Reporting from Agricultural Surveys: A Voice for Smallholders

Agricultural Consultative Forum & Food Security Research Project

Presentation by Munguzwe Hichaambwa and Chance Kabaghe at the Annual Small Scale Farmers' Forum, 05 Nov 2009, Barn Hotel, Lusaka

Outline of Presentation

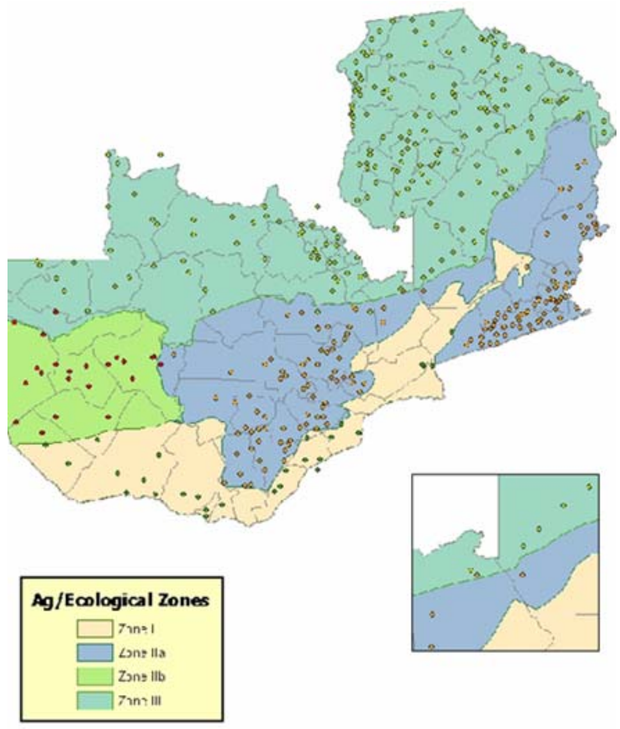
Part 1:

- How can the reporting of agricultural information be a voice for smallholder farmers?
- Smallholder farm sector performance and trends

Part 2 :

1. FNDP (SNDP) strategic goals for smallholders
2. Agricultural Sector Budget Analysis
   - 2009 GRZ & Agric performance diagnosis in the 2010 budget speech of Minister of Finance
   - Details of 2010 ag. sector budget & trends
3. Summary and Conclusion

Capturing the Voice of Smallholders in Zambia through analysis of nationwide surveys



Map of CSO Statistical Enumeration Areas (SEAs) Sampled in the CSO/MACO/FSRP Post Harvest and Supplemental Surveys in 2001, 2004 and 2008. Each dot on the map= views/conditions of 20 randomly selected smallholders

Smallholder Farm Sector Performance and Trends

% of Small/medium-Scale Farmers Growing Crops

Attributes	Crop	1999/00	2002/03	2006/07	trend
% HH Growing	Maize	80	80	84	↑
	Cassava	38	39	34	↓
	Groundnuts	36	42	38	
	Sweet potatoes	28	19	13	↓
	Cotton	6	10	10	↑

Zambia National Production

Attributes	Crop	1999/00	2002/03	2006/07	trend
		Tonnes produced			
Total Production	Maize	1,346,983	1,365,103	1,960,692	↑
	Cassava	794,82	836,127	948,669	↑
	Groundnuts	62,733	89,159	98,415	↑
	Sweet potatoes	180,224	138,088	136,125	↓
	Cotton	46,271	123,085	125,229	↑
Total # ag. smallholder HHs		1.21 mill	1.25 mill	1.51 mill	↑

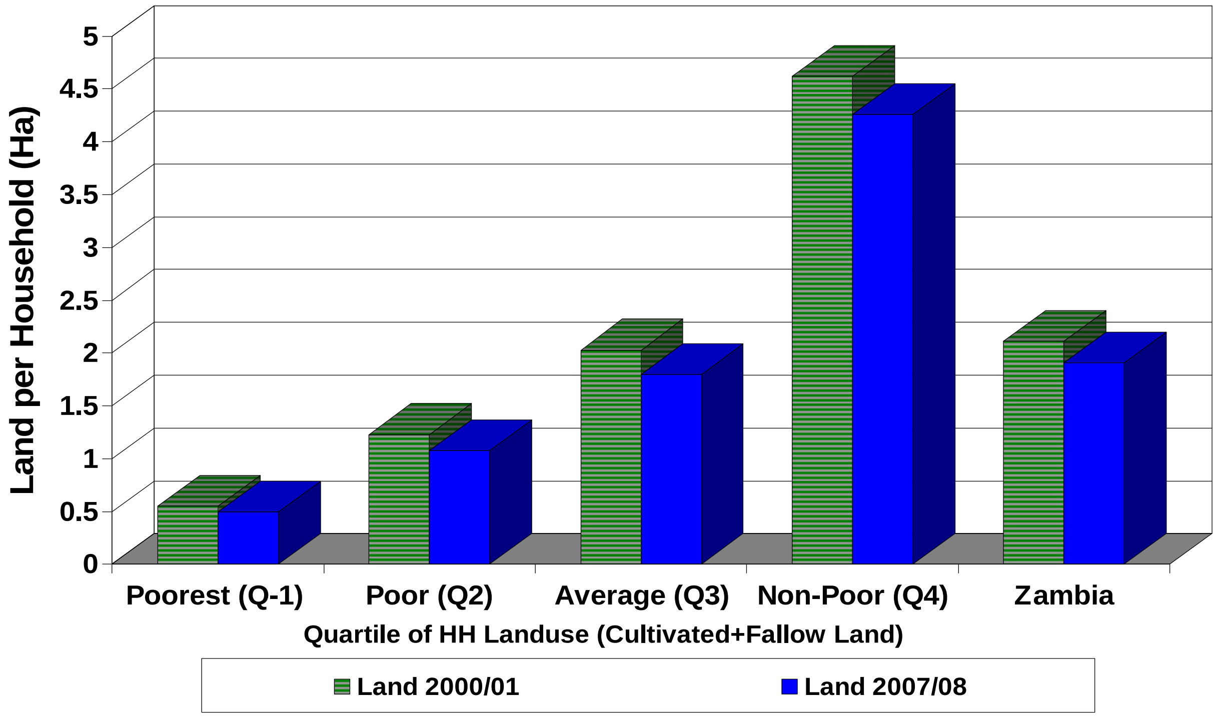
Zambia National Production per Agricultural Household (mt/hh All HHS)

Attributes	Crop	1999/00	2002/03	2006/07	Trend
Production per ag. Household (tonnes)	Maize	1.20	1.09	1.30	↑
	Cassava	0.71	0.67	0.63	↓
	Groundnuts	0.06	0.07	0.06	→
	Sweet potatoes	0.16	0.11	0.09	↓
	Cotton	0.04	0.10	0.08	↗↘

% of Smallholders Growing the Crop who Sold

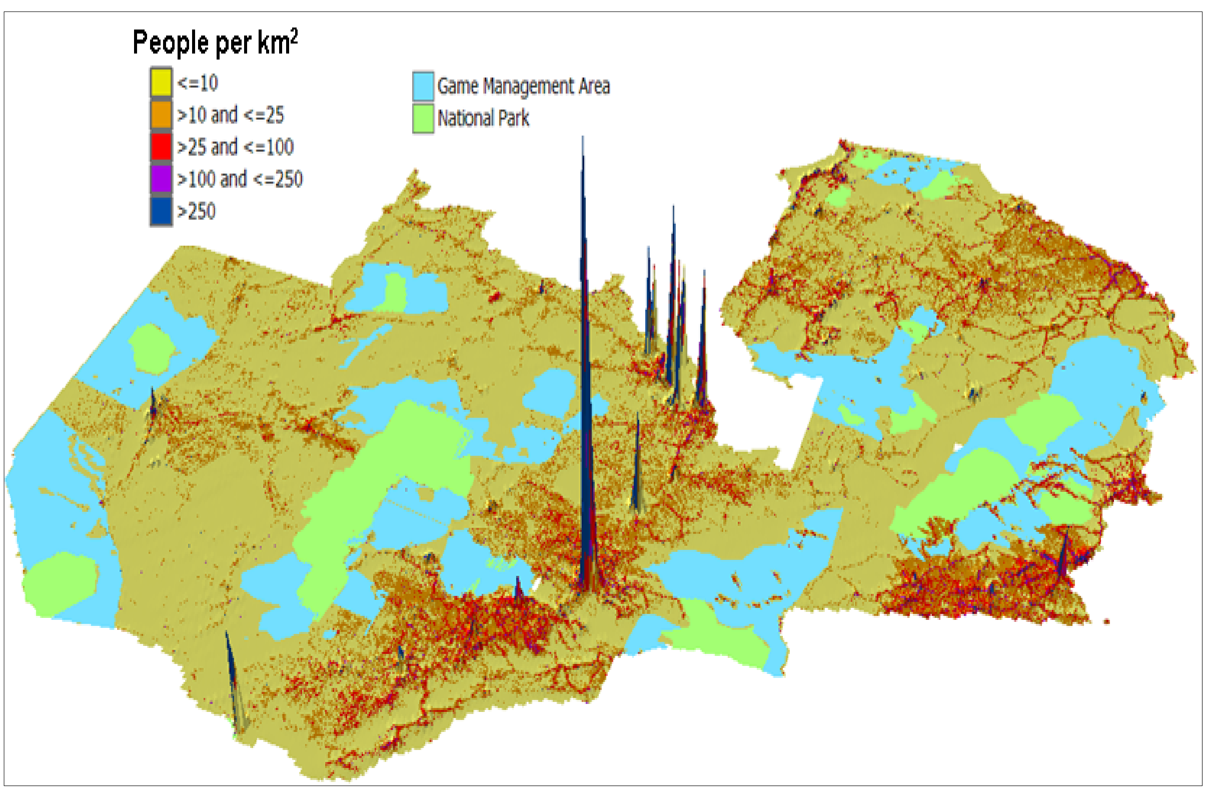
Attributes	Crop	1999/00	2002/03	2006/07
% HH Growing who sold crop	Maize	36	36	38
	Cassava	34	25	26
	Groundnuts	43	48	46
	Sweet potatoes	39	41	46
	Cotton	98	98	98

Farm Size (Cultivated + Fallow Fields) For Small & Medium-Scale Farmers, 2001 and 2008

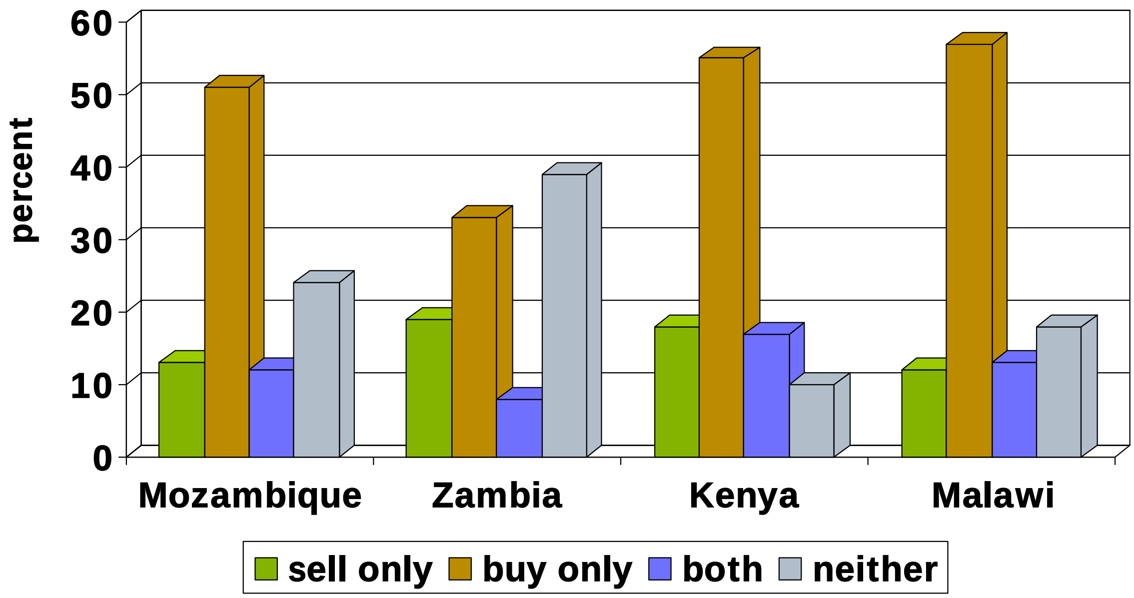


Source: CSO/MACO/FSRP 2000/01 & 2007/088 National-Level Supplemental Rural Livelihood Survey

Population Density and Distribution Zambia 2007



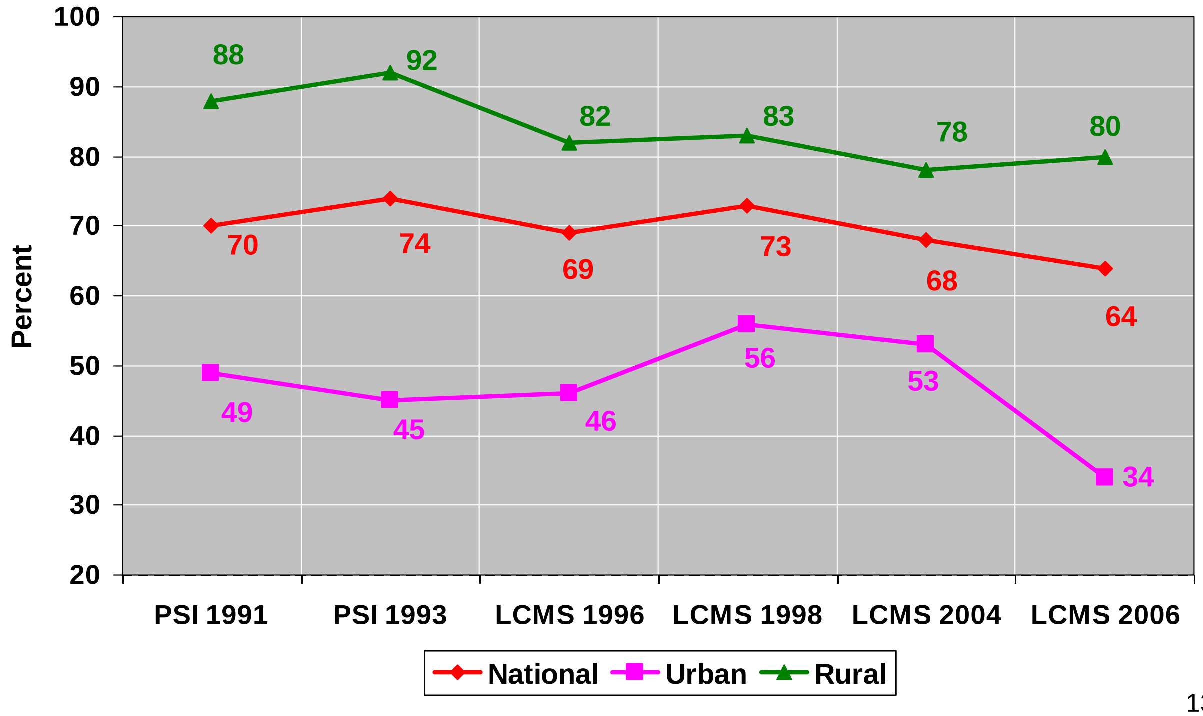
Smallholder Households' Position in the Maize Market



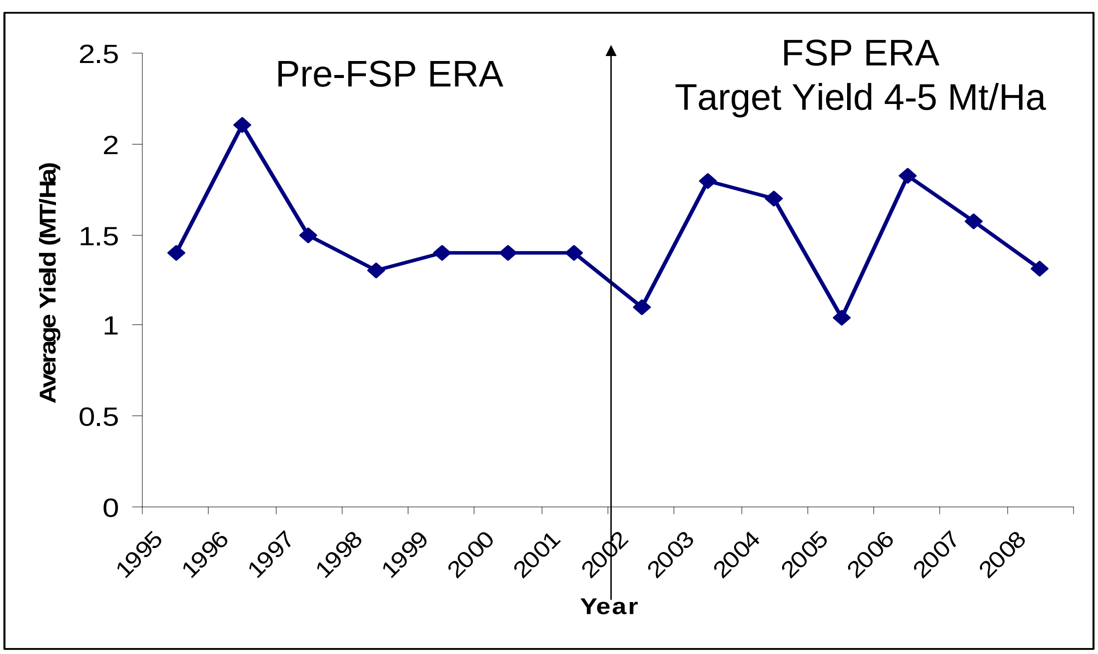
Characteristics of Smallholder Farmers, Zambia 2003/04

		N=	Farm size (ha)	Asset values (US$)	Gr. Rev., maize sales (US$)	Gr. Rev., crop sales (US$)	Total hh income (US$)
Top 50% of maize sales		31,328 (2%)	4.3	1,132	720	1163	2,932
Rest of maize sellers		328,561 (26%)	1.6	316	88	193	634
Households not selling maize		907,255 (72%)	0.9	231	0	97	415

Poverty Incidence in Zambia (%) (1991-2006)

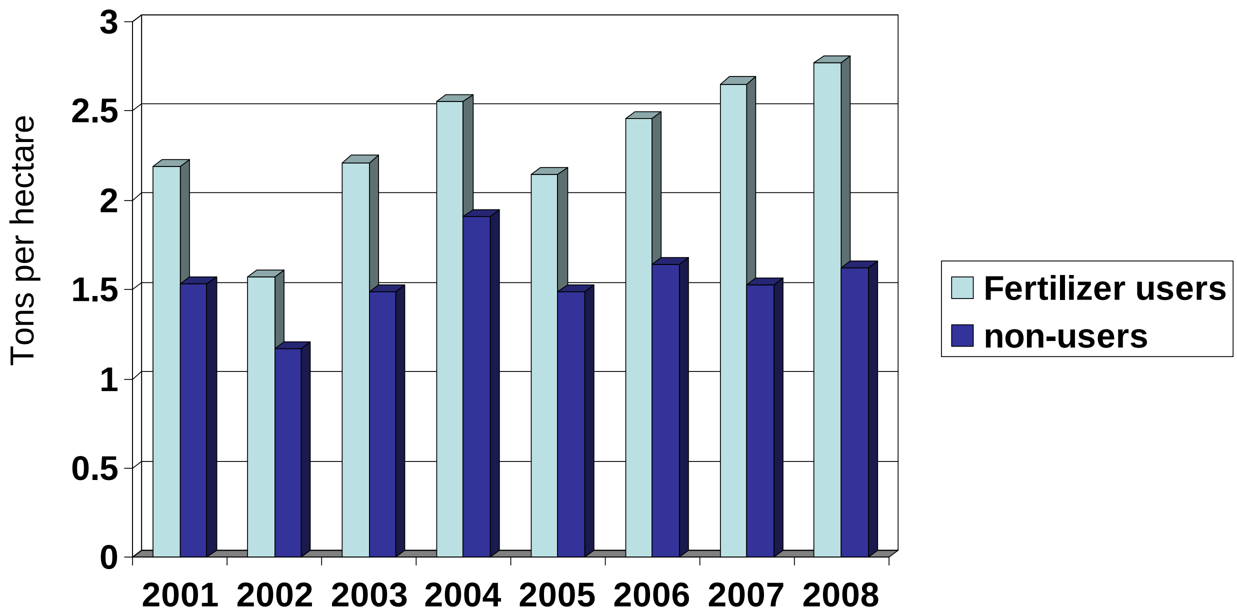


Maize Yield Trends Pre-FSP & FSP Era

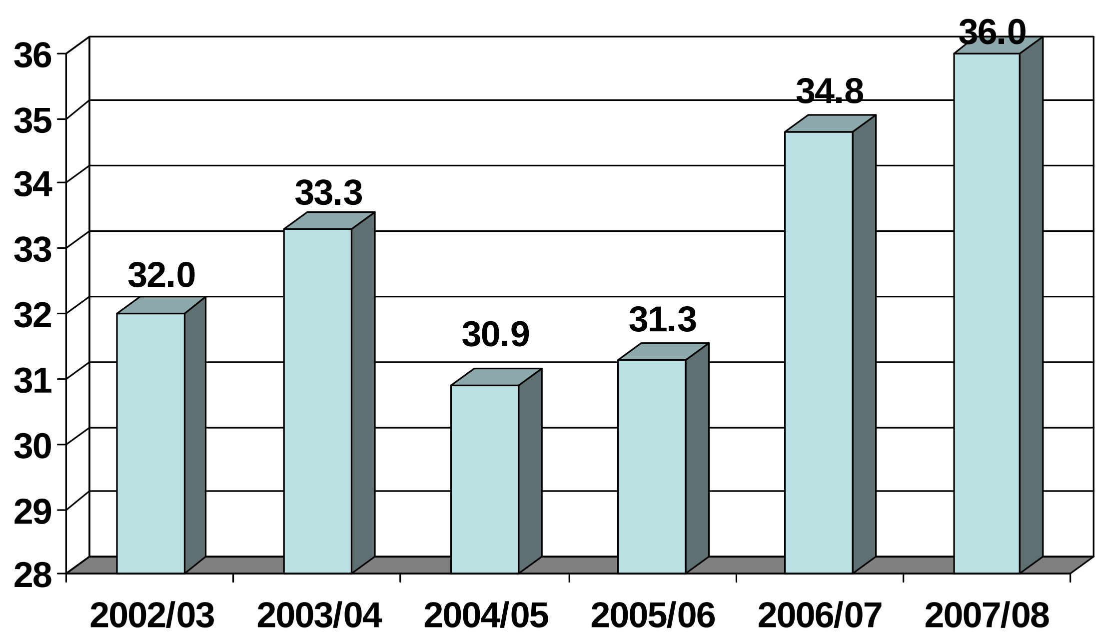


Source: MACO/CSO Crop Forecast Data 1995 - 2008

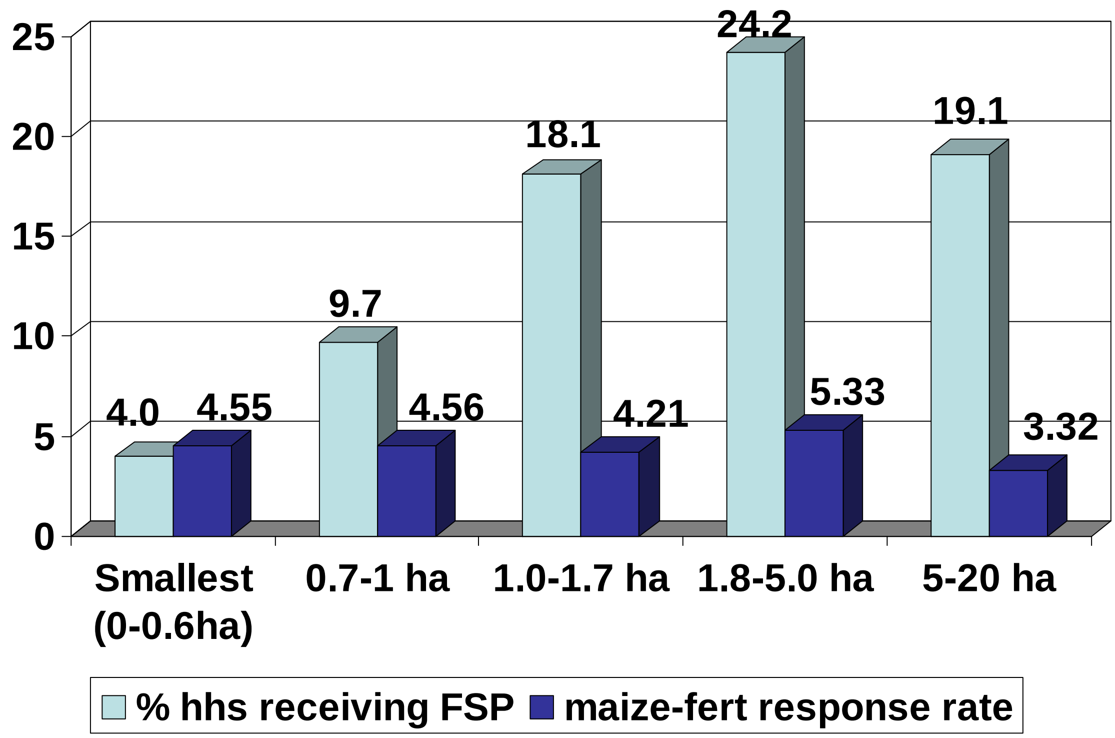
Zambia: Maize Yields (mt per hectare of area harvested), Fertilizer Users vs. Non-users



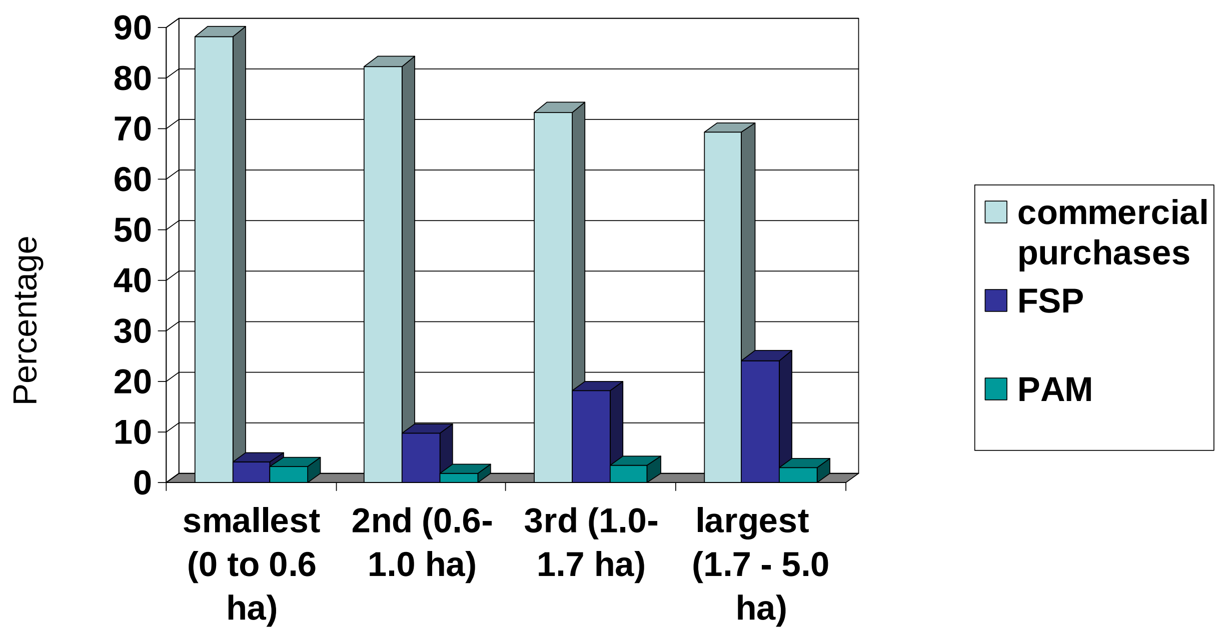
Zambia: Trend in % of Smallholders Using Fertilizer Nationwide



Zambia: % of Farms Receiving FSP and Maize-Fertilizer Response Rates, CFS, 2007/08



Zambia: Fertilizer Acquisition Sources Among Small-scale Farmers Using Fertilizer on Maize, 2003/04 and 2007/08**



** note: NGOs and other farmers account for less than 6% of primary fertilizer acquisition source by small-scale famers

Underappreciated Facts: Smallholder Position in the Maize Market

Trends in Smallholder Crop Production & Sales - 2001 to 2008

- Maize, groundnuts and cotton show increase or general stability in number of growers, total production and sales
- Number of households growing cassava has declined but production has increased
- Sweet potato production and number of producers has been declined
- Because of rapid growth in rural ag households, production per household has not improved (except for maize)

Fact #1

- ***A*** **large share of smallholder households are land constrained**
  -- 25% of smallholders have less than 0.5 hectares of land
  -- 58% of households indicate that there is no unallocated land in their village

Underappreciated Fact #2

- Most rural farm households are buyers of maize (or net buyers)
  - 28 % of smallholders are net maize sellers
  - 49 % of smallholders were net supplemental buyers of maize (11 % did not produce any maize);
  - 23 % produced but did not sell nor buy maize
- Highly concentrated patterns of surplus generation - 2% of farm households account for 50% of marketed maize surplus
- Maize market position is highly associated with area cropped and hh assets

Fact #3

- ***Demand for quality land is skyrocketing***
  - Demand for agricultural land = derived demand for food
  - Rapid urbanization of Africa resulting in non-linear growth in demand for food

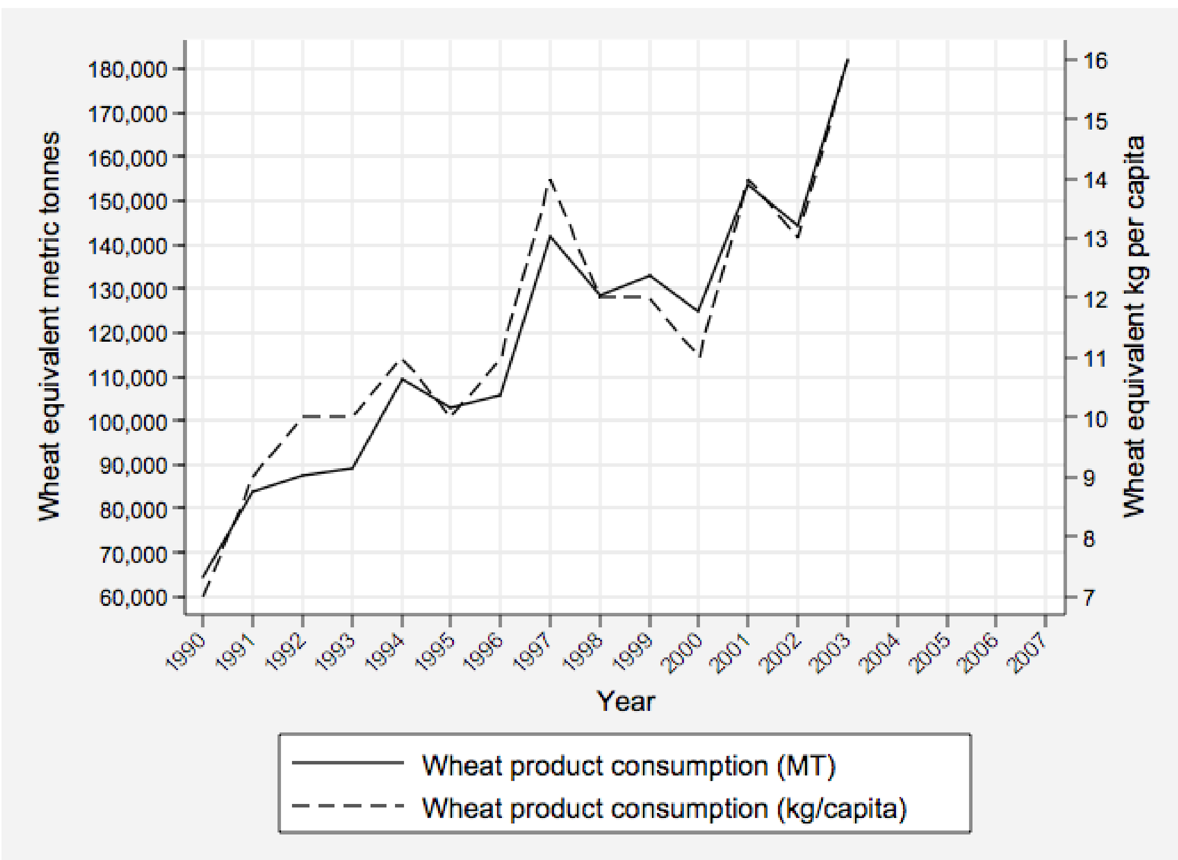
Urban Food Consumption Patterns: Key Points

- Overall the combined importance of meat, eggs, fish & dairy has surpassed the role of cereals/staples.
- For poorest, cereals still dominate
- Vegetables important group, especially for poorest
- Poultry & eggs have become very important & dominate the meats group outside Lusaka

Urban Food Budget Shares For Key Products

Food Item	--------------% expenditure share ---------------			
	Lusaka	**Kitwe**	**Mansa**	**Kasama**
Cereals & Staples	24.1	27.4	28.0	27.2
Dairy items	5.2	3.6	1.7	2.0
Meat & eggs	16.8	15.6	12.7	14.5
Fish	7.6	8.4	12.4	12.5
Vegetables	13.7	15.0	11.4	14.2
Fruits	3.6	4	3.7	4.0
Other Foods	16.4	17.1	16.9	18.4
Tobacco & alcohol	5.3	4.6	6.3	4.0
Food away from home	7.3	4.3	6.9	3.2
	100.0	100.0	100.0	100.0

Wheat Product Consumption Trends - Zambia



Patterns of Urban Food Consumption Key Points (2)

- Among staples, maize still dominates for lower income consumers, but wheat has become very important for all urban consumers.
- In Lusaka, wheat products dominate among staples except for the lowest expenditure groups
- Cassava important in Mansa & Kasama, esp. among low expenditure quintile of consumers
- Poultry & eggs have become very important & dominate the meats group outside Lusaka

Urban Food Budget Shares Staples

Food Items	--------------------------% Expenditure Share ------------------------											
	Lusaka			Kitwe			Mansa			Kasama		
	low	med	high	low	med	high	low	med	high	low	med	high
Staples	28.4	24.2	18.7	31.8	26.6	22	32.1	27.2	23	32.3	26.2	23.2
Maize	14.6	8.5	4.6	17.5	11.3	6.2	14.9	12.4	8.3	16.0	12.3	8.8
Rice	1.9	2.4	2.1	2.3	2.6	2.5	1.9	2.6	2.4	3.5	3.3	2.9
Wheat	9.2	10.7	9.6	9.1	10.0	10.8	2.0	5.6	8.4	1.7	4.7	7.9
Cassava	.2	.2	.2	.6	.6	.3	9.9	4.0	1.9	7.4	2.8	1.1
Other staples	2.5	2.4	2.2	2.3	2.1	2.2	3.4	2.6	2.0	3.7	3.1	2.5
Meat and Eggs	14.1	18.0	18.6	11.9	17.0	19.2	7.9	15.0	16.5	10.2	14.7	18.6
Vegetables	17.6	12.9	9.8	18.6	14.4	10.5	13.1	11.2	9.5	17.2	14.1	11.4
All other expenditure	39.9	44.9	52.9	37.7	42.0	48.3	46.9	46.6	51.0	40.3	45.0	46.8
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Urban Food Budget Shares-Meat & Eggs

Food Items	------------------------------% Expenditure Share -----------------------------------								
	Lusaka			Kitwe			Mansa		
	low	med	high	low	med	high	low	med	high
Meat & eggs	14.0	18.0	18.6	11.8	16.8	19.1	7.9	14.9	16.5
Read Meat	5.2	7.4	8.1	3.7	5.6	7.2	1.5	4.4	6.0
Pork	1.4	1.3	0.9	0.3	0.6	0.9	1.0	1.1	0.5
Chicken/poultry	5.7	6.6	7.4	5.9	8.2	9.7	4.6	7.2	7.1
Eggs	1.7	2.7	2.2	1.8	2.4	2.3	0.8	2.4	2.9
Dairy items	3.4	5.8	6.7	2.0	3.7	5.7	0.6	1.8	3.5
Staples	28.4	24.2	18.7	31.8	26.6	22.0	32.1	27.2	23.0
Vegetables	17.6	12.9	9.8	18.6	14.4	10.5	13.1	11.2	9.5
All other expenditure	36.6	39.1	46.2	35.8	38.5	42.7	46.3	44.9	47.5
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

2010 AGRIC. SECTOR BUDGET ANALYSIS

FNDP/SNDP Goals For Agricultural Sector Development

- FNDP ends 2010 – SNDP 2011-2015 coinciding with MGDs
  - All seek to attain 90% HH food security by 2015
  - Increase ag's contribution to FOREX earnings from 3-5% to 10-20%
  - Increase ag export output at an annual rate of 20%,
  - Grow ag from 1% to 7-10% per annum from 2006 onwards
  - Increase ag contribution to GDP from 18-20% to 25%
  - Facilitate the role of private sector
  - Obtain broad-based income increases for those in ag sector
  - Finalize & implement the Zambia CAADP Country-Compact

Budget Speech: 2009 GRZ/Ag Sector Performance?

- 2009 year-end ag sector to grow 5.7 %
- 2009 maize crop up 26 % to 1.9 million mt
- Year-end overall economic growth projected- 4.3 %
- Key 2009 national & ag constraints mentioned:
  - Zambia strongly affected by global economic crisis;
  - Higher than expected food prices in 1st half of 2009;
  - Increases in cost of energy & transportation;
  - With weakened fiscal position GRZ increased domestic borrowing: year-end 2009 inflation projected at 12 %
  - Constrained operational expenditures across GRZ departments and agencies

Budget Speech:
2010 Agric. Sector Performance Goals/Targets

- Continue to raise productivity & incomes from crops
- Enhance livestock/fisheries – new Ministry & create disease-free zones
- Establish extension service centers in disease prone zones
- Implement some FSP revisions (Farmer Input Support Programme) and continue modest funding of FS Pack
  - Reduce pack size and increase beneficiaries to 534,000
  - Use camp & community-level institutions to improve targeting
  - Target farmers receiving FISP pack for extension advice
  - Stimulate private agro-dealer development
- Continue FRA strategic reserve stocking & rehabilitate silos
- Introduce ag marketing bill to facilitate warehouse receipts
- Continue & strengthen investment in farm blocks

Budget Speech:
Other 2010 Ag Sector Related Budget Actions/Targets

- Abolish unfair & unpopular crop levies
  - Increase recurrent grants to councils to compensate for lost revenue from levies
- Excise duty on diesel up from 7 % to 10 %
- Zero-rate "insecticide treated" curtains to facilitate "Roll Back Malaria Programme"
- Remove customs duty on fertiliser micro-nutrients used in blending of fertiliser
- Raise fees under the land act, including ground rent increase by 80% for 2010. Encourage intensification of land use & discourage holding for speculation

What are the Fundamental Engines of Growth in the Ag/Livestock Sectors?

- Research, technology and extension for both crops and animals – new cultivars/seeds, animal stock & management practices that raise productivity
  - GART, ZARI, NISIR, UNZA,MACO, NGOs, LDT
- Soil fertility management & enhancements
  - Fertilizer use & management (timely use, levels, methods)
  - Conservation farming technology, management & extension
- Animal disease control & animal nutrition improvements
- Irrigation to reduce uncertainty & raise input response
  - Small scale and large schemes, & water conservation practices
- Reliable & competitive Markets –"produce *for* markets, not *to* market" Domestic, regional & international markets
- Strategic infrastructure to keep production costs down
  - Soft and hard (eg. Road building/maintenance, electric power, communication, storage facilities)

Where are Agriculture Growth Funds Sourced?

- Government
  - Direct expenditures
  - Indirect through tax incentives
- Development partners
  - Budget and project support
  - Non-budget support
- Private sector including farm households
  - Commercial loans
  - Equity investment funds
  - Outgrower inputs in-kind

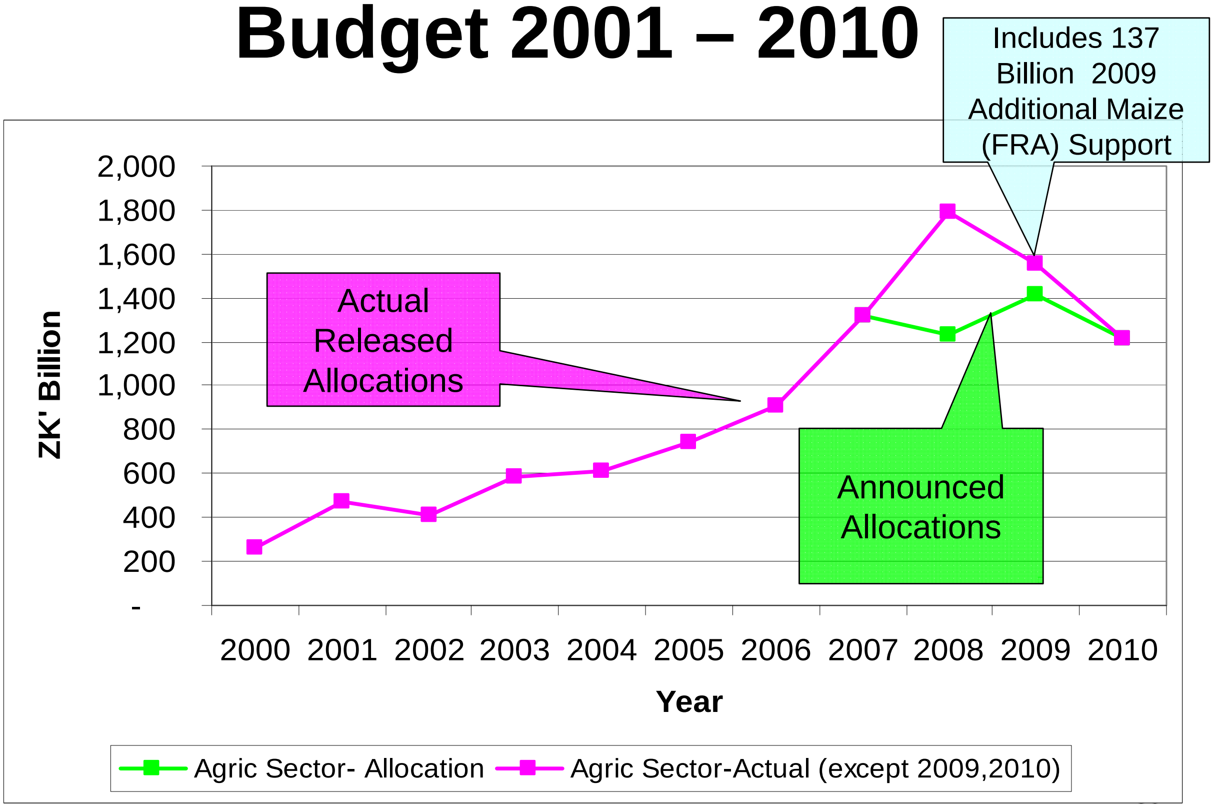
Who are the Spending Agents – Overall Agriculture Budget?

- UN/AU/NEPAD standards define “Agriculture” as including crops, livestock, fisheries, forestry & hunting
- “Agriculture” also includes expenses incurred by other ministries including:
  - Home affairs (prison farms)
  - Community development & social services (food security pack)
  - Defense (Zambia National Service – farm production)
  - Works & Supply (building of agricultural infrastructure)
  - Lands (survey and demarcation of agric lands)
  - Natural resources (forestry) tourism, and environment
  - Energy and water (construction of dams for irrigation)
  - Finance & national planning (loans and investments)
  - Office of President (crop, livestock & forestry projects)
  - Office of Vice President (resettlement & disaster management)

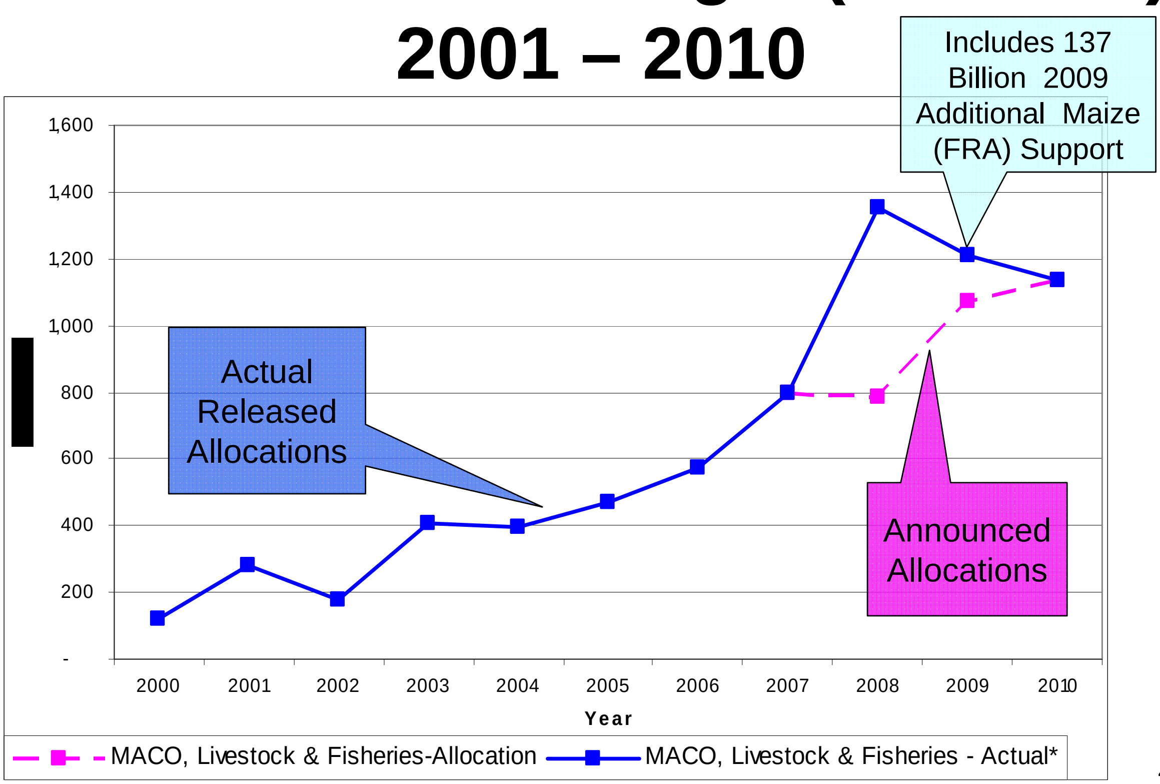
What are the Details of the 2010 Agricultural Budget & Past Trends?

- Real size of budget, comparisons & trends
  - All analysis in terms of 2009 ZMK
- Agriculture’s share of national budget
- Practical budget review requires a look at:
  - “announced annual allocations” and
  - “actual annual released allocations”
- Will distinguish between the “Overall Ag budget” and “MACOs budget”

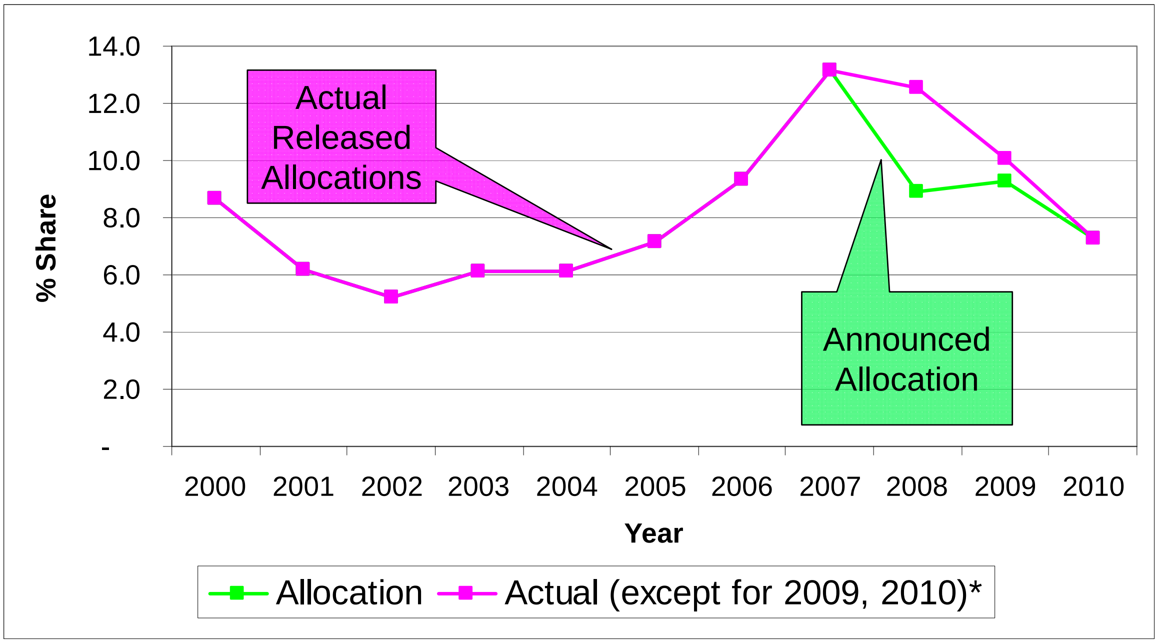
Real Size of Overall Agricultural Budget 2001 – 2010



Real Size of MACO, Fisheries and Livestock Budget ("MACO") 2001 – 2010



Agriculture's Share of Zambian National Budget



* Includes 137 Billion in Maize price support Arrears in 2009

Sources of Overall Ag Budget Change 2009 vs 2010

Category	2009 (ZK' Billion)	2010 (ZK' Billion)	% change
MACO, Livestock & Fisheries	1074.39	1133.53	5.50
Agric allocation via other Ministries	188.65	84.07	-55.44
Ministry of Energy and Water Development	5.22		-100.00
Ministry of Home Affairs- Zambia Police, Constructions of MZ Sheds and Prison Farm	0.95	1.01	5.68
Ministry if Community Development and Social Services	10.00	10.00	0.00
Ministry of Defence	0.64	1.64	156.29
Ministry of Lands	0.13	0.08	-37.81
Ministry of Tourism, Environment, & Natural resources			
Forestry Department	6.61	10.29	55.69
Forestry College	3.46	4.87	40.91
Office of the President			
Forestry	12.82	14.02	9.35
Resettlement	0.36	0.05	-86.16
Other	5.33	4.10	-23.20
Ministry of Finance and National Planning			
CSO	1.27	6.97	447.53
NCZ Financial Restructuring	30.00	0.00	-100.00
Farm Blocks	111.41	29.07	-73.90
Ministry of Transport and Communication	0.44	1.97	343.43
Total allocation to Agricultural Sector (excluding Donor Investment)	1263.05	1217.60	-3.60

Decrease of 3.6 %

Overall Ag Budget Comparison Without The 137 Billion Additional Allocation for 2009

	2008	2009		2010		% change 09 to 10
	Released	**2009 Allocation**		**2010 Allocation**		
Category	ZK' Billion	ZK` Billion	%	ZK` Billion	%	
Personal Emoluments	118.1	131.8	10.4	154.6	12.7	17.3
Recurrent Departmental Charges	84.1	160.1	12.7	131.5	10.8	-17.9
Grants and Other Payments	4.2	3.5	0.3	5.5	0.5	60.0
Poverty Reduction Programs	862.3	575.1	45.5	551.5	45.3	-4.1
-FRA	340.0	100.0	7.9	100.0	8.2	0.0
-FSP	492.1	430.0	34.0	430.0	35.3	0.0
-Other	30.2	45.1	3.6	21.5	1.8	-52.4
Capital Expenditure	3.1	42.8	3.4	40.9	3.4	-4.4
Agricultural show	2.7	2.8	0.2	2.5	0.2	-11.6
Agricultural development Programs	277.3	158.3	12.5	247.0	20.3	56.0
Allocation to other ministries	123.3	188.7	14.9	84.1	6.9	-55.4
TOTAL	**1475.1**	**1263.0**	**100.0**	**1217.6**	**100.0**	**-3.6**

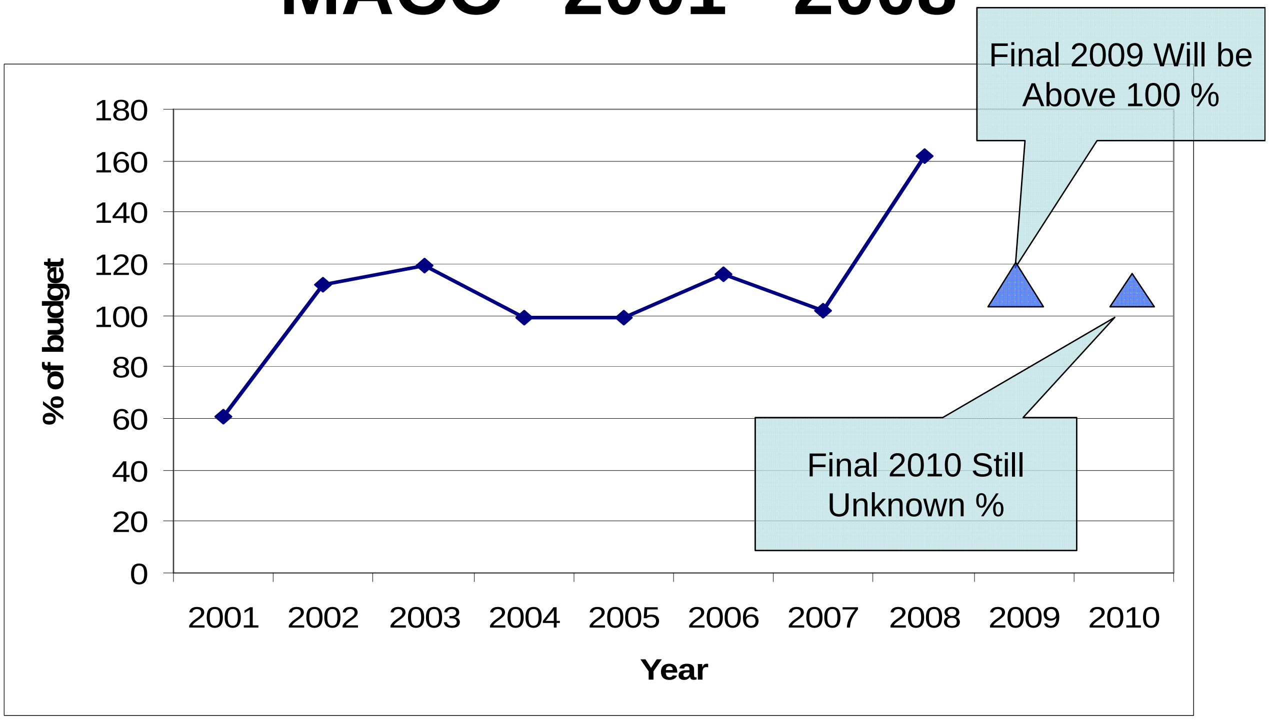
Decrease of 3.6 %

Overall Ag Budget Comparison Including the 137 Billion Additional Allocation for 2009

	2008	2009		2010		% Change 09 To 10
	Released	**2009 Allocation**		**2010 Allocation**		
Category	ZK' Billion	ZK` Billion	%	ZK` Billion	%	
Personal Emoluments	118.1	131.8	9.4	154.6	12.7	17.3
Recurrent Departmental Charges	84.1	160.1	11.4	131.5	10.8	-17.9
Grants and Other Payments	4.2	3.5	0.2	5.5	0.5	60.0
Poverty Reduction Programs	862.3	712.1	50.9	551.5	45.3	-22.6
-FRA	340.0	237.0	16.9	100.0	8.2	-57.8
- FSP	492.1	430.0	30.7	430.0	35.3	0.0
- Other	30.2	45.1	3.2	21.5	1.8	-52.4
Capital Expenditure	3.1	42.8	3.1	40.9	3.4	-4.4
Agricultural show	2.7	2.8	0.2	2.5	0.2	-11.6
Agricultural development Programs	277.3	158.3	11.3	247.0	20.3	56.0
Allocation to other ministries	123.3	188.7	13.5	84.1	6.9	-55.4
TOTAL	**1475.1**	**1400.0**	**100.0**	**1217.6**	**100.0**	**-13.0**

Decrease of 13 %

Budget Releases as % of Allocation: "MACO" 2001 - 2008

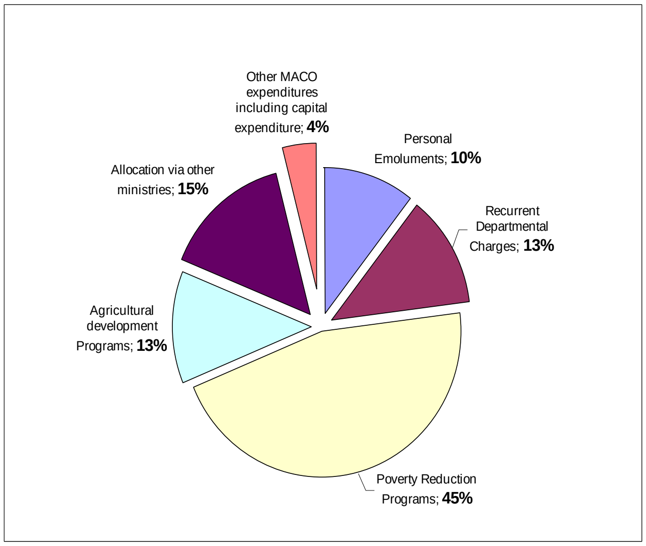


Overall Agriculture Sector Budget – Key Spending Components

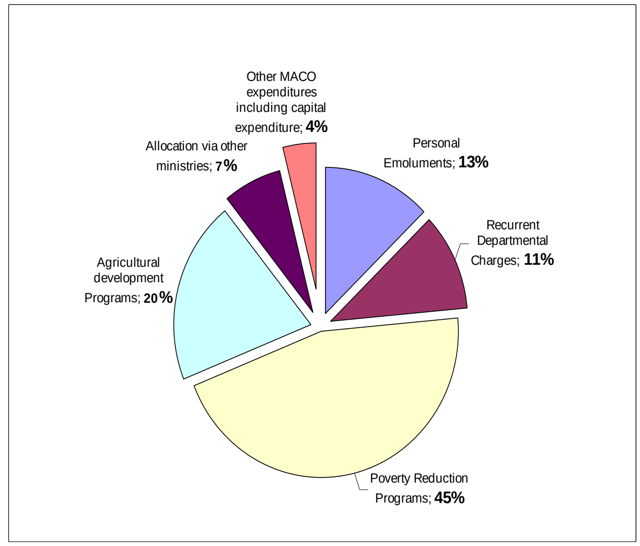
- Personnel Emoluments (PEs)
  - Salaries and Wages
- Recurrent Departmental Charges (RDCs)
  - Supplies and other requisites
- Grants and other payments
  - CDT, IFAD, International Red Locust
- Poverty Reduction Programs (PRPs)
  - Fertilizer Support Program, Strategic Food Reserves/FRA
- Agricultural Development Programs
  - ADB, ASP II (coming) IFAD, FAO
- Allocations to other ministries
  - Food Security Pack, Construction of Dams and Roads

2009 & 2010 Spending Components Allocation Within Agriculture Sector

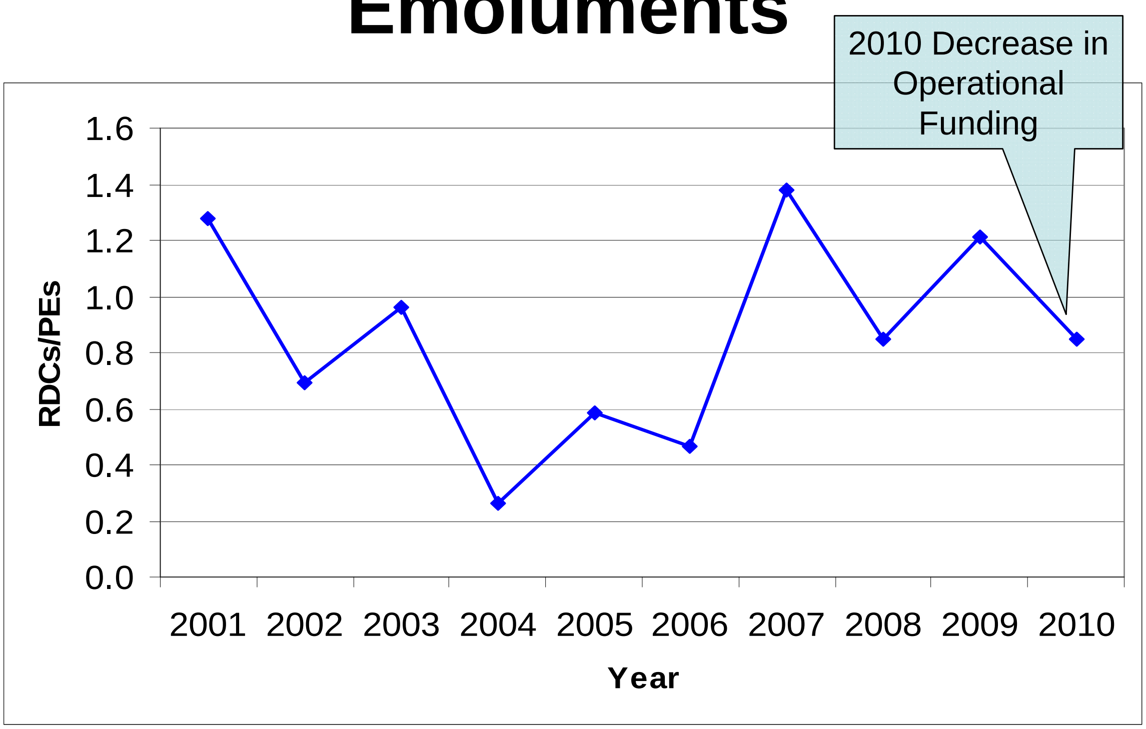
2009



2010



Ratio of RDCs to Personnel Emoluments

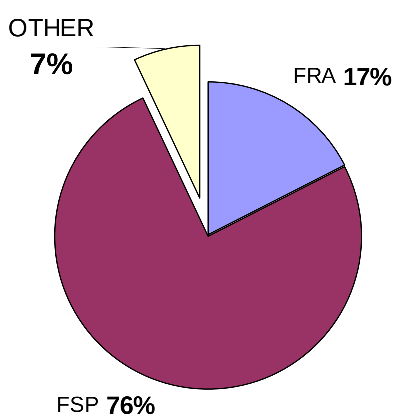


Allocations to MACO Poverty Reduction Programs 2009 & 2010

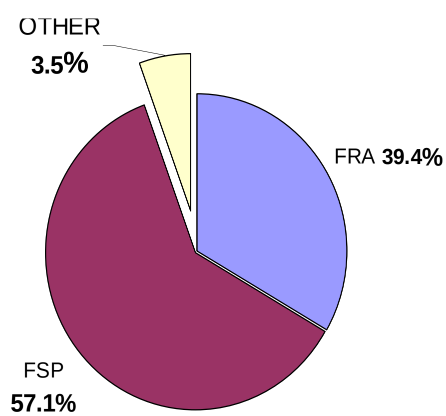
	2009 Allocation		2010 Allocation	
Category	ZK billion)	(%)	(ZK billion)	(%)
Irrigation support	6.0	1.0	0.45	0.1
Animal disease control	24.0	4.2	13.53	2.5
Livestock development	3.2	0.6	2	0.4
Fertilizer Support Program	435.0	75.6	430	78.0
Strategic Food Reserves	100.0	17.4	100	18.1
Other	6.9	1.2	5.11	0.9
TOTAL	**575.1**	**100.0**	**551.23**	**100.0**

% Composition of MACO Poverty Reduction Programmes 2009

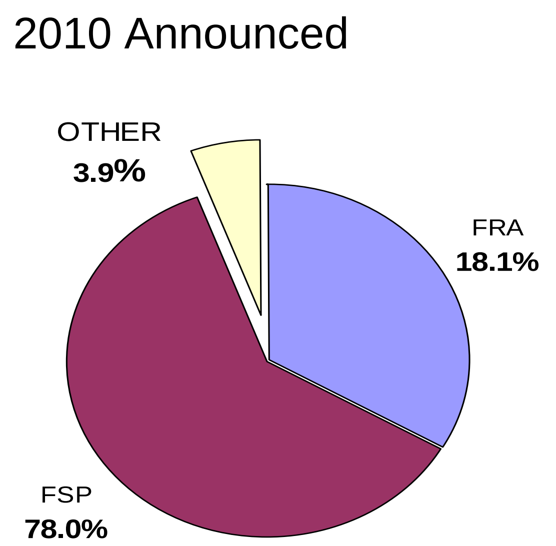
2009 Announced



2009 Announced plus 137 Billion Maize Price Support Arrears



% Composition of MACO Poverty Reduction Programmes 2010



What is the Summary Picture? (1) - 2010

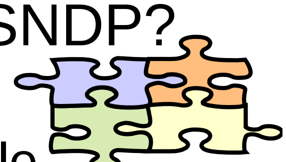
- Overall ag. budget size is down 3.6%
- (or with additional FRA allocations in 2009 included) 2010 is down13 %
- Overall the trend toward NEPAD/CAADP target is down to 7 % from a peak of some 13 % in 2007
- Ag operating funds for implementation are down for most part but funding for livestock is up.
- Poverty reduction programs continue large, maize centered and dominated in 2010 by FSP and then FRA
- FISP reform has begun but more needed to complement what has started

Summary (2) - 2010

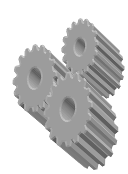
- Agro-dealer & private output marketing still stifled
- Farmer registry and e-voucher system needed
- Intention is for proposed marketing act with warehouse receipt system (WRS) enabling legistration going to Parliament soon
- Crop levies abolished & district councils funded
- Implementation challenges threaten growth in productivity for livestock, crop sector, irrigation and farm blocks
- Many drivers of agricultural growth for smallholders are still under funded to achieve competitiveness & diversification targets of budget and SNDP

Summary (3) - 2010

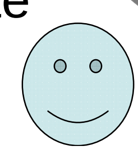
- What are some of the most strategic targets and implementation actions that fit together to achieve more for smallholders in the SNDP?



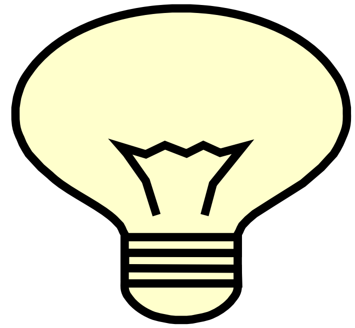
  - invest in real productivity drivers to enable increases in yield not just area expansion
  - focus GRZ & Donor $ on those things which are impossible for private actors to do – public goods
  - encourage private investments by smallholders as well as private agro-dealers/traders which complement GRZ investments

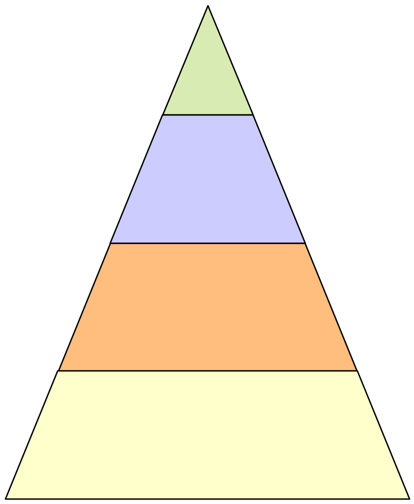


  - Build trust lasting between public & private



A Better Idea for Smallholders & SNDP!





Build a strong foundation of sustainable productivity enhancers to seek broad-based smallholder advancement

Smallholder Farmers - National Crop Sales

Attributes	Crop	1999/00	2002/03	2006/07	Growth btwn survey yrs
% HH Growing who sold crop	Maize	36	36	38	↔ ↑
	Cassava	34	25	26	↑ ↑
	Groundnuts	43	48	46	↑ ↓
	Sweet potatoes	39	41	46	↓ ↑
	Cotton	98	98	98	↔
Volume sold	Maize	335,173 (26%)	370,332 (33%)	762,093 (39%)	↑ ↑
	Cassava	87,776 (12%)	70,561 (11%)	35,735 (4%)	↓ ↓
	Groundnuts	14,672 (26%)	24,409 (28%)	27,171 (29%)	↑ ↑
	Sweet potatoes	59,286 (12%)	51,581 (37%)	63,617 (47%)	↑ ↑
	Cotton	44,850 (98%)	118,461 (98%)	121,063 (98%)	↔