

Interview with Dr. Ismahane Elouafi on AIRCA, Director General of ICBA and AIRCA Executive Committee member



Dear Dr. Elouafi, ICBA is one of the founding members of AIRCA. Could you maybe first say a few words about ICBA?

The International Center for Biosaline Agriculture (ICBA) is an international, nonprofit, organization that was established in 1999, due to the visionary leadership of the Islamic Development Bank (IDB), the Organization of Petroleum Exporting Countries (OPEC) Fund, the Arab Fund for Economic and Social Development and the Government of United Arab

Emirates.

At that time, they identified that there is a growing salinity problem that is affecting the Middle East and North Africa region and hindering their attempt to improve their food and water security. There was a dire need for applied research tackling salinity problems and using saline water for food and feed production, whereas there was no international organization tackling this serious problem.

Throughout the first 10 years of the Center's existence we implemented many projects that aimed to improve the well-being of poor farmers that have to deal with salinity problem. Along the way we built-up a wealth of information and successes, as well as extensive internal capacity comprised of a world-class modern research facility with a team of international scientists

As we evolved, so did the global problems related to salinity; the world is daily losing 2,000 hectares to salt-induced degradation, and the marginal areas across the globe are increasing. This is affecting the food and income security of those living of it, as well as impacting the water security of several countries.

ICBA's success and these growing global problems promoted the revision of ICBA's mandate and expanding our focus from merely focusing on salinity issues, to a broader scope that aims to identify sustainable solutions for food and nutritional security in marginal environments through facilitating access to technology, improved germplasm, plus relevant policies, strategies and programs. ICBA Strategy 2013-2023 clearly identifies our new mandate and the impact we aspire to achieve, and the strategy is available at our website www.biosaline.org

You mentioned ICBA's success prompted this expanded mandate; can you give us a quick brief about ICBA's work and successes?

Throughout the years, ICBA has been very successful in identifying crops, technologies, and best management practices to improve agricultural [productivity and profitability in saline environments. We have carried botanical survey to collect and conserve native species especially in the UAE. ICBA is working on a number of

technology developments including the use of conventional and non-conventional water (such as saline, treated wastewater, industrial water and seawater); water and land management technologies; remote sensing and modeling for climate change adaptation.

We have worked extensively on identifying and promoting integrated production systems that practice sustainable management of available resources. We focus on community development, whether it is in identifying and encouraging certain crops, or irrigation technologies, or on farm practices and best drainage system. The local community is a partner and this helps sustain the gains from the improved production systems.

Our modern research and training facilities in Dubai include a gene bank of salt-tolerant germplasm with over 13,000 accessions representing over 225 species; laboratories for central analytics; plant genetic resources and agronomy and plant physiology. Thirty-five hectares of the Center's 100 hectare research and demonstration site has been developed for irrigated agriculture using saline water, sea water or treated wastewater. We have modern greenhouses and a shade house providing climate-controlled conditions for plant experiments and the transfer of plants between environments.

Building capacity and sharing knowledge is another important part of our work in the past and something we want to expand in the future as we aim to become a knowledge hub and center of excellence. ICBA has carried extensive training programs on plant production systems in marginal lands, soil and land use management, socio-economic assessments, and water resources management both at its headquarters and in partnering countries.

ICBA has worked across many countries in the Middle East and North Africa (MENA); Gulf Cooperation Council countries; Central Asia and the Caucasus; South and South East Asia, and sub Saharan Africa. In all of our projects we make sure that national partners are joint owners in the development and use of the research outputs so leading to adoption of recommendations, analyses and best-management practices for land, soil and water in marginal environments.

AIRCA was formed in 2012 – what was the motivation behind the creation of this network?

First, I want to reinstate that ICBA is very proud and committed to be a part of the global AIRCA network.

The formation of AIRCA was stimulated by the need for integrated action to deliver sustainable agricultural intensification at the landscape level. All like minded AIRCA member organizations have decades of experience in their respective disciplines and geographical areas, and impressive track records of research, development and implementation. By combining our successful approaches we hope to be more effective and efficient in helping farmers and communities to move from poverty to prosperity, as well as reducing transaction costs.

Another key objective in establishing AIRCA was to enable the founding members to speak with a collective voice and more effectively engage with regional and international networks and policy makers. We need to

move away from the piece-meal approaches addressing agricultural problems as isolated commodity-specific, and focus on improving the health of humans, plants, animals and landscapes.

What do you mean by “healthy landscapes”?

AIRCA’s mission is “Putting research into use by strengthening capacities for sustainable improvements to incomes, food and nutrition security in healthy landscapes”. This is based on the realization that the demand for food, fodder, biofuels and fibre is rapidly increasing while we are facing major challenges such as natural resources scarcity, climate change, and population growth. Higher outputs must be accomplished by increasing the productivity of the agricultural sector, especially for smallholders in developing countries. The landscape approach emphasizes that this can only be achieved sustainably by not only looking at outputs, but also at interactions between air, soils, water, biodiversity and other biosystem services - healthy farming families can only thrive in healthy landscapes.

And how can this be achieved?

Through a collaborative approach and vision for all AIRCA members. Our individual programs on healthy landscapes feed into an overall AIRCA effort that emphasizes on:

- Direct interactions with farmers and their organizations, as well as public extension services, NGOs and the private sector, to promote the successful uptake of new or more sustainable technologies and management practices;
- Scientific assessment of the effectiveness of existing management practices and technologies;
- Research and development on staple and non-staple food crops for diversified and sustainable diets and production systems;
- The need to integrate activities concerning the health of people, plants, animals and landscapes when working to intensify agricultural productivity.

We are currently working on three different concept notes in different geographical areas on three continents (Lake Victoria in Africa, Trifinio in Latin America and Karakoram in Central Asia), and we hope that with these projects, we can prove that landscape-oriented projects are an efficient and effective means of having long-lasting beneficial effects on farmers’ lives.