

Arab Academy for Science, Technology & Maritime Transport



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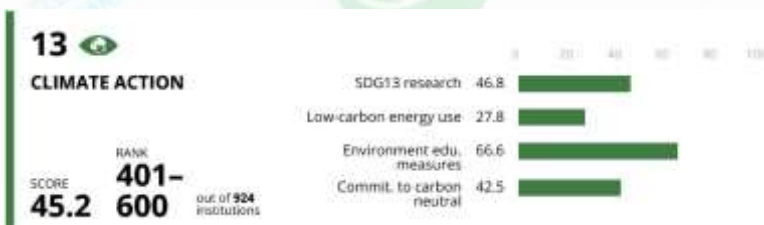
Report 2022 / 2023

SDG 13

Our Aim in 2022 -2023

For the 2022-2023 academic year, AASTMT aimed to lead in climate resilience and carbon reduction through emissions targets, renewable energy expansion, and collaborative climate initiatives. The AASTMT focused on advancing climate adaptation and sustainability through education, research, and community engagement.

THE Impact Ranking Scores 2021-2022



SDG 13

CLIMATE ACTION

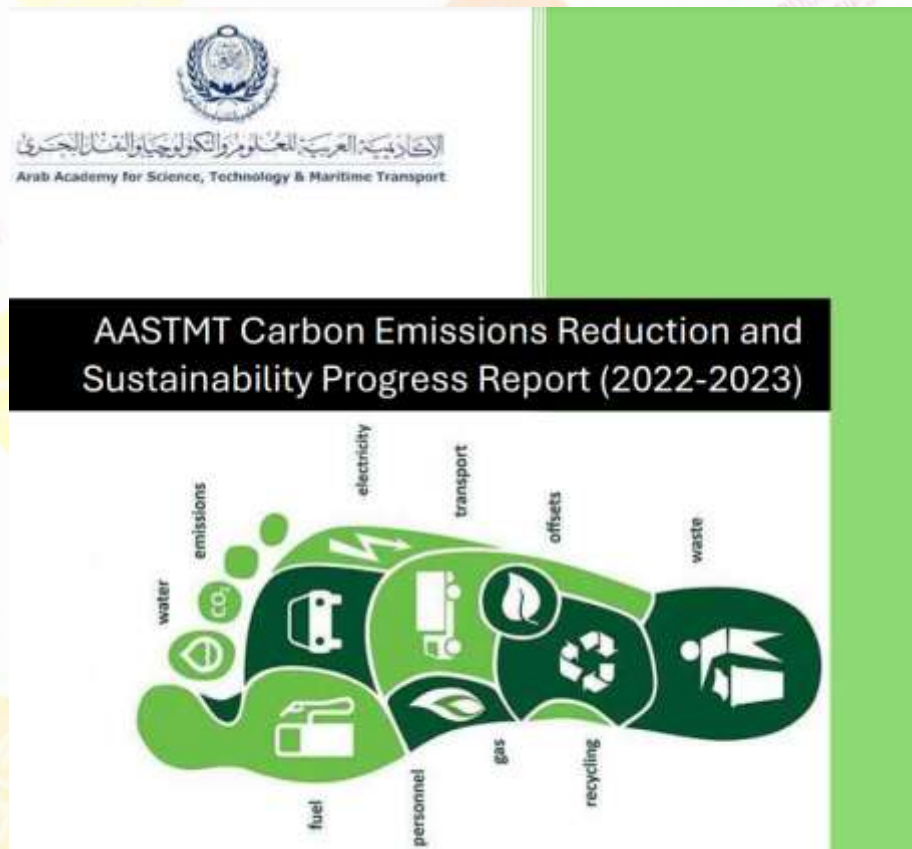


Key Milestones in 2022-2023

During the 2022-2023 academic year, the Arab Academy for Science, Technology, and Maritime Transport (AASTMT) demonstrated its commitment to SDG 13: Climate Action through various impactful initiatives, partnerships, and programs aimed at advancing climate resilience, carbon reduction, and sustainable development. Below are the significant milestones achieved by AASTMT:

Commitment to Carbon Neutrality

A central milestone for AASTMT was its commitment to achieving carbon neutrality. The 2022-2023 Carbon Emissions Report outlined the academy's targets across Scope 1, 2, and 3 emissions and provided measurable goals within its Climate Action Plan (CAP). AASTMT's initiatives to reduce emissions across campus operations included an ambitious renewable energy goal to meet 35-40% of its energy needs through solar power by 2025 and a further target of 60% by 2040. The installation of a 150-kW solar PV plant at the Aswan Campus was a critical step in reaching these objectives.



Expansion of Renewable Energy Initiatives

AASTMT expanded its renewable energy infrastructure significantly, with solar installations and energy-efficient upgrades across its campuses. The CAP outlined clear targets, leading to a substantial increase in energy efficiency and a reduction in dependency on fossil fuels. These projects contributed to the academy's broader sustainability strategy, aligning with SDG 13 Indicator 13.2.2 and marking AASTMT as a climate-conscious institution.

Goal 7. Affordable and Clean Energy

SUSTAINABLE DEVELOPMENT GOAL 7

SDG7 Report (2021/2022)

In 2021/2022, AASTMT aimed at rationalizing energy consumption, reducing carbon emissions and directing research towards green energy and energy management as well as serving the community and environment towards clean and affordable energy.

AASTMT undergoes regular online monitoring and energy analysis to compute energy usage in AASTMT campuses, identify areas where energy consumption is highest and spot the effectiveness of initiatives and measures taken for energy saving as well as calculating renewable energy contribution in electric power supply.

AASTMT took a number of measures within AASTMT walls via upgrading buildings and establishing new ones in accordance with energy efficiency standards. Realizing an energy saving plan and emissions reduction processes as well as diverting investment and research towards renewable energy have resulted in reduced energy consumption and decreased CO2 emissions in AASTMT campuses.

Moreover, AASTMT aims at developing further co-operation with government and public enterprises to sustain serving the Environment and Surrounding Community. This is realized via staff participation in energy-related research projects, offering programs, trainings, workshops, campaigns and initiatives for local community as well as beyond AASTMT walls to promote clean energy and spread awareness on the importance of energy rationalization.

In addition, AASTMT Energy Research Unit and Productivity and Quality Institute Centre offer free and paid direct services and consultancy to local industry and supports governments at fields of clean energy and energy-efficient technology.

Finally, AASTMT Entrepreneurship Centre supports low-carbon start-ups and innovations via mentorship camps, workshops and trainings.

[Total Energy used for all AAST campuses](#)

[Towards Energy Saving and Emission Reduction Plan](#)

[ENERGY REPORT AASTMT Campuses-2022](#)

Educational and Capacity-Building Programs

Through programs like the **Meteorology Course** and the **Master’s in Smart Environmental Management of Climate Change (SECCM)**, AASTMT prepared students to engage in climate risk monitoring and disaster preparedness. Additionally, the **Crisis Management Course** and the **Alexandria Workshop on Weather Routing and Carbon Emissions Reduction** equipped participants with technical skills to assess climate risks and develop emissions reduction strategies. These initiatives aligned with SDG 13 Indicators 13.3.1, 13.3.4, and 13.4.2, supporting AASTMT’s mission to foster a climate-resilient, skilled workforce.



Collaborations on Sustainable Waste Management

In partnership with Egypt’s Ministry of Environment, AASTMT implemented **sustainable waste management projects in Badr City**. These initiatives included landfill operations aimed

at CO₂ reduction through environmentally friendly waste practices. Projects under this collaboration promoted sustainable policy development in waste management and aligned with SDG 13 Indicator 13.4.1, underscoring AASTMT’s commitment to climate-focused research and sustainability.



Youth Empowerment through Uni-Green Project

The **Uni-Green Project**, in collaboration with the Life Makers Foundation and funded by the European Union, was another milestone. This project emphasized youth participation in climate action through leadership programs and practical sustainability projects, empowering young climate leaders. The initiative reflected SDG 13 Indicator 13.3.5 by fostering collaboration with NGOs to address climate change challenges in Egypt.







Uni-Green Project
Needing Experts in Climate Change Action for Sustainable Development

The project seeks to hire specialized consultants to share their expertise and knowledge to develop an educational product for people to understand the impact of global warming today and increase "climate literacy" among young people.

Apply Now at: leadership@jaast.edu
Submission of Proposal Deadline: August 22, 2022

Funded by the European Union

Launch of Multidisciplinary Adaptive Climate Insights (MACI) Journal

The **MACI Journal** provided a dedicated platform for publishing climate resilience and adaptation research, enabling global knowledge-sharing on climate adaptation, mitigation, and sustainable practices. This initiative positioned AASTMT as a leader in climate education and research, promoting evidence-based solutions that address global climate challenges.



Participation in International Climate Forums

AASTMT actively participated in international climate events such as **COP28** and the **Arab Week for Sustainable Development**, where it shared its climate action efforts and insights into resilience-building strategies. These events underscored AASTMT’s leadership in climate resilience, aligning with regional and global discussions on climate adaptation and advancing sustainable development.



These achievements in 2022-2023 reflect AASTMT’s commitment to advancing SDG 13 through targeted, impactful actions in education, community engagement, research, and global collaboration. Through strategic partnerships, innovative projects, and dedicated climate resilience efforts, AASTMT is effectively positioning itself as a climate action leader within the academic and global community.

Community Engagement

Throughout the **2022-2023 Academic Year**, AASTMT strengthened its community-focused climate action efforts, actively involving local communities, students, and external partners. These initiatives addressed SDG 13 objectives, equipping communities to navigate environmental challenges and foster sustainable development.

AASTMT's "Bridge of Hope" Initiative with UNHCR

AASTMT's "**Bridge of Hope**" Initiative with UNHCR provided educational scholarships to refugees, building resilience for vulnerable populations impacted by climate-related displacement.



Eyes on Earth Campaign

On World Environment Day, AASTMT collaborated with **EU Neighbors South** and the **European Forest Institute** for the **Eyes on Earth Campaign**, which involved community members and students in tree planting, forest conservation workshops, and cleanups. This initiative raised awareness about biodiversity conservation and carbon sequestration, directly engaging participants in practical climate action to improve ecosystem resilience and sustainable land management.



Green Egypt Initiative: Large-Scale Reforestation Efforts

As part of its climate action strategy, AASTMT partnered with Egypt's Ministry of Planning for the **Green Egypt Initiative**, a large-scale reforestation campaign aiming to plant one million trees. This project actively involved students and local youth in tree planting and land restoration efforts, promoting long-term carbon sequestration and soil health. By involving the community in this initiative, AASTMT supported national reforestation goals while enhancing local climate resilience.



Caritas Egypt Collaboration for Vocational Training of Refugees

In collaboration with **Caritas Egypt**, AASTMT provided vocational training to refugees, offering skills in automotive mechanics, electrical systems, and other technical areas. These skills enhance the employability of refugees and equip them to navigate socio-economic challenges, including those linked to climate adaptation. This initiative reflects AASTMT's dedication to social inclusion and climate adaptation by supporting the resilience of vulnerable populations.



Leaders Hub Climate Awareness Event with Empower Hub

Through the **Leaders Hub Climate Awareness Event**, AASTMT partnered with **Empower Hub** to encourage students to create educational content on environmental issues, including plastic pollution and climate change. Student teams produced videos, social media posts, and awareness campaigns, promoting climate literacy across the broader community. This initiative empowered students to lead in sustainability communication, fostering a climate-aware society.



Go Green Workshop in Partnership with the Ministry of Environment

The **Go Green Workshop** was a collaborative effort with Egypt’s Ministry of Environment, focused on reducing plastic use and promoting sustainable practices. This workshop educated participants on adopting eco-friendly habits, such as reducing single-use plastics and conserving resources. By involving community members, AASTMT promoted practical sustainability efforts, empowering attendees to implement environmentally responsible practices.



UniGreen Project: Youth-Led Climate Mitigation Efforts

Through the **UniGreen Project**, a collaboration with the **Life Makers Foundation** and funded by the European Union, AASTMT engaged youth in climate action. This initiative included leadership programs, climate awareness campaigns, and hands-on sustainability projects that encouraged students to take active roles in addressing local environmental challenges. By fostering youth involvement, AASTMT contributed to community climate resilience and empowered future climate leaders.



CEDARE Collaboration for Climate-Focused Education

AASTMT's visit to the **Centre for Environment & Development for the Arab Region & Europe (CEDARE)** introduced students to sustainable development and climate resilience projects across the Arab region. This collaboration offered hands-on learning about water resource management, smart transportation, and sustainable urban planning. By immersing students in current climate research and best practices, AASTMT strengthened community understanding of effective climate adaptation strategies.



Through these community-centered programs, AASTMT made significant strides in advancing SDG 13 by engaging students, community members, and local organizations in sustainable practices and climate adaptation. These collaborative efforts have built a foundation for a climate-resilient, environmentally conscious society, reflecting AASTMT's dedication to sustainable community development.

Events

During the **2022-2023 academic year**, AASTMT organized and participated in numerous events aimed at advancing **SDG 13: Climate Action**. These events fostered climate literacy, community involvement, and partnerships across various sectors, supporting AASTMT's mission to promote sustainability and resilience.

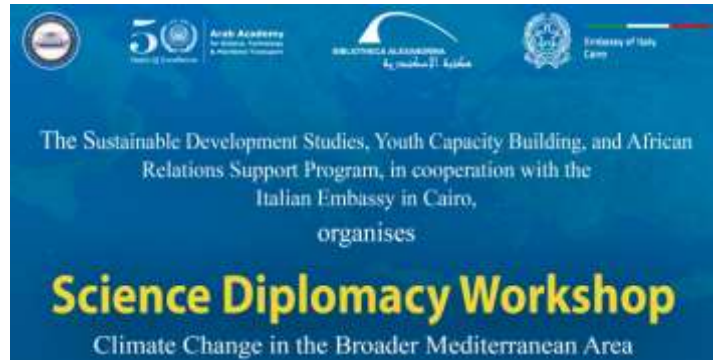
International Conference on Sustainable Tourism and Marine Environmental Protection

Held in Alexandria, this conference brought together experts to discuss sustainable tourism practices, marine waste management, and coastal resilience. AASTMT, in collaboration with regional and international organizations, highlighted the importance of sustainable infrastructure in reducing marine pollution and protecting vulnerable coastal ecosystems. The conference promoted cross-sector collaboration, aligning tourism and environmental conservation to support climate adaptation goals.



Science Diplomacy Workshop: “Climate Change in the Broader Mediterranean Area”:

This two-day workshop gathered climate experts to discuss climate observation, modeling, and foresight in the Mediterranean region. Focusing on extreme weather events like "Medicanes" and sea-level rise, participants explored collaborative strategies for disaster preparedness and resilience. AASTMT's active involvement reinforced its commitment to regional cooperation in addressing climate challenges, with outcomes that included recommendations for policy reforms and enhanced early warning systems for vulnerable coastal areas.



African Development Senior Managers Forum on Climate Change and Transport Resilience

Hosted by AASTMT, this forum focused on climate adaptation strategies for Africa’s transport sector. With senior managers, policymakers, and climate experts in attendance, discussions centered on the impacts of sea-level rise and extreme weather on critical transport infrastructure. The event emphasized cooperative disaster planning, advancing resilience in transport systems across Africa through regional collaboration and sustainable infrastructure practices.



Crisis Management Course

This course provided technical training on crisis management related to climate-induced disasters, equipping participants with skills in emergency planning, risk assessment, and disaster response. By preparing students and professionals to address climate risks, the course strengthened local capacity for disaster preparedness and climate adaptation. The course was a practical addition to AASTMT’s climate resilience efforts, fostering partnerships with local and national authorities on effective disaster management.



15th Sectoral Cooperation Meeting on Climate Change between the League of Arab States and the United Nations

AASTMT participated in this meeting, which addressed climate risk monitoring, drought management, and climate finance across the Arab region. The event highlighted the necessity for early warning systems and policy reforms to protect vulnerable communities. AASTMT's contributions to the discussions underscored its role in informing and supporting regional climate adaptation initiatives and disaster preparedness.



The 15th Sectoral Meeting between the League of Arab States (LAS) and the United Nations (UN) and their Specialized Organizations on "Cooperation in Climate Change"
Cairo, 27-28 February 2023



AASTMT Hosts TuoMali International Conference on Marine Waste:

The TuoMali International Conference focused on sustainable waste management within the Mediterranean tourism sector. AASTMT, in collaboration with the University of Rostock and other Mediterranean partners, discussed the impact of marine plastic waste on ecosystems and explored waste reduction strategies for the tourism industry. Outcomes from this conference informed ongoing policies in sustainable tourism and marine ecosystem protection, aligning with SDG 13 goals of reducing environmental impacts on marine life.



Alexandria Workshop on Weather Routing and Carbon Emissions Reduction

This workshop offered technical insights into using weather data for optimizing maritime routes to reduce fuel consumption and carbon emissions. Participants learned about tools such as the Bon Voyage System (BVS) and s-Planner to enhance maritime efficiency and

sustainability. The event contributed to AASTMT's objectives of promoting energy-efficient practices within the maritime industry and reducing greenhouse gas emissions.



"Towards a Green and Sustainable Future" Initiative: Promoting Climate Education and Awareness

Hosted by AASTMT's College of Engineering and Technology, the "Towards a Green and Sustainable Future" initiative engaged Alexandria school students in hands-on learning about sustainable development. Through interactive tours of the solar power plant, renewable energy labs, and aquaculture facilities, students explored topics like climate indicators, green hydrogen, and water purification. This initiative promoted climate literacy and sustainable practices within the community, aligning with Indicator 13.3.1.



AASTMT Youth Forum 2022: Educating Youth on Climate Resilience:

In 2022, AASTMT hosted the **Youth Forum 2022** to empower young participants in climate action. The forum included workshops on **climate migration, sustainable fashion, and innovation in sustainability**, enhancing youth understanding of climate resilience. This event fostered climate literacy and equipped attendees with essential skills to address environmental challenges within their communities, aligning with SDG 13 goals.



AASTMT Participation in COP28: Strategic Ocean Alliance Forum:

At COP28 in Dubai, AASTMT participated in the **Strategic Ocean Alliance Forum**, which brought together regional experts to discuss marine resilience and sustainable development in the maritime sector. Topics included protecting marine biodiversity from climate risks and fostering international cooperation to mitigate the impacts of climate change on coastal communities. AASTMT’s role in the forum reinforced its leadership in promoting sustainable maritime practices and climate resilience.



These events collectively advanced AASTMT’s contributions to **SDG 13: Climate Action** by fostering climate literacy, supporting disaster preparedness, and promoting sustainable practices across various industries. Through active community and cross-sector engagement, these events strengthened climate resilience and showcased AASTMT’s role as a leader in climate action within the region.

Upcoming Goals

Building on the progress of the **2022-2023 Academic Year**, AASTMT has set ambitious goals to further enhance its impact on **SDG 13: Climate Action** in the upcoming year. These future initiatives will expand AASTMT's reach in climate education, renewable energy use, and community resilience, reinforcing its commitment to sustainable development and climate adaptation.

1. Expansion of Renewable Energy Infrastructure

AASTMT aims to increase its reliance on solar energy across campuses, with a target to reach **50% solar energy usage by 2025**. This includes new solar PV installations and energy-efficient upgrades, reducing dependency on non-renewable energy sources. These plans are aligned with AASTMT's Climate Action Plan (CAP), supporting its goal of achieving carbon neutrality by 2050.

2. Strengthening Community Engagement through New Partnerships

To enhance climate resilience and community support, AASTMT is planning to deepen partnerships with organizations such as **UNHCR** and **Caritas Egypt**. These collaborations will focus on expanding educational and vocational training programs for refugees and other vulnerable populations. By providing skills training in sustainable practices and climate resilience, these initiatives aim to empower communities to adapt to climate-related challenges effectively.

3. Launch of a Climate Resilience and Disaster Preparedness Training Program

AASTMT intends to develop a specialized training program focusing on **disaster preparedness and climate risk assessment**. This program will be open to students and professionals, with the goal of building local capacity to respond to climate-induced disasters. Emphasis will be placed on crisis management skills, early warning systems, and cooperative planning with local government agencies to support disaster preparedness on a regional scale.

4. Expansion of Climate-Focused Educational Programs

The academy plans to broaden its **Master's in Smart Environmental Management of Climate Change (SECCM)** and **Crisis Management Course** offerings to reach more students and professionals. These expanded programs will provide specialized knowledge in areas such as climate risk assessment, sustainable development, and environmental monitoring, preparing graduates to lead in climate adaptation and resilience across various sectors.

5. Additional Workshops on Emissions Reduction in the Maritime Sector

Recognizing the critical role of maritime activities in emissions, AASTMT is preparing to host more workshops dedicated to **reducing carbon emissions in Maritime Transport**. Building on the success of the previous **Weather Routing and Carbon Emissions Reduction Workshop**,

upcoming events will focus on fuel-efficient navigation, emissions tracking, and the application of cutting-edge technologies in reducing greenhouse gases from maritime operations.

6. Increased Research and Knowledge Dissemination via MACI Journal

AASTMT aims to expand the **Multidisciplinary Adaptive Climate Insights (MACI) Journal** by encouraging more regional and international contributions on climate adaptation and mitigation. This expansion will provide a larger platform for climate science and facilitate global collaboration, advancing AASTMT's role as a knowledge hub in climate research and policy development.

7. Coastal Protection Projects in Alexandria

In partnership with the Alexandria Governorate, AASTMT is planning new **Coastal Protection projects** focused on adapting to sea-level rise and preventing erosion. These initiatives will include the development of resilient urban infrastructure along Alexandria's coastline, supporting local communities in adapting to the impacts of climate change and enhancing long-term sustainability for the region.

8. Capacity-Building Initiatives in Sustainable Waste Management

AASTMT is planning to develop additional training programs in **Sustainable Waste Management** practices, building on past collaborations with Egypt's Ministry of Environment. These initiatives will involve new research projects and community engagement efforts aimed at reducing CO₂ emissions from waste, promoting environmentally friendly disposal methods, and supporting national climate resilience efforts.

Through these upcoming projects and partnerships, AASTMT reaffirms its dedication to advancing climate action, supporting community resilience, and contributing to sustainable development on both regional and global scales.