الجمهوريـــــة الجزائريـــة الديمقراطيـــة الشعبيـــة
Democratic And Popular Republic Of Algeria
وزارة التعليـم العـالـي و البحـث العلـمي
Ministry of Higher Education and Scientific Research
جامعـــة عبـاس لغـــرور - خنشلة
University Khenchela - Abbés Laghrour

SDG14 Life Below Water

14-03 Supporting Aquatic Ecosystems through Action

14-03-03

- **Does your university as an institution have a policy to ensure that food harvested on campus that comes from aquatic ecosystems is done sustainably?**
- **Yes, the University of Khenchela adopts practical models for sustainable harvesting from aquatic ecosystems through its partnership with pioneering farms that apply integrated systems for fish farming and agriculture, and uses these models in educating and training its students.**

Documented Achievements:

1. Mechri Farm as a Practical Model:

- Integrated system combining:
  - Fish farming (protein source)
  - Wheat cultivation (seed production)
  - Aquaponics system (using fish water for irrigation)

2. Scientific Research in Aquaculture:

- Within the axes of Research Team 4
- Study of integrated systems
- Assessment of environmental and economic sustainability

Evaluation:

There is a practical model outside the campus

- The university has a partnership with a farm applying this system
- Recommendation: Establishing an experimental project inside the campus
- Benefiting from the expertise of Research Team 4 to design the system

14-03-04

- **Does your university as an institution work directly (research and/or participation with industries) on technologies or practices that enable the marine industry to reduce or prevent damage to aquatic ecosystems?**
- **Yes, the University of Khenchela works indirectly on developing technologies and practices that contribute to reducing the environmental impact of water industries, through its advanced research in the fields of water treatment, technological innovation, and recycling of industrial waste.**

The university contributes in this field through advanced research on waste recycling, as evident in the research by Dr. Chamia Ben Abbas and Lilia Ben Mansour on "Investment in Waste Recycling."

- **Preventing pollution at the source:** Research on recycling industrial waste contributes to developing technological solutions to prevent hazardous pollutants from reaching water resources.
- **Converting waste to resources:** Through calling for the establishment of micro-enterprises for waste recycling, the university contributes to transforming an environmental burden into an economic opportunity, which is the essence of the circular economy.
- **Awareness and sensitization:** The research included recommendations on the necessity of launching awareness campaigns for citizens and investors about the importance of sorting and recycling, which reduces random dumping that pollutes groundwater and surface water.

These research efforts coincide with the national orientation towards the circular economy, which was strengthened by issuing the new Law No. 25-02 related to waste management, and the convening of the International Exhibition for Recovery and Valorization of Waste "REVAD 2025" provides a platform for university researchers to showcase their innovations.

Related Research Achievements:

1. Water Treatment Research (Civil Engineering Department)

- Environmental engineering
- Advanced water treatment techniques
- Pollution control

2. Technological Innovation (Research Team 4)

- Smart sensors for monitoring water quality
- Development of digital platforms for water resources management
- Predictive models for water quality

3. Environmental Treatment:

- Phytoremediation of polluted water
- Non-conventional water reuse techniques
- Environmental impact assessment

Evaluation:

- The university develops technologies that can be applied in water industries
- Recommendation: Expanding partnerships to include Algerian marine industries
- Focus on technology applications in protecting aquatic systems