

FOURTH TECHNICAL FORUM - 2010

TRENDS IN THE DEMAND FOR FOOD AND ADVANCES IN TECHNOLOGICAL INNOVATION IN AGRICULTURE: OPPORTUNITIES AND CHALLENGES

RATIONALE

In today's scenario, agriculture faces a number of challenges that it must meet if it is to adapt to the new conditions and requirements and perform successfully.

Growing demand for food and more diversified products: The global demand for food is set to increase in the decades ahead, driven by population growth and higher incomes. At the same time, habits, preferences and requirements are changing, with consumers demanding quality, variety and products suited to their lifestyles, while middlemen demand attractive presentations and packaging, innovative forms of delivery and compliance with standards.

Competitive agriculture: the rapid growth in the demand for food crops, driven by population growth, changes in consumption habits, higher incomes in the developing countries and the use of food crops to produce energy have intensified the pressure to raise crop yields and maximize the land available for cultivation.

Sustainable agriculture: the impact that climate change, desertification and climatic variability could have on agriculture means that the region needs to develop crops adapted to changes in the temperature and soil and the amount of water available, perfect techniques for soil and water conservation, and create animal and plant technologies that will reduce greenhouse gas emissions.

Equitable agriculture: it will only be possible to combat rural poverty effectively if agricultural development integrates small-scale producers into agrifood chains and affords rural/marginal producers access to innovations.

IICA must help the countries to develop the capacity to adapt to the evolution of agricultural markets, especially in response to the demand for differentiated products resulting from new consumption habits and higher incomes, the increasing importance attached to safety and quality, changes in the energy matrix and technological advances in the industrial use of agricultural products.

IICA must also assist the countries in improving their processes for technological innovation in agriculture, in order to tap the opportunities and address the challenges in relation to priority issues. IICA serves as the secretariat of several forums and is a member of others,¹ and in that capacity has helped identify the opportunities and challenges with regard to technological innovation in agriculture, with a view to adjusting and promoting the regional agenda for research, development and innovation (RDI) in LAC² for topics such as nutrition and food security; the diversification and differentiation of agricultural products and services; adaptation to climate

¹ FORAGRO and GFAR

² See: FORAGRO. 2010. *Agriculture and rural prosperity from the perspective of technology research and innovation in Latin America and the Caribbean: Positioning of FORAGRO 2010.*

change; the conservation and sustainable management of natural resources; the development of bioenergy; and the promotion of institutional innovations.

Rapid scientific progress is being made with regard to many of those priority topics. Genomics is a case in point, with public access to the genetic maps of an ever-growing number of species of interest for the agricultural sector (animals, plants and microorganisms). This has spurred the rapid development of lines of research on genetic improvement (particularly in plants), supported by the use of molecular biology techniques.³

Mindful of these challenges, and with a view to increasing and extending innovation in agriculture to improve production, competitiveness and trade, IICA established as one of the strategic objectives of its 2010-2014 Medium-term Plan, “To improve technology research, innovation and transfer/extension, in order to make agriculture more competitive and sustainable.”

As part of that objective, this Technical Forum aims to analyze not only the main changes taking place in the demand for food on world markets, but also the advances being made by countries in the region in technological innovation in agriculture, in order to identify the challenges facing the LAC governments and the international agencies, as well as the opportunities that exist.

³ See: IICA. 2009. *Situation and performance of agriculture in LAC from the technological perspective. Area of Technology and Innovation - DLTGC.*