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Amplifying Agricultural Research for Development in Emerging Regional States

Farmers and pastoralists in Somali, Afar, Gambella, and Benishangul Gumuz Regional States did not enjoy the kind of improved agricultural technologies that other regions used to have in the past. The regions were among the most suffered areas in terms of agricultural development at small-scale farmers levels. This state of distraught historical moment has been broken since the last couple of years by a robust move taken to reach these regions with improved agricultural technologies.

As part of bringing these regions to a level higher than existing situation, agricultural research for development has been initiated especially by way of a speedy and inclusive scaling up of improved technologies. This has proved to be on the road since the last couple of years.

To serve better emerging regional states requires special attention; for this reason, a sweeping plan was initiated in 2009, which was jointly planned by bringing all concerned stakeholders to a common platform. Planning-cum-implementing activities were funded by Rural Capacity Building Project. Technical backstopping was spearheading by EIAR, regional agricultural research institutions, and regional agricultural bureaus.

Based on the plan several scaling up activities have been undertaken in Somali, Afar, Gambella, and Benishangul Gumuz Regions in 2009 and 2010 cropping seasons.

Contents

Amplifying Agricultural Research for
1 2 0 0
Development in Emerging
Regional States1
Assosa Research Center Emancipating
Farmers from Primitive
Agriculture2
Chickpea Technologies Stride out via
Tropical Legumes Project3
Guji Exhibits Development Spark4
Scaling out Agricultural Mechanization
Technologies: Mid-term Review
Workshop5
Vulnerability of Agriculture to Climate
Change: Validating Country
Report

The technologies demonstrated and scaled out include several food and feed crops, which are selected cautiously by stakeholders. The differentials of these technologies were in a record high in the history of agricultural practice in those regions. More to these, farmers and agro-pastoralists understood a number of benefits of these technologies,

ISSN 1015–9762 Vol. 10 No. 11 November, 2010 Mirimir, meaning 'Research' in Amharic, is a monthly newsletter of Ethiopian Institute of Agricultural Research P.O. Box: 2003 Phone: (251-011) 6462633 Fax: (251-011) 6461294 Website: <u>http://www.eiar.gov.et</u> Addis Ababa, Ethiopia thus, changed their farming cultural values tremendously. However, it should be noted that there were some difficulties in coordinating scaling up activities that should be given due emphasis to create more windows of opportunities. These difficulties are identified to span on institutional arrangement and capacity related problems surfaced during scaling up planning and implementing operations.

With the view to strengthen agricultural research in these regions, a two-day consultative workshop was conducted from 11 to 12 November 2010 at the headquarters of EIAR. Participants of the consultative meeting included higher officials from federal and regional echelons, researchers and research managers, development



workshop should yield functional way forward. H.E. Tefera Deribew, Minister of Ministry of Agriculture workshop opened the by appreciating what has been achieved thus far by way of reaching farmers and agropastoralists in emerging regions. He also noted that more is expected to intensify the role of agricultural dissemination technologies activities and actors in all steps of the process should remain vigilant to materialize growth and transformation plan in these regions and all over the country as well.

Several papers were presented on the progress, challenges, and technology generation, transfer and pre-scaling up; extension efforts of agricultural and pastoral bureaus. A panel discussion chaired by H.E. Mulugeta Wuletaw, State Minister of Ministry of Federal Affairs, was made on issues related to problems associated with technology scaling up activities and on their possible solutions.

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experts, higher learning institutions, and the private sector. Participants were welcomed by Director General of EIAR, Dr

Solomon Assefa, who proclaimed that issues to be discussed in this

Assosa Research Center Emancipating Farmers from Primitive Agriculture

Assosa Research Center of EIAR is located 656 km away from the capital Addis Abeba in the Benishangul Gumuz region. The center is conducting researches on soybean, tef, sorghum and many other crops that are suitable to the area. On the 24th of October, different agricultural experts and stakeholders have attended the field day organized by the center.

During the event, farmers who are fully reliant on the center for better productivity have shown their fields covered by different crops and they mentioned Assosa research Center of EIAR as a dedicated technology source and unfailing path to better life. After visiting farmers' fields, different researchers of the institute and Benishangul Gumuz Region higher officials including His Excellency Ato Ahmed Nassir the Region's president expressed their satisfaction by what has been done.

Ato Fitsum Sahilemariyam, Assosa Research Center Director, mentioned determination of young researchers of the center and continuous support of EIAR for the registered achievements; he also expressed the center's readiness to liberate many more farmers from primitive living conditions using agricultural technologies.

Ato Ahimed Nassir on the occasion expressed his admiration to the overall activities of the center in helping farmers of the region to be benefited from all the offerings of technology. He further gave his word to the farmers and the Center that the Region's administration will shortly involve in solving the problems related to agricultural technologies. The president also stated that the Center should intensify its efforts to reach more farmers.

Dr Adefris Teklewold, EIAR's Crop Research Director on his part expressed his contentment about what has been done by the Center in realizing the mapped out strategies of emancipating farmers from poverty's high handed treatment and help them enjoy all the satisfactions of better productivity. The Region is privileged with untouched and extraordinarily resourceful land but until recent years, farmers of the area have never noticed how nature is openhanded to them than most places in the country. Assosa Research Center with its technologies is now showing farmers of the area how dependable is the resource and they are now moving to the direction where poverty is not even a talking point.

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Chickpea Technologies Stride out via Tropical Legumes Project

As one of the old world domesticated crops, legumes are produced in almost all parts of the globe. Thus, they are keeping on trailing on production continuum for millennia. A few among the many reasons for this is their richness in nutrients and have a high commercial values in both local and export markets.

In our history and culture, they have a respected position. They are also part of the large ingredients of foodstuff among the majority of our people. It is also believed that they improve soil fertility.

In the history of Ethiopian agricultural research, these crops had their own niche; however, there were tremendous up and downs to get adequate improved varieties to solve the problems



associated with their production and productivity.

It is true that there were certain capacity building initiatives by way of funding research for development and extension projects in food legumes, which has turned the public interest on these crops. As a result, a number of improved varieties identified and released to be part of the farming enterprise among smallholder farmers, which are the prime producers of legumes in Ethiopia.

These projects have goals to enhance productivity of selected legumes with actual and high potential for market. The historical records of these projects reveal that all had and continue to have a strong partnership with relevant stakeholder in the country.

The Tropical Legumes Project, one of the projects, is a cross-continental research and development initiative funded by the Bill & Melinda Gates Foundation, which was officially launched in September 2007. The Project has two prongs: Tropical Legumes I (TLI) and Tropical Legumes II (TLII). The TLII has been in operation with an imposing possibility of to continue for some time to come.

Chickpea is one of the tropical legumes identified in the Project. Accordingly, a field day was arranged by Debrezeit Research Center of EIAR to show how chickpea technologies are being transferred to farmers and how they are performing out there. The field day was observed on 21 November 2003 around Lome, Minjar and Ad'a Weredas of East Shewa Zone of Oromiya Region. Understandably, the impact of TLII has vividly convinced both farmers and visiting stakeholders of farmers' fields.

It is true that sustained research efforts have resulted in the release of a few but productive varieties in the country. One can also say that this has made chickpea technology dissemination to be on fast track. Nevertheless, to come forward with a better research services, lure more interest groups in technology transfer, and to ultimately reach more suitable chickpea production areas, broadly defined baseline information should be sought. Farmers drawn from TLII project locations viewed their intentions to have better to market their produce. They also put their sensible demanded research to take up as crucial agenda to allow them to have more space to choose among improved chickpea varieties for different purposes. As chickpea along with other tropical legumes is expanding in Ethiopia, farmers and other stakeholders also demanded sufficient availability of inputs such as pesticides, adequate facilities of marketing, and the formulation and delivery of advice on crop rotation and other agronomic practices by the research system.

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Guji Exhibits Development Spark

Guji is one of the 18 zones of the Oromiya Regional State. The Zone has 15 Weredas, 322 rural kebeles and over 6800 development groups. Guji receives 420-1400 mm rainfall annually. Coffee is the major agricultural production in the Zone. Other horticultural crops, mainly enset, are very common. Guji is most known for its cultural values to protect and wisely use its forestry resources. However, the Zone has never been addressed with improved agricultural technologies in the past.

It was recorded that some crops in the Zone are outstandingly performing well. For example, a report from the zone reveals that 91 q/ha maize, 63 q/ha wheat, 20 q/ha tef, 46 q/ha barley, 22 q/ha haricot bean, and 21 g/ha coffee is the average productivity in the Zone, which is more than the national average for most crops. This also has a comprehensive upper-hand, in terms of productivity, as compared to other locations. However, dearth of new agricultural improved technologies forms a major gap to produce even more.

With the above backdrop information and a request

from the Zone administration coupled with a limited baseline survey by researchers, EIAR decided to enter into a scaling up program in the Zone during 2009 main cropping season of Guji. This intension is basically an ignition for creating new frontier of agricultural system.

It was with this in mind that a number of agricultural technologies including tef, wheat, barley, haricot bean, faba bean, chickpea, sesame, rapeseed, and onion were scaled up and nearly all of them found suitable for the Zone.

On 27 November 2010, a farmer's day was observed in Adola Redea Wereda of Guji Zone to appreciate and take advantage of copying experiences from farmers who applied the new technologies and utilize it judicially in some other places. Several stakeholders, experience seekers, and traditional community leaders have been participating in the event.

In his profound welcome speech, Chief Administrator of the Zone clearly pointed out the following issues that assume a high profile of proper attention by all concerned:

- Insufficient amount of improved technologies;
- Higher price for agricultural inputs;
- Inadequate supply of rust resistant/tolerant varieties;
- Insufficient amount of CBD resistant coffee varieties;



- Limited Kocho processing equipment;
- Inadequate skills of development workers;
- Inadequate attention given to livestock and feed production; and
- Absence of research on natural forests

The issues were appreciated by Deputy Head of Oromiya Agricultural Bureau and the Director General of EIAR. On their side both institutions have taken note of the problems and promised to deliver solutions as much and soon as possible.

It was also noted that a research center is being established by Oromiya Agricultural Research Institute as of 2009 to address 13 weredas in the Zone. Guji Agricultural Research Center (GARC) is established in Bore Wereda on 18 hectares. Accordingly, the mission of GARC is to establish 3 stations in representative weredas of the Zone and serve farmers with improved agricultural technologies. The center will focus on crops, livestock, natural resources, and agricultural mechanization research. There is a growth and transformation spark in Guji and the Zone is on the running lane and shall win the race sooner.

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Scaling out Agricultural Mechanization Technologies: Mid-term Review Workshop

A project funded by Rural Capacity Building Project (RCBP) on scaling our agricultural mechanization technologies in Ethiopia held its midterm review meeting on 4 November 2010 at EIAR. This project includes agricultural mechanization technologies scaling up activities in Oromiya, Tigray, Amhara, and SNNP Regions of the country. The meeting is the first of its kind.

The Project was designed with the general objective of *helping increase agricultural productivity and production by promoting improved agricultural mechanization technologies among prominent stakeholders.*

Participants of the meeting were welcomed by the Director of Agricultural Mechanization Research, Ato Workineh Abebe. The Director expounded that the purpose of the consultative workshop is to evaluate the progress made thus far and plan for the coming season.

In his opening speech, the Director General of EIAR, deputized by Dr Tolesa Debelle, remarked that agricultural mechanization has been on the history of agricultural research for a long time; however, the productivity of research outputs by way of reaching beneficiaries was constrained by several factors such as inadequate communication among stakeholders, inefficient multiplication schemes, and the lack of capital investment. Subsequently, this has by far delayed replacement of traditional devices by improved counterparts and affected the move to make life easier to smallscale farmers. It was with this understanding that the Project was designed by involving regional research institutes. The need for scaling up selected improved devices has also been given a prior position by the Project. It was also noted that improved devices should be produced in numbers and quality, eventually disseminated widely.

The Project, though it has a fraction era of only one year, its strength has been noticed by the number of identified priority devices reached to farmers. Based on the criteria set by the Project, selected improved devices have been scaled out last year.



It was remarked, as deliberation of the Workshop that targeted at a broader horizon more technologies should reach farmers, batch production of materials should be enhanced, participatory evaluation and demonstration at more pilot sites should continue unabated, multiplication of proven technologies should continue, and dissemination of technologies should persist adequately.

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Vulnerability of Agriculture to Climate Change: Validating Country Report

Ethiopian Institute of Agricultural Research (EIAR) in collaboration with Association for Strengthening Agricultural Research in East and Central Africa (ASARECA) prepared a document on Vulnerability of Agriculture to Climate Change in Ethiopia. The document, among other things, includes assessment of natural resources and the environment for climate negotiators in order to address vulnerability of agricultural sector to climate change; it also highlights policies and programs already primed to smooth the progress of adaptation and identify cracks that should be fixed adequately.

The main purpose of the report is to facilitate the intent of policymakers and researchers for a better understanding of the impacts that could be faced because of climate change on agriculture, consequently on vulnerable households in the country; eventually this anticipates appropriate and sustained decisions to be made.

To make the document a qualified one, a one-day consultative workshop was arranged at the headquarters of EIAR on 6 November 2010. The objectives of the workshop were to engage stakeholders in dialogue about the document, and solicit inputs for the betterment of the report.

The workshop was opened by the Director of Soils and Water Research Directorate of EIAR, Dr Tolesa Debele. In his opening address, the Director emphasized on global climate issues and their relevance to our situation, evidences on climate change in the country, and key issues on adapting climate change by protecting the environment and biodiversity. He also noted that all stakeholders should be able to act collectively to avert the risk of climate change.



As part of the dialogue, several points were identified, taken up, and incorporated in the document. The main points stemmed from the dialogue span on current situations and trends emphasizing on economic and demographic indicators including population trends, income trends, well-being trends, land cover and land use, travel time to cities with various population sizes, harvest areas of leading agricultural commodities, and yield of rainfed crops.

As an output of the consultative workshop, participants put forward the following points:

- Ethiopian agriculture is the most vulnerable sector to climate change;
- The country should be prepared to adapt climate change;
- A range of adaptation strategies to climate change

should be proposed and executed;

- Various implementation schemes should be considered and implemented as multi-institutional tasks; and
- Future agricultural research for development should be climate proof by mainstreaming adaptation issues as critical agenda.

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