6.5.1 Educational opportunities for local communities to learn about good water management

Alexandria University is committed to advancing sustainable development by engaging the surrounding public in environmental stewardship. To address regional water scarcity and promote sustainable practices, the institution offers structured educational opportunities for local communities to learn about good water management. Through specialized workshops, public awareness campaigns, outreach programs, and practical demonstrations led by university experts and research centers, Alexandria University empowers community members, farmers, and local organizations with the knowledge and tools needed to conserve resources, adopt innovative recycling techniques, and achieve long-term water resilience.

- Alexandria University has created an integrated governance and sustainability framework that integrates sustainable development within institutional leadership, operations, education, research, and community engagement. Sustainability initiatives are overseen centrally by the Vice President for Community Service and Environmental Development and executed across faculties via Vice Deans and faculty sustainability committees.

- The institution also advances sustainability through educational and public engagement initiatives like the FAO Model on food security and sustainable agriculture, Children's University activities under the theme "Sustainability as a Way of Life," seminars on biomimicry, and workshops on sustainable biofilms and circular economy approaches for water treatment.

- Alexandria University actively empowers its students to lead sustainability initiatives that promote environmental protection, innovation, community engagement, and social responsibility. During the reporting Period, more than 30 sustainability-related activities were organized by student organizations across the University, demonstrating a strong Culture of student participation in advancing the Sustainable Development Goals (SDGs). These activities included international conferences, scientific symposia, green chemistry campaigns, climate change awareness events, water entrepreneurship bootcamps, research and innovation conferences, engineering competitions, sustainability workshops, environmental exhibitions, and community outreach programs.

- Alexandria university adopts an integrated water management approach that combines water conservation, efficient resource use, wastewater treatment and reuse, innovative research, and environmental education to support sustainable development across the campus area. Through advanced irrigation systems, water-efficient technologies, greywater recycling, renewable energy-powered desalination, water quality monitoring, and community awareness initiatives, the university enhances water security, improves water

management, and protects fresh water and marine ecosystems while reducing water pollution and supporting long-term environmental sustainability.

- Alexandria University further integrates biodiversity conservation into its education through student participation in field surveys, environmental mapping, landscape Analysis, and ecological documentation. These practical experiences contribute to campus sustainability planning while providing students with hands-on learning opportunities in Environmental Assessment, urban Ecosystem Analysis, Land Cover evaluation, and Sustainable Landscape Management, supporting Environmental Protection and biodiversity restoration.

- Research and innovation are supported through the Alexandria University Water Resilience Center of Excellence (AWR-CoE), which serves as a national platform for applied research, capacity building, professional training, and international collaboration. The Center advances sustainable water technologies through research on wastewater treatment, desalination, water reuse, circular economy approaches, and climate resilience while offering specialized academic programs, workshops, scholarships, and partnerships with leading national and international institutions).

- The institution's Central Laboratory and specialized research facilities conduct chemical and physical testing of water quality in line with internationally recognized standards, guaranteeing robust environmental monitoring and safeguarding surrounding ecosystems. Community outreach, including coastal cleanup drives, marine conservation efforts, and environmental awareness programs, additionally reinforces the University's dedication to preserving aquatic environments.





Water Quality Parameters Testing Program by Alexandria Water Resilience – Center of Excellence:

Intensive 5-day program, with the participation of 14 students from the Civil and Environmental Engineering program at the Faculty of Engineering, Alexandria University. This program equipped the participants with valuable knowledge and skills to master the tools and techniques used in the water analysis laboratory.





Centre of Excellence for Water at Alexandria University Organizes Workshop on Relationship between Water, Energy and Food in Cooperation with the Arab Water Council:

The workshop aimed to deepen the comprehensive understanding of the interrelationship between these three resources (water, energy and food), highlight the challenges they face, and propose sustainable solutions, and the latest developments in this field, exchanging creative ideas, and enhancing cooperation between industry and academic institutions.





Alexandria University Participates in Cairo Water Week 2025 in Collaboration with the European Union Delegation to Egypt

As part of the ongoing collaboration between Alexandria University and the European

Union Delegation to Egypt to promote innovation in water resources management, the university took part in the final stage of the “AI and Innovation Hackathon for Waterpreneurs”, organized by the EU Delegation and held on 15 October 2025 in Cairo within the framework of Cairo Water Week 2025.

The event featured the presentation of finalist projects before a distinguished jury representing the public, private, academic, and technological sectors, where young Egyptian innovators showcased AI-driven solutions addressing major water challenges such as smart irrigation, water quality monitoring, and digital tools for sustainable water management.





the Water Entrepreneurship Training Program in Cooperation with the European Union titled "Youth in Water: Shaping the Future" (EU for Water ln Egypt Aqua Dialogues) May 2025:

young participants focused on water challenges and discussed various topics, including:

- 🔷Global trends in the water sector
- 🔷Climate adaptation and resilient water solutions
- 🔷Entrepreneurial mindset and innovation
- 🔷Circular water economy & non-conventional water resources
- 🔷The role of AI, tech, and digital tools in water management





Within the framework of the Center of Excellence for Water at Alexandria University's interest in Research and Sustainability, and the visit of Prof. Brent Haddad, Professor of Environmental Studies at the University of California- Santa Cruz and Chair of the Research and Policy Committee, the center organized a seminar entitled: "Towards Public Private Partnerships (PPP) in Alexandria within the Research Roadmap."





Under the Strategic Partnership between the Arab Republic of Egypt and the European Union. Ministry of Planning, Economic Development and International Cooperation Witnesses the Launch of the "EU 4 Water Preneurs" Training Camp for Entrepreneurs in the Water Sector 🇪🇬🇪🇺

The event was held at Alexandria University within the framework of the strategic partnership between the Arab Republic of Egypt and the European Union, and in partnership with the **PrimaProgram**. The initiative aims to stimulate the young energies of Egyptian innovators, researchers, and students, and encourage them to develop scientific and realistic solutions applicable on the ground to address the increasing and interconnected challenges facing Egypt in the fields of water, energy, and food.



Student organizations such as the ACS Alexandria University Student Chapter, Society of Petroleum Engineers (SPE), Alexandria Engineering Students Union, and Alexandria Scientific Pharmaceutical Students' Association (ASPSA) played a leading role in delivering these initiatives. Their activities promoted green chemistry, circular economy principles, Climate Change action, sustainable Materials, Water Innovation, biodiversity conservation, scientific communication, entrepreneurship, and environmental education through hands-on workshops, public awareness campaigns, interactive exhibitions, field training, and international collaborations, strengthening sustainable Development, environmental awareness, and community engagement across the University.