

National Policy Roundtable Synthesis Report on Agricultural Innovation for Food Security and Employment in Malawi

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Program of Accompanying Research for Agricultural Innovation

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Background

Agriculture remains a dominant sector in Malawi therefore its growth is very critical to the country's development. The sector has large number of smallholder farmers characterized by small size and fragmented farms, low use of external inputs with diversified farm management practices and livelihood strategies to suit their socio-economic statuses. Therefore, smallholder farmers are crucial actors in the achievement of food security and conserving the agrobiodiversity. Despite the possibilities of technological solutions offered by the research system in the country, biotic and abiotic constraints continue to limit the agricultural productivity among this group of farmers. Furthermore, institutional and socioeconomic constraints make it difficult for smallholder farmers to access input and output markets in order to respond to market price signals. Coupled with significant climatic impact and risk being faced, these constraints erode incentives for farmers to invest scarce resources and adopt new technologies. Addressing these systematic constraints requires integrated innovations to provide promising and resilient options for improving productivity and reducing the impact of inherent risks. Given these overlapping and systematic challenges, farmers tend to be innovators and experimenters than just adopters of technologies. Since farmers know best their environment and given their socio-economic status, it is thought that they become creative and come up with relevant solutions to their farming problems. Farmer innovations if proven to be working can complement the research produced technologies and offer solutions to challenges in agriculture.

It is against this view that the Forum for Agricultural Research in Africa (FARA), Centre for Development (ZEF) and AGRODEP in close collaboration with the Department of Agricultural Research Services (DARS) organized the policy roundtable discussion under the the *Program of Accompanying Research for Agricultural Innovation* (PARI). The main objectives of the roundtable were to present research findings on how to enhance food security and employment through Agricultural Innovation in Malawi; to jointly identify Policy implications of the research for the implementation of the National Agricultural Policy of Malawi and to receive guidance on further research among other issues.

Roundtable objectives:

1. Present research findings on how to promote food security and employment through agricultural innovation in Malawi
2. Jointly identify policy implications of the research for the implementation of the National Agricultural Policy of Malawi
3. Receive guidance on further research on these issues

Proceedings from roundtable discussion

The roundtable was conducted on 11th July, 2018 and this followed the Malabo-Montpellier Forum which run from 9 – 10th of July 2018. The meeting drew closer stakeholders in Malawi agriculture and policy system as well as partners from neighboring countries. The stakeholders included representatives from the following institutions; Ministry of Agriculture, Irrigation and Water Development, donor community, representatives from the Consultative Group on International Agricultural Research (CGIAR), Lilongwe University of Agriculture and Natural

Resources (LUANAR), Civil Society Agriculture Network (CISANET), Auction Holdings Commodity Exchange (AHCX), and other private sector . The meeting identified some policy and investment gaps which can potentially inform future research. The gathering also acted as a forum for experts to network and collaborate in future research in agricultural innovations in Malawi.

Opening Remarks

Before official opening of the roundtable discussions, various speakers made their remarks including the Senior Deputy Director of Agricultural Research Services, the Africa Director of IFPRI, the Director of ZEF, the director of BMZ and the guest of honor who is the controller of Agricultural Extension and Technical Services. Generally, all the dignitaries emphasized on the importance of locally based innovations for sustained food security and high quality employment. Below are specific remarks for the dignitaries.

Dr. Tennyson Mzengeza

The acting Director of Agricultural Research Services as a host welcomed all distinguished guests and participants to the PARI policy roundtable discussion. In his speech, he mentioned of the importance of the roundtable which has three key words thus; agricultural innovation, food security and the environment. He later narrated that the discussion will provide the opportunity to disseminate research results from the studies conducted under PARI as well as identify gaps. The acting director was specifically interested in the research findings from the study “innovations for sustainable agricultural growth in Malawi” as it has a component of sustainability.

Dr. Ousmane Badiane

Dr Badiane the director of IFPRI in Africa as well as a representative of the African Growth and Development Policy Modelling Consortium (AGRODEP) mentioned that the consortium is supporting the work that is being implemented under PARI by providing technological intervention through the analysis of needs for broader economy, employment, fiscal implications so that they government’s interventions are engaged. The director also mentioned that part of PARI research is at the heart of what African countries are committed to doing in the agricultural growth stimulated by strong agricultural productivity increases. He added that due to the diverse agricultural challenges being faced by farmers today, innovation and having locally relevant research and local data is the right approach to take. In his closing remarks the AGRODEP representative applauded PARI leadership for the vision and direction that it renders. He also mentioned that AGRODEP is honored to work with PARI team and hoped that the research findings will accelerate the debate to guide policy making. He lastly thanked the PARI leadership for making AGRODEP part of such a progressive initiative.

Prof. Joachim von Braun

Prof Joachim the Director of ZEF pointed out that “dialogue innovations for food security and employment” as the objective of the dialogue should invoke an understanding of the results from research in relation to this topic and tease out the lessons learnt from policy and its implications. He further explained that an innovation should not just be seen as a technical means to do more research but something which demands the technical, institutional organizational change and policy change. He also added that an innovation should be considered as an investment that requires research in order to

achieve resource efficiency and food security. To achieve this, food systems approach as opposed to food commodity should be put into consideration and that aspects of production activities; nutrition, health and consumption; and employment should be taken into account if a more innovative, efficient and functional food system is to be attained. He stated that farmers thus youth and old alike are innovators and entrepreneurs as seen in the case of Malawi. In his final remarks, he urged national partners to continue with their commitments to the current ongoing research programs and mentioned that ZEF is ready to engage FARA in new research for food security.

Dr Stefan Schimtz

Dr Schimtz the deputy director general at the Ministry of Economic Cooperation and Development in Germany and also a donor representative from German Government mentioned that Malawi and Zambia are partner countries in the One world-No Hunger initiative. This aims at improving food security and nutrition as well as transforming the agricultural food systems by bringing in more innovations. PARI is part of this larger flagship program running within the two countries to improve innovations in the agricultural and food systems.

One World- No Hunger initiative operated by Germany Development Cooperation (BMZ) was launched in 2014 and has recently gotten the second phase. This poses as new opportunity to deepen our cooperation in the various fields involved. Furthermore, the approval of second phase shows appreciation of the outputs from the initiative by all the stakeholders including political groups in Germany. The director then encouraged scientists to think of additional topics or research areas that deserves attention. These programs are supposed to accompany and compliment the larger technical cooperation program in the Green Innovation Centres.

The program addresses SDG2 and other SDGs- mostly the program addresses hunger and malnutrition especially among vulnerable groups like women and children. The initiative advocates for increasing productivity through innovation not only among smallholder agriculture but throughout the whole food system thus from farm to folk. Therefore, sustainable food systems include natural resources the agriculture in the rural economy is using. Conservation and sustainable use of natural resources, preservation of agrobiodiversity is another area the initiative is working on.

In his remarks, the deputy director general mentioned that the initiative has various modes of delivery and collaborates with various organizations. The first 4 years were successful and now BMZ is eager to see more progress in the coming years therefore there is need for taking a more comprehensive approach. Outlined are the four pillars to guide implementation in the next four years to come: 1) to deepen and expand flagship programs; 2) options to expand the portfolio and address the neglected topics in overall agriculture eg livestock, aquaculture etc; 3) ensure sustainability- isolated projects to influence policy, improve political dialogue with partners, ensure all projects are scalable and are part of national and regional priorities; 4) to create more and better networks and partnerships with other development organizations and institutes to ensure efficiency in investments. Therefore, the agricultural innovation agenda under PARI is meant to complement this with answers to challenging questions in order to transform the GICs into hubs for rural development. There are at least three key elements to characterize these hubs, thus: 1) Agri-school (farmer extension, vocational training, transformation of research into practice); 2) Agri-shop where farmers can have access to inputs,

machinery and other needs for their agriculture; and 3) innovation hub thus accelerator, testing new ideas etc. This will in the end lead to developed rural areas which will be able to provide better jobs, food and nutrition, improved access to market and many more. The BMZ boss urged partners at different levels be it locally and/or internationally, for this vision to be realized.

Guest of honor-Dr Albert Changaya

In his official opening speech, the Controller of Agricultural Extension and Technical Services (CAETS) emphasized on the importance of agriculture in the country as it has been highly prioritized in the Malawi Growth and Development Strategy (MGDS III). He furthermore stressed that the National Agriculture Policy (NAP) and its implementation framework, The National Agriculture Investment Plan (NAIP), are compliant to the Malabo declaration (2014) and the Sustainable Development Goals of the United Nations. The NAP isolates agricultural innovation as key to sustainable agricultural production and productivity, to enhance trade and transform the rural areas. The CAETS thanked the German Government through the Germany's Ministry of Economic Cooperation and Development (BMZ), under 'one world- no hunger initiative' for technically and financially supporting the Program for Accompanying Research for Innovation (PARI). The overarching goal of PARI is to support the improvement of food and nutrition security and sustainable agricultural value chains through Green Innovation Centers (GICs). Through this initiative, the various actions in country specific research aim at generating knowledge that informs the scaling of proven innovations along the agricultural value chains, as well as strengthen the development action in the countries. The guest of honor also informed the gathering that, In Malawi, PARI has worked on various important areas including: the characterization of the agricultural innovations and innovation platform; the Bottom-up innovation contest that identified farmer creativity along agricultural value chains, nutrition, gender, value chains, agricultural crop modeling and other areas. He finally affirmed the BMZ of Malawi's commitment to PARI work and that it will do it's best to deliver the assigned for the betterment of Malawians. Lastly he wished everybody a good and fruitful discussion and officially opened the meeting.

Main issues and recommendations

Outlined below are the critical issues that came out of the presentations during the policy dialogue.

1. Advancing Policy reforms in Agriculture: Reform needs and success stories (Dr. T. Mzengeza, DARS).

The presentation reflected on the importance of agriculture in Malawi, the policy reforms in Agriculture, clearly demonstrated on some of the successes due to policy reforms as well as issues on whether repeal or transform the Agriculture Sector Policies. The key words for this presentation were; Malawi, Agriculture, Policies and Reforms.

Policy issues and recommendations

- There is need for improvement of dialogue among various policy stakeholders, including the civil society during policy design and reviews
- In order to address challenges in accessing up to date statistics for measuring policy impact, there is need to strengthen the monitoring and evaluation systems in order have reliable and valid data
- Since policy implementation is a challenge most of the times, there is need to ensure proper policy implementation by conducting frequent policy reviews
- It was observed that there is little effort in the implementation of policies on stabilization of prices i.e. the case of localized excess grain where the National Food Reserve Agency (NFRA) in Malawi through ADMARC was expected to step in and mop the excess grains whenever there is excess grain in a given area; and inject grain in given area whenever there is a deficit. Policies on placing strategic quantities of grain by the National Food Reserve Agency are available, but require proper strengthening on policy implementation as a means to manage food insecurity risks.

2. Identifying Investment potential in Agricultural Innovation: An overview of PARI research findings related to Malawi (Dr. Heike Baumuller, ZEF) Global Programme

Dr Heike's presentation focused on PARI strategies; PARI research themes; PARI work started in Malawi in 2015; current malnutrition status in the country; crop modelling exercise.

Policy issues and recommendations

- Need for more up to date local data on nutrition status

3. Agricultural innovation in Kenya: Lessons for cross-country learning and regional integration (Dr. Felister Makini, KALRO)

In her presentation Dr Makini highlighted on the importance of agriculture in Kenya; the challenges that are faced including poor rainfall, weak infrastructure, low investment in research and development; drivers of agriculture volatility that include climate change, pests and diseases, market; opportunities for agricultural growth; studies undertaken under PARI; key findings and lessons from PARI studies; challenges, prospects and determinants of mechanisation

Policy issues and recommendations

Intellectual property rights of farmer innovations need to be addressed to protect the innovators

Strengthen existing of innovation platforms

- various farmer innovations have been identified, scaling them out would be ideal
- Engagement of the youth in Agricultural activities is crucial in the promotion of the rural development
- Collective output marketing and input procurement in innovation platforms is essential for increased farm returns due to lower productions costs and higher returns

- Agriculture mechanization needs to be highly supported through the public private partnerships for increased operational efficiency and high returns. This could be achieved through provision of credit services for farm machinery
- Farmer innovation contests are appropriate strategies to establish functional farmer participatory research process to address context specific challenges
- Some farmer innovations ought to be tested for efficacy in some cases
- Farmers should be encouraged to innovate by having policy recommendations that reward farmer innovators, just like the Honey Bee Network in India.

4. Value chain-related innovations in the Green Innovation Centres (Elena Zanardi)

The presenter informed the meeting that there exists Green Innovation Centres for the Agriculture and Food sector as a part of a special Initiative called “One World- No Hunger” of the German Federal Ministry for Economic Cooperation and Development (BMZ). The Budget of the this is 18 Million Euro which includes 3.5 Million EUR from EU and the project will run from 11/2014 – 03/2022. The project political partner is Ministry of Industry, Trade and Tourism. The main instruments of the program capacity development includes farmer system training, Farmers business school (using GIZ methodology), and farmer field schools (such as in Kulima program). The other project focus is on agri-finance package, educating future extension workers and tailor made advisory support. It was reported that the project has a political partner, Ministry of Trade, Industry and Tourism and focuses on private sector development. Their target crop value chains are cassava, groundnuts and soybean.

Policy issues and recommendations

- Apart from engaging the Ministry of Trade, Industry and Tourism, in the project, the Department of Agricultural Extension Services must also be actively involved in project activities as a technical partner.

3. Agricultural Development and Youth Engagement through Mechanization and skill Development (Dr. Oliver Kirui, ZEF)

Dr Kirui informed the gathering that in some countries agriculture training to students is optional or not available, hence the youth lack practical knowledge on agriculture. He also emphasized that there is low agricultural mechanization in agriculture in most African countries (MAMO 2018 report).

Policy issues and recommendations

- Youth, especially in rural areas, face different challenges including education. Hence there is a need to advocate for Agricultural Technical and Vocational Education and Training by looking at the needs and then provide funds and relevant support in

order to get competent coaches as well as beneficiaries of the programs just like the German Vocational Training System

- In addition, there is a need to have proper and improved infrastructure for vocational training

4. Options for Agricultural Diversification and Value addition for Malawi (Kondwani Makoko, DARS)

It was noted that maize dominates all food groups in terms of production and hectarege that is cultivated but other crops have potential for economic growth such as oil seeds and vegetables based on the Rural Investment and Policy Analysis (RIAPA) Model

Policy issues and recommendations

The RIAP model had complex parameters to measure commodities for agriculture growth, therefore there is need to assess using other models e.g. CGE model to assess some priorities for agricultural growth

Limitations in studying the employment effect because of seasonality of farming, but this could easily be done by assessing seasonal breakdowns

5. Tackling the Protein- Energy Malnutrition in Malawi. The Novel Approach (Associate Professor B. Mtimuni, LUANAR)

The status of Nutrition in the Country was highlighted

Policy issues and recommendations

- Maize intake is high in the country despite having low nutritive content. There is need to conduct research studies on blending maize flour e.g. current research on maize soybean flour blend
 - Need for good communication strategies between researchers and policy makers on promising research results
 - Need to engage the users and private sector e.g. millers when developing technologies for easy adoption and upscaling
6. Tapping into the Innovative potentials of farmers for productivity and growth (Timanyechi Munthali, DARS)

The presentation focused on farmer innovation and how farmer innovation could be discovered.

Policy issues and recommendations

- Farmer innovations that were reported were limited to production value chain.
- There is a need to include marketing and value addition stages farmer innovation although most challenges fall within the production category
- The need to incorporate policy on farmer innovation is key
- Recognizing farmer innovations is important in the development of the agricultural sector
- Build complementarities between formal and informal innovations
- Where informal innovations are proven to be working, its best to incorporate them into the formal system
- The need to strengthen the capacity of IPR regulatory institutions to protect IPRs in situations where farmer-generated innovations have the potential for commercialization
- The enactment of the plant breeder's rights is a good direction on issues related to IPR

Closing remarks

In his closing remarks, the Director of ZEF encouraged the stakeholders to frequently engage in Policy round tables in Malawi. International panelist may participate during the policy round table whenever resourced are available. He further mentioned that more studies must be conducted in order to avail innovations for improved food, nutrition and income security at house hold, area and national levels.

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