

Summary of E-Consultation of West Asia and North Africa (WANA) Region

Prepared by
Dr. Mohammad Majdalawi
E-Consultation Coordinator
AARINENA

Background:

The Global Forum on Agricultural Research (GFAR) is organizing the Global Conferences on Agricultural Research for Development (GCARDs) every two years, starting in 2010. Each GCARD Conference will be preceded by a series of electronic and face-to-face consultations conducted at regional and global levels to capture the contributions and perspectives of all stakeholders in the agricultural research, education and development systems. This will reshape the global agricultural research for development agenda and centre it on the needs of the poor in developing countries. This two and a half week facilitated e-consultation provided an opportunity for all stakeholders to share experiences in the region and learnt from others who are involved with agricultural research for development. The consultation referred to the issues raised by a commissioned regional review. The regional review has been done to provide a synthesis of existing national and regional studies, policies and reports on how agricultural research priorities currently match to development aims and needs.

The participants of E-consultation

The total Participants were 180 from: Bahrain, Cyprus, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Morocco, Oman, Pakistan, Palestine, Sudan, Syria, Tunisia, Turkey, United Arab of Emirates and Yemen in addition to some guests of WANNA region. About 150 messages have been received from about 85 participants. The language of this e-conference was English. The consultations were based on electronic dialogues with the possibility to consult and participate via a public Web site or by sending e-mails.

The fruitful ideas and discussions in this e-conference reflects strong qualifications and experiences from different organizations, institutions working on agricultural research for development in WANA region mainly ICARDA, FAO, ACSAD, AOAD, IDRC, USAID, universities, ministries, research centers, NGOs and the private sector from different countries.

The main fields of specialization of the participants were:

- Livestock and animal breeding.
- Plant Protection (Integrated Pest Management, Pesticides, Cereal Rusts resistance and management).
- Field Crops, Agronomist, Crop Physiologist, Vegetable and Ornamental Plants.
- Plant breeding.
- Microbiology.
- Resource and Agricultural Economics.
- Soil, Irrigation, Water Management and Environment.
- Land use management (GIS. RS).
- Extension
- Geo-informatics.
- Computer Science and Information and Communication Technologies.

Date and Events of the E-consultation:

The consultation that started on Wednesday 2 September 2009 continued for two and half week. In the first week, the participants introduced themselves and shared their experiences and views from the region, relating agricultural innovation to development impact. In the second week they reflected on the issues raised in the preceding week and put their experiences in perspective of the regional review findings. Participants suggested and discussed valuable ideas, experiences, information and innovations which will be of help to have greater impact on major development needs of the region. The final phase in the last week was sending the final summary to the participants and make closing remarks.

Main points in the discussions:

The points in the discussion could be summarized as follows:

1. **Food security, food safety and water scarcity:** One of the main discussions was about water scarcity and food security as main problems facing the region. The participants have mentioned the need to improve water use efficiency, finding suitable alternative environment friendly crops that tolerate to drought and salinity and capable to give better economic returns.

2. **Linkage between research, extension and farmers in the region:** Many of participants have mentioned that there is a weak relation and also a gap in this regard. They have expressed the need of sharing knowledge between these three groups. This linkage needs to be addressed in relation to technology uptake and adoption. In fact, lack of integration partly explains the low adoption rates of improved technologies in dry areas.
3. **Polices and strategies:** The discussion reflects the need to develop clear polices and strategies for agricultural research, identifying areas and priorities of research. It has been mentioned that research in most countries in the region is still traditional; there is a lack of vision in setting research policies and priorities, and there needs to be a distinction between research policies (which include research prioritization and funding) and enabling policy and institutional options to enhance the uptake and adoption of improved technologies and practices. The participants emphasized that the policies and institutions should go side by side with the development of the technologies and integrated within the research process.
4. **Innovation:** There were varying opinions leading to general discussion about the innovation. Based on different opinion we could define the innovation in Agriculture as: It is the results of the events/ experiments/ investigations for the successful implementation of creative ideas to do something or solve problem related to the agriculture that have allowed the sector to increase both the quantity and quality of products available to consumers, while freeing up labor, land and other resources for use elsewhere in the economy. A successful innovation should be appropriate, sustainable, cost-effective, and more importantly acceptable by the end users (farmers, stakeholders).
Innovation is mostly a multidisciplinary and multi stakeholder and is a process rather than an action or operation.
5. **Importance of regional cooperation, networking and knowledge sharing:** Use and exchange of research information, through strengthening the national agricultural research information systems to strengthen the regional and international information systems and regional networks.
6. **Livestock and trans-boundary animal and plan:** There was discussion in respect of the institutional arrangements

and internationally recognized norms put in place, i.e. OIE rules. The concern in view of the increased cross-border animal movement and the ever emergence of new animal and plant diseases was also discussed.

7. **Salinization:** discussion was about losing more and more land due to soil and water salinization and the quick response must to be taken to stop more fertile land going out of agricultural process.
8. **Climatic change:** Nowadays climate change is taking larger attention than before, whereas the indicators show that the climate change will affect agricultural production and food security, and its negative impacts are expected to be more severe in dry areas including WANA region and threatening particularly food security of the poor.
9. **Standard of Living of Farmers:** Improving standards of living of farmers and tackling local problems through solving these problems which leading to increase the productivity of agricultural sector.
10. **Plant Genetic resources:** TO develop mechanisms to preserve plant genetic resources and establishing “Genetic Banks”.
11. **Land degradation and combating desertification:** This is a very serious issue in the WANA region; this complex phenomenon is still threatening the survival of the human civilization in many parts of the arid and semi arid region.
12. **Increasing agricultural productivity:** Agricultural productivity per unit area in both irrigation and rainfed sector is still low in many countries of the region. More integrated farming system approach should be adopted in research and technology development.
13. **Information Technology:** There was discussion on the application of regional management of fisheries status which requires online reports that depends on the data to be collected by a continuous monitoring program. Internet can provide the base for an electronic program which will utilize data and will provide online management reports.
14. **Satellite Remote Sensing data:** Agricultural Initiated RS/GIS applications in the sector of agriculture and natural resources have been highlighted by the participants.
15. **Plant Protection:** The issue of integrated pest management has been highlighted in the discussions.

16. Rural development and empowering the women in the rural areas: These issues have been reviewed in this e-conference.

From the above points of discussions the challenges and modification of researchable and development issues have been formulated as in the following parts.

Challenges facing WANA Region:

- In WANA region most of its countries are suffering from water shortage and water poverty is the most intense worldwide. In the region the agricultural sector is consuming more than 80% of the available water which is limited with no possibilities for increasing water supplies. In spite of the scarcity of water resources there are still inefficient use and misuse of this resource.
- Agriculture production in WANA is characterized by low efficiency in the use of all production inputs.
- Disparity of living conditions between urban and rural areas is quite obvious. Rural migration is still on the rise.
- The region suffers from shortage of food and is a major importer of the strategic food commodities.
- In the region, poverty levels increasing through time in the region.
- In many livestock activities, research is not integrated with other disciplines of agriculture, i.e. crops, water, soils, energy etc.
- The negative impact of the spread of peri-urban area and commercialization /industrialization on livestock.
- Lack of Sharing information about animal and plant diseases which must be effectively managed.
- To stop having more fertile land going out of agricultural process and consequently increasing desertification.
- Losing more and more land due to soil and water salinization.
- The research in most countries in the region is still based on a routine of repeating the same thing rather than following a more creative and demand driven research priorities.
- The missing link between the different stakeholders.
- Market and policy research is overlooked in the research priorities.
- Rainfall now comes erratically in showers in huge quantities over very short time.
- The climate change will affect agricultural production and food security, and its negative impacts are expected to be more severe in dry areas.
- Agricultural extension has not yet played the required active, effective and efficient service role.

- Conservation of biodiversity and plant genetic resources and utilize them in a good manner.
- Agricultural research agenda is not based on commodity chain approach (crops, trees, livestock, fisheries) from production, processing, marketing and trade until it reaches the consumers.
- The research on the natural resources management (soil, water, biodiversity, range and forest) is carried out without adequate attention to the socio-economic constraints and to the environmental conditions.
- The negative impact of political conflicts, like war in many countries in the region, on the availability and sustainability of land and water resources.
- Soil and water pollution.
- Restructuring of the current agricultural research system to meet the needs and challenges of the agricultural development in the WANA region.
- The feedstuff shortage is a serious problem facing livestock producers,
- The significant increase in the costs of production inputs.

Agricultural Researchable and Development Issues

From the discussions of E-consultation most of participants agreed on all the researchable issues in the regional review. In the following researchable issues the water scarcity has been added as a separate researchable issue because it has been focused of one of the main discussions. Other points have been included as key issues under the researchable issues (note: the word new will be written to recognize these new key issues). The following listing of the researchable issues reflect the priorities of them as discussed in the e-conference:

1. Issue related to Water Scarcity. The urgent need of the region. (new)

Key Issue 1: Need to introduce crop varieties and management practices that result in better water use efficiency. (new)

Key Issue 2: Improve management of water resources and conserving the quantity of this resource through water harvesting. (new)

Key Issue 3: Improve on-farm water-use efficiency and rationalizing the use of scarce water resources by all means especially through adapting new irrigation techniques and enhancing the uptake of improved irrigation technologies and practices in connection with irrigation scheduling (new)

Key Issue 4: To rationalize use of ground water and decrease the expansion of withdrawal from shallow aquifers **(new)**

2. Issues related to Food Security, instable food and Poverty in WANA region, The Urgent Need of the Region

Key Issue 1: Enhance the sustainable productivity and protection of agriculture in the irrigated and rainfed/less-favored or “lagging” areas while protecting the natural resource-base in the region..

Key Issue 2: Need to emphasis on environmental poverty (explained by intensified water scarcity, land degradation and desertification) and to enhance local food production by increasing the productivity of water and land under the conditions of water scarcity, land degradation and desertification as well as increased demand for food. **(new)**

Key issues 3: Need to develop accurate, efficient and economic surveillance and monitoring systems and sharing information that helps in managing the impact of plant and animal diseases. **(new)**

Key issue 4: Need to improve high yielding high quality crop varieties using traditional and advanced tool. **(new)**

Key issue 5: Need to use the nuclear techniques to improve yields crops. **(new)**

Key Issue 6: Need to explore the full potential of livestock sector in the region.

Key issue 7: Research should utilize the good traits in the local breeds and improve their productivities using different techniques including biotechnology interventions. Cross breeding should be considered in this regard. **(new)**

Key Issue 8: Provide effective financing of agriculture and farms to support newly-emerged small-scale farmers and rural household farming/ kitchen farming/mini-farming in the region.

Key Issue 9: Need to emphasize research on comparative and competitive advantage in fisheries and aquatic production systems.

Key issue 10: In the field of medicinal, herbal and aromatic plants there is need to find the best ways to use them in agro- industries producing medicines, cosmetics, and food additives, etc. **(new)**

Key Issue 11: The impact of political conflicts, especially war, on the availability and sustainability of land and water resources. **(new)**

3. Issues Relating to Protection of the Environment: Essential for the region

Key Issue 1: Enhancing efforts on protecting the precious land and water resources and range land from degradation

Key Issue 2: Protecting water resources from all types of pollution. (new)

Key Issue 3: Finding suitable alternative environment friendly crops that tolerate drought and saltiness/salinity. (new)

Key Issue 4: Utilization of indigenous rangeland grass species to grow commercially for replacing high water consuming exotic grass species. (new)

Key Issue 5: To protect the land from Salinization and sustain it for the coming generations and to pay attention to the soil degradation. (new)

Key Issue 6: Enhance efforts on protecting precious vast natural biodiversity present in the region

Key Issue 7: Conservation of local plant and animal genetic resources. developing mechanisms to preserve genetic resources and establishing "Gene Banks". (new)

4. Meeting the special challenges (existing and future)

Key Issue 1: Aligning agriculture research and development to meet the challenges of global warming, i.e. adaptation to and mitigation of climate change.

Key Issue 2: Need to address the issue of land degradation and desertification.

Key Issue 3: Over grazing is another large contributor to our desertification problem and should have a strategic decision about it especially toward reducing herd load and regulating grazing. (new)

5. Issues related to policy and institutional research

Key Issue 1: Need for greater investments in agricultural research and restructuring of the agricultural research system to meet the national agricultural development goals.

Key Issue 2: Need to support research and development in all nationally needed fields of agriculture by local, regional and international funding agencies.(new)

Key Issue 3: Need to Link research to development projects, especially for natural resources management research. (new)

Key Issue 4: Need to identify policies and improve decision makers and politician awareness on the importance and role of agricultural research and innovation (new)

Key issue 5: Building Impact-oriented Research, Knowledge and Development Institutions. (new)

6. Technology, information, knowledge and innovations

Key Issue 1: Need to enhance the monitoring and evaluation system and developing their researches. (new)

Key Issue 2: Need to identify policies and improve decision makers and politician awareness on the importance and role of agricultural research and innovation (new)

Key Issue 3: Search for a mechanism and activate it to link all the centers in the region with a viable communication network for mutual coordination, and to benefit from the expertise of each other. An ICT integrated system involving all the stockholders could access it and share their last information It is important to build on the several active networks in WANA networks to strengthen inter-country collaboration. (new).

Key Issue 4: Need to strengthen the linkages between NARS and International R&D Centers in the region, between NARS and local extension services and between extension services and farmers (new).

Key Issue 5: Creating an effective extension system for the country to create linkages with farmers, researchers and civil society organizations, and to facilitate technology transfer.

Key Issue 6: Participatory approach should take priority which involves researchers, farmers and extension agents in the transfer of technology. (new)

Key issue 7: To improve quality of agricultural education and employability of agricultural graduates, to increase availability of appropriately trained human resources and developing human capacity at different levels.

Key issue 8: Need to adopt methods for disseminating and scaling out improved technologies under rainfed conditions. (new)

Key Issue 9: Need for "Knowledge Management" experts and implementing science in research for development. (new)



7. Issue Relating to Improvement of the Declining Living Standards and Livelihoods of Farmers: Better life for all

Key Issue 1: Study and analyze the declining living standards and livelihoods in rural areas and develop opportunities for household income generation.

Key Issue 2: Organize and promoting the role of rural women in agriculture, and agricultural research and development.

Key Issue 3: The need for agricultural research that benefits the resource poor farmers and producers. (new)

8. Issues related to Market and marketing

Key issue 1: To effectively link small and marginal farmers with markets, including with the fast emerging large (multi-national) retailers and super markets.

Key Issue 2: To benefit small farmers and to protect consumers from food price rise and fluctuation.

Key Issue 3: Enhancing socially based economic agri-enterprises through enhancing and empowering the farmers' cooperatives economical and marketing activities. (new)

Key Issue 4: Long-term relationships, planning, technical cooperation and transparency are necessary throughout the supply chain between the wide collection firms, the intermediate buyers and processors, and the end-user and finished product manufacturers. (new)

Key Issue 5: Organizing a regional project that aims to document specifications and the definition of taste and smell to those favorable for WANA consumers on the fruits horticultural crops to identify their DNA fingerprint as first step for registration in a database. (new)

Key Issue 6: Developing a Geographic Identification system (GIs) for agri-food produced to register and protect the name, origin and intellectual property rights of the distinguished rural agro-food products (fresh or traditionally processed agri-food) produced in certain geographical areas, to increase their marketing value, highlight their superiority due to the nature, inherited practices, nutritional value, encourage diverse agricultural production and rural sustainability. (new)

9. Issues related to Energy

Key Issue 1: To develop bio-energy as a complement to and not at the cost of food security;

Key issue 2: To enhance energy security compatible with economics and ecology.

Key Issue 3: enhance the utilization of renewable energy resources for agricultural practices to reduce the utilization of chemicals and reduce polluting practices. (new)

