerable to increased competition from the importation of dry milk powders. Hence there is fear that the DFCS could collapse as a result of competition from cheap imports of dairy products.

Appendix II
A Note on the Effects of Government Influence on the Pricing and Marketing of Maize in Kenya

1. A major area of concern about maize marketing policy in Kenya after marketing liberalization has been the market distortion caused by the NCPB when the government directs the NCPB to buy maize from the farmers soon after harvesting at producer prices way above the dictates of the market. At the abnormally high prices offered, the NCPB is only able to buy a fraction of the maize from the farmers, due to its cash flow limitations. This distortion discourages investments in the maize marketing.

2. Another key area of concern about maize marketing policy in Kenya after marketing liberalization has been the application of suspended duty to regulate maize imports during the seasons when maize surpluses arising from bumper harvests are projected. For instance, the government introduced a suspended duty in 1994 following substantial maize imports by the private sector that were being blamed for the decline in maize prices. However, the application of the suspended duty has been limited for most of the subsequent years. In fact, over the 1998 – 2000 period, suspended duty was enforced only once in 1998, and it has now been phased out. According to the Ministry of Finance and that of Agriculture, no other charges other than import tariff will be applied as a tool for regulating maize imports.

3. Presently (November 2005), there are serious problems related to maize marketing in the country after a government directive to the NCPB to buy maize from the producers at prices way above what the major players in the industry (i.e. millers) consider to be the competitive market price. However, the NCPB is not in a position to carry out that directive immediately because its depots/warehouses are still stockpiled with maize purchases from the previous year. The NCPB thus has to configure how to purchase the current crop while experiencing huge stockpiles of maize from previous purchases.

4. The government directive to the NCPB is that it should purchase maize from the farmers at KShs 1 300 per 90-kg bag, plus another KShs 100 per bag to cover transportation charges (local daily newspapers: "Saturday Nation", 26 November 2005, p.18 and "Daily Nation", 28 November 2005, p.20). Yet the four leading maize millers in Kenya are offering to buy maize at KShs 970 per 90-kg bag (as at 25 November 2005), while the marketing middlemen in the region are taking advantage of the situation and are offering to buy maize from the farmers at prices ranging from KShs 700 to KShs 800 per 90-kg bag ("Saturday Nation", 26 November 2005, p.18). This state of affairs is creating serious concerns to the farmers, and they are appealing to the government to direct the NCPB to start buying the farmers' crop immediately, with a threat that they (farmers) would hold street demonstrations if the government does not act quickly ("Daily Nation", 28 November 2005, p.20).

5. The above story gives a picture of the politics of maize marketing in Kenya. One may expect that the NCPB will have to buy maize at prices slightly higher than what the millers are offering, but somewhat lower than what the government has directed, given the desperate situation that the farmers are finding themselves in—our opinion is that an NCPB producer price of about KShs 1 200 per 90-kg bag would be acceptable to the farmers. The above story certainly shows why the regional exporters of maize to Kenya, such as the Ugandan suppliers, often complain that the government involvement in maize marketing through the NCPB is a deliberate move to frustrate trade in the usually less costly maize imports from the neighbouring countries.

Appendix III
A Note on the Evaluation of the Profitability of Importing and Reconstituting Dry Milk Powder into Liquid Milk for Sale in Kenya

1. The profitability of importing and reconstituting dry milk powder into liquid milk for sale in a given country will primarily depends primarily on the landed (c.i.f.) price for the dry milk powder and the internal processing and transportation costs. In the case of Kenya, Mombasa is the main port of entry for imported products for Kenya. The c.i.f. Mombasa price for imported dry milk powder thus determines the profitability of importing and reconstituting the dry milk powder into liquid milk for sale in Kenya. The c.i.f. Mombasa price of dry milk powder usually fluctuates from a low of USD 2 000 to a high of USD 2 500 per mt in most cases.

2. If we took the c.i.f. Mombasa price for whole dry milk powder imported from New Zealand in October 2005 as USD 2 400 per mt, the domestic price for reconstituted "powder liquid milk" from that powder could conservatively be estimated as follows:

   (a) the c.i.f. Mombasa price of whole dry milk powder at USD 2 400 per mt is equivalent to USD 2.4 per kg, or KShs 180 per kg (at an exchange rate of KShs 75 per USD 1);

   (b) by adding 2.75 percent import declaration fee (IDF), the c.i.f. Mombasa price for a kg of imported dry whole milk powder becomes KShs 184.95, to which must be added the 60 percent custom duty to get the domestically competitive price for dry whole milk powder at Mombasa, which amounts to KShs 295.92;

   (c) the next step involves the movement of the dry whole milk powder from Mombasa to Nairobi (the capital city of Kenya) for processing into liquid milk by the main local dairy processing plants that are all located there since Nairobi is the main consumer centre for dairy products: conservatively, we estimate transportation cost at 1 percent and processing at 9 percent of the cif price adjusted for the 2.75 percent IDF and 60 percent duty charges, and this results into an adjusted cost of KShs 325.51 per kg of dry whole milk powder that has duly been transported from Mombasa to Nairobi and consequently reconstituted into "powder liquid milk" within Nairobi;

   (d) dry milk powder processing that involves the reconstitution with water results into a standardized "liquid milk product" (call it "powder liquid milk") whereby a kg of dry milk powder gives 8 litres of "powder liquid milk": this implies that the equivalent price for a litre of reconstituted "powder liquid milk" based on the KShs 180 cif Mombasa price for a kg of dry whole milk powder would be approximately KShs 325.51 divided by 8, which works out at KShs 40.69 per litre.

3. In the above analysis, a 10 percent mark-up on the landed Nairobi cost of a kg of dry whole milk powder is incorporated to take care of transportation and processing costs, and this mark-up is considered to be on the higher side. The c.i.f. Mombasa price of dry milk powder is taken at a relatively high level of USD 2 400 per mt, even though the said price usually fluctuates from a low of USD 2 000 to a high of USD 2 500 per mt in most cases. Therefore, the final domestic price for reconstituted "powder liquid milk" is not expected to exceed KShs 40 per litre, as compared to the current price of Kshs 50 per litre

for the locally produced and pasteurized "fresh liquid milk". This evaluation shows that importing and reconstituting dry milk powder into liquid milk for sale in Kenya can be a very attractive enterprise. This factor would encourage the local dairy processors who import dry milk powders not to offer better prices for locally produced raw milk if the imports of dry milk powders were not regulated at all.

4. Milk consumers in Kenya have some significant preference of "fresh liquid milk" over the reconstituted "powder liquid milk". If we defined "premium price" for the domestically produced pasteurized "fresh liquid milk" to be the maximum price that the consumers would still be willing to pay for the domestically produced pasteurized "fresh liquid milk" rather than go for the cheaper reconstituted "powder liquid milk", and if we assumed that a 10 percent premium over the price of the reconstituted "powder liquid milk" defines that "premium price" for the domestically pasteurized "fresh liquid milk", then we could argue that KShs 45 per litre of the domestically pasteurized "fresh liquid milk" would define that "premium price". Current market price for the domestically produced pasteurized "fresh liquid milk" is KShs 50 per litre, which is higher than the calculated "premium price". Therefore, we expect that if the the reconstituted "powder liquid milk" were to sell at about KShs 41 per litre, this product would be significantly attractive to the domestic consumers of liquid milk.

5. The above evaluations show that it would be highly profitable for the local dairy processors to import dry milk powders, reconstitute them and sell the reconstituted "powder liquid milk" at prices that would even be lower than the domestic prices for pasteurized liquid milk. Such prices would thus not reflect the true local production situation in relation to local demand, and there would be no incentive to increase prices of locally produced raw milk, even when its supply falls due to poor weather conditions. For this reason one could argue that the increased imports of dairy products in Kenya are likely to cause some injury to the domestic economy.

Appendix IV Summary of the Group Discussions on Commodity Specific Issues at the FAO Workshop on the Status of Country-specific Food Import Surges Case Studies, held 13th -15th December 2005, Rome, Italy

- **Dairy group:**

1. Noted that difficulties in Price Analysis arise because complete data sets for different markets are difficult to get.
2. One also deals with a multiplicity of products of varying quality (differences create problems in analyses).
3. Trans-shipments complicate information of sources of origin, and complicate the analysis.
4. Raw/fresh or unprocessed milk is a non-tradable commodity. So how do we explain the price formation process?
5. Surges are <u>not</u> an issue, unless there is evidence of an injury! Otherwise, they may be good if looked at from the consumer perspective as they contribute to the maintenance of relatively stable consumer prices.
6. Injury should be in terms of disruptions in local production

- **Maize group**

1. The notion of surges in maize in the three countries may not be appropriate:

(a) There are many non-attribution factors.
(b) The share of imports has remained consistent.
(c) Spikes in imports are a reaction to severe shortfalls.
(d) Even in those years of spikes, the imports did not fill consumption requirements.
(e) The analysis should look at the supply overhang, timing of food aid and their relation to prices.

2. Government policies sometimes encourage importation or impose bans on exports.
3. Other factors which could contribute to an import surge (in the case of Malawi).

- annual adjustments in maize prices, introduction of a maize price band and its eventual abolishment
- deregulation of maize marketing
- lessening restrictions on maize imports and maintenance of export licenses for maize
- removal of fertilizer subsidies

4. Domestic policies make it difficult to attribute price movements to a surge

- **Sugar group**

1. Discussion revolved on the situation in Kenya, Malawi, and Cote d'Ivoire. The discussion noted major differences.
2. Noted the complexity of the sugar sector in different countries. For, example, the Cote d'Ivoire has a reference price which determines the imposition of a tariff on sugar imports; Kenya and Malawi do not.
3. Trade policy intervention: In Cote d'Ivoire, processors used to be allowed to import sugar, but imports have been banned since 2004.
4. Noted differences in domestic market management problems, particularly because there are tendencies to take measure intended to maintain stability in consumer prices, e.g. in Cote d'Ivoire.
5. Noted difference in production and market structure. For example, the processors in Malawi and Cote d'Ivoire control production (over 90 percent); in Kenya they do not.

Appendix V
Text Appendix Tables and Figures

APPENDIX V - Table M1
National maize production and NCPB nominal maize prices and trading volumes (imports and exports), 1988-2004

Crop season year	Maize production in Kenya in 000 mt	NCPB nominal maize buying prices in KShs per 90-kg bag	NCPB nominal maize selling prices in KShs per 90-kg bag	Quantities of maize bought in 000 of 90-kg bags	Quantities of maize sold in thousands of 90-kg bags	Recorded maize imports in 000 mt	Recorded maize exports in 000 mt
1988/89	2761	201	326	-	-	0	167
1989/90	2631	221	337	-	-	0	110
1990/91	2290	250	337	2588	7365	0	160
1991/92	2340	300	358	3508	8087	0	19
1992/93	2430	420	646	5427	2832	415	0.42
1993/94	2089	950	1280	5143	5641	13	0.11
1994/95	3060	920	1280	5940	745	650	1.7
1995/96	2699	600	887	1109	1224	12	154
1996/97	2160	1127	1100	691	597	15	221
1997/98	2214	1162	1318	1666	161	1104	9
1998/99	2400	1009	1209	384	1356	371	13
1999/00	2322	1200	1436	1949	1596	75	37
2000/01	2160	1250	1300	3426	815	417	7
2001/02	2776	1000	1250	2835	261	324	6
2002/03	2340	1022	1265	980	2160	0	0
2003/04	2300	1100	1325	1782	1504	0	0

Source: NCPB and Central Bureau of Statistics (CBS)Records and Publications (e.g. Economic Survey).

APPENDIX V - Table M2
Cost implications of imported yellow maize to Kenya (ex-US gulf) as of 3 April 2000

Scenario With Duty (25 percent)			
Importation process	USD/tonne	KSHS./tonne	KSHS./90 kg bag
			(Exchange rate=KShs 74.90/USD1)
F.O.B. (US GULF): Date: 03/04/2000	131.90	9 879.31	889.14
Freight	28.00	2 097.20	188.75
C&F Mombasa	159.90	11 976.51	1 077.89
Insurance (1 percent of C&F)	1.60	108.22	9.74
Maize Import Duty (25 percent)	39.98	2 994.13	269.47
IDF Fees (2.75 percent of C&F)	4.40	329.35	29.64
Insurance (1 percent of C&F)	1.60	119.77	10.78
Stevedoring	8.50	636.65	57.30
KPA Shore Handling	5.00	374.50	33.71
KARI (1 percent of C&F)	1.60	119.77	10.78
KBS Analysis (0.2 percent of C&F)	0.32	23.95	2.16
Min. of Health (0.2 percent of C&F)	0.32	23.95	2.16
Bagging Charges	6.50	486.85	43.82
New P.P Bag	4.00	299.60	26.96
Transport To Warehouse	3.00	224.70	20.22
Storage(1 Month) and Handling Charges	1.20	89.88	8.09
Fumigation Charges	1.50	112.35	10.11
Agency Fees	1.00	74.90	6.74
Incidental Charges	1.00	74.90	6.74
Landed-into-store cost at Mombasa	241.41	18 069.98	1 626.30
Road Haulage to Nairobi	32.50	2 434.25	219.08
LANDED-COST AT NAIROBI	273.91	20 504.23	1 845.38

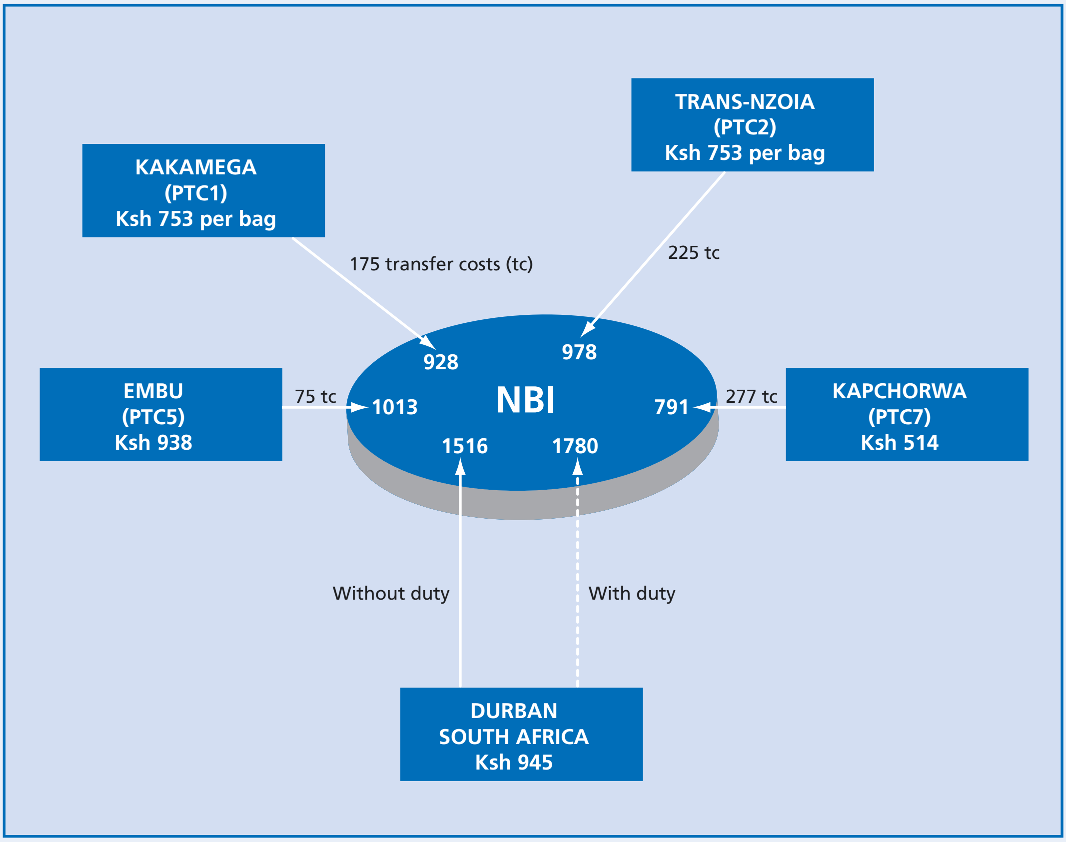
Source: National Cereals and Produce Board (NCPB), Nairobi, Kenya.

Appendix V - Table M3
Cost of exporting maize from Kenya f.o.b. Mombasa, June 2005

Activity	Scenario Source 1	Scenario Source 2	Scenario Source 3	Scenario Source 4
	(Eldoret)	(Naivasha)	(Nairobi)	(Konza)
Procurement	850.00	850.00	850.00	850.00
Loading into store	3.00	3.00	3.00	3.00
Maintenance	3.50	3.50	3.50	3.50
SUB-TOTAL	856.50	856.50	856.50	856.50
Loading out of store	3.00	3.00	3.00	3.00
Transport to Mombasa	359.10	257.85	219.15	184.05
Loading into store Mombasa	3.00	3.00	3.00	3.00
Maintenance (quarantine)	4.35	4.35	4.35	4.35
Certification (KEPHIS)	0.20	0.20	0.20	0.20
Loading out of store	3.00	3.00	3.00	3.00
Inspection	1.35	1.35	1.35	1.35
Transport to Port	0.80	0.80	0.80	0.80
Handling at Quayside	3.00	3.00	3.00	3.00
SUB-TOTAL	377.80	276.55	237.85	202.75
TOTAL COST	1 234.30	1 133.05	1 094.35	1 059.25
Convert to f.o.b. Mombasa price: assume an Exchange Rate of KShs 78.3 per USD 1	175.15	160.78	155.29	150.31

Source: National Cereals and Produce Board (NCPB), Nairobi, Kenya.

APPENDIX V - Figure M1
Import parity price for ex-Durban (South Africa) maize landed in Nairobi, Kenya, in 2003



Source: Tegemeo Institute, Nairobi, Kenya, 2003 Situation.