



SUSTAINABLE DEVELOPMENT GOALS • UNIVERSITY COMMITMENT

SDG 15: Life On Land

SUSTAINABLE DEVELOPMENT GOAL

15

Life On Land

15



LIFE ON
LAND

Protect, restore, and promote the sustainable use of terrestrial ecosystems — conserving palms, drylands, and biodiversity across our region and the Basra community.

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15.1 Introduction: the university and life on land

How can a university protect the land it stands on — the palms, the drylands, and the biodiversity of southern Iraq — and pass that responsibility on to its students?

The fifteenth Sustainable Development Goal calls on the world to protect, restore, and promote the sustainable use of terrestrial ecosystems, to manage forests sustainably, to combat desertification, and to halt and reverse land degradation and the loss of biodiversity. For a university in Basra, these are not distant concerns: the region's palm groves and drylands are part of its cultural and natural heritage, and they face real pressure from climate change, desertification, pollution, and the decline of biodiversity.

How Shatt Al-Arab University delivers SDG 15

A four-step approach



Figure 1. A four-step delivery approach.

SDG 15 framework at Shatt Al-Arab University

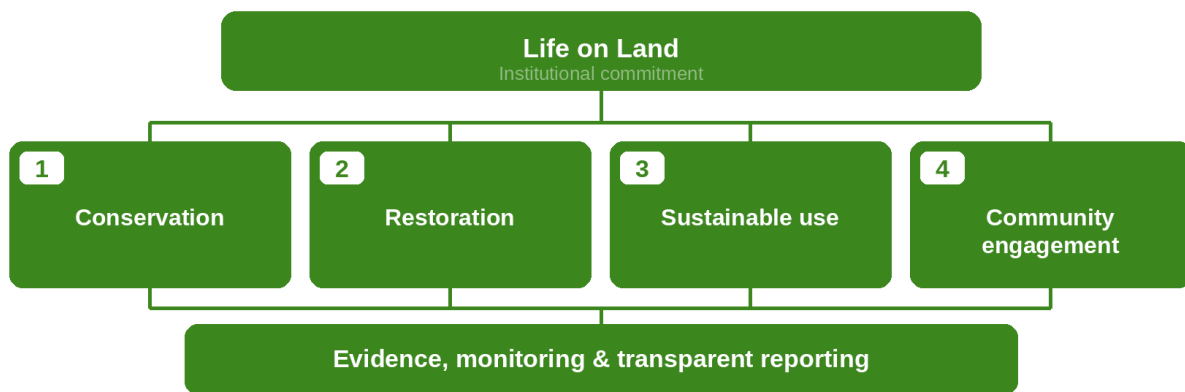


Figure 2. Institutional framework and reporting.

Shatt Al-Arab University treats the protection of life on land as a core part of its mission. It works on two complementary fronts — education and policy. Through events, campaigns, workshops, and teaching, it raises awareness and builds the knowledge needed to use land sustainably; through a set of institutional policies, it commits to conserving palms and drylands, safeguarding biodiversity, managing alien species, and handling water and waste responsibly. This report brings these efforts together, setting out what the university does in practice and the policies that guide it, as a single coherent contribution to Goal 15.



15.2 Supporting land ecosystems through education

The university's first line of action is education — raising awareness, building skills, and engaging students and the community in the practical care of land and biodiversity.

15.2.1 Events on the sustainable use of land

The university's policy on events related to sustainable land use centres on guidance and awareness in conserving land and improving how it is used. Several lines of action support this aim:

- **Improving land management:** by contributing proposals to strengthen relevant laws and regulations, and by providing financial and technical support to farmers working the land.
- **Improving agricultural use:** by offering research projects that improve water- and soil-management techniques for farmers, and that help solve the practical problems they face.

- **Protecting wild lands:** by raising awareness through seminars and publications, helping to conserve biodiversity and the important ecological services that wild lands provide.

Acting on this policy, the university — in cooperation with the Afforestation and Green Belt Committee of Basra Governorate — organised an afforestation campaign for the university campus, carried out together with its students. The campaign turned awareness into visible action, adding greenery to the campus and giving students direct, hands-on experience of caring for the land.

15.2.2 Sustainably farmed food on campus

The university seeks to protect and conserve terrestrial ecosystems and to promote biodiversity — including wetlands and agricultural lands. To that end it has developed a proposal for sustainable agricultural policies designed to preserve ecosystems and biodiversity on campus. The main elements are:

- **Caring for the soil:** conserving and protecting the soil through sustainable techniques such as organic farming and keeping the soil covered (mulching).
- **Caring for water:** using water efficiently and sustainably through modern methods such as drip irrigation, and managing water resources well — collecting, using, and conserving rainwater.
- **Conserving biodiversity:** protecting biodiversity on campus by using sustainable farming methods, planting a variety of plants and trees, and providing a suitable environment for animals, including birds.
- **Reducing pesticides and chemical fertilisers:** cutting the use of chemical pesticides and fertilisers in favour of sustainable methods such as organic farming and the recycling of agricultural and animal waste.
- **Supporting farmers:** holding agricultural workshops at the college and hosting agricultural experts, so that farmers are better able to meet the challenges they face and achieve economic, social, and environmental sustainability.
- **Cooperation and coordination:** bringing together stakeholders — farmers, landowners, and the local community — to achieve sustainable agriculture.

15.2.3 Conserving and developing ecosystem biodiversity

On 18 April 2022, the university held a dialogue workshop in the hall of the Iraqi General Company for Ports. It brought together members of the Environment and Women's Empowerment Departments of the Iraqi Ports and Maritime Rescue Company, the company's Legal Affairs Department, the Basra Environment Directorate, employees and representatives of several local civil-society organisations, international and private-sector maritime companies, and specialised academics from the University of Basra.

Alongside its main themes, the workshop addressed marine and terrestrial environmental pollution, the most important international maritime conventions and maritime law, Iraq's obligations within its territorial waters, the obligations of neighbouring and bordering countries, and the means of regional cooperation among them. The discussion focused on protecting the marine and terrestrial environment, working jointly toward the relevant sustainable-development goals, safeguarding biodiversity, and reducing practices harmful to land and sea alike.



15.2.4 Educational programmes on ecosystems

The university has set a group of goals for sustainable development in ecosystems, the combating of desertification, and biodiversity. Because human activity degrades natural ecosystems and erodes biodiversity, these goals are pursued through educational programmes delivered on campus, including:

- **Scientific symposia on natural ecosystems and biodiversity:** supporting research into the impact of human activity on vulnerable species.
- **Scientific seminars on desertification:** examining the impact of desertification and the loss of palm trees in Basra on natural ecosystems, the causes of desertification, and how it can be combated.

15.2.5 Sustainable land management for agriculture and tourism

The university has also set goals to preserve the agricultural environment and natural resources, reduce the use of chemicals, and provide better-quality food. Community awareness programmes on the sustainable management of agricultural and tourism land help raise environmental awareness and deepen people's understanding of the environmental problems around them. These programmes can be delivered on campus or in local communities, using brochures, workshops, lectures, and educational videos.

In parallel, climate-smart soil and land-management practices can be adopted to support climate-change mitigation and adaptation. These include advanced agricultural techniques on campus and the conservation of soil and water biodiversity — practices that improve land productivity and plant quality, reduce the use of chemicals and water, and strengthen the conservation of natural resources.

15.3 Policies for land, biodiversity, and ecosystems

Alongside its educational work, the university has adopted a set of institutional policies that translate its commitment to life on land into clear, lasting principles and objectives.

15.3.1 Sustainable use, conservation, and restoration of land

The university is committed to contributing to the sustainable use, conservation, and reclamation of land. This policy aims to preserve the region's terrestrial ecosystems — particularly its palm groves and drylands — and positions the university as an important partner in achieving sustainable development in Basra, helping to address challenges such as the scarcity of clean water, energy, and food, climate change and extreme weather, declining biodiversity, and food insecurity.

Objectives

- Promoting environmental awareness and education among university members, students, and the community.
- Preserving palm groves and drylands, encouraging their use, and raising awareness of the value of expanding palm cultivation as part of Basra's cultural and natural heritage.
- Encouraging clean, sustainable technology in university activities — reducing resource consumption and greenhouse-gas emissions, and increasing recycling and innovation, such as using solar cells in place of fossil fuels to generate electricity.
- Strengthening cooperation with institutions and stakeholders in Basra, such as the College of Agriculture at the University of Basra and the Basra Governorate Office, to achieve shared conservation goals.

Policies

- **Preserving palm trees and drylands:** raising awareness of their importance and protecting them from environmental and commercial threats; developing strategies for their conservation and sustainable use; and encouraging scientific research and technological development that supports these efforts.
- **Environmental awareness and education:** developing educational and training programmes for students and staff; organising events, seminars, and workshops; and strengthening cooperation with schools and other educational institutions.
- **Scientific research and innovation:** supporting research on conserving terrestrial ecosystems, encouraging research cooperation with external partners, and providing the resources and facilities that research and innovation require.
- **Clean and sustainable technology:** encouraging clean technology in university activities such as waste management and energy and water use, developing strategies to reduce the environmental impact of those activities, and employing environmental technology across the campus.
- **Cooperation and partnership:** strengthening cooperation with institutions and stakeholders in the region and exchanging knowledge and experience in research, development, and training.

15.3.2 Monitoring of IUCN and other conservation species

As one of Iraq's prominent educational institutions, the university plays an important role in developing skilled people across many fields, and among its core responsibilities is the promotion of environmental awareness and the conservation of the country's biodiversity. Iraq is rich in biological diversity and home to many rare and endangered species; this policy therefore guides efforts to protect and preserve biodiversity on campus and to raise awareness of its importance among students and faculty.

The policy aims to implement comprehensive biodiversity conservation at the university by conserving natural biodiversity on campus and protecting endangered species, spreading awareness of the importance of biodiversity, and providing an environment in which biodiversity can be enhanced and developed. Its specific objectives are to:

- Conduct a comprehensive biodiversity survey on campus to identify the species present, assess their status, and understand the threats they face.
- Develop and implement strategies to protect endangered species and preserve their habitats on campus.
- Strengthen cooperation with stakeholders — governmental and non-governmental — to support biodiversity conservation in Iraq.
- Organise awareness events and activities and encourage the active participation of students and faculty.
- Manage green spaces and natural resources on campus in sustainable ways that enhance biodiversity.
- Develop a periodic monitoring system to assess the impact of the policy and update it as needed.

15.3.3 Reducing the impact of alien species

To reduce the impact of alien (invasive) species on wildlife, the university can take a number of measures at department level within the framework of the Sustainable Development Goals:

- **Prevention:** applying strict measures to prevent the entry or spread of alien species in the area.

- **Detection and monitoring:** conducting periodic surveys to detect any invasive species, reporting them to the competent authorities, and studying their impact on the environment.
- **Removal and management:** taking effective measures — mechanical, chemical, or biological — to remove or control alien species that threaten wildlife.
- **Education and awareness:** organising campaigns, workshops, and lectures on the dangers of alien species and how to prevent and combat them, and encouraging community participation in these efforts.

15.4 Water and waste policies

Healthy land depends on clean water and the responsible handling of waste. The university's policies in these areas protect ecosystems and wildlife while safeguarding human health and well-being.

15.4.1 Water-discharge guidelines and standards

This policy aims to ensure the quality of the university's water and its discharge in a sustainable manner and in compliance with international standards, so as to protect ecosystems and preserve wildlife and human health. It applies to all members of the university community and its employees, and rests on four principles:

- **Sustainability:** managing water sustainably, preserving its natural sources for present and future generations, and reducing its pollutants.
- **Quality:** ensuring that the water used at the university, and its disposal, meet international standards.
- **Transparency:** publishing information on water quality, drainage, and monitoring in a clear and accessible way.
- **Awareness:** educating the university community about the importance of conserving and properly managing water.

To put these principles into practice, the university appoints an official responsible for water, drainage, and quality monitoring; defines the procedures and standards

needed to ensure water quality and sustainable drainage; and provides training and awareness for staff on best practice in water use and disposal.

15.4.2 Reducing plastic waste

The university's policy on plastic waste combines awareness, prevention, recycling, and partnership:

- **Awareness and education:** running educational programmes and campaigns for students and staff on the harm plastic causes and the importance of disposing of it correctly.
- **Reducing use:** encouraging environmentally friendly alternatives such as paper or glass cups and plates, and avoiding single-use plastic bags.
- **Recycling:** providing an effective recycling system and teaching the university community how to sort recyclable plastic waste.
- **Working with suppliers:** encouraging suppliers to use environmentally friendly packaging and to offer sustainable alternatives to plastic products.
- **Research and innovation:** supporting new research and technologies for dealing with plastic waste, such as biodegradation or renewable plastics.
- **Sustainable partnerships:** collaborating with relevant organisations and institutions on joint initiatives to reduce plastic waste and promote sustainable development.

15.4.3 Hazardous-waste disposal

Finally, the university's policy on hazardous waste ensures that dangerous materials are handled safely and responsibly:

- **A waste-management system:** a policy and programme for disposing of hazardous waste safely, including identifying and classifying it and determining appropriate disposal methods.
- **Education:** informing students, staff, and workers about the correct disposal of hazardous waste, the collection sites, and the appropriate methods.
- **Conversion and recycling:** seeking opportunities to convert some hazardous waste into valuable materials or to recycle it in environmentally friendly ways, reducing the need for final disposal.

- **Training and consultation:** providing continuous training on the safe handling of hazardous waste in line with local and international regulations, together with advice and support on disposal policy.
- **Verification and review:** regularly evaluating and monitoring the policy's implementation, checking that the necessary equipment is available and that applicable laws are observed.

15.5 Conclusion

Through education and policy together, Shatt Al-Arab University makes a broad and practical contribution to Goal 15. Its awareness events, afforestation campaign, sustainable-agriculture proposals, dialogue workshops, and educational programmes build the knowledge and habits that responsible land use depends on; its policies on land conservation, biodiversity, alien species, water, and waste give that commitment a durable, institutional form.

Taken together, these efforts aim to preserve the region's terrestrial ecosystems — above all the palm groves and drylands that form part of Basra's heritage — to safeguard biodiversity, and to embed sustainable practice in the daily life of the campus. The work is ongoing, and the university continues to strengthen its role as a partner in protecting life on land, so that the ecosystems of the region remain healthy for the generations to come.

Research contributions (Scopus-indexed publications)

Shatt Al-Arab University's research is indexed in Scopus and mapped to the UN Sustainable Development Goals by Elsevier - the same data source the THE Impact Rankings use for their research metric. The university currently records 179 documents from 59 authors (Scopus ID 60109790; last updated May 2026). The chart below shows how this output is distributed across the goals.



Figure. Scopus-indexed publications by SDG (data source: Scopus).

The following publication is mapped to SDG 15 in the Elsevier/Scopus SDG dataset (1 document):

#	Publication title	Source & year
1	Adaptive grey wolf optimization algorithm with neighborhood search operations: an application for the traveling salesman problem Jabbar, A.M., Ku-Mahamud, K.R.	Int. Journal of Intelligent Engineering and Systems, 2021