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National Initiatives for food security and Nutrition: Case Studies

CAADP implementation in Rwanda: *Initiatives, Successes, Lessons learnt and challenges*

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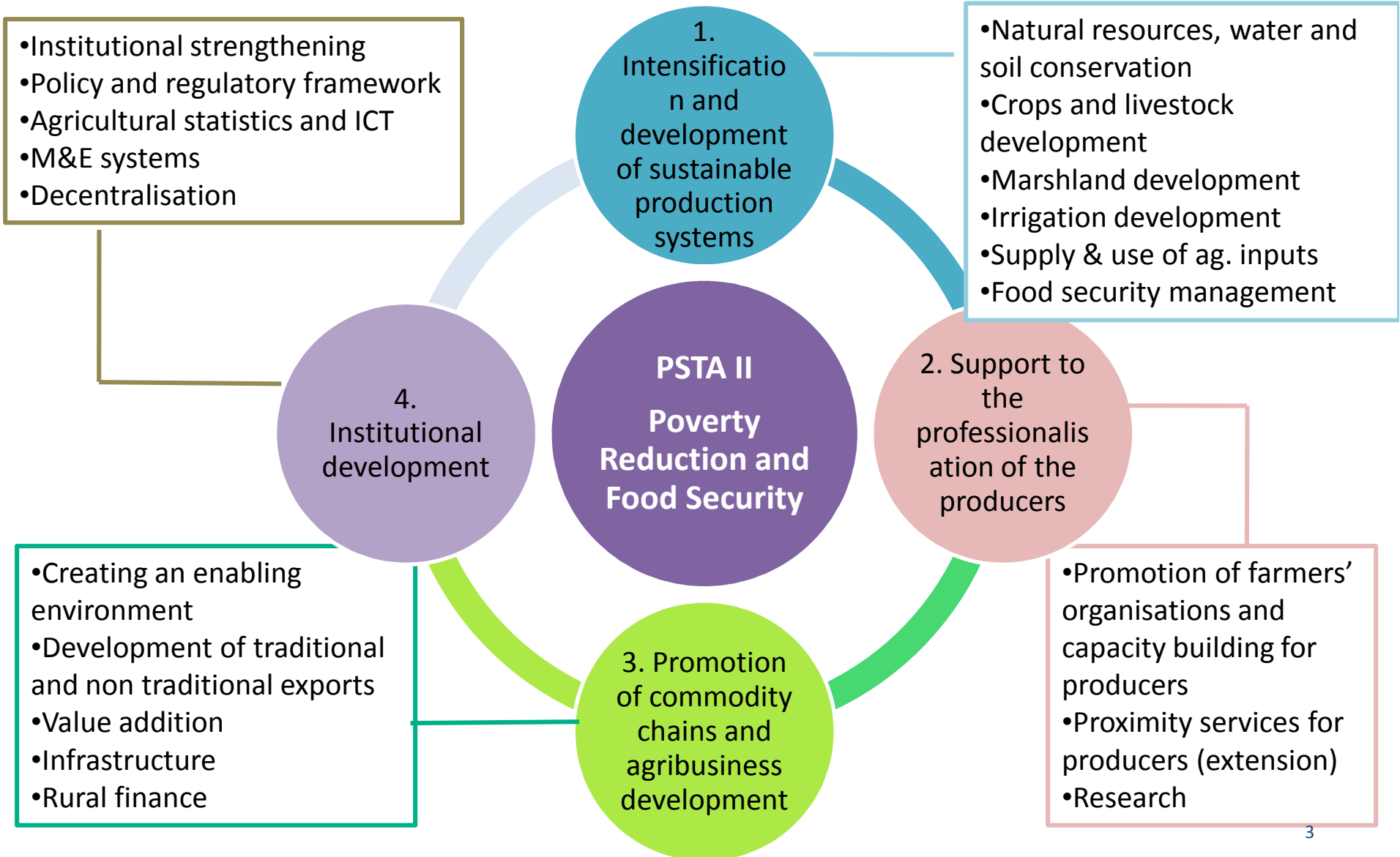


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Place of Agriculture in the National Economy

- 31% of Rwanda's GDP
- 70% of exports
- Employment – 80% of population
- Provides 90% national food needs

Investments in the sector - guided by 2nd Strategic Plan for Agricultural Transformation



2007

2012

2015

2020

STRATEGIC
FRAMEWORKS

EDPRS

MDG's

Vision 2020

OPERATIONAL
PROGRAMMES

NAP

PSTA
I

PSTA
II

PSTA
III

???



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Rwanda's agriculture sector faces a set of unique challenges

- Need to generate higher incomes for poor farmers on small plots of land
- Control soil erosion and reverse soil fertility loss
- 2/3 of the country is on steep slopes- Increase land available for cultivation
- Reduce dependency on rainfed Agriculture- for sustainability
- Weak capacity base: infrastructure and skills
- Absence of a strong private sector for farm services, marketing and inputs
- ⁵Weak/absence of an extension system



36 Rwanda-Priority interventions

Crop Intensification

- Land Consolidation
- Fertilizer access
- Seeds access

Erosion Control

- Terracing
- Agro-forestry

Resource Use

- Irrigation
- Water Harvesting

Targeting nutrition

- One cow per poor family
- Small ruminants
- Kitchen garden

Building Skills and Market Development

- Participatory Extension Services
- Research
- Domestic and Export Market Dev



Key elements of the crop intensification program

Land consolidation 25,000 ha (06)550,000ha (10) (2.8%-61%)

- Small holder farming
- Efficiency of Access and distribution of input
- Smallholder access to extension services
- Increased opportunity for credit access
- Increased marketing power
- Potential for increase in mechanization



Crops by Agro ecologies- A Rwandan Green revolution

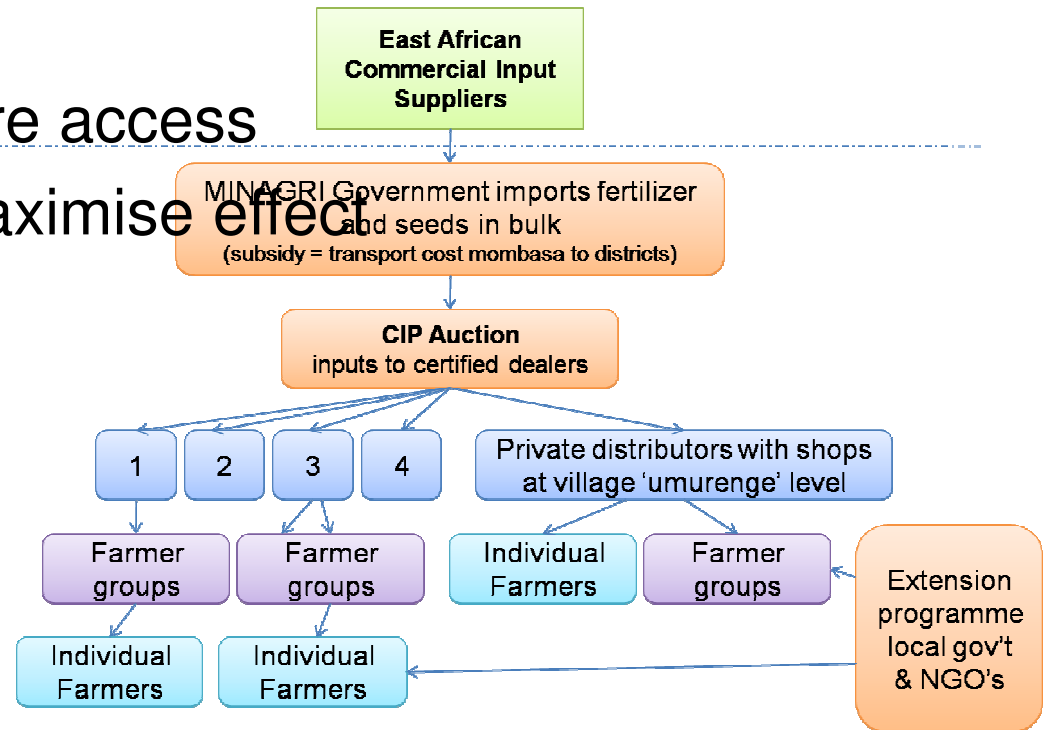


Fertilizer access has been improved through market-based subsidies

- GoR bulk imports & smart transport subsidies ensure availability
- Private sector capacity-building: auction and distribution network
- Voucher system to ensure access

Results

- Land consolidation to maximise effect
 - Fertilizer use in target districts increased from 4 kg to 19.9 kg /ha
 - Households using fertilizer increased from 25 to 44%
 - Plans for 65% in 2010



Access to improved seeds- partnerships **36** between private & public sectors

Creating demand, even among the poorest farmers

- Drought resistance and Hybrid seed access
 - Conditional upon fertilizer purchases
 - Maximizing effect of fertilizer subsidies

Developing local seed production

- Ensuring sanitary & phyto-sanitary standards
- Providing incentives, e.g. subsidised loans
- Making research & technology





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80% of Land protected against erosion

Reducing Erosion

- Radical Terracing
- Progressive Terracing
- Agro-Forestry



Restoring Soil Fertility

- Livestock Ownership for Organic fertilizer
- Inorganic Fertilizer



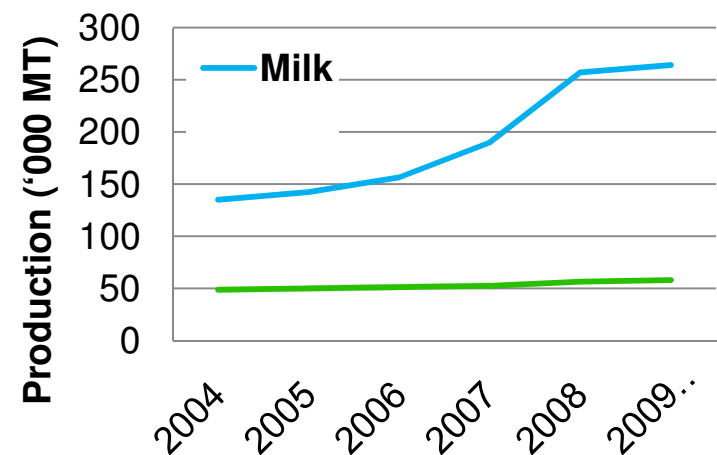
On target for protecting 100% of arable land by 2014

Nutritional security and income improved through livestock ownership and productivity

- **One cow per poor family**
 - 90,000 cows distributed
 - More than half contributed by farmers
- **Small Ruminants**
 - Goats, Sheep, Piggery
 - Poultry Extensive vaccination campaign
 - Control of major disease
- **School feeding and kitchen gardens in the most vulnerable**
 - One cup of milk
 - Cows at schools and school gardens
 - Kitchen Gardens



Milk & Meat Production





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LWH project - the underlying causes of the food crisis

Without LWH

- Land is acidic, impoverished in fertility, poorly holding moisture, and is dry in dry months,
- Soil, moisture and agricultural inputs are washed downhill by gravity and flood

With LWH

- Soil fertility is replenished and moisture holding capacity is improved
- Slope is corrected and Soil erosion is controlled
- Land productivity is improved and maintained.

Key challenge – steep landscape



Taming the hills for food security and Erosion Control





36 Production on terraced land: agriculture and environmental protection



Production increases are
several times higher





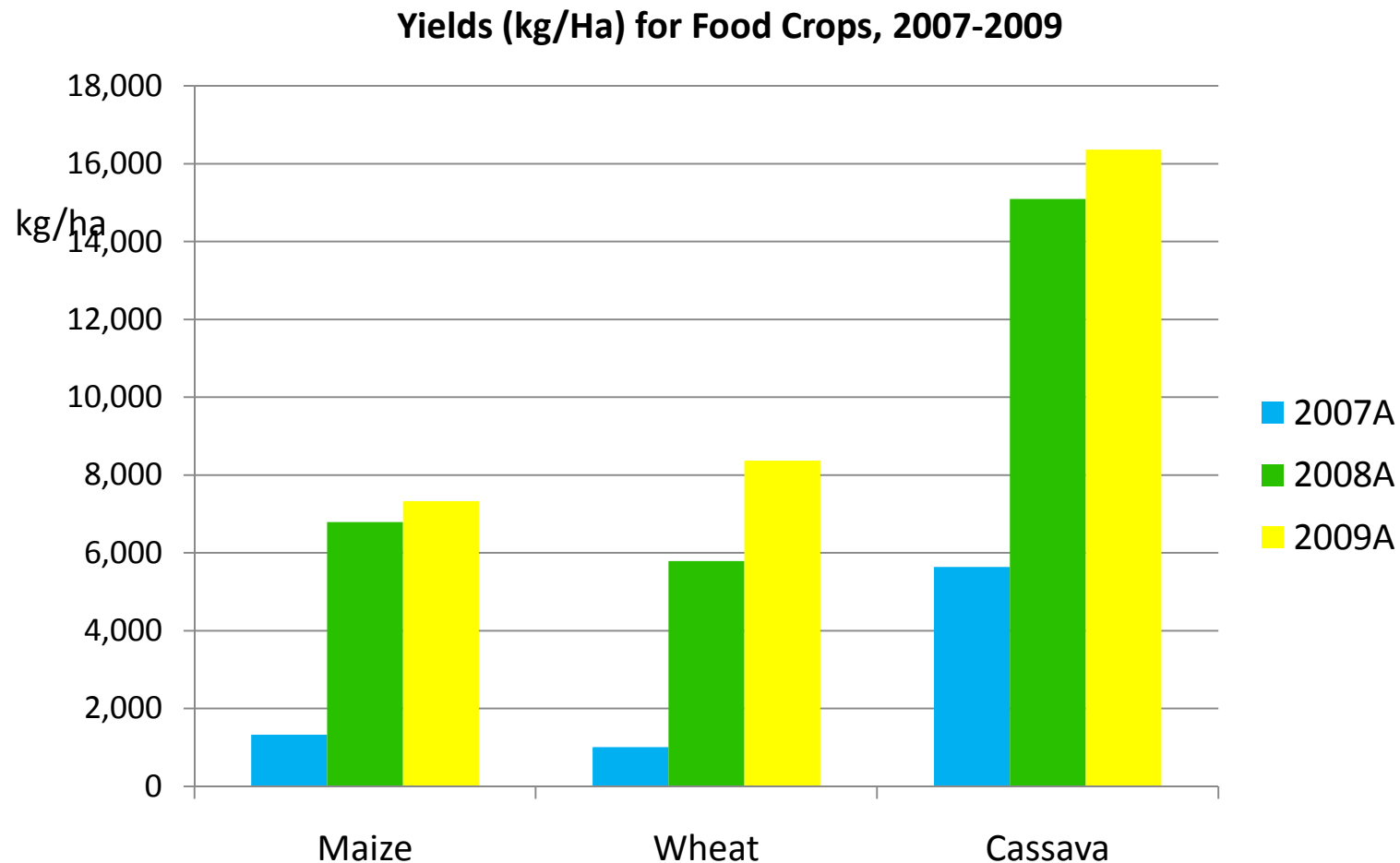
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Outcomes and Impact: Key indicators on track

Real growth	2000	Actual June 2010	Rwanda's Vision 2020
Agric GDP %	- (0.7 in 2007)	8.8	6
Agriculture as % of GDP	45	33.8	33
Fertiliser application (kg/ha/annum)	0.5	19.9	15
Soil erosion protection (% total land)	20	80.9	90
Land under "modernised" agric (%)	3	18%	50

Outcomes and Impact: CIP has transformed agriculture

- Yields in CIP areas have increased between 2 and 4-fold





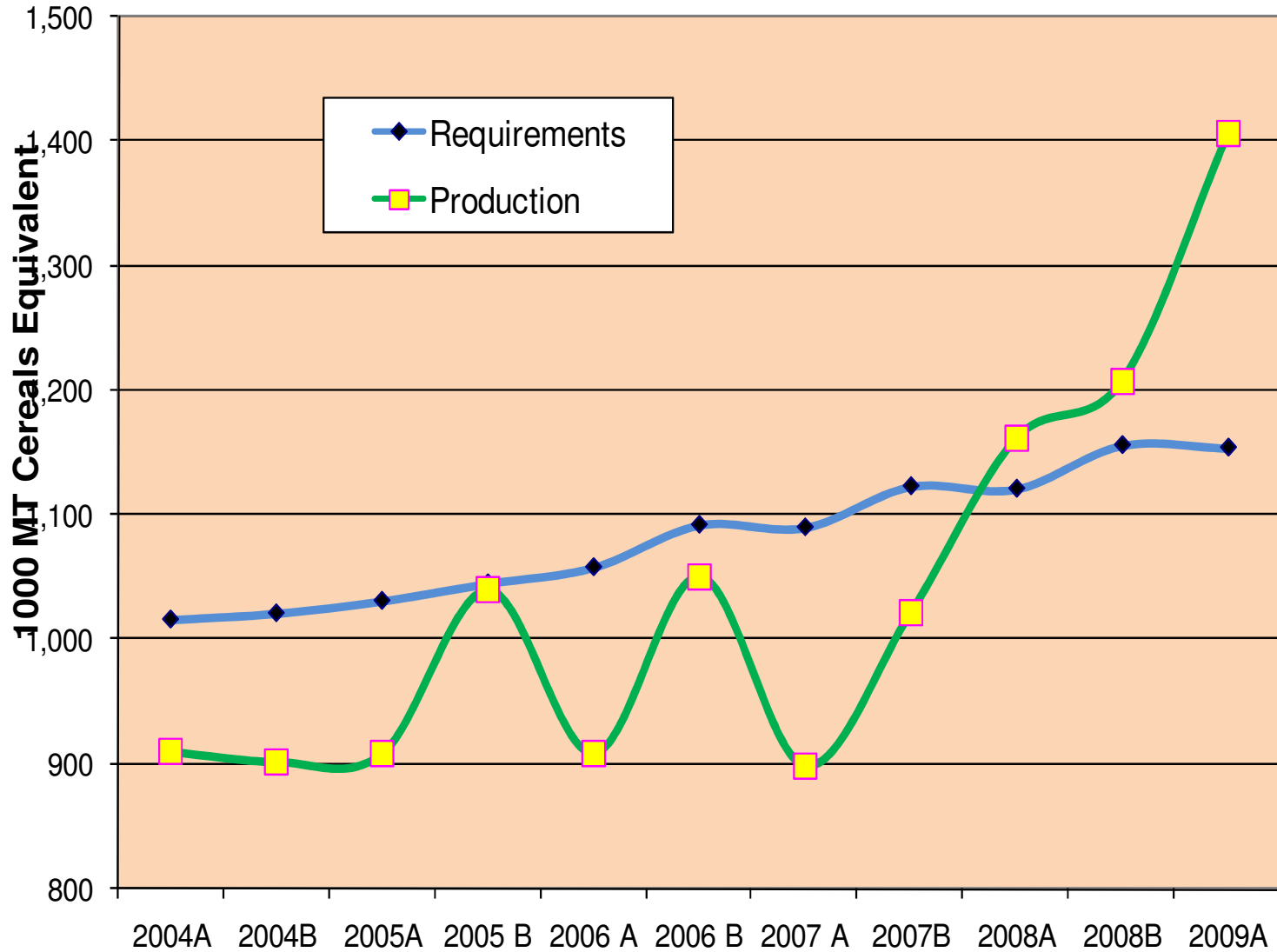
36 61% increase in maize production through use of improved seed and





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Outcomes and Impact: Food consumption higher than production





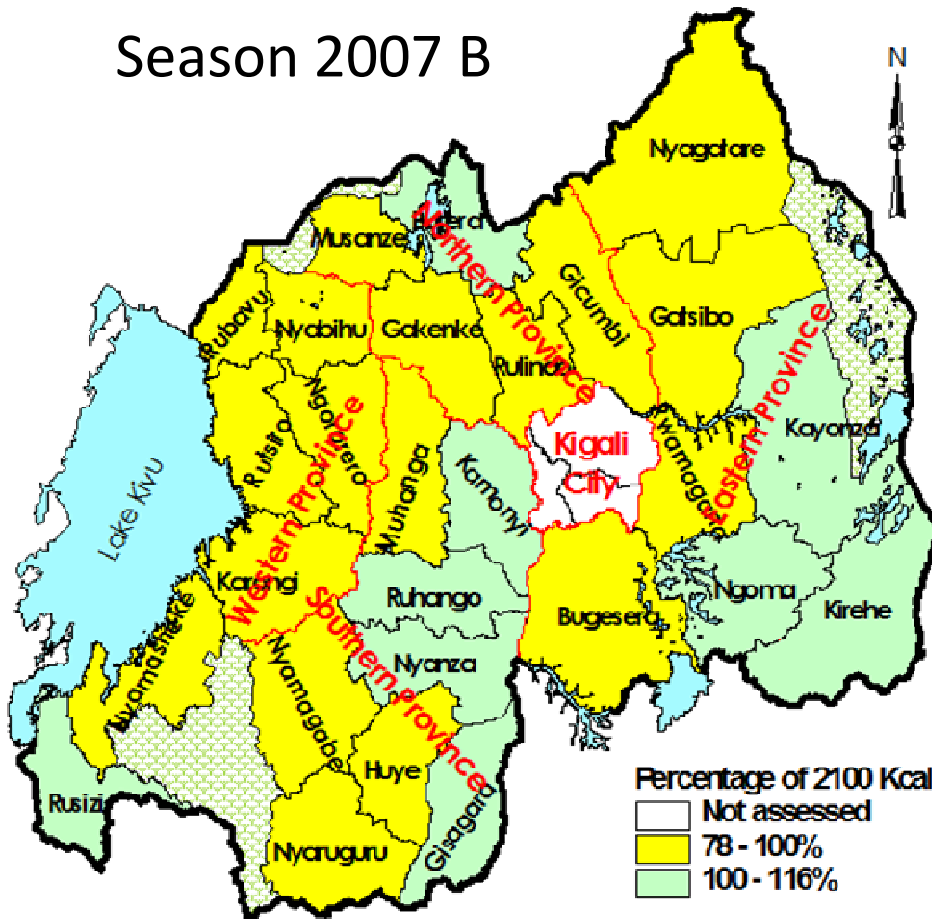
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Outcomes and Impact: Positive food balance free of aid and imports

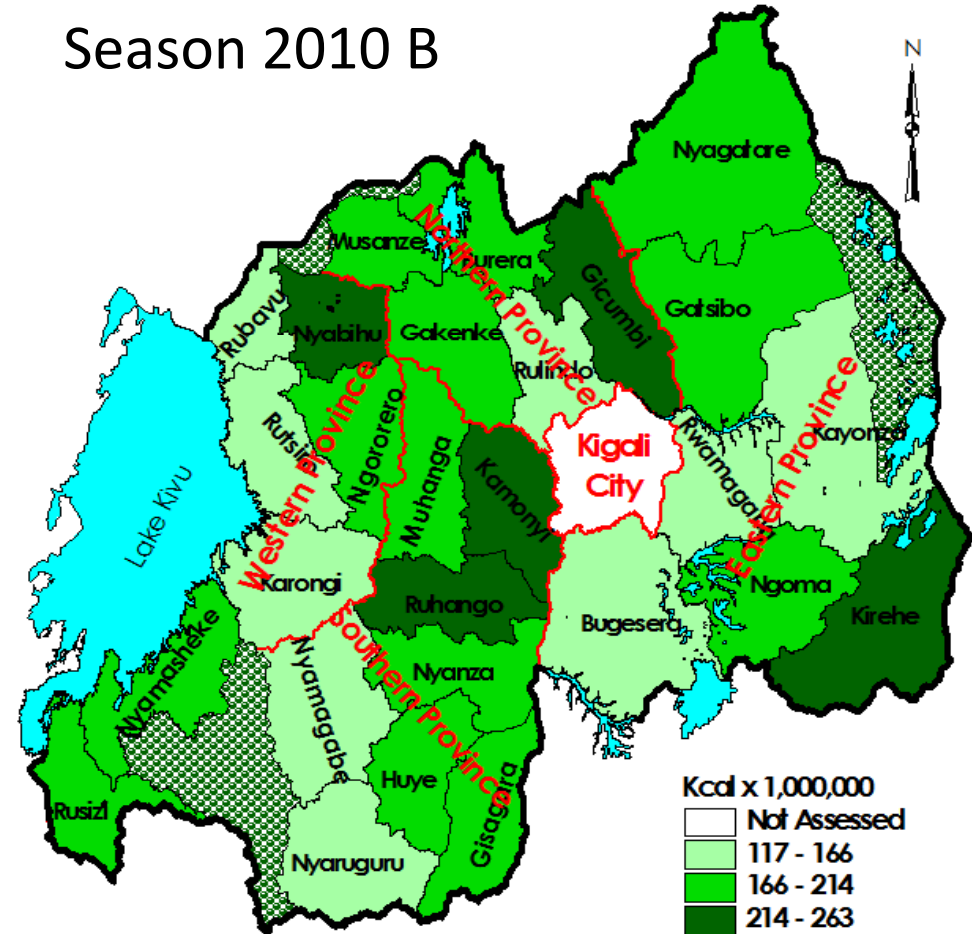
Food Balance sheet	2008B	2009B
1. AVAILABILITY = 2 + 3	1,104	1,387
2. Production	1,208	1,532
3. Losses (-20%)	-181	-230
4. NEEDS = National Consumption	1156	1,190
5. Balance/Deficit = 1 - 5	-52	197
6. Imports (estimated)	103	N.A
7. Food Aid	36	N.A
8. TOTAL	-52	197

Outcomes and Impact: Food security at the Hhold level

Season 2007 B

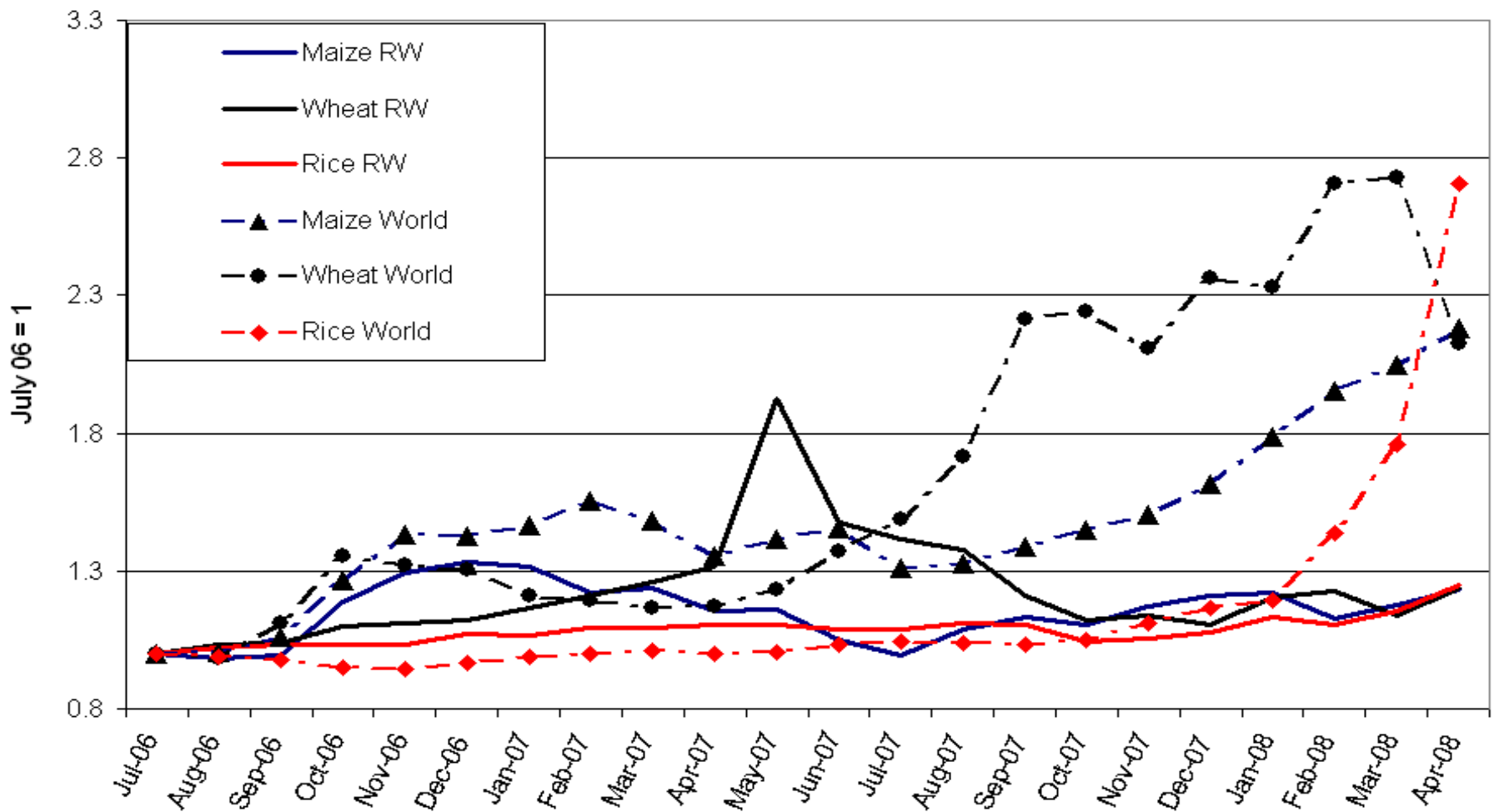


Season 2010 B



Outcomes and Impact: Mitigating the 36 impact of the global food crisis

Index of grain prices in Rwanda and world markets, July 06 - April 08



Key Successes: 1) Food security and a smiling farmer

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2) High Returns on Investment:

- **1\$US in Agric = 3.19\$US GDP**
- **Staples – highest returns: 1\$US = 3.84\$US GDP**



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Actions to be Improved: Increasing efficiency and sustainability of key initiatives

Rwanda: Rwanda and her partners

- **Irrigation: Increasing Area for Irrigation 2010-2017 = 63,000 ha (e..g. Asian success)**
- **Mechanization**
- **Improved seed Varieties**
- **Better fertilizer Access and Improved technologies**
- **Invest in a National seed Industry**
- **Invest in post harvest systems including strategic reserves**
- **Invest in value addition**
- **Increase access to agric financing and crop insurance**



36 Key actions at Regional level

Commitment to achieve the CAADP growth and budgetary objectives

- Agriculture-led growth of 6%
- Increased public investment (10% budget share)
- Achieve FOOD AND NUTRITION SECURITY (MDG1)

Commitment to peer review and accountability processes

that would allow for transparency,
sharing of lessons and experience with all stakeholders
and other member states



Strengthening the CAADP process

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- Investment plans and Peer review
 - Improving advocacy
- Better coordination of all actors
 - Increased Financing

Lessons from Rwanda: OWNERSHIP

- Build on strong national and political ownership
 - Bringing the development partners on board to support the Government owned and led agenda
 - Commitment to Maputo declaration



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Major stakeholders

Governments

Development partners

AU/NEPAD

COMESA

Civil society and Private sector



More Recently:

- GAFSP
- CFS