

15.2.5 Educational programme/outreach for local or national communities on sustainable management of land for agriculture

- The Faculty of Agriculture recycles 100% of its organic waste.
 - Utilizing treated agricultural waste to feed farm animals.
 - Utilizing agricultural waste treated with vermi-compost in the production of organic fertilizers.
 - Utilizing agricultural waste treated with a special insect (the black soldier) to produce organic fertilizers and protein sources.
 - Producing large quantities of active biochar from agricultural waste to remove any water impurities or pesticide residues.



- The irrigated water supplied to the fish farm at the Agriculture Experimental Research Station of the Faculty of Agriculture is recycled to irrigate the crops, vegetables, and fruits of the land farm. The recycled water is rich with natural fertilizers and enhances the crops production.
- In addition, the water recycling in Fish Aquaculture of the Faculty of Agriculture, Alexandria University: The water sewage of the Aquaculture of the Faculty of Agriculture, Alexandria University which consist of eight ponds (one acre and quarter/each) in Abis region. Alexandria University used the recycled water for crops culturing in the adjacent agriculture research center in Abis.
- The use of biochar produced from Agricultural waste and waste Forests in residual removal chlorpyrifos pesticide Imidacloprid is from water agricultural drainage. Cooperation project between the Egyptian Academy of Research Science and Technology and the Czech Academy of Sciences.
- The sewage water will be treated and reused in the irrigation of green areas in Alexandria National University.



**The water sewage of the Aquaculture of the Faculty of Agriculture (Alexandria University, Egypt)
The irrigated water supplied to the fish farm at the Agriculture Experimental Research Station of the Faculty of
Agriculture is recycled to irrigate the crops, vegetables, and fruits of the land farm.**



The sewage water will be treated and reused in the irrigation of green areas in the project (Alexandria University)

Graduate Student Projects

No.	Faculty/Faculties	Project Name	Start Year	End Year	Funding Agency
1	Faculty of Agriculture	Eco-Friendly Methods for Detecting and Combating Termite and Wood Borer Infestations in Alexandria Governorate	2023	2026	Science, Technology, and Innovation Funding Authority (STDF)
2	Faculty of Agriculture	Prototype Development of a Bentonite-Yeast Mixture as a Feed Additive to Reduce Greenhouse Gas Emissions	2023	2025	Science, Technology, and Innovation Funding Authority (STDF)

3	Faculty of Agriculture	Development of a smart irrigation system to assess and monitor the quality of green areas and maximize the use of available water resources	2021	2021	Project Management Unit
4	Faculty of Agriculture	Design and implementation of a self-propelled unit for green area maintenance (mowing and aeration)	2021	2021	Project Management Unit
5	Faculty of Agriculture	Design and creation of a smart, integrated electronic irrigation system powered by solar energy	2020	2020	Project Management Unit
6	Faculty of Agriculture	Design and creation of an electronic unit to monitor engine performance for fault detection, diagnosis, and solutions	2020	2020	Project Management Unit