

# Agricultural Research System in Central Asia and Southern Caucasus

CACAARI, Chairman

*Academician Dzhamin Akimaliev*



## КАРТА РЕГИОНА





- **Central Asian and Caucasus Association of Agricultural Research Institutions was founded in 2000. It is consisted of scientific research organizations, base stations of CAC RARS, Consortium of Agricultural Universities, Farmers' Consortium and Consortium of NGO.**
- **Members of the Association are 40 scientific research educational organizations, 4 associated centers of CGIAR (ICARDA, AVRDC, IFPRI and CIMMYT); farmers' organizations and members of NGO – about 30.**




- **Central Asian and Caucasus countries own large amount of resources: 11,4 mln. ha of irrigative land, 23,3mln. ha of dry farming area and 256 mln. ha of grazing land. The most important agricultural crops and significant volume of livestock products are produced as well.**
- **More than 78 million of people live in the region. Until the year 2050, in Central Asia it is expected that population will intensively grow and consequently arable land per capita in all countries of the region will decrease.**



**CACAARI**  
Central Asia and the Caucasus Association  
of Agricultural Research Institutions

### Настоящие и грядущие проблемы:

- Economic crisis, Global climate changes, Population growth - raising prices and demand for food and energy resources, which consequently leads to the utilization of scarce natural resource even more
- Food price increases force low income group of consumers to spend larger proportion of their low income on the most important point of expenses. This seriously reduces their chance to increase own welfare.
- Worsened conditions for agriculture due to climate changes will continue to decrease productivity of agricultural land and threaten the raise in agriculture which has very important role in national economics.
- Thus, there is a task in front of society, that is to find the solution of these problems, and implication of immediate measurements are essential conditions for provision of peaceful and stable prospering future in CAC region.



**CACAARI**  
Central Asia and the Caucasus Association  
of Agricultural Research Institutions

### Regional Strategy of development of Agricultural Research system:

- ❑ Based on the principles of Road Map of the first Global Conference of the Agricultural Research for Development (2010).
- ❑ Synthesized from the national strategies (August, 2011r.)
- ❑ Discussed by national partners (September-October, 2011.)
- ❑ Discussed at the Regional Brainstorm meeting on Transformation and Strengthening of AR4D by national and international partners and representatives of international agencies (November, 2011.)
- ❑ Adopted by CACAARI board and NARSes taking into account all comments and remarks (March, 2012) and currently in the process of implementation.



Regional Strategy  
for Transforming and Strengthening of  
Agricultural Research and Innovation Systems for  
Development in the Central Asia and Southern  
Caucasus region





## Major problems of AR4D in the CAC region:

### At the national level:

1. A lack of political commitment to invest in AR4D
2. Inadequate attention to the many contextual factors required and problems
3. A poor linkage between research processes and the development agenda
4. A lack of involvement of all relevant stakeholders in agricultural research
5. The difficulty of defining national AR4D priorities and actions



### At the regional level:

1. The difficulties encountered in integrating actions at regional level
2. Under-resourced regional organizations and networks
3. Absence of larger international political obligations for provision of support in mutual sharing of technological innovations.





**Considering those challenges, the AR4D system of the CAC focuses joint efforts on four main goals of agricultural research:**

- 1. Improving the well-being of the rural population, particularly vulnerable groups and those dependent on agriculture;**
- 2. Guaranteed improvement of the quality and quantity of nutritious food through the intensification and diversification of agriculture;**
- 3. Rational use of natural resources;**
- 4. Mitigating adverse effects of climate change.**



### **Objectives of the Regional Strategy**

- 1) Identifying the main priorities of agricultural research as determined by the needs of society and science at national, regional and global levels;**
- 2) Increase the funding for development of improved systems for agricultural research, education and extension;**
- 3) Development of the human and institutional capacity required for the generation of relevant agricultural knowledge, and linkage with its users;**
- 4) Disclosure of the efficiency of measures taken, through monitoring, evaluation and reporting.**



### Ensuring equal opportunities for participatory development and implementation of actions:

- In the process of developing necessary innovative knowledge, and passing it to farmer and smallholders, all stakeholders should be involved, especially those who are the ultimate beneficiaries of reforms achieved under the stated objectives.
- Such full participation in the transformation processes by consumers and rural producers, especially smallholders, ensures an enabling environment for generating and utilizing the innovative knowledge required for overcoming difficulties.
- The evidence of the participatory actions is launching of the CGIAR Research Program 1.1. in the regions.



### Main priorities in agricultural research in CAC:

- 1) Formation and preservation of gene pools of plants and animals;
- 2) Improvement of agricultural technologies;
- 3) Development of biotechnology;
- 4) Improved pest management;
- 5) Efficient use of natural resources;
- 6) Improved fodder system and veterinary services;
- 7) Mechanization of agricultural production;
- 8) Study of food security issues



### The increased investments in agricultural research and innovation:


- Average agricultural research investments as a percentage of agricultural GDP in developing countries are 0.58%, compared with 2.4% in developed economies. According to estimates, this indicator is 0,1% for CAC.
- The CGIAR estimates that to deliver developmental outcomes on the scale required to meet the major challenges that lie ahead and in view of the enormous investment backlog already caused by the under-funding of the past two decades, it will be necessary to triple the global scale of investment in AR4D over the next 15 years.



### The increased investments in agricultural research and innovation:

In the CAC investments to AR4D are proposed to gradually increase so that in 2025 they should reach 1% of gross agricultural GDP.





**UCACAARI**  
Central Asia and the Caucasus Association  
of Agricultural Research Institutions

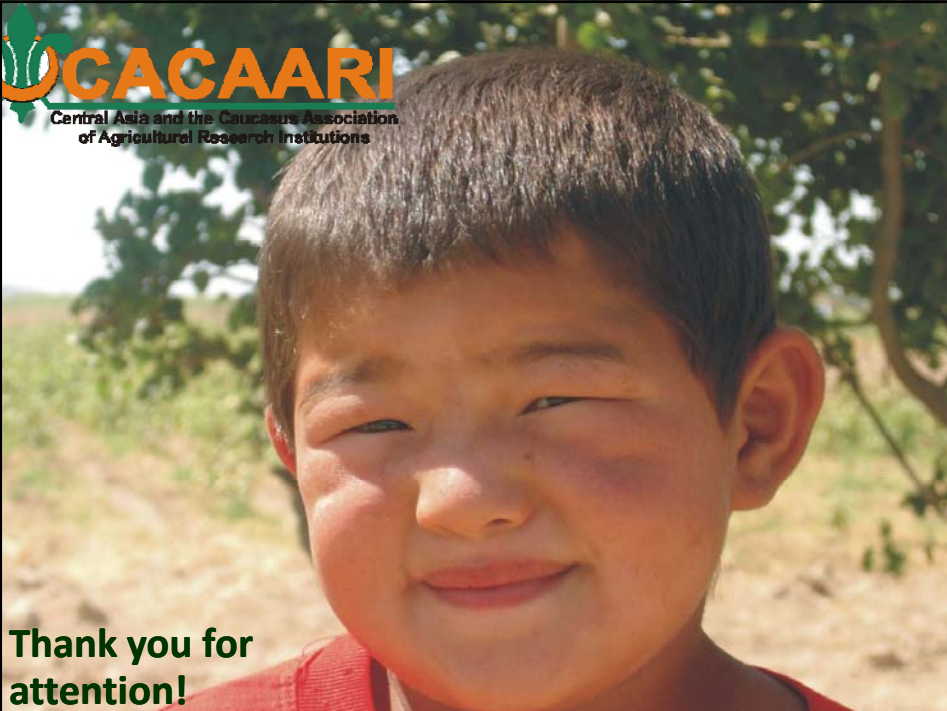
**Donors' aid coordination:**

Despite the positive impact of donors' aid, its effect could be much higher given ensured by coordination of activities.

Creating mechanism for **coordination and coherence** among donors would greatly increase expected outcomes, bridging between segments of agriculture.



**UCACAARI**  
Central Asia and the Caucasus Association  
of Agricultural Research Institutions



**Thank you for attention!**