

Summary Report on the E-Consultation in Central Asia and the Caucasus

Introduction

The Central Asia and the Caucasus (CAC) region has been actively participating in the global process for reshaping the world agricultural research agenda to meet (i) the present and future challenges in agricultural development, (ii) the Millennium Development Goals (MDGs) set by the United Nations, and (iii) help the resource-poor farmers and the rural poor. The Central Asia and the Caucasus Association of Agricultural Research Institutions (CACAARI) with active support from the Global Forum on Agricultural Research (GFAR) is supporting this process in the CAC region through electronic and face-to-face consultations. It is realized that the outcomes of this process will feed into the Regional Research Review and the Face-to-face Consultation meeting of the CAC region.

The e-consultation process in the CAC region was conducted from 3 – 23 September with active support from CACAARI and GFAR Secretariat. A total of 200 messages from 120 participants were exchanged during the e-consultation process.

Key Issues for Agricultural Research for Development

The CAC e-consultation participants endorsed the six challenges and 23 key issues of agricultural research for development identified in the Regional Review Report, which was shared with the participants. The key issues highlighted by the participants to improve productivity and production and incomes and livelihoods of small-scale farmers during the e-consultation process are summarized below:

1. Improved innovations and technology and support for small-scale farmers including women

Need to place small-scale farmers including the women farmers (especially important for *dehkons*) at the center of agriculture by providing them all the necessary support. These include land and property rights, freedom in decision-making in farming, providing them access to inputs including improved and quality seeds and small farm machinery, improved agriculture technology (including for organic farming) through creation of effective extension linkages, access to markets, income diversification and involving them in setting agenda for agricultural research for development.

2. Ensuring sustainable increases in field and horticultural crops productivity and production to ensure food and nutritional security in the region

Although the poverty level in the region is lower than what it was 3-5 years ago, food and nutritional security is very important considering future increases in population; emphasizing the need for sufficient and nutritious food for everyone through increased production of field crops, horticultural crops (vegetables and fruits), and crops like potato in a sustainable manner (in both irrigated and rainfed situations) without adversely affecting the natural resource-base and environment. This is possible through improved and sustainable productivity increases in major

field crops like wheat, and by exploiting the tremendous potential that exists in vegetable and fruit crops and crops like potato in the region, but not fully exploited so far. For this, there is an urgent need for the countries in the region to pay greater attention and support to agriculture to develop improved technologies including improved seeds and farm machinery and provide freedom to the farming by *dehkons* (kitchen farming/mini-farming) and small-scale farmers in the region.

3. Placing greater emphasis on livestock and horticulture sub-sectors

Need to place greater emphasis on livestock and horticulture sub-sectors in the region was emphasized during the e-consultation. In view of livestock's importance for providing milk and meat products and the presence of vast rangelands in the region that could successfully support the livestock sub-sector. In the same context, emphasis has to be laid on forage and feed availability, livestock improvement and health issues. It should be understood that the sub-sector supports livelihoods of large populations of subsistence farmers/herders in the rainfed areas and the mountains of the region.

Similarly, the horticulture sub-sector deserves much greater attention which so far has not received much attention in the region. The sub-sector has a tremendous potential in the region because of the large diversity present in vegetable and fruit crops in the region and their importance in human nutrition and export potential. The sub-sector is important in the region as it supports livelihoods of large populations of *dehkons* and small-scale farmers and the rural populations in the region.

4. Greater investments and support to agriculture and agriculture research/innovations

Greater support and investments in agriculture and agricultural research are required in the region. There is also an urgent need for restructuring and strengthening of research, education and extension systems in the region with emphasis on developing inter-institutional collaboration and linkages at the national, sub-regional, regional and global levels. Similarly, there is a need to improve educational system to attract and train young students and to prepare them for the current and future needs of research and extension for agricultural development in the region.

5. Ensuring favorable policy environment

Ensuring favorable policy environment is a pre-requisite for improving the situation of small-scale farming and the livelihoods of the farmers. Socio-economic studies are required to fully understand constraints to agriculture and farmers' livelihoods are required. Also required are favorable policies on land tenure, credit, input availability, access to markets, and opportunities for income diversification.

6. Involving private sector in agriculture and rural development

Considering the legacy of the former Soviet Union that the region has inherited, it is important to encourage participation of the private sector in agriculture. This is important for public/private integration and investments in agriculture in seed production and organic agriculture, speed up agricultural development and providing employment opportunities in the rural sector.

7. Protecting land, water, biodiversity and forest degradation

Address land and soil fertility degradation, soil salinity and soil drainage problems through efficient land/crop and water management techniques, conservation agriculture and crop diversification. For this, investments in repairing the large irrigation systems inherited by the region are required. Similarly, water-use efficient techniques and efforts at the basin level are required to protect this valuable natural resource. Likewise, the region's rich heritage of vegetables, fruits, vinery and nut trees needs protecting. Efforts are required for breed characterization of the prevailing small ruminants in the region and protecting biodiversity conservation in the rangelands. Protection of forests in the region and encouraging afforestation and agro-forestry are important in view of advancing desertification and climate change in the region.

8. Addressing the environmental issues

The region should address to the important environmental problems of the region. These include the problems of Aral Sea and desertification and study how these potential problems could impact land availability and agriculture in the region. In the same context, enhanced efforts on afforestation and agro-forestry are required. Another important environmental issue is climate change which could seriously impact agricultural production in the region in near future considering the phenomenon of global climate change.

9. Paying attention to fisheries

So far, very little attention has been paid to the research on fisheries in the region, which is an important source of food in the region, and has tremendous potential for exports. This area needs all the support to improve the incomes and livelihoods of fisher folks in the region.

Summarizing the Key Issues with Respect to Improving the Livelihoods of Smallholder Farmers

Different key issues highlighted by the participants during the e-consultation could be grouped into (A) Issues that relate to commodity areas, and (B) Issues that are cross-cutting in nature. These could be summarized as follows:

A. Issues relating to Commodity Areas

The issues highlighted in this category are important objects for development and are considered important by participants for improving productivity and production of different commodity areas and crops starting from the input through output level, at output/post-harvest level, for participation in markets, at consumer level, and at institutional level. The commodity areas considered important for different categories of farmers [households of darhons, households of small farmers (<5 ha), households of small to medium farmers (5-50 ha), pastoralists, sustenance smallholders in mountains, fisher folks and forest dwellers] in the region include field crops (cereals, pulses and potato), fruits, herbs, nut crops, vegetables, floriculture, livestock (small and large ruminants, poultry, rabbits), inshore fisheries and medicinal plants and non-timber forest products. Different issues under objects for development are categorized as follows;

a. Researchable issues at input level

These include the following:

Seed/breeding management:

- Crop: Access to quality seeds of improved varieties

- Animal: Insemination service, controlled breeding, embryo transfer

Land management:

- Crop: Land tenure
- Animal: Ownership, tagging

Soil management:

- Crop: Composting, fertilizer, salinity, micronutrients, etc.; Conservation agriculture; Crops diversification
- Range/Pasture: Sustainability, water harvesting, degradation; Grazing management

Health management:

- Plant/Farm: Pest and disease spread, monitoring, surveillance
- Animal/Herd: Disease surveillance, monitoring, vaccination, preventive care

Water management:

- Farm/community:
Structure & systems of irrigation & drainage, equipment, monitoring
Equity/access, water-users associations

Knowledge management:

- Individual/household/community:
Access to new knowledge, ability to share knowledge
Knowledge intermediaries, extension & advisory services

Labour management:

- Women/individual/household/community:
Role of women
Farm machinery, equipment

b. Researchable issues through output level

These include the following:

Productivity increase at whole farm/production system level:

- Whole farm studies, modeling, simulation
- Availability of improved technology
- Seed improvement
- Integrated pest management
- Organic agriculture

c. Researchable issues at output/post-harvest level

These include the following:

- Post-harvest product management
- Processing

- Packaging
- Storage
- Transport

d. Researchable issues for participation in markets

These include the following:

- Institutional issues
- Market information
- Food safety, labeling
- Retail packaging
- Export market research

e. Researchable issues at consumer level

These include the following:

- Super market needs
- Consumer preferences
- Acceptability

f. Researchable issues at the institutional level

These include the following:

- Land tenure
- Livelihoods and poverty analysis
- Input market management and participation
- Water access
- Output market management and participation
- Financial support loans
- Involvement of private sector in agriculture
- Taxation

B. Cross-cutting issues

A number of cross-cutting were highlighted by the participants that are very important in achieving the desired progress. These include the following;

Investment in agriculture and agricultural research
 Change in agricultural research systems (including need for young researchers)
 Change agricultural extension systems
 Changes in agricultural education systems
 Capacity building in research infrastructure and capabilities
 Developing effective linkages (networks)
 Protecting land (including rangelands) and water degradation
 Protecting agro-biodiversity
 Climate change

Desertification

Protecting forest degradation and afforestation

Aral Sea problem

Conclusion

The CAC e-consultation process could be considered as a successful and useful exercise. The feedback from the participants which included researchers, academicians, educationists, women institutions and NGO representatives has been extremely useful, and would be used in revising the Regional Research Review. The above information presented in a tabular form will also be used during the Face-to-face meeting. However, it should be emphasized that feedback from farmers in this exercise has been very limited, and that too through few personal interviews. This is why the outcomes of the Face-to-face meeting, where there would be an active participation of farmers, should be more useful in understanding the farmers' perspectives.