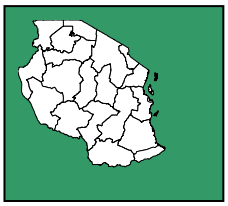
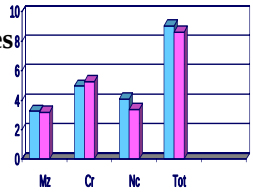


United Republic of Tanzania
Ministry of Agriculture Food Security and Cooperatives

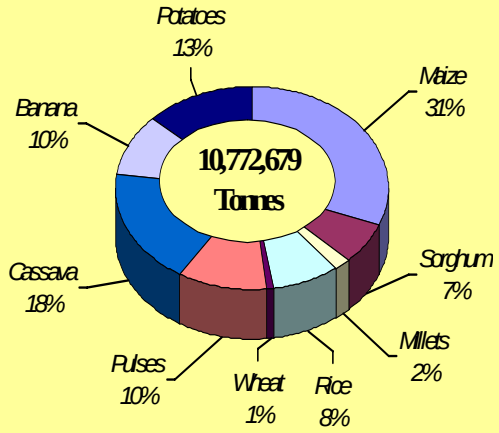


AGSTATS FOR FOOD SECURITY

VOLUME 1: The 2008/09
Final Food Crop Production Forecast for 2009/10 Food Security

EXECUTIVE SUMMARY

Tanzania Final Food Crop Production Forecast for 2008/09
(With Cropwise Proportional Contribution)



Crop Monitoring and Early Warning
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Dar es Salaam, Tanzania

Dar es Salaam **January, 2010**

Main Highlights

- ***The 2008/09 Final Food Crop Production Forecast amounts 10,772,679 tonnes grain equivalent and requirement for 2009/10 amounts 10,569,845 tonnes. These are just below the previous figures released in June as Preliminary forecasts viz. 10,921,536 tonnes and 10,578,196 tonnes respectively.***

- ***In terms of cereals and non-cereals, a deficit status of 79 (just below 80% previously predicted) implying a shortage amounting 1,348,445 (just above the previous forecast of 1,313,199 tonnes) and a surplus status of 139 ((just below the previous forecast of 141%) implying a surplus amounting 1,551,278 (just below the previous forecast of 1,656,539 tonnes) are expected respectively.***

- ***In effect a net food situation involving the 2008/09 production is such that a self sufficiency ratio of 102% or a little surplus of 202,833 tonnes (just below the 103% or a little surplus of 343,340 tonnes previously indicated) is attainable.***

- ***An analysis of carry-over stocks (COS) shows that on the wake of 2009/10[1] about 462,870 tonnes was available from three different sources viz. Private stocks (121,560 tonnes), Public stocks/SGR (109,876 tonnes) and Farm retention (231,435 tonnes). Adding the COS to the 202,833 tonnes production surplus mentioned above the total food available, over and above national requirement for 2009/10 is 665,703 tonnes, which is 17% draw down from the preliminary estimate of 806,210 tonnes mainly attributed to 'masika' failure in bimodal areas.***

- ***As cautioned earlier vide preliminary forecast report, the forecast is sensitive to vuli performance. Based on this Final forecast, the 2009 Vuli season contributed 15% only of total production (vs. normal 18% national perspective) or 26% only (vs. 32% bimodal area perspective), a draw-down impact of 379,717 tonnes (contrary to initial worries of a possible draw-down impact of about 518,359 tonnes) has been witnessed.***

- ***At sub-national level SSR analysis warns of 11 deficit regions vs. 10 regions initially determined as definitely food deficit. Furthermore, though self sufficient or surplus, further warnings are focused to 4 additional regions bearing pockets of food shortage. Down the ladder, a total of 57 districts are locally identified as threatened with vulnerability cf. 61 initially noted.***

[1] ***i.***e. 00.00 hours, 1/6/2009.

- ☑ ***The identified vulnerable areas will need to be subjected to an in-depth vulnerability assessment FSIT[2] to establish through wealth ranking methods, vulnerable population, extent of vulnerability, food and non-food need, necessity of intervention, time and type of intervention.***

- ☑ ***One of the desirable areas worth looking into is to examine vulnerability recurrence overtime in an attempt to forge ahead towards the national mission to eliminate hunger and famine in Tanzania through short term, medium term and long term initiatives.***

- ☑ ***Food without borders is increasingly becoming an issue of interest among nations sharing food flows in response to market forces amidst border restrictions among and between them. It is imperative that regional integration is not taken for granted. It is an area that may be adversely or favorably exploited by member states in different blocks and this should be explored for the interest of Tanzania. There is need to carry out this study now whilst food security profile is up in the agenda of regional integration initiatives.***

- ☑ ***Blanket policy statements of non-exportation protectionism have not always shown a positive impact. A serious study should be carried out in this area to find out what is taking place on the ground regarding food without borders as without market knowledge in both demand and supply sides a syndicate of food exporters will continue to either deny the country of Government revenue or cause depletion of national food basket through exit points that arise through ever increasing border porosity and operate off the record.***

[2] FSIT is the Food Security Information Team which is comprised of Government Institutions, NGOs and International Organizations who make vulnerability assessment on food security anomalies.

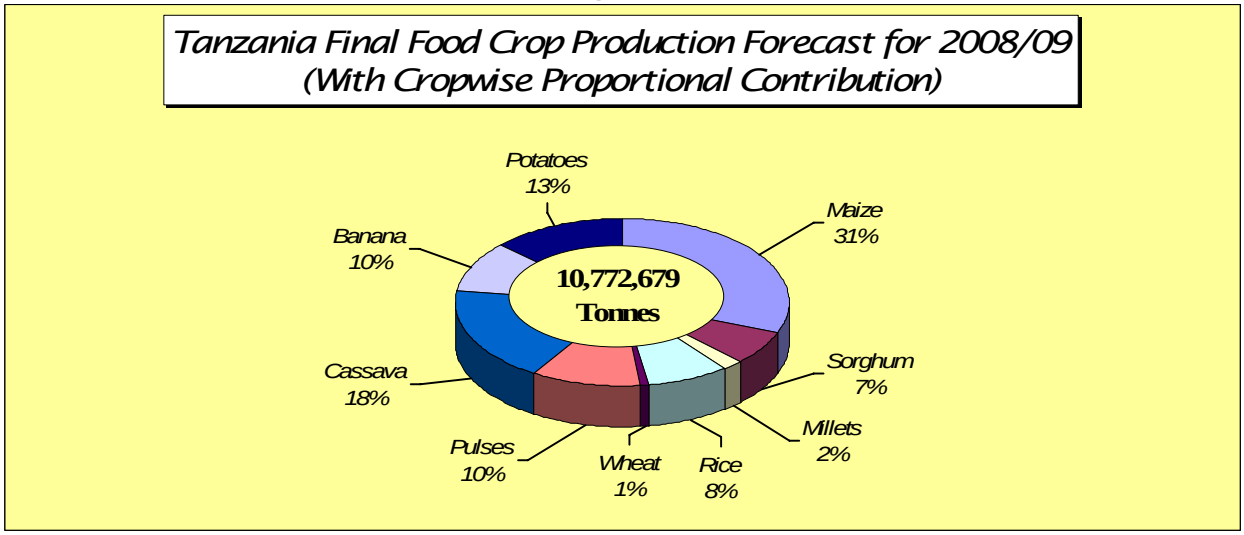
The Forecast

During the months of December 2009-January, 2010 the National Food Security Division (Crop Monitoring and Early Warning) carried out a regular final food crop production forecast survey to ascertain food crop harvest status for 2008/09 and the corresponding availability for 2009/10. Interest was to determine the final stable status concluded through capturing the effect of influential crop production factors that ruled over the growth stages towards maturity (normally in bimodal areas) and thus overwrite the preliminary forecast released earlier in June, 2009.

The exercise involved finalizing the 2008/09 retrieval of data and information from the Regional Agricultural Advisors (RAAs) and the District Agricultural and Livestock Development Officers (DALDOs) partly through routine crop monitoring and early warning tools and partly through actual fielding of MAFC teams of experts to eye-witness crop performance in bimodal areas in respect of *masika* crop for 2008/09 as well as *vuli* crop for 2009/10. While the former was to establish crop production forecast for 2008/09 crop, the latter intended to rule out or in the *vuli* contribution to 2009/10 food availability. Comprehensive analyses covering different retrievals were undertaken and results are presented in this report. The results concentrate on national and regional level food status with brief district level highlights of vulnerable areas.

From the analysis, it has been found that 10,772,679 tonnes of food crops will be available from farm production comprised of 5,218,626 tonnes of cereals[3] and 5,554,053 tonnes of non-cereals[4] (Table 1, Figure 1, Appendix 1 and Appendix 2) and will meet national food requirement amounting 10,569,845 tonnes of food by 102 percent implying a 202,833 tonnes food surplus (Table 1, Appendix 2).

Figure 1



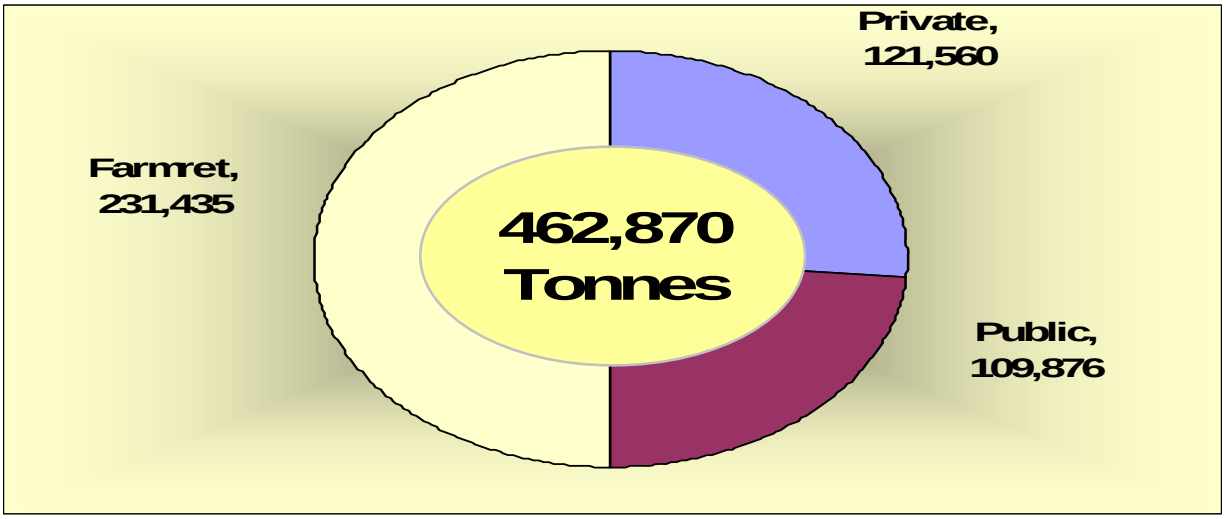
3 The cereal crops covered under CMEWS include maize, sorghum, millets, rice and wheat.
4 The non-cereals include pulses, cassava, banana and potatoes

Table 1: The 2009/10 National Food gap/surplus Analysis based on the 2008/09 Final Food Crop Production Forecast (Tonnes) - Grain Equivalent

Cereals	**Maize**	**Sorghum & millets**	**Rice**	**Wheat**	**Cereals**
Production	3,326,200	929,683	867,619	95,124	5,218,626
Requirement	4,115,581	1,535,082	712,390	204,018	6,567,071
Gap(-)/Surplus(+)	-789,381	-605,399	155,229	-108,894	-1,348,445
Non-cereals	**Pulses**	**Bananas**	**Cassava**	**Potatoes**	**Non-cereals**
Production	1,116,312	1,073,149	1,972,148	1,392,443	5,554,053
Requirement	657,926	733,176	1,830,567	781,106	4,002,774
Gap(-)/Surplus(+)	458,386	339,973	141,582	611,337	1,551,278
TOTAL	**Cereals**	**Non-cereals**			**TOTAL**
Production	5,218,626	5,554,053			10,772,679
Requirement	6,567,071	4,002,774			10,569,845
Gap(-)/Surplus(+)	**-1,348,445**	**1,551,278**			**202,833**

An analysis of Carryover stocks (COS) shows that, on the eve of new marketing year a total of 462,870 tonnes food stock was carried over into 2009/10 marketing year of which 109,876 tonnes was held in NFRA premises while 121,560 tonnes was held by private stockists and 231,435 tonnes was estimated as farm retention (Figure 2). Added to the 202,833 tonnes food surplus arrived at as above, the total food available, over and above national requirement is 665,703 tonnes, which is 17% draw down from the preliminary estimate of 806,210 tonnes mainly attributed to *masika* failure in bimodal areas.

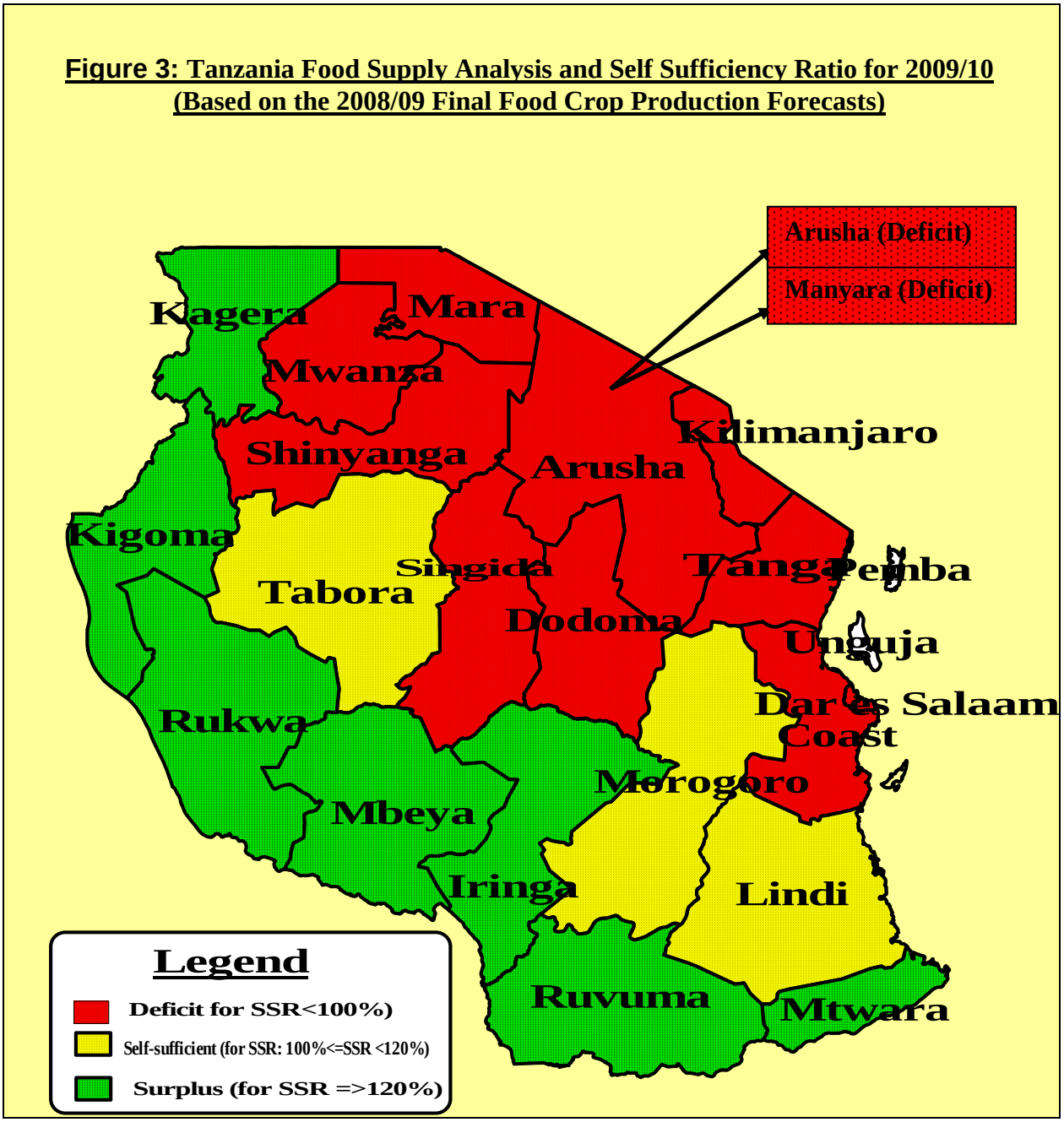
Figure 2: Carry-Over Stocks Analysis 31st May, 2009 (Tonnes)



An analysis of food production time series shows that total food is marginally above trend value of 10.66 million tonnes mainly due to non-cereals which together are 5% higher than the corresponding trend value of 5.31 million tonnes. Cereals are 2% lower than the trend value of 5.35 million tonnes. While most cereals lie below corresponding trend values by 2-8%, most non-cereals lie above by 1-12%. Trend values for different crops are as per Appendix 7.

At sub-national level, the 2008/09 production is expected to meet food requirement for 2009/10 marketing year in 10 regions namely Rukwa, Iringa, Ruvuma, Mbeya, Kigoma, Kagera, Mtwara, Tabora, Lindi and Morogoro where SSRs range from 102 to 167%. The rest 11 regions namely, Dar es Salaam, Arusha, Dodoma, Kilimanjaro, Manyara, Mara, Shinyanga, Coast, Singida, Mwanza and Tanga are deficit in the order of decreasing SSRs from 11% to 98%.

Figure 3: Tanzania Food Supply Analysis and Self Sufficiency Ratio for 2009/10 (Based on the 2008/09 Final Food Crop Production Forecasts)



In the context of food security, these deficit regions are the areas of focus for which early warnings are signaled out for immediate action against detrimental aftermath of food shortage. Besides these 11 regions where definite food shortage status is indicated, vulnerability, which is also perceived at varying severity levels, is also rampant and extends to 4 more regions viz. Morogoro, Lindi, Mtwara, Mbeya and Iringa among the self-sufficient and surplus generators.

Vulnerability

From the above, it is notable that except for Dar es Salaam, which is largely non-agricultural, and Singida which is exceptionally out of vulnerable areas this year, the definitely deficit regions (9 therefore) bear 44 districts with notable level

vulnerability. Furthermore, though self sufficient or surplus, further warnings are focused to 5 additional regions bearing pockets of food shortage in 13 additional districts.

Recommendations

- From above, signal is sent out on a total of 57 districts in 14 regions where vulnerable areas exist. These areas will need to be *zoomed-in* to determine whether necessity exists for Government intervention.

- Furthermore, in view of the heightening global climate change affecting various parts of the world including Tanzania, whereby agriculture and specifically crop production based food security is increasingly being negatively impacted the initiated climate change study[5] should be finalized in an attempt to identify definite effects and adaptation strategies that aim at maintaining stability in agriculture and food security.

- Regional integration among East Africa, SADC, Great Lakes provide opportunity for favorable exploitation by member nations and this should be explored for the interest of Tanzania. Blanket policy statements of non-exportation protectionism have not always shown a positive impact. It is approximated that between 90 and 100 tonnes of grains are moving across porous borders into neighboring northern countries per night. A syndicate of food exporters seems to deny the country of either Government revenue or physical food through unofficial exit points (arising through ever increasing border porosity). There is a demand driven need for a serious study in this area to find out what is taking place on the ground regarding food without borders and recommend plausible policy actions.

- One of the desirable areas worth looking into is to examine vulnerability recurrence overtime in an attempt to forge ahead towards the national mission to eliminate hunger and famine in Tanzania through short term, medium term and long term initiatives.
- Food without borders is increasingly becoming an issue of interest among nations sharing food flows in response to market forces amidst border restrictions among and between them. It is imperative that regional integration is not taken for granted. It is an area that may be adversely or favorably exploited by member states in different blocks and this should be explored for the interest of Tanzania. There is need to carry out this study

[5] *The study, "Study on Strategies for Addressing Negative Effects of Climate Change in Food Insecure Areas of Tanzania", a Joint Venture between MAFSC and IRA-UDSM focusing at 7 main Agro-ecological zones of Tanzania is currently in its final stages.*

now whilst food security profile is up in the agenda of regional integration initiatives.

Appendix 1: Tanzania Final Food Crop Production Forecast by Region - 2008/09 (as of 30/11/2009)
(Area and Production in Hectares and Tonnes Respectively, Yield in Tonnes per Hectare)

Cereals

Region	Maize			Sorghum			Millets			Rice			Wheat			Cereals		
	Area	Yield	Production	Area	Yield	Production	Area	Yield	Production	Area	Yield	Production	Area	Yield	Production	Area	Production	
Arusha	147,768	0.2	29,554	21,895	0.4	8,758	7,378	0.4	2,951	97,231	0.5	48,615	32,016	0.7	22,411	306,288	112,290	Arusha
Coast	35,429	0.2	7,086	34,755	0.3	10,426		-	-	105,883	0.3	31,765		-	-	176,067	49,277	Coast
Dar es Salaam	15,669	0.2	3,134		-	-		-	-	44,568	0.2	8,914		-	-	60,237	12,047	Dar es Salaam
Dodoma	219,852	0.3	65,956	213,278	0.6	127,967	13,437	0.8	10,750	3,124	0.8	2,499		-	-	449,692	207,171	Dodoma
Iringa	367,521	1.7	624,786	26,765	1.1	29,442	2,149	0.9	1,934	7,874	1.6	12,598	8,068	1.0	8,068	412,377	676,828	Iringa
Kagera	96,540	1.8	173,773	27,109	1.2	32,531	2,148	1.2	2,577	26,307	1.2	31,568		-	-	152,104	240,449	Kagera
Kigoma	60,195	2.0	119,843	28,782	1.2	34,539	-	1.2	-	7,146	2.0	14,292		-	-	96,123	168,673	Kigoma
Kilimanjaro	197,986	0.3	59,396	11,776	0.7	8,243	19,757	0.6	11,854	53,415	0.7	37,391	12,257	0.4	4,903	295,191	121,786	Kilimanjaro
Lindi	71,716	0.3	21,515	43,683	0.6	26,210	-	0.7	-	20,268	0.7	14,188		-	-	135,667	61,912	Lindi
Manyara	217,080	0.5	108,540	21,670	0.6	13,002	23,427	0.6	14,056	34,901	0.6	20,941	117,127	0.5	58,563	414,205	215,102	Manyara
Mara	65,291	1.1	71,820	16,864	1.0	16,864	12,726	1.0	12,726	406	0.8	325		-	-	95,287	101,735	Mara
Mbeya	201,212	2.2	442,667	37,502	1.3	48,752	15,122	1.3	19,659	65,000	2.0	130,001	684	1.1	752	319,520	641,831	Mbeya
Morogoro	183,142	0.8	146,514	14,791	0.9	13,312	184	0.8	147	111,301	1.0	111,301	42	0.8	33	309,460	271,307	Morogoro
Mtwara	120,653	0.3	36,196	37,155	0.6	22,293	42	0.7	29	24,672	0.8	19,738		-	-	182,523	78,256	Mtwara
Mwanza	94,775	1.3	123,208	93,501	1.0	93,501	27,333	1.0	27,333	43,854	1.5	65,781		-	-	259,463	309,822	Mwanza
Rukwa	216,564	2.4	519,755	23,202	1.3	30,395	27,602	1.2	33,123	24,978	2.0	49,956	231	1.3	301	292,578	633,529	Rukwa
Ruvuma	196,229	2.0	392,459	23,971	1.3	31,163	16,711	1.2	20,053	1,262	1.6	2,019		-	-	238,173	445,693	Ruvuma
Shinyanga	219,441	0.9	197,497	61,795	0.8	49,436	38,870	0.7	27,209	82,561	1.3	107,329		-	-	402,666	381,471	Shinyanga
Singida	56,205	0.7	39,343	115,282	0.8	92,226	52,190	0.7	35,787	18,229	0.6	10,937		-	-	241,906	178,294	Singida
Tabora	112,178	1.1	123,395	20,116	1.0	20,116	-	1.0	-	108,004	1.3	140,405		-	-	240,297	283,916	Tabora
Tanga	65,885	0.3	19,765	327	0.4	131	377	0.5	189	23,524	0.3	7,057	307	0.3	92	90,421	27,234	Tanga
Total	2,961,334	1.1	3,326,200	874,219	0.8	709,305	259,453	0.8	220,377	904,508	1.0	867,619	170,732	0.6	95,124	5,170,246	5,218,626	Total

Non-cereals

	Pulses			Cassava			Banana			Potatoes			Non-cereals			Food		
	Area	Yield	Production	Area	Yield	Production	Area	Yield	Production	Area	Yield	Production		Area	Production	Area	Production	
Arusha	51,831	0.7	36,282	12,806	1.6	20,490	50,713	1.5	76,069	896	1.5	1,344		116,246	134,185	422,535	246,475	Arusha
Coast	95,948	0.4	38,379	74,270	1.8	133,687		-	-	18,643	1.4	26,100		188,862	198,166	364,929	247,444	Coast
Dar es Salaam	87,512	0.3	26,254	21,325	1.5	31,987		-	-	8,773	1.7	14,914		117,609	73,154	177,846	85,202	Dar es Salaam
Dodoma	88,237	0.5	44,119	64,002	1.2	76,802		-	-	41,222	1.3	53,589		193,461	174,510	643,153	381,681	Dodoma
Iringa	19,480	1.1	21,428	1,107	2.1	2,325	11,619	1.9	22,075	55,480	2.1	116,508		87,686	162,337	500,063	839,164	Iringa
Kagera	70,358	1.3	91,466	137,520	2.0	275,039	82,093	2.3	188,815	9,644	2.2	21,216		299,615	576,536	451,719	816,985	Kagera
Kigoma	35,493	1.3	46,142	56,533	2.3	130,026	113,070	2.4	271,368	67,865	2.2	149,303		272,962	596,839	369,085	765,512	Kigoma
Kilimanjaro	8,400	0.7	5,880	5,190	1.7	8,824	72,766	1.9	138,256	15,936	1.8	28,685		102,292	181,643	397,483	303,430	Kilimanjaro
Lindi	21,089	0.6	12,654	81,922	1.8	147,460		-	-		-	-		103,012	160,114	238,679	222,026	Lindi
Manyara	31,553	0.8	25,243	15,809	1.7	26,875	6,113	1.8	11,003	8,738	1.7	14,855		62,213	77,976	476,418	293,078	Manyara
Mara	21,045	0.8	16,836	56,306	1.5	84,459	85,317	1.9	162,103	23,050	1.8	41,489		185,718	304,887	281,005	406,622	Mara
Mbeya	37,021	1.2	44,425	10,883	2.4	26,120	29,945	2.4	71,869	42,420	2.3	97,566		120,269	239,979	439,790	881,810	Mbeya
Morogoro	68,560	0.8	54,848	46,166	1.8	83,099	16,534	2.2	36,375	33,476	1.7	56,909		164,735	231,230	474,195	502,538	Morogoro
Mtwara	22,299	1.1	24,528	233,338	2.0	466,676		-	-	452	1.5	678		256,088	491,882	438,611	570,138	Mtwara
Mwanza	156,432	1.2	187,718	68,441	1.7	116,350	5,958	1.7	10,128	86,324	1.8	155,382		317,155	469,579	576,617	779,401	Mwanza
Rukwa	49,339	1.3	64,141	9,860	2.3	22,678	284	2.5	709	8,657	2.3	19,910		68,139	107,438	360,718	740,967	Rukwa
Ruvuma	76,751	1.2	92,101	24,927	2.3	57,332	511	2.3	1,175	51,841	2.2	114,051		154,030	264,659	392,203	710,352	Ruvuma
Shinyanga	135,421	0.8	108,337	35,774	1.6	57,238	11	1.4	15	98,025	1.6	156,840		269,231	322,430	671,897	703,901	Shinyanga
Singida	117,093	0.7	81,965	52,481	1.4	73,473		-	-	26,104	1.5	39,155		195,678	194,594	437,584	372,888	Singida
Tabora	13,129	1.0	13,129	37,129	2.0	74,258		-	-	100,209	1.9	190,397		150,467	277,784	390,764	561,700	Tabora
Tanga	201,097	0.4	80,439	35,595	1.6	56,952	59,420	1.4	83,188	58,469	1.6	93,551		354,581	314,130	445,002	341,364	Tanga
Total	1,408,089	0.8	1,116,312	1,081,384	1.8	1,972,148	534,354	2.0	1,073,149	756,223	1.8	1,392,443		3,780,050	5,554,053	8,950,295	10,772,679	Total

Appendix 2: Tanzania Food Supply Analysis and Self Sufficiency Ratio for 2009/10

(Based on the 2008/09 Final Food Crop Production Forecasts)

REGION	Total Cereals				Total Non-cereals				Total Food					
	PROD.	REQ.	Gap/ Surplus	SSR (Cer)	PROD.	REQ.	Gap/ Surplus	SSR (Nce)	PROD.	REQ.	Gap/ Surplus	SSR (Tot)	*Deficit indicator (*)*	REGION
Rukwa	633,529	298,777	334,752	212	107,438	144,961	-37,523	74	740,967	443,738	297,229	167		Rukwa
Iringa	676,828	345,241	331,586	196	162,337	158,245	4,092	103	839,164	503,486	335,678	167		Iringa
Ruvuma	445,693	387,938	57,755	115	264,659	134,588	130,071	197	710,352	522,527	187,826	136		Ruvuma
Mbeya	641,831	421,263	220,568	152	239,979	235,047	4,932	102	881,810	656,310	225,500	134		Mbeya
Kigoma	168,673	364,030	-195,357	46	596,839	227,270	369,569	263	765,512	591,300	174,212	129		Kigoma
Kagera	240,449	398,246	-157,797	60	576,536	247,621	328,915	233	816,985	645,867	171,118	126		Kagera
Mtwara	78,256	330,339	-252,082	24	491,882	121,909	369,972	403	570,138	452,248	117,890	126		Mtwara
Tabora	283,916	329,775	-45,859	86	277,784	209,856	67,928	132	561,700	539,631	22,069	104		Tabora
Lindi	61,912	132,196	-70,284	47	160,114	83,136	76,978	193	222,026	215,332	6,694	103		Lindi
Morogoro	271,307	288,118	-16,811	94	231,230	204,309	26,922	113	502,538	492,427	10,110	102		Morogoro
Tanga	27,234	164,405	-137,170	17	314,130	183,135	130,995	172	341,364	347,540	-6,176	98	*	Tanga
Mwanza	309,822	440,126	-130,304	70	469,579	365,751	103,828	128	779,401	805,877	-26,476	97	*	Mwanza
Singida	178,294	258,270	-79,977	69	194,594	128,778	65,817	151	372,888	387,048	-14,160	96	*	Singida
Coast	49,277	155,354	-106,077	32	198,166	102,750	95,416	193	247,444	258,105	-10,661	96	*	Coast
Shinyanga	381,471	427,278	-45,807	89	322,430	344,469	-22,039	94	703,901	771,747	-67,846	91	*	Shinyanga
Mara	101,735	296,054	-194,318	34	304,887	155,170	149,717	196	406,622	451,224	-44,601	90	*	Mara
Manyara	215,102	236,163	-21,060	91	77,976	130,879	-52,904	60	293,078	367,042	-73,964	80	*	Manyara
Kilimanjaro	121,786	236,206	-114,420	52	181,643	145,783	35,861	125	303,430	381,989	-78,559	79	*	Kilimanjaro
Dodoma	207,171	312,157	-104,986	66	174,510	192,152	-17,642	91	381,681	504,309	-122,628	76	*	Dodoma
Arusha	112,290	257,197	-144,908	44	134,185	165,296	-31,111	81	246,475	422,494	-176,019	58	*	Arusha
Dar es Salaam	12,047	487,937	-475,890	2	73,154	321,669	-248,515	23	85,202	809,606	-724,404	11	*	Dar es Salaam
Tanzania	5,218,626	6,567,071	-1,348,445	79	5,554,053	4,002,774	1,551,278	139	10,772,679	10,569,845	202,833	102		Tanzania

Note: * General food deficit indicator

Appendix 3: Recall food situation at regional and district levels back to 2004/05

REGION	2004/05		2005/06		2006/07		2007/08		2008/09		2009/10		REGION
	Deficit regions (*)	Deficit Districts	*Deficit regions (*)*	Deficit Districts	*Deficit regions (*)*	Deficit Districts	*Deficit regions (*)*	Deficit Districts	*Deficit regions (*)*	Deficit Districts	*Deficit regions (*)*	Deficit Districts	
ARUSHA & MANYARA	*	4-Arumeru, Karatu, Simanjiro, Hanang	*	5-Monduli, Arumeru, Karatu Ngorongoro, Simanjiro.		3- Monduli, Ngorongoro, Longido	*	1-Monduli *(Later, 6: Ars M, Ars V, Longido, Meru, Monduli, Ngorongoro)*	*	3- Arusha, Longido, Monduli	*	6-Longido, Monduli, Arusha, Ngorongoro, Meru, Karatu	ARUSHA/MANYARA
COAST	*	4-Bagamoyo, Kibaha, Kisarawe, Mafia		3-Kisarawe, Rufiji, Bagamoyo		2-Rufiji, Kisarawe		1-Rufiji *(Later, 0)*	*	1- Mafia	*	4-Bagamoyo, Kibaha (R), Mafia, Rufiji	COAST
DAR ES SALAAM	*	2-Ilala, Kinondoni	*		*	3-Kinondoni, Ilala, Temeke	*		*		*		DAR ES SALAAM
DODOMA		4- Dodoma (U), Kongwa, Kondoa, Mpwapwa	*	4-Dodoma (R), Dodoma (U), Kondoa, Kongwa	*	4-Dodoma M, Dodoma V, Kongwa , Mpwapwa					*	5-Bahi, Chamwino, Kongwa, Mpwapwa, Dodoma (M)	DODOMA
IRINGA		3-Iringa, Kilolo, Mufindi		2-Iringa, Kilolo		5-Iringa V, Kilolo, Makete, Njombe, Ludewa				1-Njombe		2-Iringa (R), Kilolo	IRINGA
KAGERA						1-Bukoba M							KAGERA
KIGOMA													KIGOMA
KILIMANJARO	*	2-Same, Mwanga	*	3-Same, Rombo, Mwanga		2-Rombo, Moshi V	*	3-Same, Mwanga, Hai *(Later, 4: Hai, Mwanga, Same, Moshi V)*	*	2- Same, Rombo	*	5-Same, Mwanga, Siha, Hai, Moshi (R)	KILIMANJARO
LINDI		3-Lindi (R), Liwale, Ruangwa	*	5-Lindi, Ruangwa, Nachingwea, Kilwa, Liwale		2-Liwale, Nachingwea		2-Kilwa, Liwale *(Later, 0)*				5-Lindi (R), Ruangwa, Nachingwea, Kilwa, Liwale	LINDI
MANYARA						2-Simanjiro, Kiteto		2-Mbulu, Simanjiro *(Later, 5: Bbt M, Bbt V, Hanang, Mbulu,*		5- Babati, Hanang, Kiteto, Mbulu, Simanjiro	*	6-Simanjiro, Kiteto, Babati (R), Babati (M), Mbulu, Hanang	MANYARA
MARA		1-Bunda	*	3-Tarime, Bunda, Musoma					*	1- Bunda	*	3-Rorya, Bunda, Musoma (R)	MARA
MBEYA		1-Mbozi				3-Mbarali, Chunya, Mbozi						1-Chunya	MBEYA
MOROGORO						2-Kilosa, Morogoro V		*(Later, 3: Ulanga, Morogoro V, Mvomero)*		*2- Morogoro R, Mvomero*		*3-Ulanga, Morogoro (R), Kilosa*	MOROGORO
MTWARA		1-Masasi		1-Masasi								2-Nanyumbu, Masasi	MTWARA
MWANZA		2-Magu, Kwimba	*	3-Kwimba, Magu, Misungwi	*	Magu, Kwimba, Misungwi, Ilemela, Nyamagana		*(Later, 1: Magu)*	*		*	*4-Magu, Misungwi, Kwimba, Ukerewe*	MWANZA
RUKWA													RUKWA
RUVUMA													RUVUMA
SHINYANGA	*	7-Maswa, Kahama, Shinyanga (R), Bariadi, Shinyanga (U), Kishapu, Meatu.	*	7-Maswa, Meatu, Shinyanga Vijijini, Kishapu, Shinyanga Mjini, Bariadi, Kahama	*	7-Kishapu, Meatu, Maswa, Shinyanga M, Kahama, Bariadi, Bukombe		3-Bariadi, Kishapu, Meatu *(Later, 2: Kishapu, Meatu)*	*	2- Bariadi, Meatu	*	4-Maswa, Kishapu, Shinyanga (R), Meatu	SHINYANGA
SINGIDA		3-Iramba, Singida (R), Manyoni,	*	3-Iramba, Manyoni, Singida (V)	*	3-Manyoni, Singida M, Sin	*	4-Singida R, Iramba, Singida U, Manyoni *(Later, Wahadzabe ethnic group who are wholly hunters and gatherers)*	*		*		SINGIDA
TABORA			*	2-Tabora, Igunga		3- Igunga, Tabora M, Siko	*	1-Uyui *(Later, 0)*	*				TABORA
TANGA		4-Kilindi, Handeni, Lushoto, Korogwe				3-Mkinga, Korogwe, Lushoto				4-Kilindi, Korogwe, Lushoto, Mkinga	*	7-Kilindi, Handeni, Pangani, Korogwe (v), Lushoto, Mkinga, Tanga (M)	TANGA
TOTAL	6	41	11	41	5	50	5	21	9	21	11 (Prel2009: 10)	57 (Prel2009: 61)	TOTAL

Appendix 4: Vuli contribution to total production - Current vs Normal

REGION	Production (Tonnes)	Vuli contribution (%)- Normal Scenario	Normal-Vuli contribution (T)	Vuli contribution (%) - 2008/09	2008/09-Vuli contribution (T)
Arusha	246,475	40	98,590	32	79,488
Coast	247,444	10	24,744	8	19,950
Dar es Salaam	85,202	10	8,520	8	6,869
Dodoma	381,681		-	-	
Iringa	839,164		-	-	
Kagera	816,985	90	735,286	73	592,823
Kigoma	765,512	18	137,792	15	111,094
Kilimanjaro	303,430	35	106,200	28	85,624
Lindi	222,026		-	-	
Manyara	293,078		-	-	
Mara	406,622	45	182,980	36	147,527
Mbeya	881,810	5	44,091	4	35,548
Morogoro	502,538	15	75,381	12	60,775
Mtwara	570,138		-	-	
Mwanza	779,401	55	428,671	44	345,615
Rukwa	740,967		-	-	
Ruvuma	710,352		-	-	
Shinyanga	703,901	7	49,273	6	39,726
Singida	372,888		-	-	
Tabora	561,700		-	-	
Tanga	341,364	20	68,273	16	55,045
Bimodal-Tz	6,080,684	32	1,959,801	26	1,580,084
Total-Tz	**10,772,679**	18	**1,959,801**	15	**1,580,084**

Appendix 5: Vulnerable Areas (Fin2009)

S/N	Region	No of Dist.	Districts
1	Tanga	7	Kilindi, Handeni, Pangani, Korogwe (R), Lushoto, Mkinga na Tanga (M)
2	Arusha	6	Longido, Monduli, Arusha, Ngorongoro, Meru na Karatu
3	Manyara	6	Simanjiro, Kiteto, Babati (R), Babati (M), Mbulu na Hanang
4	Kilimanjaro	5	Same, Mwanga, Siha, Hai na Moshi (R)
5	Dodoma	5	Bahi, Chamwino, Kongwa, Mpwapwa na Dodoma (M)
6	Lindi	5	Lindi, Ruangwa, Nachingwea, Kilwa na Liwale
7	Mwanza	4	Magu, Misungwi, Kwimba na Ukerewe
8	Shinyannga	4	Maswa, Kishapu, Shinyanga na Meatu
9	Pwani	4	Bagamoyo, Kibaha (R), Mafia na Rufiji
10	Mara	3	Rorya, Bunda na Musoma (R)
11	Morogoro	3	Ulanga, Morogoro (R) na Kilosa
12	Iringa	2	Iringa (R) na Kilolo
13	Mtwara	2	Nanyumbu na Masasi
14	Mbeya	1	Chunya
	Total	57	

When compared with Preliminary Forecast report released in June 2009 whereby 10 regions were identified as definitely deficit (DDF) the number has increased to 11 following Tanga incoming. Four regions which were initially Definitely self sufficient (DSS) are now 3 as Food situation in Tanga worsened and the region evacuated to deficit group. Seven regions which were then identified as definitely surplus (DSP) continue with the status. Initially, 17 regions were identified as containing vulnerable areas in 61 districts. Later on during Final Forecast 14 regions were identied as containing vulnerable areas in 57 districts following recovery of Ruvuma, Singida and Tabora regions. Singida, though definitely deficit, has no evidence of vulnerable areas in its districts. What hapened was, in general, departure of 4 districts net following 10 districts from the original list of 61 districts shortlisted during preliminary forecast viz: Kondoa, Rombo, Mbarali, Tunduru, Shinyanga (M), Kahama, Iramba, Manyoni, Uyui and Igunga and entry of 6 new districts viz: Karatu, Dodoma (M), Liwale, Babati (U), Chunya and Tanga (M).

Appendix 6: Recall Tanzania Food Supply Analysis and Self Sufficiency Ratio for 2009/10

(Reported earlier in the 2008/09 Preliminary Food Crop Production Forecasts)

REGION	Total Cereals				Total Non-cereals				Total Food					REGION
	PROD.	REQ.	Gap/ Surplus	SSR (Cer)	PROD.	REQ.	Gap/ Surplus	SSR (Nce)	PROD.	REQ.	Gap/ Surplus	SSR (Tot)	*Deficit indicator (*)*	
Iringa	682,035	346,095	335,940	197	162,337	158,245	4,092	103	844,371	504,340	340,032	167		Iringa
Rukwa	603,449	294,727	308,722	205	134,494	147,556	-13,062	91	737,943	442,282	295,660	167		Rukwa
Ruvuma	446,948	388,144	58,804	115	264,659	134,588	130,071	197	711,607	522,732	188,874	136		Ruvuma
Mbeya	645,521	421,868	223,652	153	239,979	235,047	4,932	102	885,500	656,915	228,584	135		Mbeya
Kigoma	173,272	364,576	-191,303	48	602,759	226,620	376,139	266	776,031	591,195	184,836	131		Kigoma
Kagera	241,897	398,484	-156,586	61	576,536	247,621	328,915	233	818,433	646,105	172,328	127		Kagera
Mtwara	78,558	330,388	-251,830	24	491,882	121,909	369,972	403	570,440	452,297	118,142	126		Mtwara
Lindi	66,949	133,224	-66,275	50	159,561	83,562	75,999	191	226,510	216,785	9,725	104		Lindi
Tabora	300,906	331,255	-30,348	91	261,405	209,936	51,468	125	562,311	541,191	21,120	104		Tabora
Morogoro	266,337	287,897	-21,560	93	239,056	203,299	35,757	118	505,393	491,196	14,196	103		Morogoro
Tanga	27,399	164,432	-137,032	17	320,581	183,135	137,446	175	347,980	347,567	413	100		Tanga
Singida	178,622	258,324	-79,703	69	200,093	127,976	72,117	156	378,715	386,300	-7,585	98	*	Singida
Mwanza	314,782	440,939	-126,158	71	471,690	362,619	109,071	130	786,472	803,559	-17,087	98	*	Mwanza
Coast	52,327	155,705	-103,378	34	198,928	102,670	96,258	194	251,255	258,375	-7,120	97	*	Coast
Shinyanga	371,928	426,496	-54,568	87	361,849	343,867	17,982	105	733,777	770,363	-36,586	95	*	Shinyanga
Mara	116,644	298,441	-181,797	39	299,545	155,170	144,375	193	416,189	453,611	-37,422	92	*	Mara
Manyara	226,090	237,965	-11,874	95	87,205	130,879	-43,675	67	313,295	368,844	-55,549	85	*	Manyara
Kilimanjaro	137,407	238,768	-101,361	58	184,012	145,783	38,229	126	321,419	384,551	-63,132	84	*	Kilimanjaro
Dodoma	214,934	314,819	-99,885	68	179,412	192,552	-13,139	93	394,346	507,371	-113,024	78	*	Dodoma
Arusha	107,231	258,021	-150,790	42	147,092	164,985	-17,893	89	254,323	423,006	-168,683	60	*	Arusha
Dar es Salaam	12,074	487,941	-475,868	2	73,154	321,669	-248,515	23	85,228	809,610	-724,382	11	*	Dar es Salaam
Tanzania	5,265,309	6,578,508	-1,313,199	80	5,656,227	3,999,688	1,656,539	141	10,921,536	10,578,196	343,340	103		Tanzania

Appendix 7: Tanzania Food Supply Analysis and Self Sufficiency Ratio for 2008/09

(Based on the 2007/08 Final Food Crop Production Forecasts)

REGION	Total Cereals				Total Non-cereals				Total Food					REGION
	PROD.	REQ.	Gap/ Surplus	SSR (Cer)	PROD.	REQ.	Gap/ Surplus	SSR (Nce)	PROD.	REQ.	Gap/ Surplus	SSR (Tot)	*Deficit indicator (*)*	
Arusha	218,866	263,930	-45,065	83	168,580	159,431	9,149	106	387,445	423,361	-35,916	92	*	Arusha
Coast	71,050	155,514	-84,464	46	178,251	100,442	77,809	177	249,301	255,955	-6,655	97	*	Coast
Dar es Salaam	19,451	468,667	-449,216	4	71,485	308,323	-236,838	23	90,936	776,990	-686,054	12	*	Dar es Salaam
Dodoma	392,163	330,251	61,912	119	186,341	188,434	-2,093	99	578,504	518,685	59,819	112		Dodoma
Iringa	532,157	317,894	214,263	167	175,252	155,987	19,265	112	707,410	473,881	233,528	149		Iringa
Kagera	231,848	385,600	-153,752	60	553,017	240,627	312,391	230	784,866	626,227	158,639	125		Kagera
Kigoma	173,803	348,566	-174,764	50	490,166	216,309	273,858	227	663,969	564,875	99,094	118		Kigoma
Kilimanjaro	210,212	247,246	-37,034	85	142,781	143,496	-715	100	352,992	390,741	-37,749	90	*	Kilimanjaro
Lindi	115,852	139,389	-23,537	83	152,729	82,477	70,252	185	268,580	221,865	46,715	121		Lindi
Manyara	363,462	254,171	109,291	143	77,253	126,172	-48,919	61	440,715	380,343	60,372	116		Manyara
Mara	115,415	291,403	-175,988	40	325,124	151,433	173,691	215	440,539	442,836	-2,297	99	*	Mara
Mbeya	581,229	403,116	178,113	144	250,265	229,717	20,548	109	831,495	632,834	198,661	131		Mbeya
Morogoro	277,897	283,292	-5,395	98	245,509	200,037	45,472	123	523,406	483,328	40,077	108		Morogoro
Mtwara	211,414	343,586	-132,172	62	434,279	119,973	314,306	362	645,693	463,559	182,135	139		Mtwara
Mwanza	317,768	428,109	-110,340	74	426,306	352,180	74,126	121	744,075	780,289	-36,214	95	*	Mwanza
Rukwa	425,363	259,132	166,231	164	100,750	139,726	-38,975	72	526,113	398,857	127,256	132		Rukwa
Ruvuma	383,164	368,177	14,987	104	271,988	131,779	140,208	206	655,152	499,956	155,195	131		Ruvuma
Shinyanga	380,766	415,477	-34,711	92	334,592	333,977	615	100	715,358	749,454	-34,096	95	*	Shinyanga
Singida	183,161	251,758	-68,597	73	191,933	126,291	65,642	152	375,094	378,049	-2,955	99	*	Singida
Tabora	299,235	322,293	-23,058	93	221,046	202,606	18,439	109	520,280	524,899	-4,619	99	*	Tabora
Tanga	83,272	170,734	-87,462	49	287,141	180,262	106,879	159	370,413	350,996	19,417	106		Tanga
Tanzania	5,587,547	6,448,303	-860,756	87	5,284,788	3,889,677	1,395,111	136	10,872,336	10,337,981	534,355	105		Tanzania

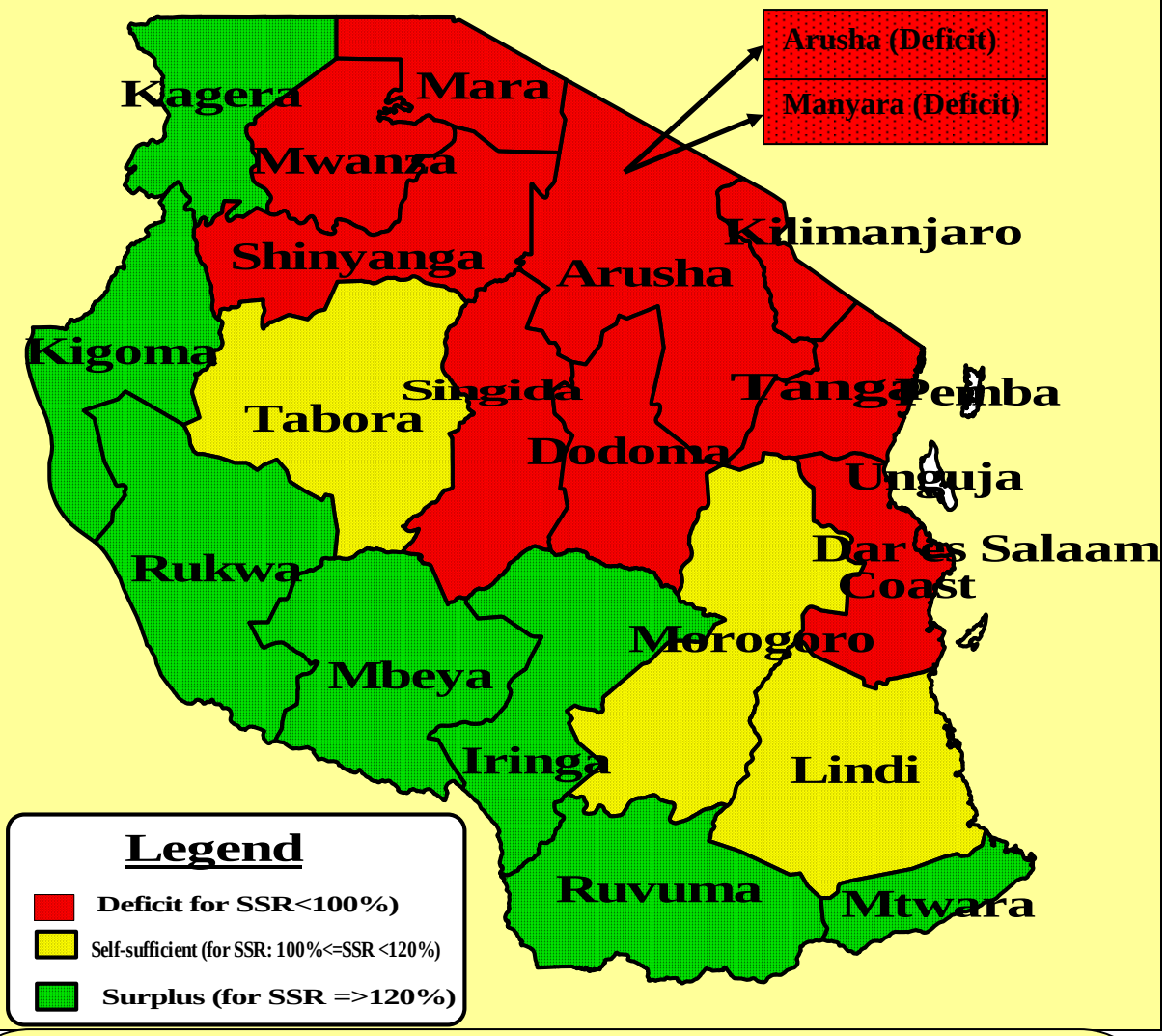
Note: * General food deficit indicator

Appendix 8: Time Series Production of Major Food Crops in Tanzania, 1986/87 - 2008/09 (Thousand Tonnes) - Grain Equivalent[1]

Year	Maize	Sorghum	Millets	Rice	Wheat	Cereals	Pulses	Cassava	Bananas	Potatoes	Non-cereals	Total	Year
1986/87	2,359	779	175	419	72	3,804	251	1,709	792	336	3,088	6,892	1986/87
1987/88	2,339	557	125	400	76	3,497	379	1,736	812	319	3,246	6,743	1987/88
1988/89	3,125	656	148	468	97	4,494	385	1,948	743	337	3,413	7,907	1988/89
1989/90	2,445	464	104	481	106	3,600	388	1,724	823	1,023	3,958	7,558	1989/90
1990/91	2,332	612	138	406	84	3,572	425	1,566	750	291	3,032	6,604	1990/91
1991/92	2,226	694	156	256	64	3,396	312	1,778	794	257	3,141	6,537	1991/92
1992/93	2,282	758	171	417	59	3,687	406	1,708	800	260	3,174	6,861	1992/93
1993/94	2,159	568	128	399	59	3,313	187	1,802	834	267	3,090	6,403	1993/94
1994/95	2,567	1,020	230	470	75	4,362	378	1,492	651	451	2,972	7,334	1994/95
1995/96	2,663	1,012	228	477	84	4,463	475	1,498	641	420	3,034	7,497	1995/96
1996/97	1,831	690	155	357	78	3,112	374	1,426	603	372	2,776	5,888	1996/97
1997/98	2,685	652	147	676	111	4,271	462	1,758	836	644	3,700	7,972	1997/98
1998/99	2,452	617	139	506	82	3,796	528	1,795	752	570	3,645	7,440	1998/99
1999/2000	2,009	667	150	508	33	3,368	674	1,781	703	798	3,955	7,322	1999/2000
2000/01	2,579	742	167	564	89	4,141	733	1,445	779	596	3,553	7,695	2000/01
2001/02	2,705	834	206	640	77	4,462	683	1,725	752	950	4,111	8,572	2001/02
2002/03	2,322	488	139	713	74	3,735	850	1,321	706	761	3,638	7,373	2002/03
2003/04	3,157	757	201	688	67	4,871	879	1,480	734	874	3,967	8,838	2003/04
2004/05	3,219	714	221	759	102	5,015	886	1,846	991	931	4,654	9,669	2004/05
2005/06	3,423	712	228	805	110	5,277	1,050	2,053	1,169	1,396	5,668	10,945	2005/06
2006/07	3,302	971	194	872	83	5,422	1,156	1,733	1,028	1,322	5,238	10,660	2006/07
2007/08	3,556	861	203	875	92	5,588	1,126	1,797	982	1,379	5,285	10,872	2007/08
2008/09	3,326	709	220	868	95	5,219	1,116	1,972	1,073	1,392	5,554	10,773	2008/09
Prel2009	3,425	687	212	844	98	5,265	1,085	1,983	1,072	1,516	5,656	10,922	Prel2009
22yaverage	2,624	719	171	553	81	4,147	590	1,687	803	662	3,743	7,890	22yaverage
5yaverage	3,331	803	209	800	91	5,235	1,019	1,782	981	1,181	4,962	10,197	5yaverage
TrVt	3,397	768	204	886	94	5,347	1,184	1,759	991	1,381	5,314	10,662	TrVt
%age change from Prel2009	-3	3	4	3	-3	-1	3	-1	0	-8	-2	-1	%age change from Prel2009
%age change from 22y-average	27	-1	29	57	18	26	89	17	34	110	48	37	%age change from 22y-average
%age change from 5y-average	0	-12	5	8	5	0	10	11	9	18	12	6	%age change from 5y-average
%age change from TrVt	-2	-8	8	-2	2	-2	-6	12	8	1	5	1	%age change from TrVt
%age change from year t-1	-6	-18	9	-1	3	-7	-1	10	9	1	5	-1	%age change from year t-1

1) The figures are in Grain equivalent terms. To convert to fresh/normal weight estimates a conversion factor has to be applied. These are 65% for rice to paddy and 33% for cassava, banana and potatoes.

Tanzania Food Supply Analysis and Self Sufficiency Ratio for 2009/10
(Based on the 2008/09 Final Food Crop Production Forecasts)



In summary:

Based on 2008/09 Final Food Crop Production Forecast Survey, Tanzania, during 2009/10, will be marginally self sufficient. Specifically, there is evidence to indicate that: 11 regions will be definitely deficit, 3 regions will be definitely self-sufficient and 7 regions will be definitely surplus. Here and there, pockets of vulnerable areas are signaled in 57 districts in 14 regions.

Maeneo Tete 2009/10 (Fin2009)

S/N	Mkoa	Idadi ya Wilaya	Wilaya
1	Tanga	7	Kilindi, Handeni, Pangani, Korogwe (v), Lushoto, Mkinga na Tanga (M)
2	Arusha	6	Longido, Monduli, Arusha, Ngorongoro, Meru na Karatu
3	Manyara	6	Simanjiro, Kiteto, Babati(v), Babati (m), Mbulu na Hanang
4	Kilimanja	5	Same, Mwanga, Siha, Hai na Moshi (v)
5	Dodoma	5	Bahi, Chamwino, Kongwa, Mpwapwa na Dodoma (M)
6	Lindi	5	Lindi, Ruangwa, Nachingwea, Kilwa na Liwale
7	Mwanza	4	Magu, Misungwi, Kwimba na Ukerewe
8	Shinyang	4	Maswa, Kishapu, Shinyanga na Meatu
9	Coast	4	Bagamoyo, Kibaha (V), Mafia na Rufiji
10	Mara	3	Rorya, Bunda na Musoma (V)
11	Morogoro	3	Ulanga, Morogoro (V) na Kilosa
12	Iringa	2	Iringa (V) na Kilolo
13	Mtwara	2	Nanyumbu na Masasai
14	Mbeya	1	Chunya
	Jumla	**57**	

Ikilinganishwa na **Tathmini ya Awali** ambapo mikoa 10 ilitambuliwa kuwa na uhaba wa chakula, **Tathmini ya Mwisho** inaainisha kwamba idadi imeongezeka na kuwa mikoa 11 baada ya Tanga kuingia katika kundi la uhaba. Mikoa 4 iliyokuwa inajitosheleza sasa imepungua na kuwa 3 baada ya Tanga kuondoka. Mikoa 7 iliyokuwa na ziada imebakia vile vile bila ya mabadiliko. Awali, mikoa iliyotambuliwa kuwa na maeneo tete ilikuwa 17 (wilaya 61) na sasa ni 14 (wilaya 57) baada ya mikoa ya Ruvuma, Singida na Tabora kuondoka katika kundi hilo. Mkoa wa Singida, ingawa umedhihiri kuwa na uhaba hauna taarifa za maeneo tete katika wilaya zake. Kwa ujumla idadi ya wilaya 4 zimeondoka katika kundi la maeneo tete ikiwa ni matokeo ya kuondoka kwa wilaya 10 zilizotambuliwa awali yaani Kondoa, Rombo, Mbarali, Tunduru, Shinyanga (M), Kahama, Iramba, Manyoni, Uyui na Igunga na kuingia kwa wilaya 6 mpya yaani Karatu, Dodoma (M), Liwale, Babati (M), Chunya na Tanga (M).