

Science IMPACTS

The Challenge:

The Arab countries need accelerated human and institutional capacity strengthening to raise agricultural productivity, strengthen food security, and mitigate/adapt to rapid climate change.

AFESD-ICARDA: A strategic partnership for developing the capacity of Young Scientists in Arab Countries

Capacity development is one of ICARDA's core priorities. A four-decade partnership with the Arab Fund for Economic and Social Development (AFESD) has equipped thousands of trainees with crucial new knowledge and skills – helping to raise production and strengthen resilience across the Arab countries.

The dissemination of new technologies and innovations is crucial to the transformation of dryland agricultural production systems throughout the Arab World – enabling countries, research institutions and rural communities to enhance productivity and strengthen nutrition and food security.

Raising the capacity of agricultural researchers and institutions has been one of ICARDA's core activities since the Center's foundation in 1977 – prioritizing the dissemination of new knowledge and skills related to crop improvement, water and land management, integrated crop-livestock-rangeland management, and climate change adaptation.



AFESD



A strategic partnership for Arab countries

The AFESD-ICARDA partnership stretches back several decades to 1978. Of the 23,590 researchers who received ICARDA training since that date, some 15,804 benefited from financial support provided by AFESD. These individuals - all from Arab countries - participated in long-term, short-term, and individual non-degree courses (See Table1). In 2017 alone, some 483 trainees benefited from AFESD grants.

Capacity Development of Human Resources		
Type of Training	1978-2017	1978-2017 (Arab Countries)
Post-Graduate (M.Sc. + Ph.D.)	889	610
Individual Non-degree	2,290	1,777
Internship	179	72
Courses	20,232	13,435
Total	23,590	15,804

Table 1: Number of researchers participating in ICARDA trainings 1978-2017

The result? Stronger agricultural institutions and a network of researchers able to rise to the myriad challenges that confront dryland farmers across Arab countries. Several alumni now occupy leading positions in their respective countries, as scientists, heads of institutions, and national decision-makers. They continue to play a key role in enhancing the contribution of research to agricultural development throughout the Arab world.

“The key advantage of working with the Arab Fund is that they know the Arab region and the many constraints that impact farmers working there,” says Charles Kleinermann, Head of ICARDA’s Capacity Development Unit. “This means they fully support our strategic approach to capacity strengthening which aims to tailor training to national capacity and key and emerging challenges.”

Building Capacity of Arab Countries in food security

Capacity strengthening is a key priority of ‘Enhancing Food Security in Arab Countries’ – an initiative generously funded by AFESD, alongside other donors, which works across ten countries to raise the production of strategic crops, particularly wheat.

From 2011 to 2017 the initiative provided training and knowledge-sharing opportunities to over 65,000 participants - two-thirds of them farmers – including in-country and regional trainings, inter-country scientific visits, and traveling workshops and symposia. Other beneficiaries include policy makers, scientists and technicians.

The AFESD-ICARDA capacity development partnership in numbers:

- Over 15,804 researchers from Arab countries have received training thanks to AFESD support
- On average, AFESD supports almost 400 trainees every year
- In 2017 alone some 483 trainees benefited from AFESD grants
- Over 610 young Arab researchers have benefited from training opportunities for M.Sc. and Ph.D. degree in collaboration with Universities in Arab countries
- The AFESD-funded ‘Enhancing Food Security in Arab Countries’ initiative has provided training to over 65,000 beneficiaries – two-thirds of them farmers.

Investing in the future

The AFESD-ICARDA partnership has also targeted young researchers – recognizing this as an investment in future productivity and resilience targets. Over 610 young Arab researchers who had completed or were working towards M.Sc. or Ph.D. degrees have benefited.

An AFESD-ICARDA fellowship program initiated in 2012 is also contributing to build the capacity of young Arab scientists through thesis research, on subjects crucial to the Arab region’s long-term food security, including: rainwater harvesting and rangeland degradation; the productivity and quality of wheat; and policy incentives to enhance sustainable water and land management.

So far 53 individuals have enrolled in this particular program – 17 MSc and 36 PhD students, 51% of them female. Some 35 individuals have since graduated with the program’s support and those remaining are on the final stage of their theses or the implementation phase of their research. This program is designed to fill critical scientific gaps in line with thematic priorities of national agricultural research and university systems.

In addition, the Young Agricultural Scientist Program (YASP) – part of the ‘Enhancing Food Security in Arab Countries’ initiative - has provided long term individual training for 54 young scientists, enhancing their knowledge and refining their skills across a range of disciplines related to wheat production, including the breeding of field crops, biotechnology, plant protection, and water and soil management.

I would like to thank AFESD and ICARDA for the funding and scientific support I received to conduct my Ph.D. My research focuses on improved production technologies to raise yields and achieve self-sufficiency in wheat production, which will enhance food security and support the livelihoods of smallholder farmers. Without this support it would have been extremely difficult to learn such advanced and practical knowledge.

Mr. Elrashid Abdallah Fageer Ahmed,
PhD Student at the Sudan Academy for Sciences.

Supporting ICARDA’s decentralization

The Arab Fund has been a crucial supporter of ICARDA’s decentralization, helping to invest in the establishment of 5 Research Locations (sites) in Arab countries - including new thematic research platforms, a new Gene Bank in Lebanon, state-of-the-art laboratories in Morocco serving as ICARDA intensification and diversification of rainfed cereal-based production systems, high-input irrigated agricultural systems and biotechnology research in Egypt, heat-tolerant wheat and food legume varieties in Sudan and building resilience in marginal lands research in Jordan. This support is now directly strengthening ICARDA’s capacity development program as national partners benefit from the new facilities and the training opportunities they provide.

Project Contact:

Charles Kleinermann, c.kleinermann@cgiar.org

For publications:

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