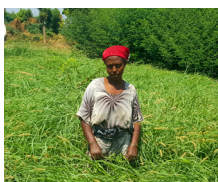




ICBA Quarterly Progress Report Q1 2024



April 2024



Executive Summary

During the first quarter of 2024, ICBA continued its work in different areas of scientific research, development, and knowledge and technology transfer. The center had **44 ongoing research and development projects** in this period.

ICBA hosted and participated in **15 national, regional, and international events** to showcase its **research and development work worldwide**.

And the center's scientists produced **13 research articles** for international peer-reviewed journals and books.



44 ongoing research and development projects



15 national, regional, and international events



13 research articles

Highlights

UAE Minister of Climate Change and Environment Visits ICBA



H.E. Dr. Amna bint Abdullah Al Dahak Al Shamsi took part in the harvest of millets, a group of climate-resilient and nutritious crops researched by ICBA in the UAE and other countries.

On 7 February, **H.E. Dr. Amna bint Abdullah Al Dahak Al Shamsi**, Minister of Climate Change and Environment of the UAE, visited ICBA to review the center's **research and development work**.

Dr. Tarifa Alzaabi, Director General of ICBA, welcomed H.E. Dr. Amna bint Abdullah Al Dahak Al Shamsi and provided her with an overview of ICBA's research and development and capacity development programs, including **crop improvement, sustainable natural resources management, and climate change adaptation and mitigation**.

During the visit to ICBA's research station, H.E. Dr. Amna bint Abdullah Al Dahak Al Shamsi was briefed about the center's research on climate-smart crops such as millets and quinoa and different feed crops in addition to the integrated date palm management program, water use efficiency, irrigation with saline water, and crop pest resistance.

H.E. Dr. Amna bint Abdullah Al Dahak Al Shamsi was accompanied by **H.E. Mohammed Saeed Al Nuaimi**, Undersecretary of the Ministry of Climate Change and Environment of the UAE, and **H.E. Eng. Mohammed Mousa Alameeri**, Assistant Undersecretary for the Food Diversity Sector at the Ministry of Climate Change and Environment of the UAE.

ICBA Participates in Second Wheat Farm Harvest



ICBA's work on wheat is focused on identifying and preserving varieties suited to environments like the UAE.

On 26 February, **His Highness Sheikh Dr. Sultan bin Mohammed Al Qasimi**, Supreme Council Member and Ruler of Sharjah, attended a ceremony of the second harvesting season of the **wheat farm in Mleiha**, Sharjah. His Highness Sheikh Dr. Sultan bin Mohammed Al Qasimi inaugurated the farm's administrative building during the ceremony.

In March 2022, ICBA also took part in the inauguration of the wheat farm and showcased **30 accessions of wheat**, including heat- and salt-tolerant ones, from different countries, as well as the UAE.

International Horticultural Expo 2023 Doha



The book is designed as a resource for knowledge dissemination at the local and international levels.

On 25-26 January, in collaboration with the **UAE Pavilion**, ICBA participated in the International Horticultural Expo 2023 Doha, Qatar. ICBA led an interactive program to raise awareness about the importance of connecting **traditional agricultural practices** with scientific research and innovation and developing sustainable and resilient local agrifood systems.

ICBA presented the center's research and development work in the UAE and other countries and showcased agricultural solutions suited to saline and arid conditions, from climate-resilient crops to water-saving technologies.

In particular, the program featured an interactive session on "Agricultural Practices in the UAE and the Impact on Sustainable Food Systems" to present a **new book** titled "**Agricultural Practices in the UAE: Heritage and Science**" and ICBA's work to study and preserve cultivated and native plants in the UAE and the region.



The program was covered by national and regional media outlets.

It also included an experiential food pop-up titled "**Nourishing Ourselves, Nourishing Nature**". Held under ICBA's Halophytic Kitchen Lab program, the event introduced visitors to recipes featuring salt-tolerant plants, including *Salicornia*, quinoa, and millets.



Over 250 people from around the world visited the UAE Pavilion during the two days of the program.

ICBA's Regional Office in Central Asia and South Caucasus

ICBA Strengthens Agricultural Research and Development Collaboration in Uzbekistan



The mission to Uzbekistan served to pave the way for strengthening ICBA's partnerships in the country.

As part of ICBA's **strategic plan** to expand its presence in Central Asia, the center's delegation led by Dr. Tarifa Alzaabi, Director General, undertook a **partnership-building mission** to Uzbekistan on 19-23 February, which included discussions on current collaboration with the following officials:

- **H.E. Aziz Abdukhakimov**, Minister of Ecology, Environmental Protection and Climate Change of Uzbekistan;
- **Mr. Baxitjan Xabibullaev**, Director of the International Innovation Center for the Aral Sea Basin;
- **H.E. Academician Ibrokhim Abdurakhmanov**, Minister of Agriculture of Uzbekistan.

During the visit, the delegation, including Dr. Charbel Tarraf, Chief Operations and Development at ICBA, and Dr. Aziz Karimov, Head of ICBA's Regional Office for Central Asia and South Caucasus, was accompanied by H.E. Mohammad AlDaheri, Head of Economic, Political, and Media Affairs Section at the Embassy of the UAE in Tashkent, Uzbekistan.

Training on “Soil and Water Management in Salt-affected Areas” in Uzbekistan



The training courses were organized in three areas of Uzbekistan where salinity is a challenge.

On 18-22 March, ICBA and the **Global Framework on Water Scarcity in Agriculture (WASAG)**, a partnership hosted by the **Food and Agriculture Organization of the United Nations**, conducted a series of training courses in Uzbekistan.

Titled “Soil and water management in salt-affected areas”, the courses were led by four international experts and covered different topics based on “Farmers’ Guidelines”, a guide developed by the **Saline Agriculture Working Group of WASAG**. The guide provides important information on dealing with salinity and sodicity, including best practices in mitigation and adaptation tailored to local conditions.

Organized in **Karshi, Nukus and Chimbay**, the courses brought together **63 participants** from various local organizations.

Governance and Management

On 8 March, ICBA's Board of Directors held its first biannual meeting in person in 2024. The meeting was attended by eight members of the Board and chaired by **H.E. Razan Khalifa Al Mubarak**. ICBA's management presented to the Board members the progress and achievements of the center in terms of administration and operation. The Board members also toured ICBA's research station to learn about the ongoing experiments. The meeting discussed a number of issues related to the center's **strategy, scientific research priorities** and future development plans. The Board agreed to and approved the following:

1. ICBA's Strategy 2024-2034
2. ICBA's Impact Report 2022
3. The 2023 Audited Financial Statements

ICBA's Strategy 2024-2034



International Center for Biosaline Agriculture Strategic Plan 2024 - 2034

Under the new strategy, ICBA will work to Prevent, Manage and Recover from salinity in agroecosystems.

ICBA developed a **new strategy** following extensive internal and external consultations. The strategy lays out the new **vision, mission** and **strategic objectives** of the center for the coming **10 years**. It also identifies the main challenges that the center will focus its efforts on during this period.

The new strategy will be launched in the second half of this year during the Center's 25 jubilee's celebrations.

Research Development and Technology Transfer

ICBA had **44 ongoing research and development projects** in the first quarter of 2024, of which **2 were launched** during this period.

Most of them were aligned with the UAE's priorities on **sustainable agriculture, food security**, and **environmental sustainability**, and were tailored to the needs of local stakeholders, focusing on a range of research and development areas.

New Project Highlights

Capacity Development for Farmers and Extension Workers in Cabo Verde and Uzbekistan

Project duration:	29 January 2024 - 31 December 2024
Donors:	Food and Agriculture Organization of the United Nations
Project countries:	Cabo Verde, Uzbekistan
Project beneficiaries:	Local farmers and extension workers in Cabo Verde and Uzbekistan
Project goals:	ICBA will provide technical guidance to farmers and extension workers in Cabo Verde on climate-resilient crops suited to local conditions. One training course will be conducted by ICBA on salt-, drought-tolerant and nutrient-dense crops that can enhance biodiversity and food security in Cabo Verde. The training will focus on the criteria for crop selection and the associated best management practices, including RDI irrigation. ICBA will provide seeds of salt-, drought-tolerant and nutrient-dense food and feed crops, jointly selected with the team on the ground in Cabo Verde, for conducting pilot evaluation trials in 2024. Training for farmers will also be conducted in Uzbekistan.

Water Management and Climate-Smart Agriculture in Iraq

Project duration:	28 March 2024 - 31 March 2027
Donors:	Global Affairs Canada
Project countries:	Iraq
Project beneficiaries:	The project will directly benefit 180 technical staff members from government agencies and 600 farmers, extension workers, and input suppliers.
Project goals:	The project aims to improve national capacities to develop and apply evidence-based planning to better manage and sustain the country's water resources. It seeks to promote a more efficient and equitable distribution of the limited water resources through the effective use and application of accurate hydrological models, strengthen inclusive community-led decision-making related to water management, and promote climate-smart agriculture practices to enhance the resilience in Iraq's increasingly water-scarce and saline agricultural context. The project also includes innovative components that will explore nature-based solutions for mitigating salinity problems and restoring aquatic ecosystems and pilot hydroponic technologies in Iraq.

Research Knowledge Dissemination

During the period under review, ICBA also continued to disseminate its extensive research knowledge and promote its **evidence-based solutions** in different countries. The center hosted and participated in **15 national, regional, and international events** to showcase its research and development work worldwide.

Webinar “Biosaline Agriculture as an Approach to Land Restoration”

**BIOSALINE AGRICULTURE
AS AN APPROACH TO LAND
RESTORATION**

FEBRUARY 1, 2024
11- 12:30 PM CET

ZOOM

REGISTER NOW
SCAN THE QR CODE

OR VISIT
<https://bit.ly/biosalineagr>

Learn more on land restoration in marginal environments through biosaline agriculture. It will present an overview of the global climate change impacts, their effect on natural vegetation and other important topics related to marginal environments such as salinity management.

ICBA
AGRICULTURE FOR TOMORROW

G20 GLOBAL
LAND INITIATIVE

ICBA presented its extensive experience in using biosaline agriculture solutions for ecosystem restoration.

On 1 February, ICBA and the **G20 Global Land Initiative** at the **UN Convention to Combat Desertification (UNCCD)** hosted a webinar on “Biosaline Agriculture as an Approach to Land Restoration”. Experts and scientists from ICBA and UNCCD discussed the potential of **biosaline agriculture** for **land restoration** and climate change adaptation locally and globally.

The webinar was attended by around **100 participants** and served as a platform for sharing ideas, experiences and insights on biosaline agriculture as an approach to managing and restoring degraded land.

UAE Carbon Removal Breakthrough Event



The workshop produced a draft report that will be submitted to the Ministry of Climate Change and Environment of the UAE, outlining strategies and recommendations for the UAE to be a world leader in carbon dioxide removal.

On 27-29 February, Dr. Ahmed H. El-Naggar, a soil management scientist at ICBA, participated in the **UAE Carbon Removal Breakthrough Event**, organized by the **Bridge Institute** in Abu Dhabi, the UAE.

He presented ICBA's long-term research on **biochar** and its use for **soil improvement** and **carbon sequestration**.

He also highlighted biochar's potential for improving **agricultural productivity** and sustainability under unfavorable environmental conditions.

Webinar on “Best-bet Solutions for Salinity Management under Climate Change in sub-Saharan Africa”



Scientists and experts from ICBA and its RESADE partners presented the success stories and lessons learned from RESADE and other IFAD projects.

On 29 February, ICBA organized a webinar titled “Best-bet Solutions for Salinity Management under Climate Change in sub-Saharan Africa” with scientists and experts from the **International Fund for Agricultural Development (IFAD)**, the **Arab Bank for Economic Development in Africa (BADEA)**, the **Islamic Development Bank (IsDB)**, and **national agricultural research and extension systems (NARES)** of the **RESADE** project countries.

The discussion focused on how salinity can be better mitigated and managed in different parts of the world, and specifically **sub-Saharan Africa**, using the RESADE project as a case study, and highlighted best-bet solutions designed to help small-scale farmers in **salt-affected areas**.

Supported by IFAD and BADEA, RESADE has been implemented by ICBA since 2019 in **Botswana, Liberia, Mozambique, Namibia, Sierra Leone, The Gambia,** and **Togo**.

Capacity Development and Knowledge Transfer

Capacity development and knowledge transfer are integral parts of ICBA's work. The first quarter of 2024 saw the launch of a new e-learning course on **“Postharvest Technologies in Marginal Environments”**. The course was developed with financial support from the **Environment Agency - Abu Dhabi (EAD)** and accredited by the **Continuing Professional Development (CPD) Certification Service**, the UK. It is designed to equip learners with a comprehensive understanding of postharvest fundamentals, tools, difficulties, and approaches in marginal environments.

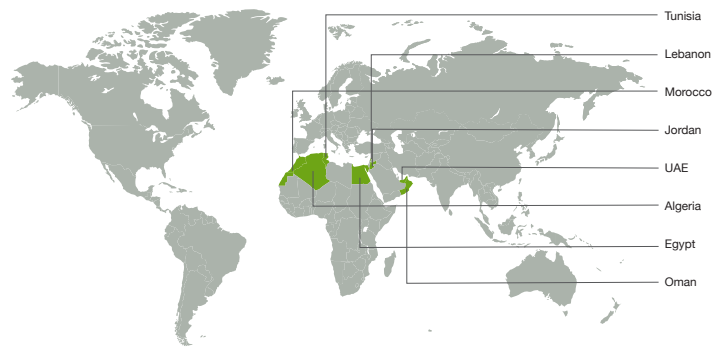
Another e-learning course on **“Sustainable land management and land restoration (in Arabic)”** was launched in collaboration with the **FAO elearning Academy** with financial support from **EAD**.

This course is focused on sustainable land management practices and is tailored for policymakers, practitioners and land users.



The courses are available on ICBA's e-learning platform at <https://www.biosaline.org/capacity-development/e-learning>.

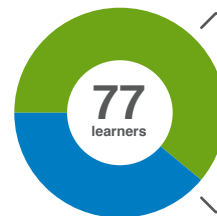
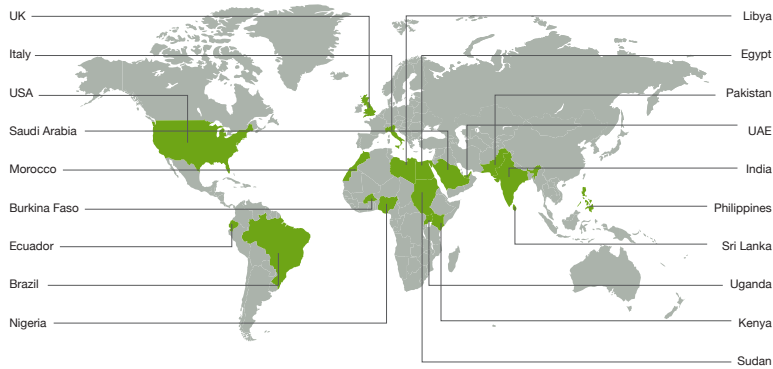
Technical training in Q1 2024



38 women participants

2 virtual technical training courses for beneficiaries from 8 countries

ICBA's e-learning statistics for Q1 2024



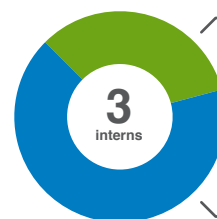
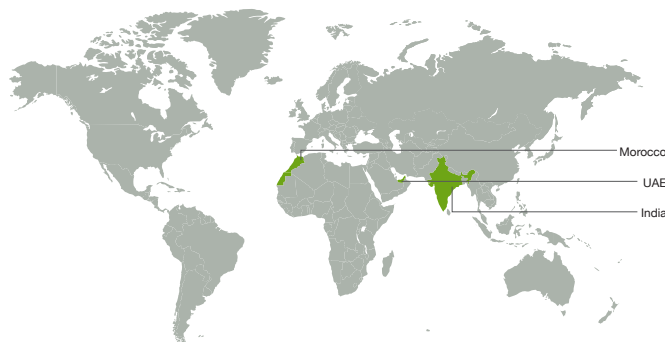
47 Men



30 Women

Learners from 19 countries completed one or more courses on ICBA's e-learning portal

Internships in Q1 2024



1 Man



2 Women

Third Cohort of Arab Women Scientists Graduates from ICBA's Regional Fellowship Program

On 7 March, ICBA organized a special ceremony to celebrate **International Women's Day** and the graduation of the third cohort of fellows of the **Arab Women Leaders in Agriculture (AWLA)** program at its headquarters with the participation of **H.E. Razan Khalifa Al Mubarak**, UN Climate Change High-Level Champion for COP28, President of the International Union for Conservation of Nature, and Chair of ICBA's Board of Directors.



AWLA's long-term goal is to improve food security and nutrition in the region through empowering women researchers and helping them realize their full potential.

Funded by the **Bill & Melinda Gates Foundation**, the third edition of AWLA included a mix of virtual and e-learning courses tailored to improve the fellows' research, leadership and project management skills, among others. A total of **20 women scientists** from **Algeria, Egypt, Jordan, Lebanon, Morocco, Oman, Tunisia, and the UAE** completed an eight-month program.

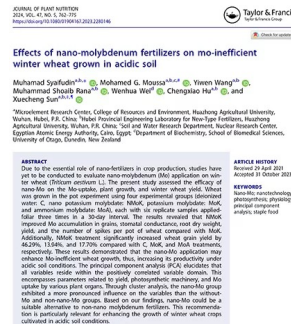
Being the first of its kind in the Middle East and North Africa, AWLA is designed to empower women researchers from across the region to spearhead positive changes in **agriculture, food production and environmental sustainability** while addressing the challenges they face in their careers.

Research Publications

Science-based publications form the core of ICBA's knowledge output. They are part of the center's contribution to the advancement of agricultural science. During the reporting period, ICBA's scientists produced a total of **13 research articles** for **international peer-reviewed journals and books**. All research publications are available on ICBA's website at www.biosaline.org/publications.



Publication: Frontiers in Sustainable Food Systems
Title: *Evaluation of date palm fruits quality under different irrigation water salinity levels compared to the fruit available in the market*
Publication date: January 2024



Publication: Journal of Plant Nutrition
Title: *Effects of nano-molybdenum fertilizers on mo-inefficient winter wheat grown in acidic soil*
Publication date: January 2024



Publication: Journal of Arid Environments
Title: *Devices to measure the impacts on groundwater salinity from irrigating halophytic crops with brackish waters in a hyper-arid environment*
Publication date: February 2024

High-Level International Visits and Meetings

From January to March, ICBA hosted and made a number of **high-level international visits** and **meetings** to present its **research** and **development** and discuss **opportunities for collaboration** in various areas.

Main Highlights

ICBA Explores Cooperation with Dutch Higher Education Institutions

On 23 January, ICBA hosted a strategic dialogue to discuss ways to strengthen research and academic collaboration between **higher education institutions** in the UAE and the Netherlands.

During the meeting, Dr. Charbel Tarraf, Chief Operations and Development at ICBA, welcomed the delegates and presented the center's **capacity development initiatives** tailored for different stakeholders.

The event was attended by over 10 representatives from universities in the UAE and Dutch agricultural education institutions: **Aeres Group; HAS Green Academy; Wageningen University & Research; Inholland University of Applied Sciences;** and **Lentiz Education Group.**



The dialogue looked at opportunities for expanding collaboration in agricultural scientific research, agri-tech and capacity development in food security and water management for various stakeholders.

Ambassador of Djibouti Visits ICBA

On 8 February, Dr. Tarifa Alzaabi, Director General of ICBA, met with **H.E. Musa Mohammed Ahmed**, Ambassador of Djibouti to the UAE, at the center's headquarters.

During the meeting, Dr. Tarifa Alzaabi briefed H.E. Musa Mohammed Ahmed about ICBA's initiatives aimed at improving **food security** and **livelihoods** in **sub-Saharan Africa** and other regions through science, innovation, and capacity development.

The meeting also looked at potential **areas for collaboration in agricultural research** and **development** and **technology transfer**, among others.



As part of the visit, H.E. Musa Mohammed Ahmed also toured ICBA's research station to learn more about the center's ongoing research and development work.

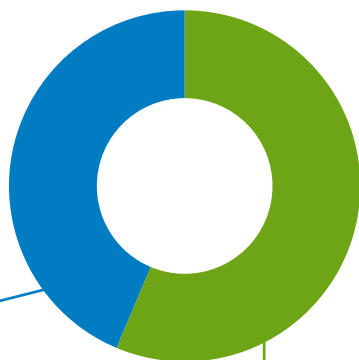
Communication of Research and Development

ICBA pays special attention to communicating information about its projects, activities, and achievements to a wide range of stakeholders via **news media, social media**, and other channels. During the reporting period, the center continued to share news and updates about its research, development, and other work.

From January to March, the center secured **142 mentions** in national and international news outlets, including **CNN, Trading View, and Nature**.

As a result of social media activities, the number of followers increased from 20,884 to 22,103 on **LinkedIn**; from 7,931 to 8,037 on **Facebook**; from 2,872 to 2,910 on **X (formerly Twitter)**; and from 2,722 to 2,774 on **Instagram**. As of 31 March 2024, ICBA's **YouTube** channel videos had an aggregated **425,975 views**, an increase of 42,905 views since 31 December 2023.

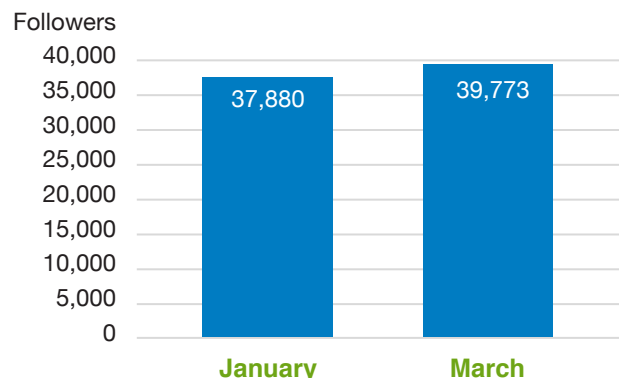
Media mentions for January-March 2024



62
international news outlets

80
national news outlets

Social media stats for January-March 2024



- 212,275 impressions (the number of people who saw ICBA's messages on social media)
- The total number of followers rose across all channels from 37,880 in January to 39,773 in March (a 4.9% increase)

ICBA's work was covered by leading national and international news outlets.



INTERNATIONAL CENTER FOR BIOSALINE AGRICULTURE *Agriculture for tomorrow*

ICBA Headquarters

Al Ruwayyah 2, Academic City
P.O. Box 14660, Dubai
United Arab Emirates
Email: icba@biosaline.org.ae
Phone: +971 4 304 63 00

ICBA Central Asia and South Caucasus

6 Osiyo Street, P.O. Box 4375
Tashkent, 100083
Uzbekistan
Email: icba@biosaline.org.ae
Phone: +998 71 237 21 69

www.biosaline.org

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