

National Graduate Institute for Policy Studies (GRIPS)

PDI

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Topic: Supplemental Irrigation (SI) in Rwanda

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Outline

1. Agricultural policy-making process & stakeholders
2. Guiding documents for agriculture policy
3. Agriculture and the economy
4. Climate change challenge
5. Supplemental irrigation (SI): Background & institutional framework
6. Process for SI policy-making
7. SI schemes development process
8. SI Schemes operation and management
9. Government initial support to farmers in SI schemes
10. Stakeholders in the implementation of SI & their roles
11. Challenges to SI
12. Recommendations

1. Agriculture policy-making process & Stakeholders

1. MINAGRI : Initiates the policy – Hires consultants
2. Consultants consults stakeholders, mainly: MINECOFIN, MINIRENA, MINICOM, MINALOC, DPs, PSF, Farmers' Federations, Provinces, Districts) with the coordination of MINAGRI
3. After finalization of the policy formulation, the draft is discussed in the PS forum coordinated by cabinet office, OPM
4. PS Forum forwards draft to CIC coordinated & chaired by PM
5. CIC recommends & approves draft for cabinet adoption/approval
6. Cabinet approval
7. Promulgation by Parliament
8. Implementation by MINAGRI and its agencies (RAB, NAEB & TFIM)
9. Quarterly reporting to the PS Forum, PMO and Cabinet when deemed necessary

2. Guiding documents for agriculture policy and its implementing tools

1. Vision 2020
2. EDPRS (In phase 2)
3. Agriculture policy
 - ✓ Seed policy
 - ✓ Irrigation policy (SI)
 - ✓ Fertilizer policy
 - ✓ Rice Policy etc
4. Strategic program for Agriculture Transformation (SPAT)
 - ✓ (Phase I:2004-08, Phase II:2009-2012, Phase III:2013-17)
5. Programs
 - ✓ CIP
 - ✓ Land consolidation
 - ✓ One cow poor household program etc
6. Ministry action plan
7. District action plans

3. Agriculture and the economy

a) Why is agriculture a priority in Rwanda?

- ❑ Employs 73% of the population
- ❑ Contributes 33% of value added to GDP
- ❑ Main source of raw materials – more than 80% are agro-processing
- ❑ Generates **more than 70% of the country's** export revenues.
Coffee, tea & pyrethrum are the top exports
- ❑ Crop Intensification program is implemented to drive productivity and agriculture growth

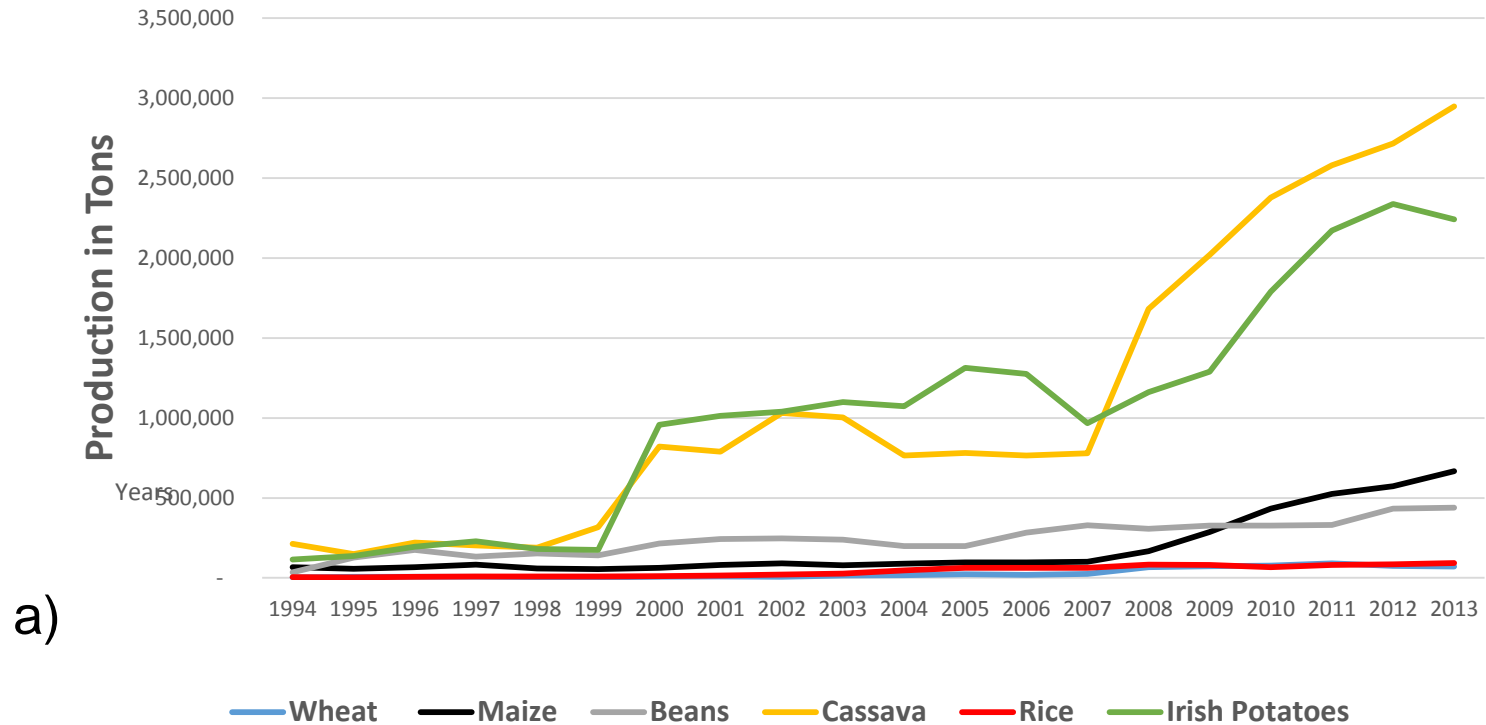
Agriculture and the economy (cont' d)

b) Crop Intensification Program (CIP)

- ❑ In 2007, Gov' t developed Crop Intensification Program (CIP) to increase productivity
- ❑ CIP focusses on 6 priority crops (maize, rice, beans, wheat, Irish potatoes and Cassava)
- ❑ A mix of expansion of cultivated land and modern farming practices through CIP has seen productivity more than double since 2007

Agriculture and the economy - CIP (cont' d)

Production trend of 6 crops (1994-2013)

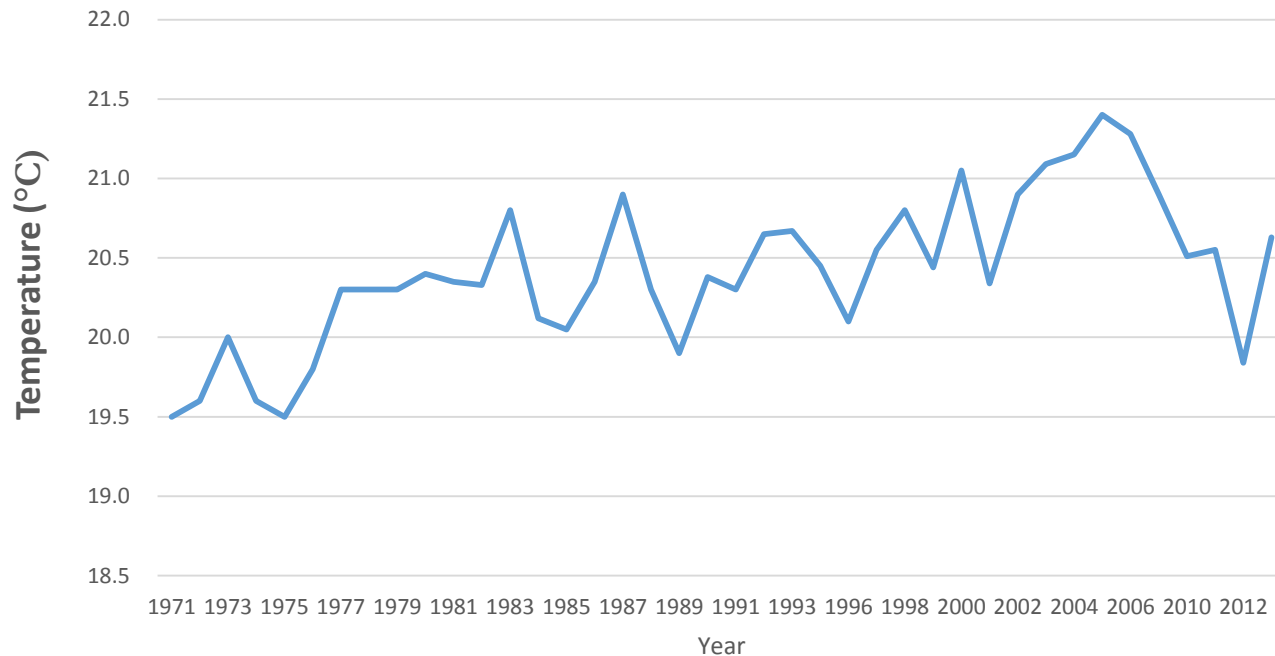


Source: FAO database 2013

4. Climate change, a threat to agriculture

Rising temperatures

Temperature trends in Rwanda (1971-2012)



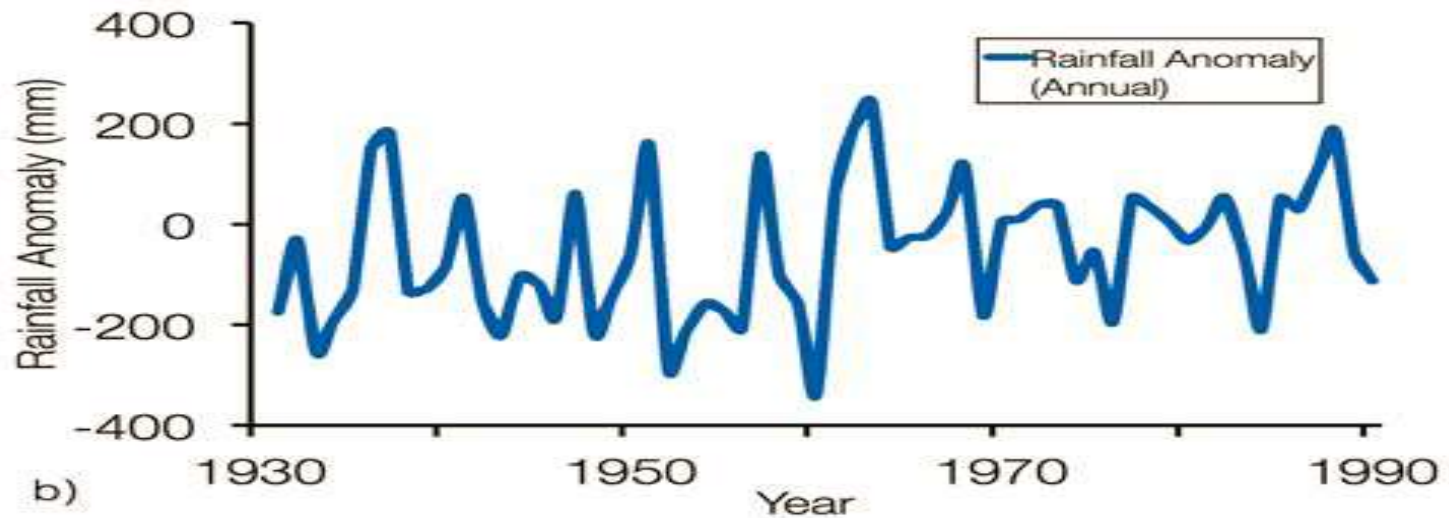
a)

**Source: Rwanda state of environment and outlook, 2009;
NISR, 2014**

Climate change as threat (cont' d)

High rainfall variability

Rainfall variability in Rwanda (1930-1990)



Source: Rwanda state of environment and outlook, 2009

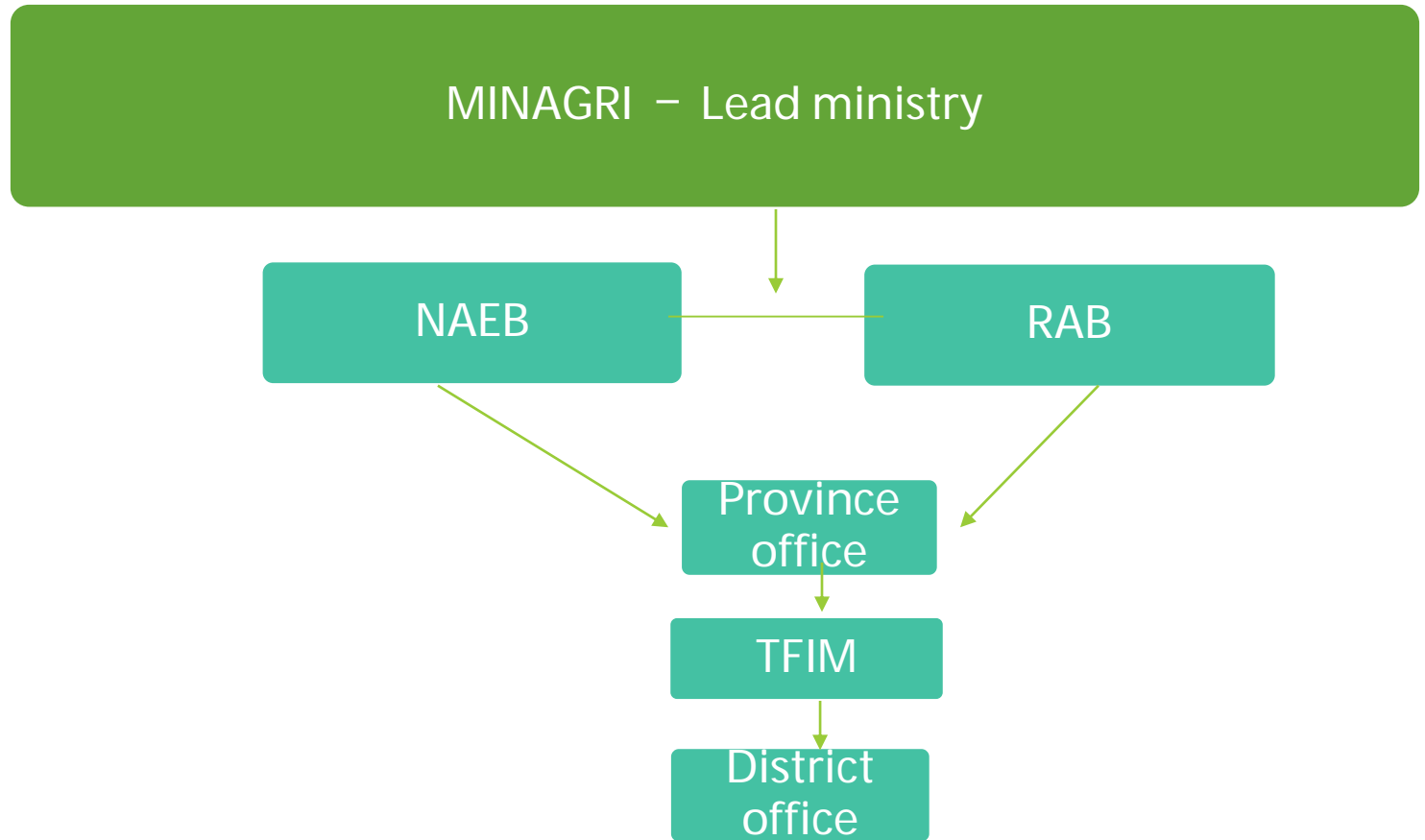
5. Supplemental Irrigation (SI)

Background

- ❑ Supplemental Irrigation (SI) was decided a key driver for CIP
- ❑ Government had started Marshland SI in 2000, but lacked guiding tools (no clear strategy, plan/program, or policy) & all stakeholders were uncoordinated
- ❑ Government developed irrigation mater plan (IMP) in 2010
- ❑ The IMP shows a potential of 589,000Ha
- ❑ Irrigation policy, 2012
- ❑ Government set a target to increase irrigated area from 2100Ha ha in 2011 to 100,000Ha by 2017
- ❑ Government development of large hillside SI schemes

Supplemental irrigation (cont' d)

Institutional Framework for SI



6. Process for IMP & SI Policy formulation & implementation

1. MINAGRI : Initiated and hired a consultant
2. The consultant scheduled consultative meetings with stakeholders (MINECOFIN, MINIRENA, MININFRA, MINICOM, MINALOC, DPs, PSF, **Farmers' Federations, Provinces, Districts**) to seek the views while MINAGRI coordinated the whole process
3. Upon completion of the draft, the latter was discussed in the PSs forum, CIC and later approved by the cabinet.
4. Implementation by MINAGRI and its agencies (RAB, NAEB & TFIM)
5. Quarterly reporting to the PS Forum, PMO and Cabinet when deemed necessary

7. SI schemes development process

- Sites are determined by irrigation master plan
- **Government compensates peoples' properties where they exist**
- **Land remains peoples' property, they have titles**
- Governments develops infrastructure
- During development, land owners are employed in the construction works (food for work or cash)
- **Who can't work (old people, disabled...) are given free food supplies in compensation for the yield**

8. SI Schemes operation and management

- Government hands SI schemes to farmers' cooperatives
- Cooperatives assume full management
- Cooperatives form Water users' Associations (WUAs)
- Government provides technicians (21) on the sites to do maintenance and training farmers on the use of irrigation equipment
- Provide hire-service land tilling machines on the site
- Farmers are conditioned to grow the 6 CIP priority crops + vegetables and fruits of their choices, especially in the dry season, HYVs, fertilizers, pesticides...

9. Government initial support to farmers in SI schemes

- Government provides free seeds and fertilizers for the first season
- **Training of farmers' cooperatives and WUAs**
- Free ploughing/tilling machines for the first season – farmers only pay for fuel
- Links farmers with agro-dealers

10. Stakeholders in the implementation of SI & their roles



11. SI Challenges

- Developed schemes not fully exploited by farmers
 - ✓ Few farmers grow crops in the dry season
 - ✓ Some farmlands not cultivated (about 30%)
- Inefficient coordination : absence of collective action right from planting throughout value chain (district, MINAGRI, TFIM, MINICOM)
- Lack of private sector investments
- Sometimes lack of market causes a negative behavior towards SI
- Competition from imported commodities e.g. wheat due tax waiver which discourages farmers

12. Recommendations

- ❑ Establish forum for stakeholder coordination – to have regular value chain planning and progress review meetings e.g. monthly. This can settle issues of output & input prices
- ❑ Carry out a study on the SI performance and adoption (why **some farmers have adopted while others didn't**)
- ❑ Government to attract private investments
- ❑ Speed-up implementation of contract farming approach

END

THANK YOU

Q&A