



SUSTAINABLE DEVELOPMENT GOALS · UNIVERSITY COMMITMENT

SDG 14: Life Below Water

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LIFE BELOW
WATER

SUSTAINABLE DEVELOPMENT GOAL

14

Life Below Water

Conserve and sustainably use the oceans, seas, and marine resources — protecting marine life across our region and the Basra community.

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14.1 Introduction: the university and life below water

How can a university help conserve the oceans, seas, and marine resources — and turn that commitment into practical action for its region?

The fourteenth Sustainable Development Goal calls on the world to conserve and sustainably use the oceans, seas, and marine resources. Healthy seas regulate the climate, sustain biodiversity, and support the livelihoods of coastal communities, yet they face mounting pressure from pollution, habitat loss, and unsustainable use. Universities, with their capacity for research, education, and community mobilisation, are well placed to respond — and to show, in concrete terms, what responsible stewardship of marine life looks like.

How Shatt Al-Arab University delivers SDG 14

A four-step approach



Figure 1. A four-step delivery approach.

SDG 14 framework at Shatt Al-Arab University

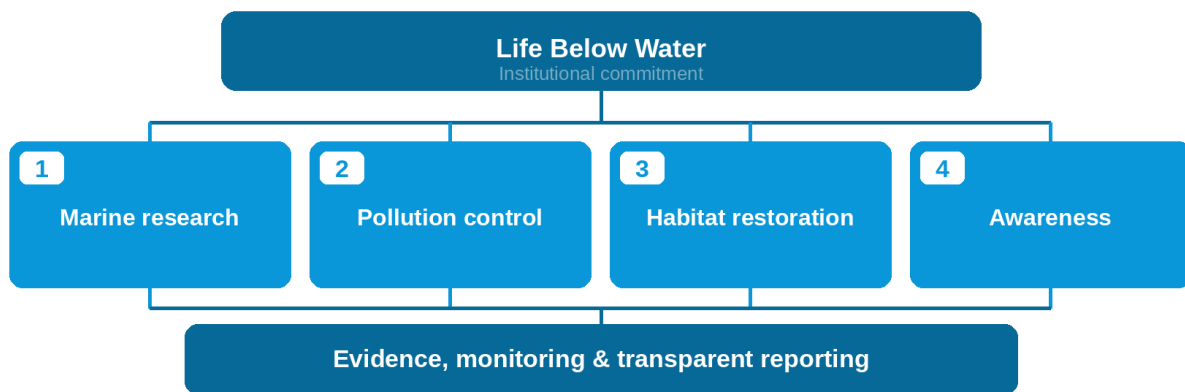


Figure 2. Institutional framework and reporting.

Shatt Al-Arab University pursues this goal through a range of initiatives and projects focused on protecting the marine environment and strengthening biodiversity in the region. The university takes Goal 14 seriously, translating it into action across several fronts: restoring damaged habitats, cleaning polluted shorelines, building research and monitoring capacity, raising public awareness, supporting students, and partnering with organisations at home and abroad. This report brings these efforts together, setting out what the university has undertaken, the impact of each initiative, and the commitment that ties them into a single, coherent contribution to life below water.



14.2 The university's commitment and objectives

The university treats the protection of marine life as a shared, institution-wide responsibility, woven into its research, teaching, and community engagement. Its work on Goal 14 is guided by a clear set of objectives:

1. To conserve and restore marine ecosystems and the biodiversity they support.
2. To reduce marine pollution along the region's shorelines and water bodies.
3. To build scientific capacity for studying the marine environment and water quality.
4. To raise environmental awareness among students, schools, and the wider community.
5. To support students and researchers working in marine science and environmental protection.
6. To strengthen local and international cooperation through partnerships and scientific exchange.

The sections that follow describe how each of these aims is being put into practice — from habitat restoration and clean-up campaigns to research infrastructure, public awareness, student support, and partnership.



14.3 Protecting and restoring marine ecosystems

The most direct way to act on Goal 14 is to repair damaged habitats and to remove the pollution that threatens them. The university works on both fronts, combining technical restoration with community-driven clean-up.

14.3.1 Coral-reef rehabilitation

The university launched a project to rehabilitate damaged coral reefs by planting coral fragments at carefully selected sites. Using modern coral-transplantation techniques, the project is designed to give the fragments the best chance of taking hold and growing into healthy reef structure. Coral reefs are among the most productive and biologically rich habitats in the sea, so restoring them yields benefits far beyond the reef itself.

The impact has been to strengthen biodiversity in the targeted marine areas and to improve the natural habitats available to a wide range of marine organisms. As restored reefs mature, they provide shelter, feeding grounds, and breeding sites that help marine populations recover — a clear, measurable contribution to the health of the local marine environment.



14.3.2 Beach and water-body clean-up campaigns

Alongside restoration, the university has organised a series of beach and water-body clean-up campaigns in collaboration with students and volunteers from the local community. These campaigns have collected large quantities of plastic and other waste from shorelines and waters that would otherwise have degraded the habitat and harmed the wildlife that depends on it.

The campaigns have improved the general cleanliness of the beaches and reduced marine pollution, to the direct benefit of the region's marine life. Just as important, they engage students and residents as active participants rather than bystanders, building a sense of shared ownership over the health of the coast and reinforcing the awareness that the university's educational programmes aim to instil.



14.4 Research and monitoring

Sound stewardship of the marine environment depends on understanding its condition and tracking how it changes. The university has invested in both the scientific infrastructure and the digital tools needed to measure marine health and respond to threats.

14.4.1 The marine-environment laboratory

The university has established a specialised laboratory for studying the marine environment and marine pollution. The facility allows students and researchers to carry out scientific studies on water quality and on the effects of pollution on marine organisms, generating the kind of reliable, locally grounded data on which good decisions depend.

The laboratory's impact is twofold. It provides accurate, up-to-date information on the state of the marine environment, and it serves as a training ground that teaches students, through direct practice, why the protection of marine resources matters and how it is done. In this way the laboratory links the university's research mission to its educational one.



14.4.2 A marine-pollution monitoring app

To extend monitoring beyond the laboratory and into the community, the university has developed an application that allows members of the public to report cases of marine pollution and to support clean-up efforts. The app includes an interactive map of affected areas, so that reports can be located precisely and acted upon efficiently.

By putting a simple reporting tool in the hands of residents, the app empowers the community to take an active part in protecting the marine environment and improves the speed and coordination of the response to pollution. It turns ordinary citizens into a distributed network of observers, multiplying the reach of the university's monitoring work far beyond what any single team could achieve.

14.5 Education, awareness, and research support

Lasting protection of the seas depends on people who understand them and are equipped to study them. The university invests in public awareness and in the next generation of marine scientists.

14.5.1 Environmental education and awareness

The university has launched an education programme aimed at schools and local communities, comprising workshops and lectures on the importance of preserving marine life and on practical ways to reduce marine pollution. The programme meets people where they are — in classrooms and community settings — and explains, in

accessible terms, why the health of the sea matters and what individuals can do to protect it.

The programme's impact lies in raising environmental awareness among younger generations and encouraging sustainable behaviour toward the marine environment. By reaching school pupils in particular, it plants habits and values early, helping to build a community that treats the protection of marine life as second nature.



14.5.2 Scholarships and research support

The university offers scholarships and research grants to students interested in marine science and environmental pollution. This support combines financial assistance with academic mentoring, lowering the barriers that might otherwise keep talented students from pursuing study and research in this vital field.

The impact is to stimulate scientific research on the marine environment and to enable students to advance their studies and investigations. By investing in people as well as in projects, the university helps secure a steady supply of skilled researchers committed to the long-term health of the seas.

14.6 Partnerships and scientific exchange

Protecting the marine environment is a task too large for any one institution. The university therefore works through partnerships and scientific exchange that pool knowledge, share resources, and amplify impact.

14.6.1 Partnerships with environmental organisations

The university has established partnerships with local and international environmental organisations to deliver joint projects aimed at protecting the marine environment. These partnerships encompass training programmes and collaborative research, allowing each partner to contribute its particular strengths to a shared objective.

The impact has been to strengthen cooperation — both local and international — in the protection of the marine environment, and to enable the exchange of experience and knowledge between different institutions. Such collaboration extends the reach of the university's work and connects it to the wider effort to safeguard the world's oceans.



14.6.2 Scientific conferences and seminars

The university has organised scientific conferences and seminars that bring together researchers and experts to discuss marine-environment issues and the best practices for protecting it. These events provide a platform for presenting research results and projects, and for testing ideas against the experience of others in the field.

Their impact is to promote scientific dialogue on the marine environment and to disseminate knowledge and good practice in the protection of life below water. By convening specialists and sharing what works, the conferences help turn isolated efforts into a shared and growing body of understanding.

14.7 Conclusion

Shatt Al-Arab University is committed to achieving the Sustainable Development Goals, and Goal 14 — life below water — in particular, through a diverse range of activities and projects. Taken together, the work described in this report has improved the local marine environment, strengthened environmental awareness, and created educational and research opportunities for both students and the wider community.

From coral-reef rehabilitation and shoreline clean-ups to a dedicated research laboratory, a community monitoring app, awareness programmes, student scholarships, partnerships, and scientific conferences, the university's contribution to Goal 14 is broad, practical, and mutually reinforcing. The university continues to work to enhance the sustainability of the oceans and seas, so as to secure a healthy marine environment 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 14 in the Elsevier/Scopus SDG dataset (1 document):

#	Publication title	Source & year
1	A machine learning-based optimization framework for estimating gas injection and enhancing oil recovery in petroleum reservoirs <i>Alaidany, A.A., Altimary, M., Attoof, H., Ali, A.Z.</i>	African Journal of Applied Research, 2026