الأكاديمية العربية للعلوم والتكنولوجيا والنقل البحري

AASTMT Environmental Sustainability Policy

Climate, Ocean and Land

Description

The AASTMT Environmental Sustainability Policy is the Academy's overarching commitment to Climate Action (SDG 13), Life Below Water (SDG 14) and Life on Land (SDG 15). It sets out what AASTMT does across its campuses, training ships, research, teaching and partnerships to reduce its carbon footprint, protect the sea and the land, use resources wisely and manage waste safely. It states five commitments, the current baseline, targets to 2030 with named owners, and the AASTMT policies, plans and guidelines that put each commitment into practice.

Vision

To be a leading Arab institution in integrating environmental sustainability into education, research, campus operations and community action, with campuses that are low-carbon, water-wise, rich in biodiversity and close to zero waste.

Mission

AASTMT protects the climate, the sea and the land through measurable action on its own campuses and ships, through research and education that build solutions for Egypt and the Arab region, and through partnerships with government, industry and communities.

1. Scope

- All AASTMT campuses in Egypt: 11 campus locations in 6 governorates (Alexandria, Cairo, Giza, Matrouh, Port Said and Aswan), including the 213,646 m² main campus at Abu Qir and the AASTMT Alamein Hospital.
- AASTMT training ships and sea-training voyages, field training sites and research facilities, including their fuel use, discharges and waste.
- All students, academic and administrative staff, contractors, suppliers and service providers working for or on behalf of AASTMT.

2. Principles

- **Evidence-based:** decisions rest on measured data and AASTMT research.
- **Prevention first:** avoid harm before reducing, treating or offsetting it.
- **Precaution:** where an activity may harm the environment, act to prevent harm even before full scientific certainty.
- **Whole-institution:** every college, campus and department shares responsibility.
- **Transparency:** progress is measured and published every year.

3. Policy Statement: Five Commitments

AASTMT commits to:

- **1. Act on climate (SDG 13):** AASTMT is committed to net-zero greenhouse gas emissions by 2050 at the latest, a public commitment made in 2022 under the UNFCCC Race to Zero campaign, with interim reductions of at least 30% by 2025, 45% by 2030 and 50% by 2040 against the 2019 base year. The commitment covers Scope 1, Scope 2 and selected Scope 3 emissions under the GHG Protocol and is delivered through the AASTMT Climate Action Plan 2025-2030. AASTMT reduces emissions across its campuses, university-controlled facilities and training ships, improves energy efficiency, expands renewable and other low-carbon energy, measures its total and low-carbon energy use every year, and strengthens climate resilience and adaptation with government, communities and NGOs. Carbon credits are not counted towards AASTMT's own reduction pathway.
- **2. Protect water and the sea (SDG 14):** conserve water; prevent and reduce marine pollution of all kinds, in particular from land-based activities on and around its campuses (wastewater, stormwater runoff, solid waste, plastics, chemicals and nutrients); discharge no polluted water; minimise physical, chemical and biological alteration of the aquatic ecosystems next to its coastal campuses; ensure that seafood served on campus is sustainably sourced; and support sustainable fisheries and marine conservation.
- **3. Protect land and biodiversity (SDG 15):** conserve, restore and use sustainably the terrestrial ecosystems associated with AASTMT, in particular the drylands around its campuses; maintain and extend campus green areas and habitats; protect IUCN Red List and nationally protected species; reduce the impact of alien species; include local biodiversity in all campus planning and development; ensure that food served on campus is sustainably farmed; and fight land degradation and desertification.
- **4. Use resources wisely and manage waste safely:** prevent waste, reduce single-use plastics, recycle, and dispose of hazardous waste only through licensed routes.
- **5. Learn, discover and partner:** teach sustainability in every college, research solutions to environmental challenges, and work with communities, government, industry and international partners.

4. Where We Stand: Baseline

Area	Latest figure
Campuses	11 campus locations in 6 governorates; main campus at Abu Qir 213,646 m², 45% open space
Energy	Electricity use across all AASTMT branches 18,585,647 kWh in 2025 (19,055,865 kWh in 2024); about 97% LED lighting at the Alexandria campuses in 2025 (over 240,000 LED lamps)
Renewable energy	50 kW rooftop PV (Abu Qir), 150 kW PV (Aswan), 10 kW solar irrigation and water-treatment pumping (Abu Qir), smart solar EV charger (El Alamein); 79,632 kWh generated on site in 2025
Carbon	2024/25 greenhouse gas inventory of the Abu Qir, Misr El-Gedida, Smart Village and South Valley campuses: 38,253 tCO2e (Scope 1, Scope 2 and selected Scope 3). Earlier study of the main campus for 2018 to 2021 (published July 2025)
Water	13 borehole wells irrigate the Abu Qir gardens; 27.8% of campus water from non-potable sources; discharge guidelines Version 3 (2026)

Area	Latest figure
Green areas and biodiversity	62,000 m² planted vegetation at Abu Qir (about 30%); own planting nurseries; 23 plant taxa recorded in the 2026 baseline
Non-hazardous waste	Inorganic waste cut from 307 to 282 tons (−8.1%); 198 tons (70.2%) recycled or reused
Hazardous waste	2.20 tons, 100% treated; laboratory chemicals cut from 1.89 to 1.70 tons; e-waste 0.50 tons recycled

5. Latest Total Carbon Footprint (tCO2e) 2024-2025

AASTMT's most recent greenhouse gas inventory, prepared under the GHG Protocol and ISO 14064-1 for the 2024/25 financial year, reports 38,253 tonnes of carbon dioxide equivalent (tCO_2e) for four campuses: Abu Qir, Misr El-Gedida, Smart Village and South Valley. It covers Scope 1, Scope 2 and selected Scope 3 categories (purchased goods and services, capital goods, water and wastewater, fertilisers, commuting, waste, business travel and leased assets), and will be extended to all campuses.

Indicator	AASTMT Reported Results
Total Carbon Footprint	38,253 tCO_2e
Scope 1: Direct GHG Emissions	2,855 tCO_2e
Scope 2: Purchased Energy	10,440 tCO_2e
Scope 3: Other Indirect Emissions	24,958 tCO_2e

6. Objectives and Targets to 2030

Commitment	Indicator	Target	Lead
Climate	Greenhouse gas emissions	At least 45% below 2019 by 2030 and 50% by 2040; net zero by 2050	Sustainability Office
Climate	Renewable electricity share	40% by 2040	Energy Management Team
Climate	LED lighting share	100% by 2027	Energy Management Team
Climate	University-wide energy accounting	Continue annual measurement of total energy use and low-carbon energy use (GJ) across all campuses; extend to all fuels and training ships by 2027	Energy Management Team
Climate	On-site renewable capacity	From about 210 kW to 1 MW by 2030	Energy Management Team
Climate	Carbon footprint inventory	Published every year; extended to all campuses and training ships by 2027	Sustainability Office
Climate Resilience	Joint climate-disaster planning with government	At least one joint planning activity or exercise each year with a governorate or national authority	SDG 13 Officer

Commitment	Indicator	Target	Lead
Climate Partnerships	NGO collaboration on adaptation	At least two climate-adaptation projects or activities with NGOs each year, reported annually	SDG 13 Officer and relevant partnership
Climate Research	Climate action research outputs	Monitor and report climate-action publications, funded projects and research outputs annually.	Deanery of Scientific Research
Water and sea	Water from non-potable sources	From 27.8% to 35% by 2028	Facilities
Water and sea	Campuses testing their discharge	Every campus, at least quarterly, by 2027	Facilities
Water and sea	Coastal and beach clean-ups	At least two a year on the coastal campuses	College of Fisheries and Aquaculture Technology
Water and sea	Seafood served on campus from sustainable sources	Requirement included in 100% of catering contracts by 2027	Procurement and catering
Land and biodiversity	Campus biodiversity surveys	Every campus surveyed at least once a year from 2027	SDG 15 officer
Land and biodiversity	Native and drought-adapted species in new planting	At least 70%	Facilities and nurseries
Land and biodiversity	IUCN Red List and national-list species on campus	Identified, mapped and monitored every year at every campus	SDG 15 officer
Land and biodiversity	Food served on campus from sustainable farming	Requirement included in 100% of catering contracts by 2027	Procurement and catering
Resources and waste	Total waste generation	15% less by 2030 than the baseline in Section 4; zero-waste campus by 2049	Sustainability Office
Resources and waste	Inorganic waste recycled or reused	From 70.2% to 85% by 2030	Sustainability Office
Resources and waste	Hazardous waste treated through licensed routes	100% every year, at every campus	Facilities and laboratories
Learn and partner	Courses with climate, ocean or land content	Every programme by 2028	Deans
Learn and partner	SDG 13, 14 and 15 publications and funded projects	Increase every year	Deanery of Scientific Research and Innovation

7. Linked Policies and Guidelines

Each commitment is put into practice through a specific AASTMT policy or guideline:

Commitment	Policy or guideline
Climate	Green Energy and Energy Management Policy; AASTMT Climate Action Plan 2025-2030: Pathway to Net Zero; AASTMT Net-Zero Commitment; AASTMT Carbon Footprint Report 2024/2025.

Commitment	Policy or guideline
Water and sea	AASTMT Standards and Guidelines for Discharge of Wastewater (Version 3, 2026); Policy on Plastic Waste Reduction and its action plan; sustainable seafood and marine pollution provisions of this policy (Section 3 and Action Plans)
Land and biodiversity	AASTMT Biodiversity Policy and Campus Development Plan, Egypt 2026-2030; Policy for Identifying, Monitoring and Protecting IUCN Red List and National Conservation List Species; Policy for Reducing the Impact of Alien Species on Campus; sustainable food provisions of this policy (Section 3 and Action Plans)
Resources and waste	Consumption and Recycling Policy; Policy on Plastic Waste Reduction; Policy on Hazardous Waste Disposal (Version 2, 2026)
Learn and partner	AASTMT Strategic Plan; SDGs Workforce programme

Action Plans

Climate Action (SDG 13)

- **Energy efficiency:** complete LED lighting, upgrade split air conditioners to efficient units, extend VRF and variable-speed central cooling, and run yearly energy audits through the smart energy monitoring system.
- **Renewable energy:** extend rooftop and ground PV on every campus, building on the Abu Qir and Aswan plants, and add solar pumping and EV charging.
- **Carbon accounting:** publish a yearly greenhouse gas inventory under the GHG Protocol, building on the 2024/25 four-campus inventory, and extend it to all campuses and training ships, covering Scope 1, Scope 2 and relevant Scope 3 emissions.
- **Transport:** expand inter-campus and campus buses, electric vehicles, cycling and walking.
- **Resilience and education:** research and teach coastal climate risk, sea-level rise and adaptation, and run disaster-preparedness campaigns with local authorities.
- **Climate Action Plan and carbon neutrality:** implement the AASTMT Climate Action Plan 2025-2030 towards net zero by 2050, review it every year, report progress annually, and share the Plan and its progress each year with host governorates, the Egyptian Environmental Affairs Agency, community groups and NGOs.
- **Low-carbon energy measurement:** continue to record total energy use and low-carbon energy use for all campuses in gigajoules (GJ), using official national grid generation data for the renewable share, and extend the records to all fuels and training ships.
- **Climate education and disaster preparedness:** run local climate education programmes on climate risks, mitigation, adaptation, impact reduction and early warning, and take part in local and regional climate-disaster planning with government authorities.
- **Government and NGO partnerships:** provide scientific and technical support, including environmental monitoring data, to local and regional government for climate-risk monitoring and early warning, and work with NGOs on climate adaptation and resilience projects.

Life Below Water (SDG 14)

- **Clean water:** apply the discharge guidelines on every campus, test discharges, and increase the reuse of groundwater, rainwater, and treated water.
- **No pollution or plastic at sea:** prevent marine pollution from land-based activities by controlling wastewater, stormwater runoff, solid waste and chemicals at source; phase out single-use

plastics under the Policy on Plastic Waste Reduction and its action plan; keep hazardous waste out of drains; and run coastal and beach clean-ups with students and communities.

- **Ships:** operate training ships under MARPOL and the Ballast Water Management Convention, and teach green shipping and ship recycling.
- **Fisheries and marine research:** support sustainable fisheries, stock assessment and the protection of threatened marine species with national and Mediterranean partners.
- **Sustainable seafood:** seafood served in AASTMT catering outlets comes from legal fisheries and aquaculture assessed as sustainable; threatened species are not served; the requirement is written into catering contracts.
- **Coastal ecosystems and watersheds:** assess and minimise the physical, chemical and biological effects of AASTMT activities on the aquatic ecosystems next to its coastal campuses, and manage each site as part of its local watershed with the relevant authorities, based on the aquatic species recorded there.

Life on Land (SDG 15)

- **Green campuses:** maintain and extend planted areas from the AASTMT nurseries, protect mature trees, and favor native and drought-adapted species.
- **Sustainable food:** food served on campus comes from sustainable farming wherever possible, with priority to local and seasonal produce and to suppliers that limit pesticide and fertiliser use; the requirement is written into catering contracts.
- **Species:** survey and monitor campus biodiversity, protect IUCN Red List and nationally protected species, and contain and replace invasive alien species using GIS and AI mapping.
- **Land:** conserve soil through compost and drip irrigation, restore degraded land and dryland habitats on and around campuses, carry out a biodiversity assessment before any new building or landscaping is approved, and support research on desertification, land reclamation and remediation.
- **Community:** work with communities and NGOs on afforestation, greening and the fight against wildlife trafficking.

Resources and Waste

- Apply the waste hierarchy: prevent, reduce, reuse, recycle, recover, and only then dispose.
- Run the Campus Smart Recycling System and composting units, and send all hazardous waste to licensed contractors under supervision.

Education, Research and Partnerships

- Include climate, ocean and land topics in every programme and in student orientation.
- Fund and publish research on climate resilience, marine ecosystems and biodiversity, and support student projects and start-ups.
- Partner with ministries, governorates, UN agencies, NGOs, industry and international universities.

Governance, Monitoring and Review

Governance

- **SDGs Workforce Committee:** approves the policy, its targets and action plans, and reviews progress every year; the approved policy is signed by the Dean of Scientific Research and Innovation.
- **Environmental Sustainability Committee:** members from colleges, campuses, facilities, students and external stakeholders; coordinates implementation and meets every quarter.
- **Departmental action plans:** every college and campus sets out its yearly contribution to the five commitments.

Roles and Responsibilities

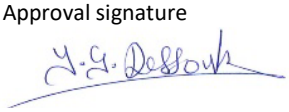
Role	Responsibility
Dean of Scientific Research and Innovation	Signs the policy and its reviews after approval by the SDGs Workforce Committee
Dean of Scientific Research for Maritime Affairs	Policy owner; leads the ocean commitments and coordinates the climate commitments
Energy Research Unit, Energy Management Committee and Sustainability Office	Lead the climate commitments: energy and emissions measurement, the Climate Action Plan and annual carbon reporting
SDG 13, 14 and 15 officers and the Sustainability Office	Track indicators, coordinate action and publish the yearly report
Deans	Update courses with climate, ocean and land content and follow up implementation
Facilities, energy and landscape teams	Run campus energy, water, green areas and waste systems
Academic staff	Research, publish and supervise student projects on SDGs 13, 14 and 15
Students	Take part in initiatives, clean-ups, surveys and campaigns
Contractors and suppliers	Follow this policy and its linked policies under their contracts

Monitoring and Reporting

- Indicators in Section 6 are measured every year for every campus.
- An annual environmental sustainability report, with achievements, gaps and next steps, is published on the AASTMT website.
- Students, staff and communities can propose initiatives and give feedback through the initiative suggestion form.

Review Program

Item	Detail
Policy title	AASTMT Environmental Sustainability Policy (Climate, Ocean and Land)
Date created	January 2019
Approving body	SDGs Workforce Committee
Version	6
Last review date	November 2026

Item	Detail
Next review date	November 2029 (every three years), with a yearly review of targets
Policy owners	Dean of Scientific Research for Maritime Affairs; Head of Aquaculture Department, College of Fisheries and Aquaculture Technology; the Sea Training Institute; SDG 15 Officer; Energy Research Unit (climate commitments)
Lead contacts	Prof. Dr. Kareem Tonbol; Dr. Haiam Aboul-Ela; Eng. Mohamed Elbawab
Approval signature 	Dean of Scientific Research and Innovation

Version	Date	Changes
1 to 4	2019 to 2023	Earlier versions of the AASTMT Environmental Policy
5	2024	Environmental Policy for SDGs 13, 14 and 15: vision, mission, objectives, commitments, procedures and action plans
6	October 2026	Reframed around five commitments and five principles; scope set to all 11 campus locations in Egypt, ships and contractors; climate commitment restated around net zero by 2050 and the Climate Action Plan 2025-2030; marine pollution from land-based activities, coastal ecosystems and watersheds, sustainable seafood and sustainably farmed food added; baseline updated to 2025; targets to 2030 with indicators and owners; linked policies table; alien species points moved to Life on Land; governance, monitoring and review updated