

Agricultural Productivity Program for Southern Africa (APPSA)

RESEARCH AND DEVELOPMENT EFFORTS UNDER RICE

Rice Commodity Team



**END OF PROJECT
CONFERENCE**

27-29 November 2019, Johannesburg, South Africa

CCARDESA
Centre for Coordination of Agricultural Research and Development for Southern Africa



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Presentation Outline

- 1. Introduction
- 2. Key outputs
- 3. Key lessons
- 4. Way forward

1. Introduction- Gaps addressed

- Rice is the second most important cereal crop in Malawi and the third most important in Zambia and Mozambique;
- There is imbalance between production and demand of rice in the three APPSA countries:
- Malawi: Demand-127,000 tons; production – 120,000 tons
- Mozambique: Demand - 630 000 tons; production - 310 000 tons;
- Zambia: Demand – 75 000 tons; production – 40 000 tons;
- This leads to high importation cost.

1. Introduction- Gaps addressed (Contd.)

- The need to increase the production and productivity to meet the gap can never be overemphasized;
- This is why APPSA is investing resources on technology generation and dissemination on rice;
- The effort is to reduce import cost, and contribute for food and nutritional security.

1. Introduction- Key research areas

- 1. Germplasm collection, characterisation and conservation;
- 2. Development of improved rice varieties;
- 3. Enhancing productivity of rice varieties through:
 - Development of integrated crop and water management practices;
 - the Introduction of rice – duck based farming system

1. Introduction - Key research areas (Contd.)

- 4. Promotion and dissemination of improved rice technologies for sustainable production;
- 5. Strengthening rice seed delivery system;
- 6. Improving rice processing and nutrition through supplementation of rice sub products;

1. Introduction - Key objectives

- 1. To prevent the loss of indigenous rice germplasm and increase availability of readily accessible and properly characterised germplasm for rice improvement;
- 2. Develop suitable rice varieties that are tolerant and resistant to abiotic and biotic factors with preferred traits for all value chain actors and make available for main rice growing ecosystems

1. Introduction - Key objectives (Contd.)

- 3. To increase rice productivity through better crop and post harvest management practices;
- 4. To increase availability of quality seeds
- 5. Contribute to improved food, income and nutrition security through increased rice production using the innovative technologies and dissemination methodologies

1. Introduction - Key objectives (Contd.)

- 6. To improve nutrition of rural women and orphan children through the introduction of rice sub products processing technologies

2.Key outputs - Technologies generated

Types of technology	Malawi	Mozambique	Zambia	Total
Varieties submitted for release	2	3	4	9
Promising lines	4	8	12	24
Agronomic practices	4	5	5	14
Post harvesting and processing	1	1	0	2

2. Key outputs - Technologies disseminated

Types of technology	Malawi	Mozambique	Zambia	Total
Varieties	6	6	3	15
Agronomic practices	2	5	3	10

2.Key outputs-Others

Types of technology	Malawi	Mozambique	Zambia	Total
No of new accessions collected;	46	310	185	706
No of new accessions characterised	46	259	105	464
Pre- Basic and basic seed produced (Kg)	750	69400	4350	
No of orphan children supplemented with sub-products	0	800	0	800

3. Key lessons- What went well and why

What worked well	Reason
In and across countries collaboration and commitment	Team building
Joint planning and regional commodity meetings	Team building and efficiency in sub-project implementation
Increased delivery of improved technology/varieties (eg. kilombero and supa/chupa)	improve the productivity and income of smallholder farmers
Training famers and extensionworkers on the new technology packages	Improved delivery of extension service
Farmer´s field schools	Learning by doing
Decentralized allocation of funds to sub-projects	Reduced bureaucracy

3. Key lessons- What went well and why

Training of farmers and extension officers



3. Key lessons- What went well and why



The use of small machineries for land preparation, establishment of nurseries and transplanting may reduce production costs



3. Key lessons- What did not work and why

What did not work	Reason
Lengthy procurement process	Delays in delivery of essential equipment (laboratory)
Initial low cash flow	Initial delays in project implementation
Low adoption of technologies	Inadequate time for dissemination of technologies (Project time frame)

3. Key lessons (Cond.)

- Successful adoption of technologies and innovations requires a degree of behavioral change by all actors along the scaling up pathway.
- To achieve such adoption success, it is recommended to always embed the principles of successful adoption:
 - The use of technology should be as simple as possible;
 - The outcomes should be visible and greater than the traditional ones, in its scaling up activities.
- Relevance of the participatory research methods involving key value chain actors.
- This is effective approach to ensure ownership and commitment, improve acceptability and hence the rate of adoption of the agricultural technologies

3. Key lessons

- Appropriate collaboration between public and private partners is need for timely allocation of resources;
- High value added products can generate new earning opportunities for youth and rural women. Supporting for market linkages and corresponding capacity building is crucial in this regard;
- An effectively functioning procurement and financial management system is key for success;
- Flexibility in implementation to accommodate lessons as they emerge

3. Key lessons (Contd.)

- The involvement of CGIARs and other international partners is key to facilitate the availability of resource and hence improves the scientific quality of the research;
- The involvement of young, motivated and committed farmers is key for success and sustainability of the project

The way forward

- Intensification of dissemination activities
- Strengthening of procurement and financial management system
- Consolidation of research teams
- Emerging research issues:
 - Breeding for climate change resilience;
 - Rice production and livestock integration.
 - Increasing effective water use;
 - Water harvesting for supplemental irrigation;

Acknowledgements



THANK YOU VERY MUCH

Farmers

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