

Arab Academy for Science, Technology & Maritime Transport



Arab Academy
for Science, Technology & Maritime Transport



Report 2023 / 2024



SDG 14

SDG 14

Our Aim in 2023 -2024

AASTMT aimed to our aim for the academic year 2023-2024 was to reinforce our commitment to achieving Sustainable Development Goal 14 (SDG 14): Life Below Water. Recognizing the critical role that oceans and marine resources play in global sustainability, we dedicated ourselves to fostering innovative research, impactful education, and community engagement initiatives to promote marine conservation, sustainable fisheries, and the reduction of marine pollution.

THE Impact Ranking Scores 2022-2023



LIFE BELOW WATER





Key Milestones in 2023-2024

The Arab Academy for Science, Technology, and Maritime Transport (AASTMT) demonstrates its steadfast commitment to Sustainable Development Goal 14 (SDG 14) by familiarizing its students with it and including the necessary knowledge within the related educational programs, Curricula, and specialized courses. Although SDG14 is supported widely within the AASTMT maritime educational sector, AASTMT firmly believes that SDG14 is not limited to the maritime sector and promoting it to all AASTMTS' campuses and colleges. This dedication fosters a motivated and professional workforce, aligning with SDG 14's principles:

Fisheries Technology Program (Undergrad Educational program)

The department specializes in marine navigation education for fishing vessels and the design of fishing equipment. It prepares graduates to work as watchkeeping officers responsible for navigation surveillance (after fulfilling the ministerial requirements for practicing the profession), fisheries observers on fishing vessels, or fishery managers in fishing ports. The program is aligned with the requirements of the STCW-F International Convention of 1978, its 1995 amendments, and the standards set by the International Maritime Organization (IMO). Students are provided with marine uniforms, and marine exercises can be conducted in regional and international waters.

[College of Fisheries Technology & Aquaculture Technology \(aast.edu\)](https://aast.edu)

Master of Science (MSc) in Sustainable Management of Fisheries and Aquaculture (SMFA), funded by the EU (Erasmus+ project) (Postgrad)

Master of Science in Sustainable Management of Fisheries and Aquaculture (SMFA), funded by the EU (Erasmus+). The M.Sc. students participated in the student mobility and exchange program as part of the EU-funded FishAQU project under the Erasmus+ program. They visited the University of Aveiro and the University of Palermo from May 8 to 17, 2022. Many candidates enrolled during the first admission year, 2023-2024 (Thesis one).

[College of Fisheries & Aquaculture Technology \(aast.edu\)](https://aast.edu)
[EU-funded project FishAQU of Erasmus+ student mobility](#)

Guiding the Selection of Graduation Project Topics within the Relevant Specializations

The College of Fisheries and Aquaculture Technology at the Arab Academy for Science, Technology, and Maritime Transport participated in the Academy's Industry Advisory Council activities at the main headquarters in Abu Qir under the theme: "Artificial Intelligence and the Future of the National Industry," held on Tuesday, May 16, 2023. Students from the college presented their graduation project titled: "Potential Application of Chitosan Nanoparticles Extracted from Marine Shrimp Shells as Preservatives for Fishery Products." It is worth noting that they also published a paper based on their graduation project titled: "Potential Application of Chitosan Nanoparticles as a Preservative Agent for Fishery Products."



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Potential Application of Chitosan Nanoparticles as Preservative Agent for Fishery Products

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ABSTRACT

Given its superior bioactivities and biocompatibility, chitosan (CS), a natural polymer that is biodegradable and nontoxic, is widely used in food and biomedical industries. The presence of anionic elements is required to achieve the superior gelling characteristic of CS, which is attributable to its polycationic nature. Additionally, compared to the free form, the chitosan nanoparticles (CSNPs) enhanced bioactivities, such as antioxidant and antibacterial activities and improved stability during storage and continuous release. This study attempted to explore the main uses of CSNPs as a fish preservation agent for *Sardinella aurita*. Antimicrobial activities of CS and CSNPs were tested against *S. aureus* and *E. coli*. Moreover, CS and CSNPs were sprayed over two fish groups, with a third group left untreated (control group). Results delineated the significant antibacterial potential of CSNP

[College of Fisheries and Aquaculture Technology-Alexandria | AASTMT](https://www.aast.edu/colleges/fisheries-and-aquaculture-technology-alexandria/)
[article_312602_ec61a5e93ab6215d15bccd25ce942310.pdf](https://www.aast.edu/article/312602_ec61a5e93ab6215d15bccd25ce942310.pdf)

Postgraduate Programs related to Sustainability

The Maritime Postgraduate Studies Institute (MPI) is the leading institution offering top maritime postgraduate programs (MSc and PhD) that support researchers across various sectors of the maritime industry at local, regional, and international levels. MPI maintains a competitive edge and cultivates a rigorous scientific environment that helps develop students' skills and abilities in research. Furthermore, it cultivates a new generation of specialists and researchers capable of addressing the industry's current and future needs, guiding research topics toward contemporary industry concerns, such as marine environmental research and the sustainability of aquatic ecosystems, and aligning with the UN SDGs.

<https://aast.edu/en/institutes/mpi/#>

Cooperation between the Arab Academy for Science, Technology & Maritime Transport (AASTMT) and the Lakes and Fish Resources Protection and Development Agency (LFRPDA)

In the framework of cooperation between the Arab Academy for Science, Technology & Maritime Transport (AASTMT) and the Lakes and Fish Resources Protection and Development Agency (LFRPDA), the College of Fisheries and Aquaculture Technology (CFAT) at AASTMT is supervising three research projects supported by the General Fisheries Commission for the Mediterranean (GFCM) of the Food and Agriculture Organization of the United Nations. These research projects focus on assessing fish stocks of economically significant species, including NIS in the Egyptian Mediterranean, monitoring discards, bycatch, and vulnerable species.



[College of Fisheries and Aquaculture Technology-Alexandria | AASTMT](#)

The College Regularly represents Egypt in Working Groups on Stock Assessment (WGSA) for Demersal Species (WGSAD) and Small-Pelagic Species (WGSASP), organized by the General Fisheries Commission for the Mediterranean (GFCM), Food and Agriculture Organization of the United Nations.

The recommendations from the WGSA are being submitted to the Scientific Advisory Committee on Fisheries (SAC), which gathers and evaluates information on catches, fishing efforts, fleet capacity, and other data relevant to the conservation and management of fisheries. Then, the SAC assesses the status and trends of relevant populations of living marine resources, ecosystems, and fisheries-related human components, using appropriate indicators in relation to agreed-upon biological and/or management reference points. Additionally, an independent advice provision from the SAC aims to facilitate the adoption of recommendations regarding the sustainable management of fisheries and ecosystems at regional and subregional levels, including related biological, environmental, social, and economic aspects, the ecosystem approach to fisheries, the impact of IUU fishing, and the assessment of biological and ecological implications under different management scenarios.

[Link 1: college regularly represents Egypt in the working groups on stock assessment \(WGSA\) of demersal species \(WGSAD\) and small-pelagic species \(WGSASP\) that are organized by the General Fisheries Commission for the Mediterranean \(GFCM\), Food and Agricul](#)

[Link 2: college regularly represents Egypt in the working groups on stock assessment \(WGSA\) of demersal species \(WGSAD\) and small-pelagic species \(WGSASP\) that are organized by the General Fisheries Commission for the Mediterranean \(GFCM\), Food and Agricu](#)



College of Fisheries and Aquaculture Technology Students' Participation in the Recycling Workshop and Creating Different Models from Plastic and Rubber Waste, in Line with the College's Vision of the Importance of Environmental Preservation through Waste Recycling

College of Fisheries and Aquaculture Technology organized a workshop titled "Reducing the Harmful Effects of Marine Pollution: Towards Clean Blue Seas." The college was honored to host Dr. Sameh Riyad Abdullah, the Undersecretary of the Ministry of Environment in Alexandria and Head of the Environmental Affairs Agency for the West Delta region, as the keynote speaker at the workshop.



[College of Fisheries and Aquaculture Technology-Alexandria | AASTMT](#)

The TouMaLi Research Project is a Comprehensive, Multi-year Initiative Scheduled to run from 2021 to 2025

Reducing marine litter in Northern Africa—specifically in countries like Algeria, Egypt, Morocco, and Tunisia—is essential for protecting the region's rich marine ecosystems. The strategy involves implementing sustainable waste management practices, promoting recycling, and encouraging reuse to minimize environmental impact. Key actions include coastal monitoring to track pollution levels, conducting comprehensive pollution assessments, and reviewing existing waste management systems to identify areas for improvement. It also involves implementing legal and technical solutions through close collaboration with local stakeholders, as well as capacity building programs and raising public awareness about marine conservation. In August 2021, a collaborative effort was initiated through the TouMaLi project, launched by the University of Rostock, Leibniz Institute for Baltic Sea Research Warnemünde (IOW), Arab Academy for Science, Technology, and Maritime Transport (AASTMT), along with other partners. This project aims to combat marine litter caused by tourism in Egypt, Morocco, Tunisia, and Algeria. Local partners include AASTMT and various Egyptian ministries, with funding of approximately 4.2 million euros from Germany's BMU, supported by ZUG gGmbH. Ultimately, this initiative is dedicated to advancing Sustainable Development Goal 14—life below water—by addressing the pressing issue of marine litter, especially plastics, to preserve ocean health for future generations.



<https://toumali.org/en/partners>

https://toumali.org/sites/toumali.org/files/documents/toumali_factsheet_eng.pdf

<https://toumali.org/en>

[Link 1: TouMaLi research project \(2021-2025\)](#)

[Link 2: TouMaLi research project \(2021-2025\)](#)

[Link 3: TouMaLi research project \(2021-2025\)](#)

[Link 4: TouMaLi research project \(2021-2025\)](#)

College of Fisheries and Aquaculture Technology staff members participation in GFCM_FAO-UN working on Stock Assessment of the Round Sardinella in the Eastern Mediterranean, 2024

Working on Stock Assessment of the Round Sardinella in the Eastern Mediterranean, a benchmark assessment for the species in Egypt (GSA 26) and Palestine (GSA 27) has been concluded, with the support of the GFCM_FAO-UN and all the experts in the region.



gfm.sharepoint.com/EG/Working_Documents_v2/Forms/AllItems.aspx?id=%2FEG%2FWorking_Documents_v2%2F2024%2FWKDATAPREP%2FDataPrep_EM%2FGFCM_Data_Preparation_EM_2024_REPORT%2Epdf%2Epdf&parent=%2FEG%2FWorking_Documents_v2%2F2024%2FWKDATAPREP%2FDataPrep_EM&p=true&ga=1

College of Fisheries and Aquaculture Technology Staff Member Participation in Fish Forum, 2024, Antalya, Turkey

The Forum on Fisheries Science in the Mediterranean and the Black Sea (Fish Forum), organized by the General Fisheries Commission for the Mediterranean (GFCM) of the Food and Agriculture Organization of the United Nations (FAO), is the most important scientific gathering dedicated to fisheries and related issues in the region. This year's edition – the second - was hosted by Turkey's Ministry of Agriculture and Forestry and funded by the European Union.



[Scaling up science for effective fisheries management: read the outcomes and conclusions of Fish Forum 2024 | General Fisheries Commission for the Mediterranean \(GFCM\) | Food and Agriculture Organization of the United Nations](https://www.linkedin.com/posts/reda-m-fahim-3169a94a_fishforum2024-antalya-activity-7165757456680140801-BfUN?utm_source=share&utm_medium=member_desktop&rcm=ACoAAAMoewgByiPSGNX2yp4UR-UMJNp78U2hy2I)

[https://www.linkedin.com/posts/reda-m-fahim-3169a94a_fishforum2024-antalya-activity-7165757456680140801-](https://www.linkedin.com/posts/reda-m-fahim-3169a94a_fishforum2024-antalya-activity-7165757456680140801-BfUN?utm_source=share&utm_medium=member_desktop&rcm=ACoAAAMoewgByiPSGNX2yp4UR-UMJNp78U2hy2I)

[BfUN?utm_source=share&utm_medium=member_desktop&rcm=ACoAAAMoewgByiPSGNX2yp4UR-UMJNp78U2hy2I](https://www.linkedin.com/posts/reda-m-fahim-3169a94a_fishforum2024-antalya-activity-7165757456680140801-BfUN?utm_source=share&utm_medium=member_desktop&rcm=ACoAAAMoewgByiPSGNX2yp4UR-UMJNp78U2hy2I)

AASTMT Research Catalogs for 2023 and 2024

AASTMT's faculty, students, and researchers continue to excel in research across all scientific disciplines that promote sustainability and the UN SDGs, alongside pure science that deepens understanding of the marine environment and its requirements.

https://aast.edu/getData/pdf_retrievefileNew_open.php?unit=473&filename=/mediafiles/473/Document/160247.pdf

Scientific Initiative Output (the First International Conference of the Institute of Genetic Engineering Research "Challenges and New Prospects in Biotechnology Sciences" at the City of Scientific xResearch and Technological Applications)

Students at the College of Fisheries and Aquaculture Technology participated in the First International Conference of the Institute of Genetic Engineering Research, "Challenges and New Prospects in Biotechnology Sciences," 2023, at the City of Scientific Research and Technological Applications. It was recognized as the best poster presented at the conference.



[College of Fisheries Technology & Aquaculture Technology-Alexandria | AASTMT](#)

Declaration on Sustainably Harvested Seafood in the AASTMT Campus Policy

At the end of 2023, the Nutrition Department at the Arab Academy for Science, Technology, and Maritime Transport (AASTMT) issued a statement indicating that “all fish and species served in the college's restaurants have been caught according to international fishing laws (size/kinds under the threat of extinction) and frozen to ensure they were harvested sustainably to support AASTMT's sustainability efforts.” Efforts”.



Declaration

The Nutrition Department at the Arab Academy for Science, Technology and Maritime Transport (AASTMT) declares that all fish and species served in the college's restaurants have been caught as per the international laws of fishing (size/ kinds under the extinction threat) and frozen to ensure that it has been harvested sustainably to cope with the AASTMT sustainability efforts.

Head of Nutrition department

Ahmed Fahmy




[A declaration on sustainably harvested seafood on the AASTMT campus](#)



AASTMT's Efforts in Implementing the Recycling Program

Since 2019, AASTMT has acknowledged the adverse effects of plastic waste, from production to disposal. Plastic pollution can seriously harm aquatic life, and the College is actively working to reduce plastic use and waste locally. The following initiatives have been implemented since May 2023 to promote this goal among staff and students: Single-use plastics such as food containers, disposable coffee cups, and cutlery have been replaced with compostable alternatives in all College food outlets to reduce nearby plastic waste. Reusable cups are provided to AASTMT staff during orientation events to help reduce the use of single-use disposable cups. These cups are also available for purchase at campus retail outlets, with discounts offered to customers who bring reusable cups. An extra charge for single-use cups encourages a switch to reusable options. During conferences and events, reusable glasses are used to serve water, eliminating waste from single-use plastic water bottles. The team also produces filtered water on-site, further reducing waste by eliminating the need for bottled water purchases. Water stations have been installed across campus to promote bottle reuse for students and staff. AASTMT plans to continue reducing waste by exploring new products and services that help decrease plastic usage and waste. To support this effort, AASTMT has implemented a waste segregation strategy and placed categorized trash bins on all campuses; the included images are from the Abu-Qir Campus. The AASTMT recycling program continues to improve year after year.



[Link: AASTMT Recycling Program](#)

AASTMT Recycling Policy (Subject to Frequent Updates)

The Waste and Recycling Policy of AASTMT aligns with the University's Environmental and Social Responsibility policies, aiming to reduce environmental impact through waste prevention, reuse, recycling, recovery, and proper disposal. It emphasizes minimizing waste, including single-use plastics, by encouraging reusable items and sustainable practices among staff and students. The policy considers life-cycle costs for new constructions and upgrades and promotes compliance with environmental laws and best practices. AASTMT has established comprehensive waste management and recycling systems, focusing on reducing plastic waste in catering, events, and daily operations. Initiatives include replacing disposable plastics with compostable alternatives, providing reusable cups, and installing water stations



to decrease bottled water waste. The policy also addresses hazardous waste management, ensuring it is handled safely to prevent harm to health and the environment. Overall, AASTMT remains committed to ongoing waste reduction efforts and adopting innovative solutions for sustainable waste management.

[AASTMT recycling policy](#)

Sustainability Achievements

AASTMT has recognized the harmful impact of plastic waste, from production to disposal. Plastic pollution greatly harms aquatic life, prompting the College to cut down on plastic use and waste locally. Initiatives include replacing single-use plastics in dining services with compostable options across all food outlets and providing reusable cups to staff during onboarding to reduce disposable cup waste. Reusable cups are available for purchase at campus retail outlets, with discounts to encourage their use, promoting a shift from single-use cups through a small surcharge for disposables. For conferences and events, reusable glassware is used to eliminate plastic waste from bottled water. Additionally, water stations have been installed around campus to promote bottle reuse and lessen reliance on packaged water. AASTMT remains committed to ongoing waste reduction by exploring new products and services that support decreased plastic consumption. The College has also put in place a waste segregation system with labeled bins across campuses, as demonstrated here at Abu-Qir. Campus.

[AASTMT recycling policy](#)
[Life Below Water-Alexandria | AASTMT](#)

AASTMT's Environmental Sustainability Policy (recently updated)

1. The policy aligns AASTMT's operations with UN SDGs 13, 14, and 15, focusing on climate action, marine life, and land preservation.
2. It emphasizes integrating environmental sustainability into education, research, campus operations, and community outreach.
3. AASTMT commits to addressing global challenges like climate change, marine pollution, and biodiversity loss through innovative and collaborative efforts.
4. The institution aims to serve as a leader and catalyst for positive environmental change within the academic community and beyond.
5. The vision is to establish AASTMT as a top entity integrating sustainability principles across all initiatives.
6. Its mission involves fostering environmental stewardship via sustainable practices and partnerships that support the SDGs.
7. The policy details specific actions like reducing greenhouse gases, promoting renewable energy, and enhancing energy efficiency.
8. It prioritizes marine ecosystem conservation through pollution reduction, biodiversity protection, and sustainable research.



9. Land preservation efforts include promoting sustainable land use, habitat restoration, and combating deforestation.
10. The policy highlights the importance of regular environmental risk assessments, such as managing alien species and monitoring biodiversity.
11. AASTMT aims to embed climate change education into its curriculum and encourage research in adaptation and mitigation strategies.
12. Overall, the policy commits to environmental responsibility, sustainable development, and fostering an informed community dedicated to ecological resilience.

[AASTMT Environmental Policy](#)

AASTMT attended the 82nd MEPC Meeting on Behalf of IAMU

The Arab Academy for Science, Technology, and Maritime Transport (AASTMT) actively participates in the International Association of Maritime Universities (IAMU). It represented the IAMU at the Marine Environmental Protection Committee (MEPC) during its 82nd session, held from September 30 to October 4, 2024, in London, UK. Senior Lecturer Mohamed Elbawab, a member of AASTMT's SDGs team for SDG14, was the IAMU's representative. Several key environmental issues were discussed, including harmful aquatic organisms in ballast water, air pollution prevention, ship energy efficiency, reduction of GHG emissions from ships, follow-up on the Action Plan to address marine plastic litter from ships, reduction of underwater radiated noise from commercial shipping, pollution prevention and response, and the identification and protection of Special Areas, ECAs, and PSSAs. The committee's final report is available via the following link for those with an active IMODOCS account.



[If access is granted to IMO Docs MEPC82/J/1, a list of participants is available at this link MEPC 82/WP.1/Rev.1 \(15 October 2014\)](#)



Integrating Sustainable Development Goals in universities to enhance Climate Change Management “INVOLVE”

The mentioned research project aims to:

- Embody the principles of the environmental SDGs through organizational governance and strategic management of Egyptian universities to ensure their strategies align with the SDGs.
- Establish the Sustainable Development Center (SDC) in Egyptian universities to enhance organizational and internal capacity and ownership of the environmental SDGs, providing the necessary knowledge, skills, and motivation to understand and address them.
- Foster the achievement of environmental SDGs in Egyptian universities by increasing their operational capacities to develop environmentally sustainable campuses.

[INVOLVE AASTMT ERASMUS Day.pdf](#)

Waste Recirculation through optimizing the Resource Management (Water/Solids)

The agricultural waste and water generated from landscape activities on the main campus, as well as from the main kitchen used by students at the Arab Academy, are considered significant sources of waste. The Aquaculture Research Center (ARC) on the main campus is responsible for recycling these wastes. The recycling system has two pathways. In the first pathway, these wastes are collected and introduced into earthworm composting beds. The resulting vermicompost is then used as an organic fertilizer in landscaping activities. Additionally, the reproduction of worms leads to a threefold increase in their population. Some of these worms are used in fish culture activities at the ARC. In the second pathway, the wastes are processed to produce biogas and soluble fertilizers. The biogas generated is used in various ARC activities as an alternative energy source.



[Aquaculture research center Waste Recirculating.pdf \(aast.edu\)](#)



Community Engagement

In the 2023-2024 academic year, the Arab Academy for Science, Technology and Maritime Transport (AASTMT) prioritized impactful community engagement initiatives to address challenges related to SDG 14: Life Below Water. These efforts focused on raising awareness, fostering collaboration, and empowering local communities to contribute to marine conservation and sustainable development. Below are the key community-focused initiatives undertaken:

Community Awareness about Overfishing

One of the main causes of declines in marine wildlife populations is fishing. While fishing itself is not inherently harmful to the ocean, overfishing occurs when fishing vessels harvest fish faster than the stocks can replenish. Over the past 50 years, the number of overfished stocks has increased globally, and the Food and Agriculture Organization of the United Nations estimates that about one-third of the world's assessed fisheries are currently overfished. Bycatch, which refers to the unintended capture of marine life when fishing for a different species, is directly linked to overfishing. This issue results in the deaths of hundreds of thousands of sea turtles, cetaceans, and billions of fish. The effects of overfishing also extend beyond the ocean. Fish are the primary source of nutrition for billions of people worldwide, and for millions more, fishing is a main livelihood. Many fishers are working to improve global ocean resource management and conservation. To advance fisheries management internationally, WWF collaborates with various stakeholders, promoting sustainable practices that protect ecosystems, sustain livelihoods, and ensure food security. In line with these efforts, in January 2023, AASTMT, a leading university in the region represented by the College of Fisheries and Aquaculture Technology, took the initiative to educate local fishermen about the threats and negative impacts of overfishing.



[Overfishing community awareness link](#)



Initiative: Outreach workshop with Abu-Qir Bay Fishermen on Antifouling Paints, Environmental Risks, and Alternative Solutions

Biofouling refers to the buildup of bacteria, algae, and sessile invertebrates on any submerged surface. To fight fouling, ships need regular cleaning and maintenance. Protecting boat hulls from biofouling is vital—not only to prevent material corrosion and damage but also to maintain proper maneuverability, which ensures safety at sea. Antifouling paints are typically used to address this problem, often containing toxic substances like copper that can harm marine life. Increasing fishermen's awareness of this issue and promoting the use of eco-friendly antifouling paints is crucial both environmentally and economically. In 2023, students from the College of Fisheries and Aquaculture Technology launched an innovative initiative to promote ecologically friendly anti-fouling paint as an alternative to traditional paints used by fishermen. This effort supports the college's goal of improving environmental sustainability and reducing the negative impacts of chemicals on marine ecosystems. Through this project, students aim to educate fishermen about the benefits of eco-friendly paint in protecting their boats and enhancing operational efficiency, thereby helping to strike a balance between traditional fishing practices and marine resource conservation.



[Initiative: Antifouling paints: Environmental hazards and alternatives](#)

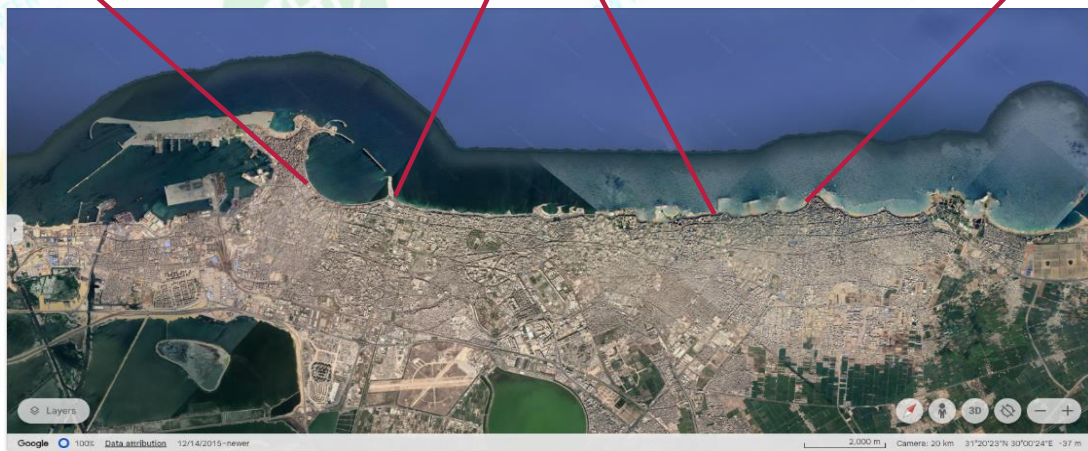
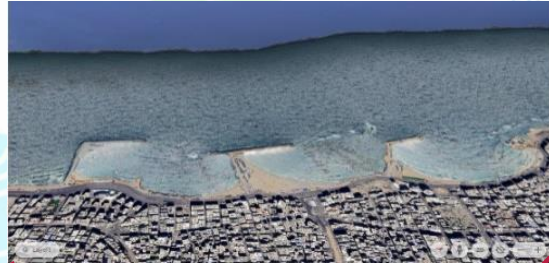
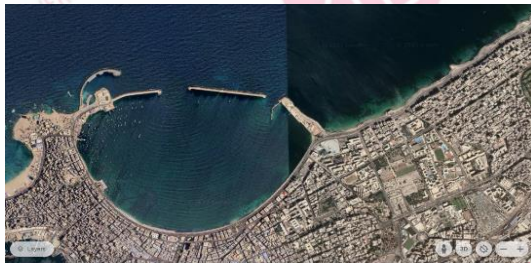
Initiative: “Existence of Harmful Algal Blooms along Alexandria Coast: A Mitigation Strategy”

Since 1998, the Alexandrian coast has undergone a series of engineering modifications. These changes have had an impact on the marine water quality, phytoplankton productivity, and diversity, in addition to the topography of the coast. In order to prevent erosion and build new beaches, preventive wave breakers were constructed in 1998. Shallow, somewhat big, semi-closed lagoons formed as a result. These lagoons become an ideal habitat for algal blooms because of their shallow depth and partial stagnation of their waters. Around 2010, the corrective strategy was subsequently implemented to lessen the negative consequences of the earlier coastal alterations. Over the course of the two periods, the phytoplankton's



standing crop and composition completely changed. Internal tourism suffered financial losses due to this bloom.

A major problem along the Alexandria shoreline is beach erosion. Accordingly, the coast was subjected to coastal engineering modifications in order to reduce erosion and establish new recreational beaches. The coastal modifications were done without a preliminary impact assessment and led to negative effects. Semi-closed artificial lagoons were established, and a green tide was formed for the first time along these lagoons due to their shallowness and increase in nutrient concentrations. Corrective measures had to be taken to mitigate the negative effects. In 2021, a mitigation strategy was preliminary put to overcome this critical environmental crisis, in an action plan undertaken in the period 2021 – 2024.



https://cms.aast.edu/contenttemp.php?page_id=121400028



Events

Throughout the 2023-2024 academic year, the Arab Academy for Science, Technology and Maritime Transport (AASTMT) hosted and participated in a range of impactful events aligned with **SDG 14: Life Below Water**. These events were designed to raise awareness, foster collaboration, and drive actionable change in marine sustainability. Below is an overview of the key events and their outcomes:

Scientific Conferences such as MARLOG 13 (4th March 2024)

The Arab Academy for Science, Technology, and Maritime Transport organized the 13th International Maritime and Logistics Conference (MARLOG 2024). It took place on March 3, 2024, at Hilton Green Plaza Hotel in Alexandria, with the theme of 'Towards smart green blue infrastructure,' in collaboration with Suez Canal Economic Zone (SCZone), the International Association of Ports and Harbors (IAPH), MEDPorts Association, and the Union for the Mediterranean (UfM). The event also involved Valencia Port Foundation, Promotion and Commercial Studies of the Valencian Region (Valencia port Foundation), Antwerp/Flanders Port Training Center, Global Shipping Think Tank Alliance, and The International University of Logistics and Transport in Wrocław, Poland. The conference aims to bring together a diverse group of experts in ports, logistics, sustainability, and technology to discuss the latest developments and trends in sustainable infrastructure.



https://aast.edu/en/news/news-details.php?language=1&unit_id=483&news_id=486102024&event_type_id=1

Memorandum of Understanding between AASTMT and the World Fish Center

During the fourth AASTMT Advisory Council for Industry on June 3, 2022, Professor Ismail Abdel Ghafar, the Academy's president, signed an MoU with the WorldFish Center, represented by Regional Director Dr. Ahmed Nasrallah. The five-year agreement (2023-2024 year is included) focuses on collaboration in aquaculture, fisheries management, and capacity

building. Both organizations aim to advance sustainable fisheries and aquaculture practices in the region.



[MoU between AASTMT and the World Fish Center, Jun 3, 2022.](#)

Upcoming Goals

In the upcoming year, the Arab Academy for Science, Technology and Maritime Transport (AASTMT) aims to build on its commitment to **SDG 14: Life Below Water** by advancing impactful projects, forging new partnerships, and expanding its educational and research initiatives. Our future goals include:

1. Expanding Marine Research

- Launching a Marine Biodiversity Monitoring Program to assess and protect critical marine habitats along Egypt's Mediterranean and Red Sea coasts.
- Establishing an Ocean Innovation Lab to foster interdisciplinary research on sustainable aquaculture, marine pollution mitigation, and ecosystem restoration.

2. Strengthening Educational Programs

- Introducing new certificate programs in Marine Conservation and Climate Resilience, designed to equip students and professionals with the skills needed to address pressing marine challenges.
- Enhancing experiential learning opportunities by expanding fieldwork and internships with local and international marine research organizations.



3. Community-Centered Initiatives

- Scaling up the "Save Our Shores" coastal clean-up campaign, aiming to remove at least 5 tons of marine debris in collaboration with local communities and NGOs.
- Launching the "Blue Futures" Initiative, which will provide workshops and funding opportunities for community-led projects focused on sustainable fisheries and marine protection.

4. Partnership Development

- Strengthening collaborations with global organizations such as UNESCO-IOC and WWF to align efforts with international marine sustainability standards.
- Establishing new partnerships with private sector stakeholders to develop eco-friendly technologies for aquaculture and waste reduction.

5. Innovative Technology Integration

- Developing a Marine Data Platform to collect, analyze, and share real-time data on marine ecosystems, providing critical insights for policymakers and researchers.
- Exploring the use of AI and satellite imaging for monitoring marine pollution and tracking biodiversity changes.

6. Policy and Advocacy Efforts

- Hosting an International Marine Sustainability Forum to bring together policymakers, scientists, and industry leaders to discuss solutions for marine resource management.
- Contributing to national and regional policies on marine conservation by providing scientific advice and research-based recommendations.

7. Measurable Impact Goals

- Engage 1,000+ volunteers in marine conservation efforts.
- Remove at least 10 tons of marine waste from coastal areas.
- Publish 15+ research articles addressing marine sustainability challenges.

With these initiatives, AASTMT is poised to further its impact on marine conservation and sustainable development, ensuring that the oceans and marine resources are preserved for future generations.