

Annual Report

2022



Who we are and what we do

Established in 1996, the Environment Agency – Abu Dhabi (EAD) is committed to protecting and enhancing air quality, groundwater as well as the biodiversity of our land and marine ecosystems.

By partnering with other government entities, the private sector, NGOs and global environmental agencies, we embrace international best practices, innovation and hard work to institute effective policy measures. We seek to raise environmental awareness, facilitate sustainable development and ensure environmental issues remain one of the top priorities of our national agenda.



Foreword from Our Chairman

In 2022, the Environment Agency – Abu Dhabi (EAD) asserted its leadership and succeeded in strengthening the national and global position of Abu Dhabi and its active role in preserving the environment and protecting species. The Agency's programmes were shortlisted by the United Nations Environment Programme on its list of top ten global initiatives to restore and rehabilitate environmental eco-systems, further reinforcing the uniqueness and distinction of our ambitious environmental programmes and initiatives that have become worldwide models of excellence.

It was also a decisive year of positive climate action, during which EAD intensified its efforts to support the vision and aspirations of the UAE government, and, thanks to its pioneering leadership role in Abu Dhabi, reduced the effects of climate change which further contributes to achieving the goals of the strategic climate neutrality by 2050 initiative.

In 2022, EAD strengthened cooperation with relevant partners at the national and local levels across both the government and private sectors, with the aims of preserving the environment, combatting climate change, developing clear plans to reduce emissions for specific sectors, reducing pollutants, and monitoring air quality in inaccessible areas of concern. Those efforts included the preparation of a comprehensive policy aimed at reducing greenhouse gas emissions and enhancing the flexibility of adaptation to climate change in Abu Dhabi – taking into account social, economic and cultural incentives – while achieving a balance between the needs of society and preserving the environment.

Thanks to a specialised team of climate action experts and elite negotiators, the Agency was able to play an effective role during its participation at COP27, highlighting the pioneering efforts led by Abu Dhabi in fighting climate change, in addition to sharing knowledge with organisations and experts from all over the world to achieve positive results during the conference. Our participation also enhanced our knowledge of international best practices in the implementation of climate mitigation actions, and helped us learn from other countries' experiences while sharing our own experiences in this field – all of which will enable us to achieve the forward-looking vision of our wise leadership, and ensure our country's readiness to host COP28 in 2023.

H.H. Hamdan bin Zayed Al Nahyan

Ruler's Representative in Al Dhafra Region
Chairman, Environment Agency – Abu Dhabi



Foreword from Our Vice-Chairman

The year 2022 was marked by several achievements that helped realise EAD's vision, as it was full of exemplary projects that laid the foundations for achieving even greater success. During the first quarter of the year, we launched the Environmental Centennial 2071 – a comprehensive, joint environmental vision for Abu Dhabi over the next 50 years. The vision reflects our commitment to becoming the pre-eminent environmental preservation organisation, and confirms our sustainability leadership, which has long been recognised around the world. The Environmental Centennial was inspired by the UAE Centennial 2071 initiative, which aspires to make the UAE the best country in the world by the 100th anniversary of the Union's founding. And we at EAD will work around the clock to ensure the realisation of this ambitious goal.

We have already begun to take decisive and tangible steps to implement projects in support of Environmental Centennial 2071, and we have a dedicated team to ensure that we are advancing the strategic goals set out in this vision. We are moving in the right direction, and are well on track to providing a safe and clean environment, and ensuring the sustainability of our resources for future generations.

H.E. Mohamed Al Bowardi

Vice-Chairman



Foreword from Our Managing Director

Every year, I feel proud when I look at what we have achieved at EAD. In 2022, we continued our efforts to make a noticeable difference in the state of the environment in Abu Dhabi, ensuring a sustainable environment for future generations.

We have taken great strides in several directions towards combating climate change – from planting mangroves with drones, to honouring industrial facilities that are actively reducing their emissions, thereby reducing the proportion of pollutants. We also look forward to strengthening our leading role in COP28, which will be hosted by the UAE in 2023.

We also look forward to having an influential voice in the international dialogue, which constantly seeks to find innovative, practical and realistic solutions that enable us to reduce the catastrophic effects of climate change. By building partnerships and promoting mutual cooperation, transparency and accountability, we will all be able to help address the impacts of climate change around the world. This goal represents one of our main priorities at EAD, and as an authority specialised in environmental affairs in Abu Dhabi, we will work towards building a sustainable future that responds to the aspirations of the present and meets the expectations of future generations.

H.E. Razan Khalifa Al Mubarak

EAD Managing Director



Message from Our Secretary General

The year 2022 was yet another year full of achievements and successes by EAD, as we launched and implemented several projects and programmes that reinforced Abu Dhabi's pioneering role in preserving the environment at the local, regional and global levels – in line with the UAE's ambitious vision for sustainable development, and building on its significant successes that continue to resonate around the world.

The leading role played by the UAE in the fields of innovation, environmental preservation and sustainability has undoubtedly been achieved thanks to the directives and support of our wise leadership, represented by His Highness Sheikh Mohamed bin Zayed Al Nahyan, President of the United Arab Emirates, who has a clear and enlightened vision that embodies the ambitions, hopes and aspirations of the Emirati people. The UAE has always been regarded around the world as a pioneering example in the achievement of sustainable development goals, especially in the field of environmental protection.

I would also like to express my gratitude to His Highness Sheikh Hamdan bin Zayed Al Nahyan, Ruler's Representative in Al Dhafra Region and Chairman of the Board of Directors of the EAD, whose enlightened guidance enabled the Agency to successfully implement its vision of providing "a healthy, well-protected and sustainable environment that enhances quality of life."

Among the most important projects of the last 12 months was the implementation of our Single-Use Plastic Policy, which included a ban on the use of single-use plastic bags in Abu Dhabi. The initiative was held in cooperation with major retail outlets who welcomed this approach and provided the support necessary to achieve its goals. Through this project, we managed to reduce the daily consumption of plastic bags by more than half a million. In line with the vision of the UAE government, we are on our way to implementing a complete ban of all single-use plastic bags across the country by 2024.

I am pleased to present to you the annual report 2022, which highlights our achievements over the past year, and we look forward to benefiting from what we have achieved, and to continuing our work and embarking on further paths of progress and prosperity in protecting the environment and our natural resources, helping to ensure a sustainable future for future generations.

H.E. Dr Shaikha Salem Al Dhaheri
Secretary General



01

Terrestrial Biodiversity

In 2022, we continued our efforts to protect the emirate's key species and habitats. This was achieved through wide-reaching monitoring and conservation programmes, and effective policy-making.



Management of Terrestrial Reserves, Infrastructure and Maintenance

Counting Reintroduced Arabian oryx Numbers

We supported the General Secretariat for the Conservation of the Arabian oryx (GSCAO) in conducting a regional survey of oryx reintroduction programmes, assessing management practises and impacts on the animals' natural behaviour.



7

Reintroduction
programmes
targeted



4

Countries observed:
UAE, Saudi Arabia,
Oman and Jordan



2 632

Total number of
oryx covered



Results:

The UAE had the largest number of reintroduced Arabian oryx and wild offspring, with a total of 1595 individuals (61% of the total number surveyed)

- 1056 individuals in the Emirate of Abu Dhabi (66 % of the UAE population)
- 539 in the Emirate of Dubai (34 % of the UAE population)



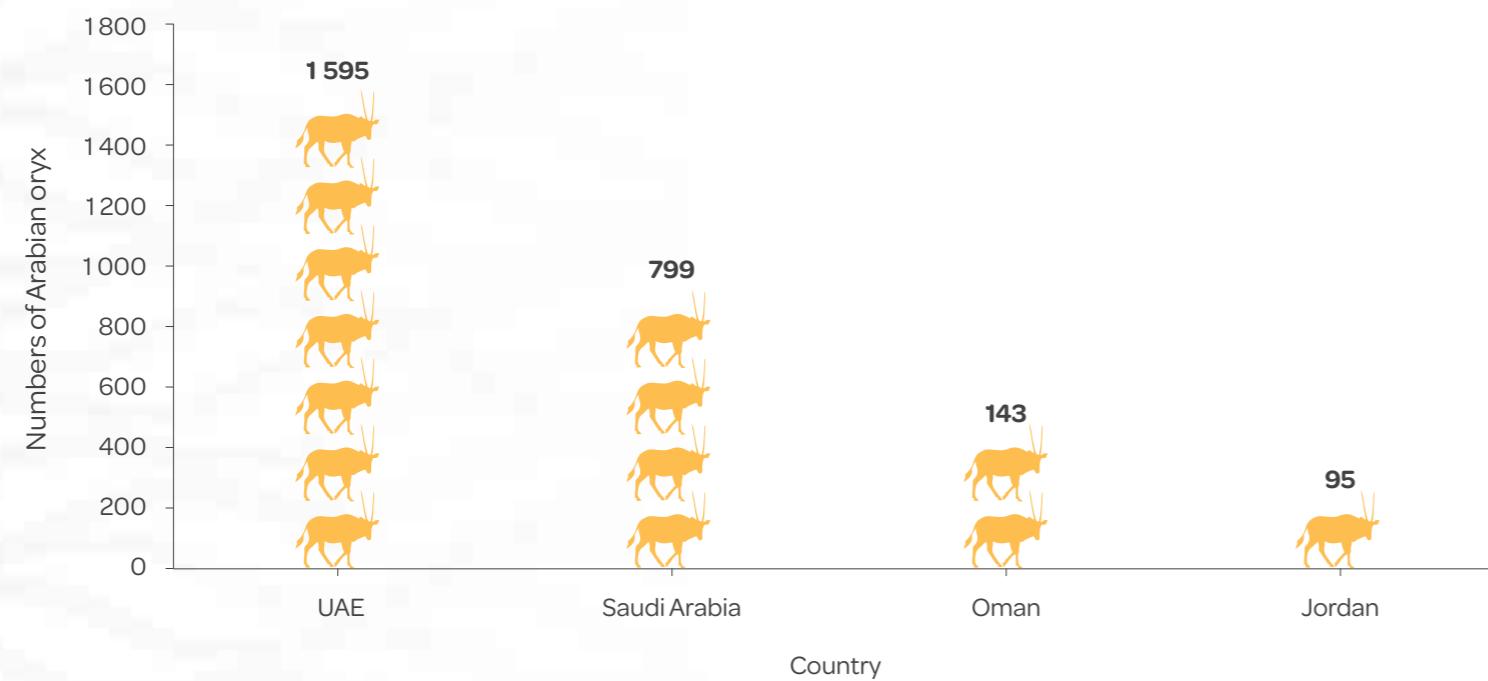


GSCAO with support from EAD and other regional partners has developed a strategic work plan for 2022–2026



Aim:

To identify the priorities for Arabian oryx management, explore expectations and collaborative opportunities, and promote conservation of the species. GSCAO also developed a first-of-its-kind interactive digital animation on the oryx to educate the public



Number of reintroduced Arabian oryx in the four countries surveyed



Terrestrial Biodiversity Policies and Regulations

Working with communities to manage sustainable grazing



As part of the Abu Dhabi Sustainable Rangeland Management Strategic Initiative, we continued to help develop the regulation of organised grazing in the emirate



We partnered with local entities, such as the Department of Municipalities (DMT) and Transport and the Abu Dhabi Agriculture and Food Safety Authority (ADAFSA) to discuss the implementation of the grazing law



EAD team members and attendees during a majlis session



We interviewed senior citizens to document their traditional knowledge and perspectives on grazing practises, and explore their recommendations to promote sustainable livestock grazing



We held a rangeland and restoration workshop where our staff and other environmental experts were trained in the key principles of rangeland restoration programmes and learned how to assess vegetation in the field using the latest technology



Sustainable grazing was a key environmental theme presented during the five majlis sessions in 2022, attended by citizens from across the Emirate of Abu Dhabi



In collaboration with the General Women's Union and the National Archives Department, we interviewed senior citizens to capture traditional knowledge and grazing practises in past and present

Development of Abu Dhabi Biodiversity Protection Policy

In June 2022, we held a stakeholder workshop to review the proposed Abu Dhabi Biodiversity Protection Policy, which sets out the key principles and targets for local species and habitat conservation actions and identifies the potential roles of partner entities in implementing the policy.

 **36**
Attendees

 **16**
Entities from Abu Dhabi Emirate represented

 **Recommendations:**
Develop further activities to promote environmental awareness among the public and encourage youth participation in biodiversity conservation through the development of tailor-made training programmes for schools and universities

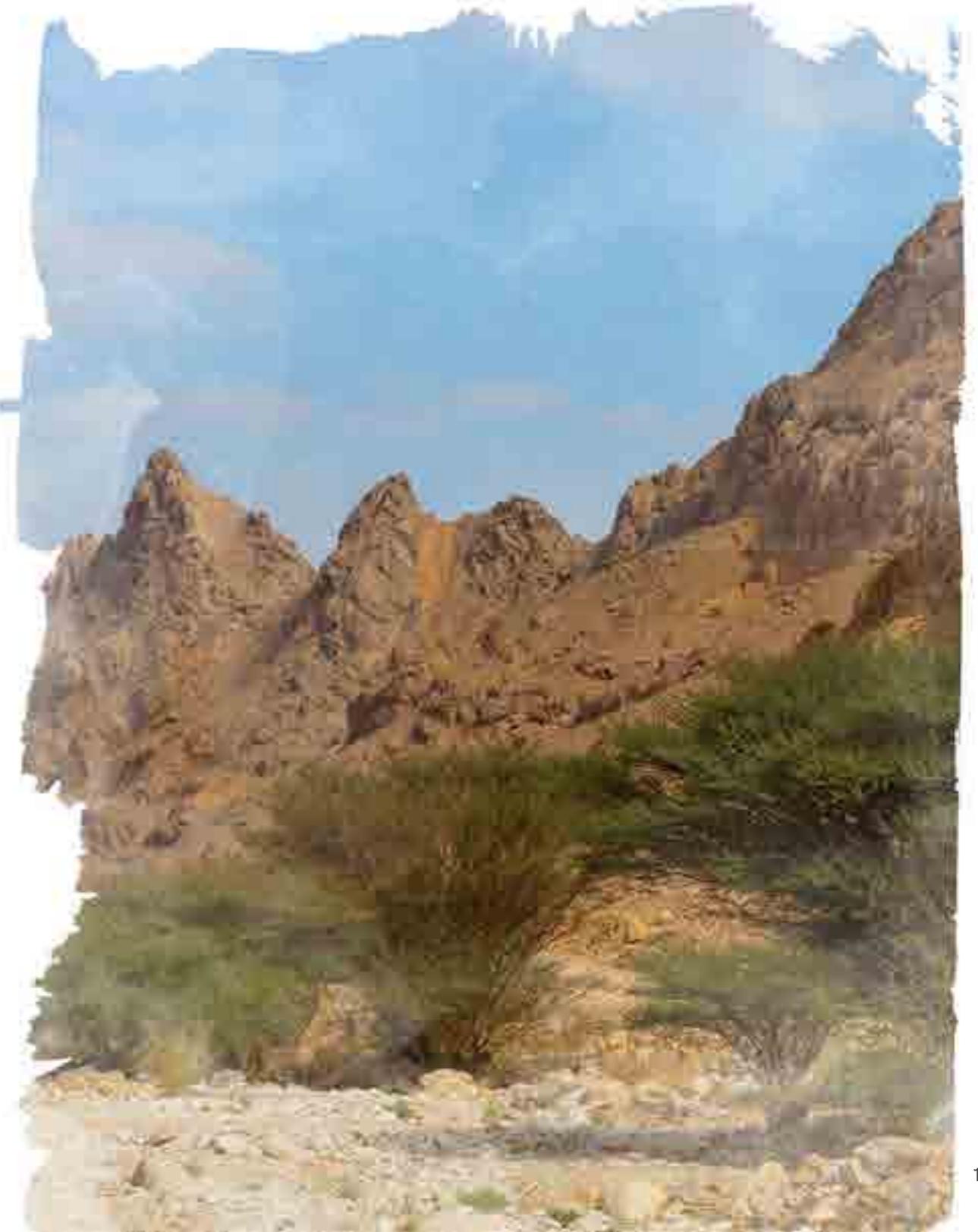
Monitoring the Terrestrial Biodiversity in Abu Dhabi Emirate

Digitising Our Plant and Invertebrate Collections

Our extensive plant and invertebrate collection has now been logged in two separate databases – the Herbarium Management System (HMS) and the Invertebrate Information Management System (IIMS). These will soon be available online to scientists and researchers across the globe.

 **1250**
Records in the HMS database, with 1000 images

 **700**
Species recorded in the HMS database





EAD scientist uploading information to the database



Herbarium records include species info, scale, and a barcode



Urban Biodiversity Survey

Our Urban Biodiversity Survey documents native and exotic species within urban habitats in the Emirate of Abu Dhabi.



126

Species of invertebrates, reptiles, birds, mammals and plants recorded in Madinat Zayed city

Examples of native species recorded:

- Sooty cheek grasshopper (*Morphacris fasciata*)
- Honeybee (*Apis florea*)
- Flower wasp (*Campsomeriella thoracica*)
- Imperial spider (*Thyene imperialis*)
- House Sparrow (*Passer domesticus*)
- Yellow-bellied house gecko (*Hemidactylus flaviviridis*)

Examples of non-native species recorded:

- Diamond flower (*Oldenlandia corymbosa*)
- Madras leaf flower (*Phyllanthus maderaspatensis*)
- Hairy spurge plant (*Euphorbia hirta*)
- Common Myna (*Acridotheres tristis*)
- Rose-ringed Parakeet (*Psittacula krameri*)
- Alexandrine Parakeet (*Psittacula eupatria*)
- Darkling beetle (*Alphitobius laevigatus*)
- Two ant species (*Cardiocondyla emeryi* and *Monomorium nileticum*)
- Feral cat (*Felis catus*)

Urban biodiversity Survey will be conducted in other area of Abu Dhabi Emirates.

The urban parks were dominated by Bermuda grass (*Cynodon dactylon*), occupying between 75 % and 95 % of the areas, including trees, both native and non-native species



The Sooty cheek grasshopper was found in large numbers



The Rose-ringed Parakeet has been recorded in Abu Dhabi Emirate

Fossil Dunes Protected Area Biodiversity Survey

 **75**
Species of terrestrial fauna and flora recorded

 **39**
Species of invertebrates

 **7**
Species of reptiles

 **14**
Species of birds

 **4**
Species of mammals

 **11**
Species of plants



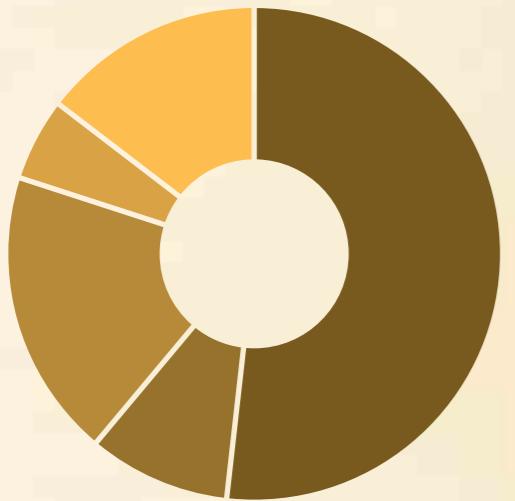


Findings:

- First record for Abu Dhabi Emirate of the Hypena moth (*Ophiuchelividalis*), and second record for the UAE
- Large numbers of Gulf sand geckos living in sabkha habitats
- Breeding birds recorded included the Kentish Plover, Black-winged Stilt and Red-wattled Lapwing



The Hypena moth was discovered in Abu Dhabi Emirate



Distribution of species in Fossil Dunes Protected Area



The Gulf sand gecko was recorded in large numbers

A Kentish Plover nest and eggs



New Bee and Wasp Discoveries

Four invertebrates classed as 'new to science' were discovered in our protected areas.



2

Species of micro bee flies
(*Leylaiya citrina* and *Leylaiya medioccipitalis*)



Micro bee flies (*Leylaiya citrina*) were among the new species discovered



2

Species of parasitic wasp
(*Epoligosita arabica* and *Ufens curvipenis*)



This parasitic wasp (*Ufens curvipenis*) was found in Al Wathba Wetland Reserve



In addition, 9 species, comprising of small parasitic wasps, micro bee flies, moths and an aquatic snail, were recorded as new range extension for the UAE





Assessment and Monitoring of Breeding Birds



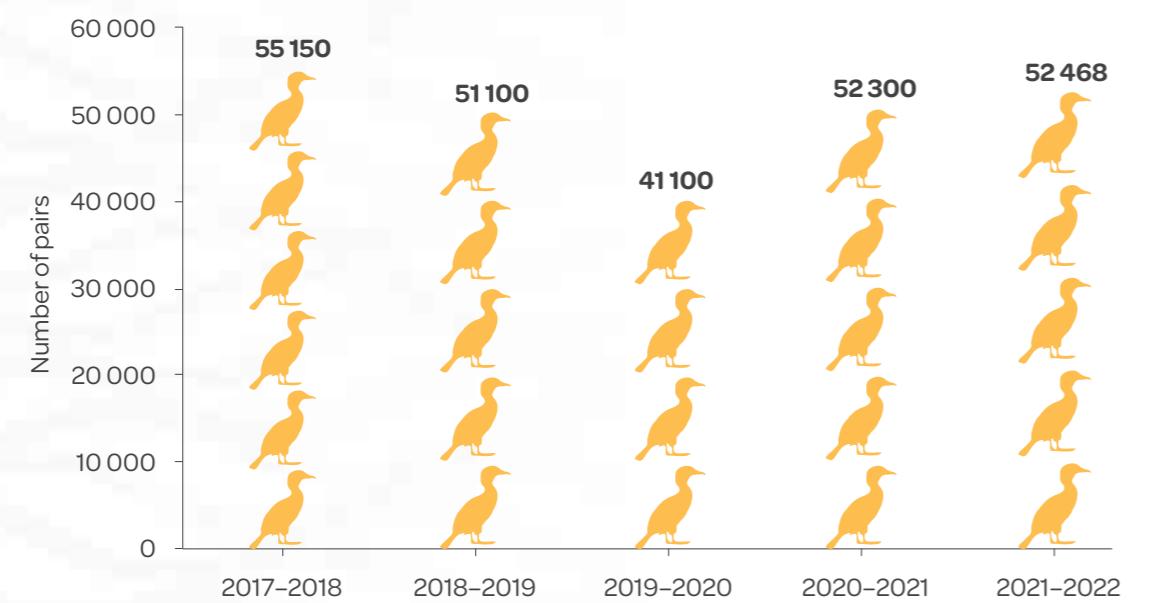
Socotra Cormorant

(*Phalacrocorax nigrogularis*),
Winter breeding season
2021–2022



52 000 +

Breeding pairs from
6 colonies across the emirate



Number of Socotra Cormorant breeding in Abu Dhabi



A Socotra Cormorant colony in Abu Dhabi Emirate



Crab-plovers

(*Dromas ardeola*) continued to breed at two colonies: Abu Al Abyad and Umm Amim.



1640

Active nests recorded,
Highest number since
2003



Terns

Greater Crested Tern (*Thalasseus bergii*) breeds only on Jarnein Island

1150 breeding pairs recorded



White-cheeked Tern (*Sterna repressa*)

4 500+ breeding pairs recorded at 18 sites

New location discovered within Abu Al Abyad island



100

Nests, 13 active



A Crab-plover at the breeding colony



Lesser Crested Tern (*Thalasseus bengalensis*)

31 212 pairs recorded at 5 sites



Bridled Tern (*Onychoprion anaethetus*)

11 803 pairs at 16 sites



Greater Flamingo

In our Al Wathba Wetland Reserve, the Greater flamingo (*Phoenicopterus roseus*) continued to breed successfully

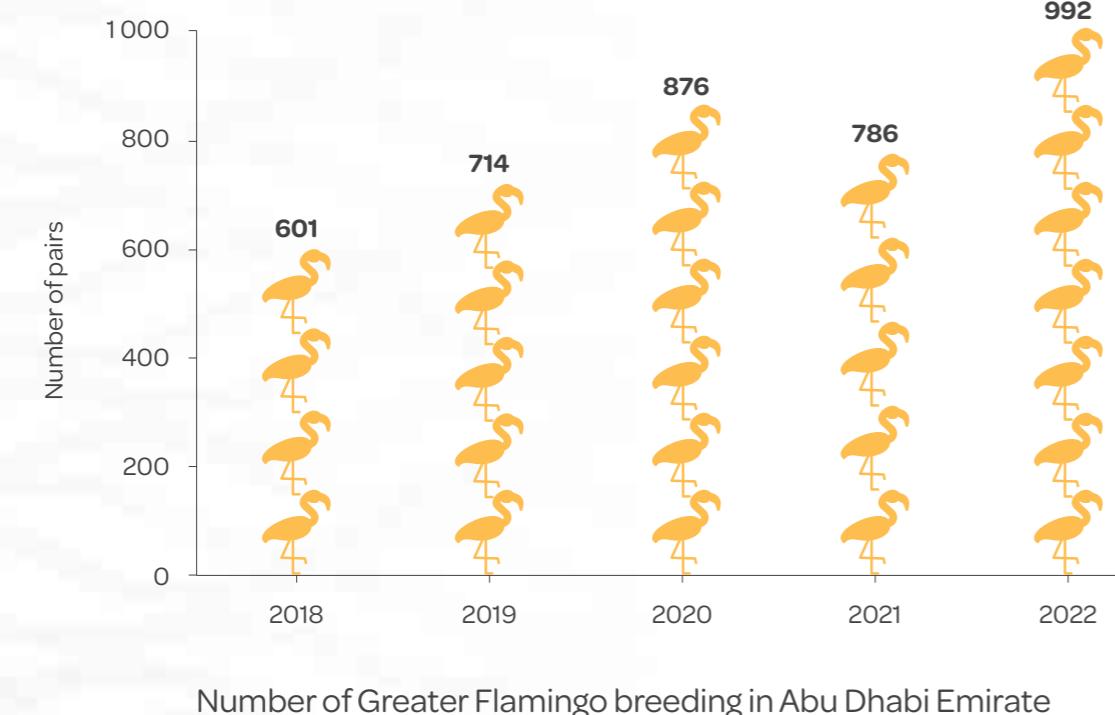


Interestingly breeding continued without interruption through the winter and summer seasons



992

Chicks fledged in 2022 - the highest number since 2011



Abu Dhabi Red List Ecosystems

In 2022, we completed an assessment of Abu Dhabi's ecosystems to produce the Abu Dhabi Red List of Ecosystems (AD RLE), a global standard for assessing environmental risk. The report is the first of its kind in the region, and the first in the world to cover both desert and man-made ecosystems. It shows not only the state of our biodiversity, but also the impact of development projects in Abu Dhabi Emirate.



17

Ecosystems assessed
• 10 terrestrial
• 7 marine



75 %
of ecosystems classified as threatened



100 %
Un-collapsed ecosystems



Conservation and Rehabilitation of Local Flora and Natural Habitats

Management of the EAD Native Plant Nursery

Our Native Plant Nursery, continues to propagate native plant species for restoration across Abu Dhabi Emirate.



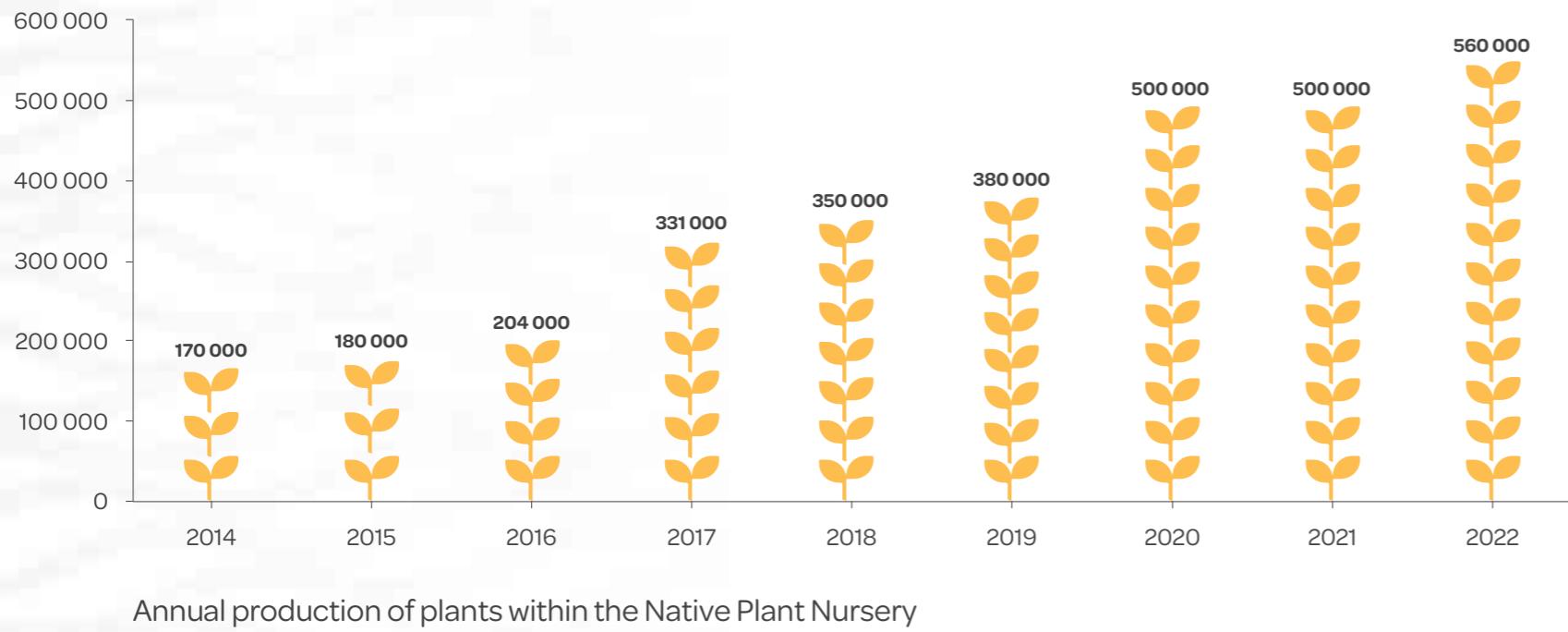
560 000

Plants produced in 2022

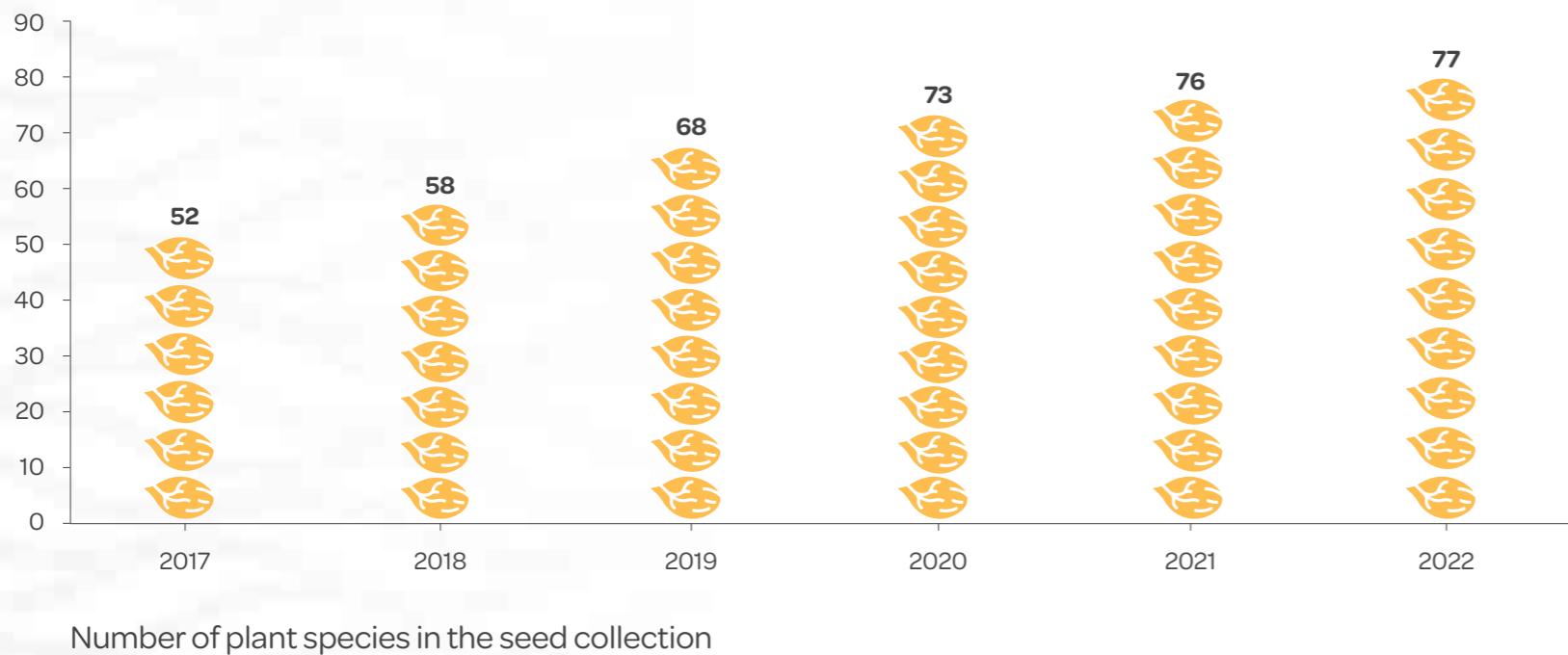


77

Species had seeds collected



Annual production of plants within the Native Plant Nursery



Number of plant species in the seed collection



Habitat Restoration

We undertook several rehabilitation initiatives in 2022 for important habitats in different parts of the emirate.



2 million +

Seeds dispersed



17

Native plant species



Sowing seeds within Jabal Hafit National Park



3

Protected areas (PA)

- Al Houbara PA
- Arabian Oryx PA
- Jabal Hafit National Park



Experimental seeding trials by drones

500

Ghaf seed balls, coated in clay and other organic materials, dispersed



Seeding of native flora by drones using seed balls

Establishing the “Oasis of 50”

To mark the UAE's 50th National Day, we inaugurated the “Oasis of 50” at Al Wathba Wetland Reserve alongside the children of H.H. Sheikh Hamdan bin Zayed Al Nahyan, the Ruler's Representative in Al Dhafra Region and EAD Chairman.



3

Ghaf trees tagged



50

Local plant species planted

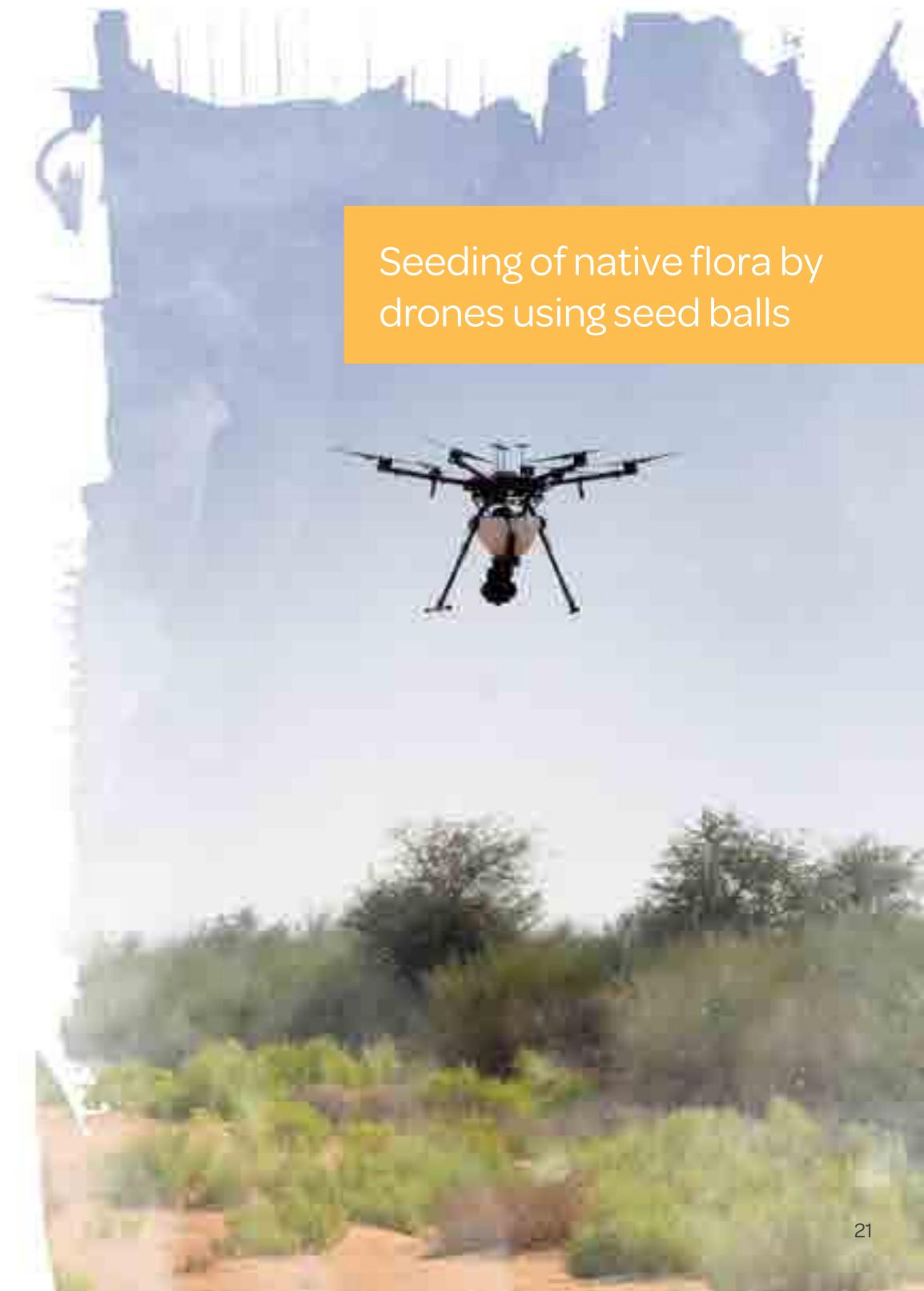


The “Oasis of 50” at Al Wathba Wetland Reserve



50 000 m²

Total area used



Successful Breeding of Newly-Discovered Harmal Plant

In 2021, we discovered a single Harmal (*Peganum harmala*) plant in Al Ain. This year we successfully propagated and produced 40 plants in our native plant nursery. As the population of this tree is very limited in the wild, the specimens will be used for further propagation to ensure the availability of seeds for future conservation and use.

First Tagging of Ghaf Trees in Abu Dhabi Emirate

After mapping a digital database of 54 000 Ghaf trees (*Prosopis cineraria*) in the Emirate of Abu Dhabi, EAD began tagging select representative samples at various sites for monitoring and conservation purposes.



54 000 +

Ghaf trees catalogued



2 000

Natural Ghaf trees successfully tagged



Ghaf tree tagging in Abu Dhabi



A single Harmal plant discovered in Al Ain

Rehabilitation of Endangered Animal Species through Local and International Reintroduction Initiatives

Expanding the Reintroduction Programme in the Republic of Chad

Our Scimitar-horned Oryx (*Oryx dammah*) and Addax (*Addax nasomaculatus*) reintroduction programmes witnessed a significant expansion in 2022, it now includes Dama gazelles (*Nanger dama*).

Scimitar-horned Oryx Numbers in Chad (2022)

 Achieved our goal of **500** individuals in the wild

 **81** New calves born in the wild

 **20** Oryx translocated from Abu Dhabi Emirate to Chad

Addax Numbers in Chad (2022)

 **133** Addax in the wild

 **26** New calves born

 **25** Addax translocated from Abu Dhabi Emirate to Chad



A herd of Scimitar-horned Oryx in the wild in Chad

Dama Gazelle Numbers in Chad (2022)



20

Dama gazelles in pre-release enclosure

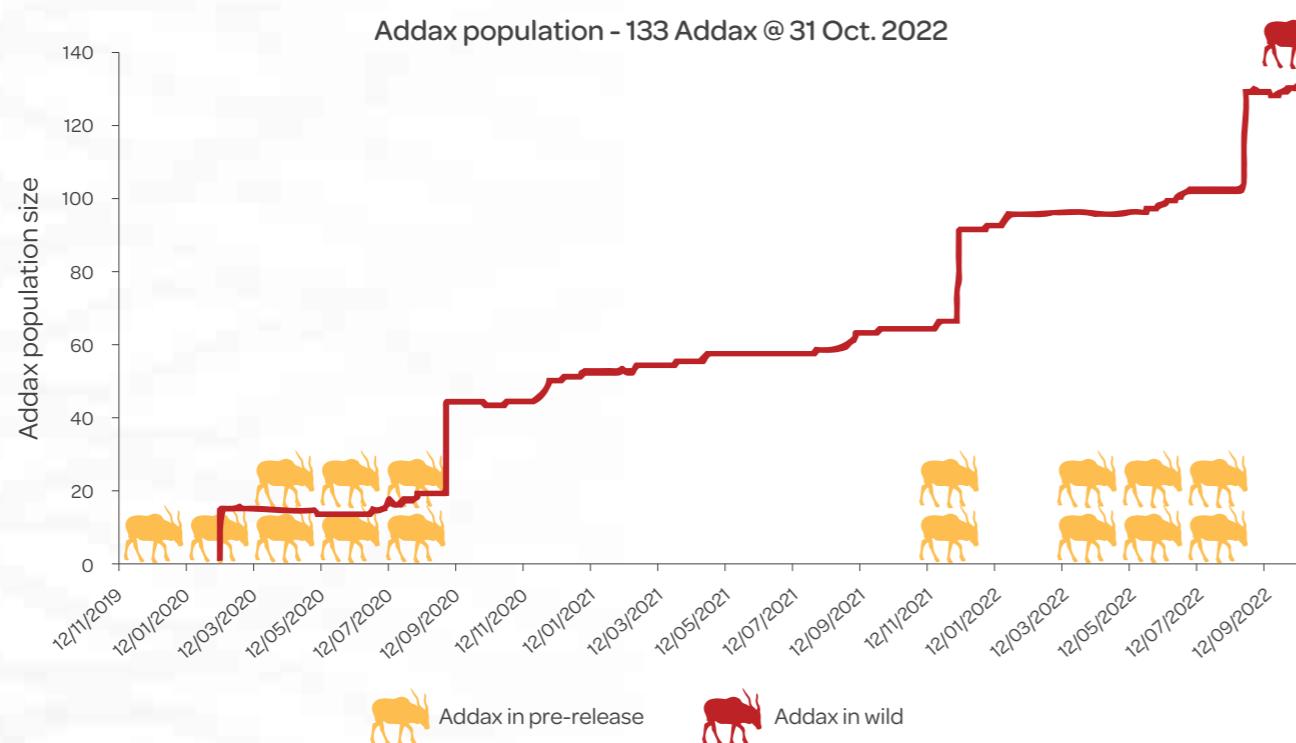


5

Dama gazelle translocated from Abu Dhabi Emirate to Chad



Dama gazelles in the pre-release enclosure



Addax population growth in the wild since the first release in 2019



Reintroducing Arabian Oryx to Shaumari Wildlife Reserve, Jordan

In 2022, we translocated 20 Arabian Oryx from Abu Dhabi to their adaptation pens in Shaumari Wildlife Reserve in Jordan, monitoring operations will continue after the release to ensure the health of the herd.



Arabian Oryx at the Shaumari Wildlife Reserve in Jordan

Creating a genetically diverse herd of endangered species for conservation translocation

During 2022, we received 37 Addax from the Crown Prince Court's Morocco breeding facility. They are currently at the Deleika Wildlife Conservation Centre, and being prepared for reintroduction into Chad



Management of Terrestrial Reserves, Infrastructure and Maintenance

Al Wathba Wetland Reserve



The reserve received a "Platinum" certificate for Leadership in Energy and Environmental Design (LEED) in the Operation and Maintenance category



11 000 +
Visitors in 2022

Al Wathba Fossil Dunes Protected Area

Under the patronage of our chairman, H.H. Sheikh Hamdan bin Zayed Al Nahyan, the Al Wathba Fossil Dunes Protected Area was officially opened in February 2022. This ensures the conservation of a unique geological formation, with an amazing visitor experience.



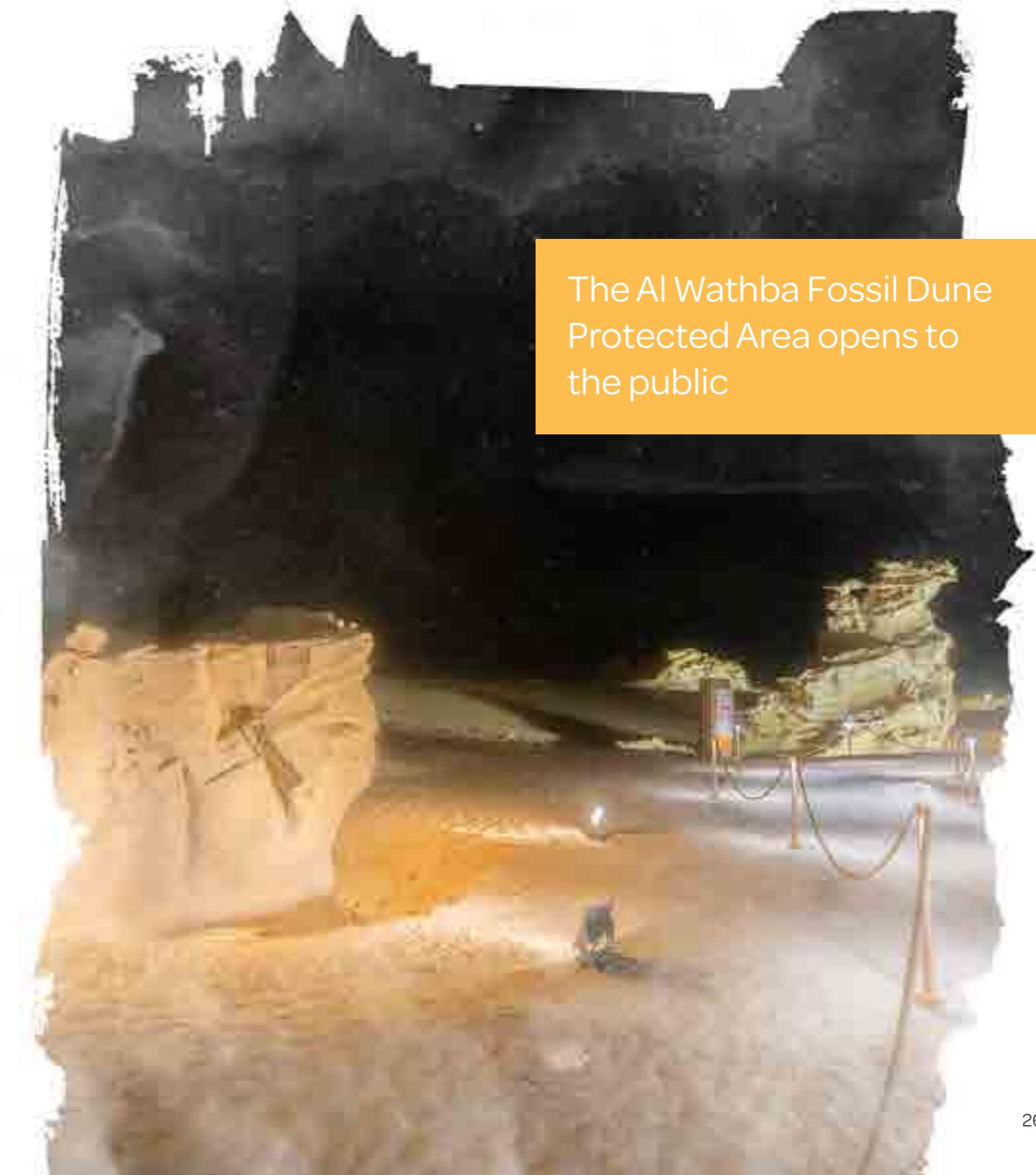
21 000
Visitors since opening



500 +
Visitors/day



1700
Highest number of visitors recorded in one day



The Al Wathba Fossil Dune Protected Area opens to the public

Zoning Plans Completed for Four Terrestrial Protected Areas

In 2022, we created zoning plans for four of our protected areas to regulate visitors and effectively conserve ecosystems.



Areas with new zoning plans:

- Arabian Oryx PA
- Al Houbara PA
- Al Ghada PA
- Qasr Al Sarab PA

Adopting the Management Effectiveness Tracking Tool (METT) System

This year we adopted the METT system, overseen by the Ministry of Climate Change and Environment (MOCCAE). The system, which is used by similar organisations around the world, helps track and monitor the progress of our work in protected areas.



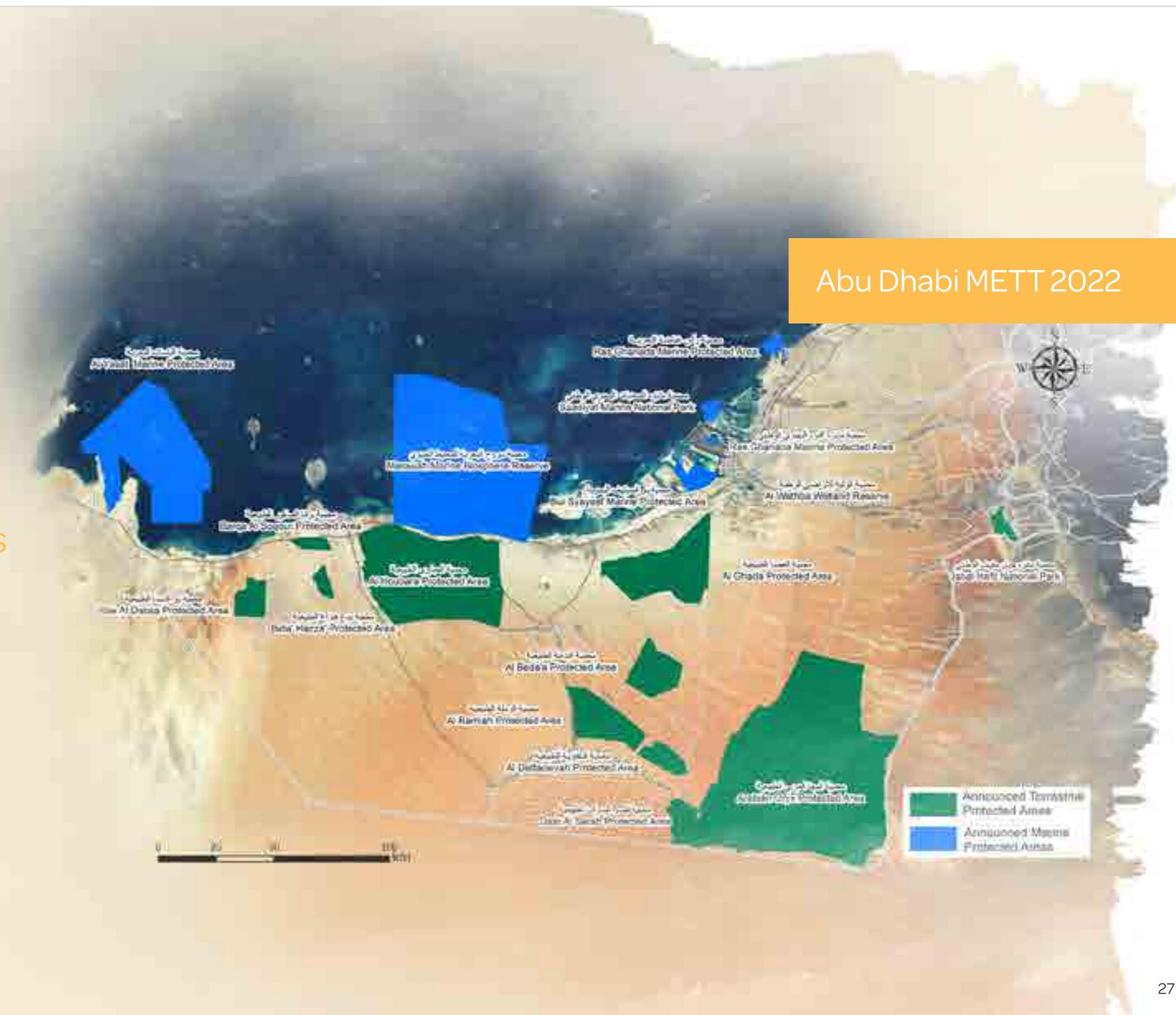
87.6 %

METT score achieved in 2022



20

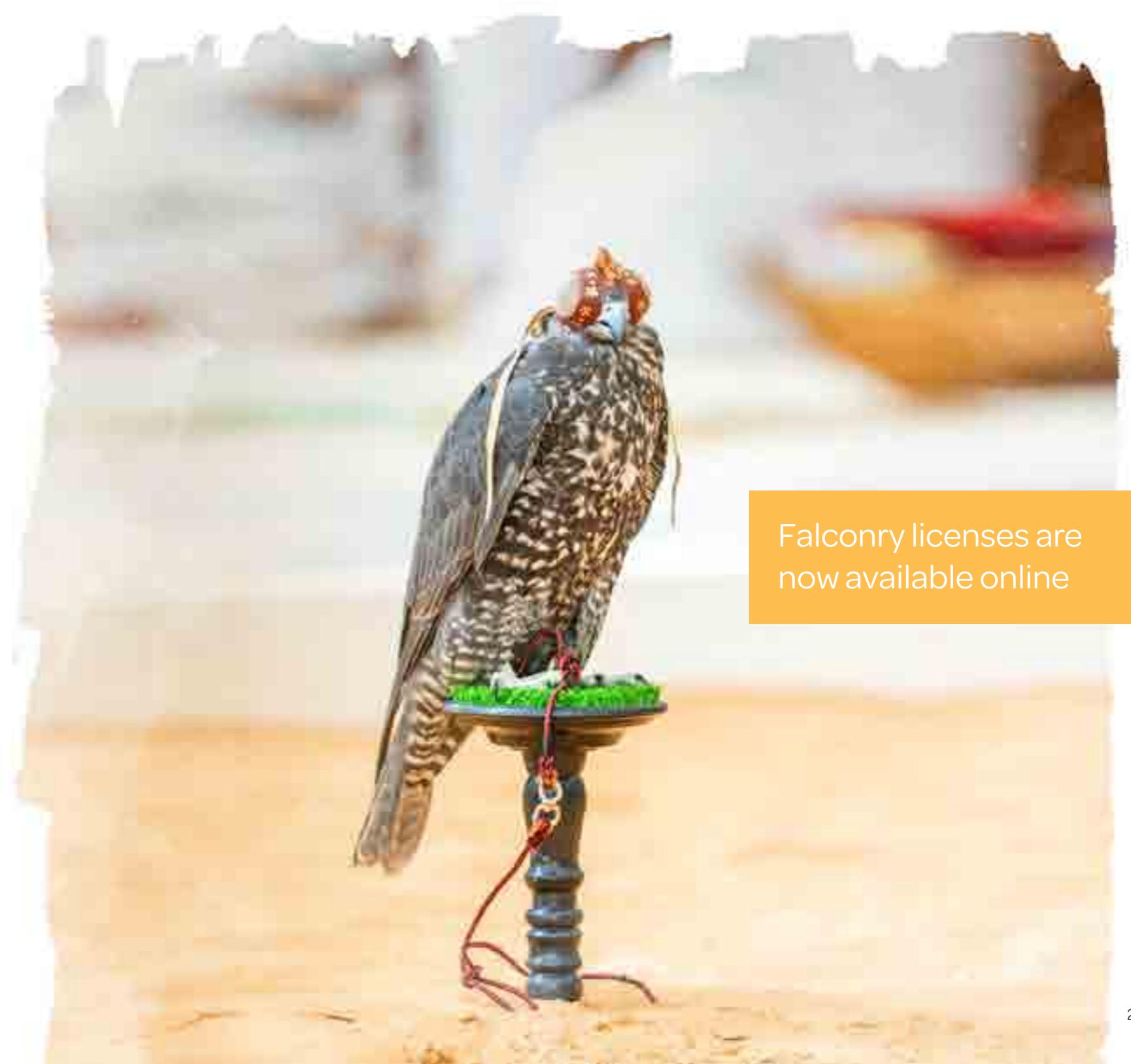
Terrestrial and marine protected areas evaluated



Activating the Online Service for Falconry Licenses

Licenses for falconry are now available online via the Abu Dhabi Unified Government Services System, Tamm.

This year, we activated the online service for issuing licenses for traditional hunting (falconry) through “Tamm”, which allows falconers to obtain a license immediately through digital channels and without the need to visit centres.



Falconry licenses are now available online

02

Marine Biodiversity

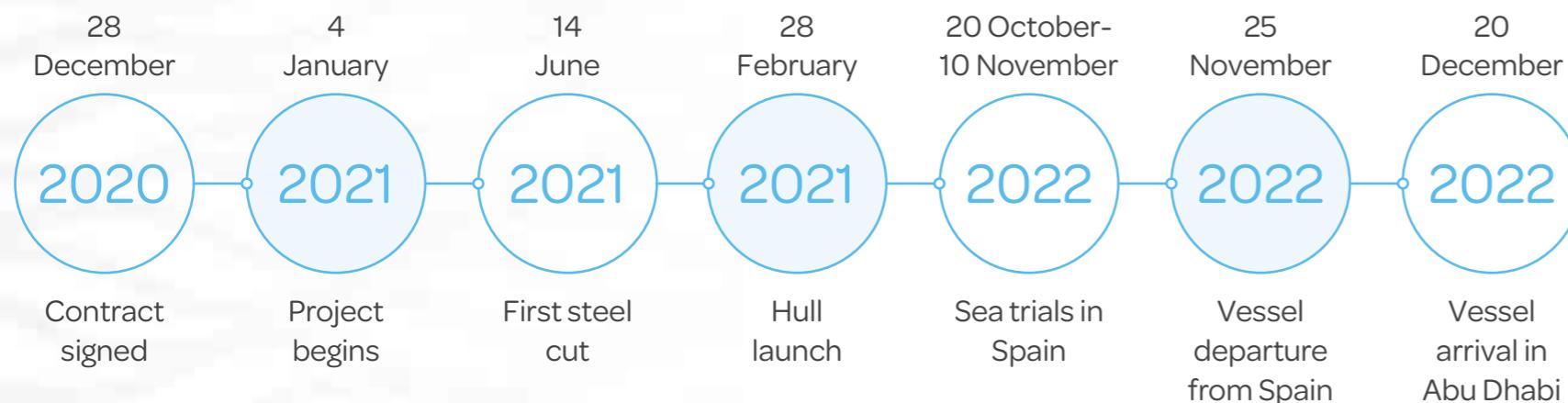
In 2022, we continued our crucial work to protect the marine environment of Abu Dhabi and tackle the challenges of climate change. Our efforts were recognised by UNEP: EAD's Marine Biodiversity Conservation Programme was ranked as one of the top 10 marine conservation and rehabilitation initiatives in the world.



New Marine and Fisheries Research Vessel

We completed construction of the Middle East's most advanced research vessel at the Freire shipyard in Vigo, Spain. Construction began in January 2021 and was completed in just 22 months. After a successful sea trial in the Bay of Biscay, the ship sailed from Spain to Abu Dhabi in 26 days, arriving in December 2022.

Construction Timeline



Key Dimensions

50
Metre vessel, 12 m wide and 23 m high above water (4.5 m below)

1253
GT, Lloyds Register 100 A1 Research Vessel

2
MTU 1800 kW engines





6

Laboratories
on board



13

Knots top
speed



30

Crew and
scientists

Available Technology



- Remotely occupied vehicle
- Towed video
- Underwater drones
- Trawling and trapping
- Seabed mapping and acoustics
- DNA analysis
- Scuba-diving facilities
- Fisheries laboratory; air quality laboratory; acoustics laboratory; chemical analysis laboratory; bio-physical laboratory; wet laboratory

Intended Use



- Oceanic fisheries blue carbon assessments
- Fisheries resources assessment surveys
- Climate change research
- Deepwater habitat mapping and surveys (coral and seagrass)
- Deepwater megafauna surveys: cetaceans; dugong; turtle; whale sharks
- Invasive marine species surveys
- Marine water quality surveys
- Air quality surveys
- Plastics assessments
- Underwater heritage surveys: shipwrecks and pearl-diving beds

Aims



- Continue research on fisheries and marine biodiversity
- Monitor and conserve fish stocks and marine biodiversity
- Inspire young Emirati marine scientists
- Pioneer oceanographic and fisheries research in the largely unstudied deeper waters of the UAE – 10 m and deeper
- Assess marine sites and habitats from an environment rehabilitation perspective
- Aid in devising fisheries management strategies



Leads Offshore Atmospheric Research Expedition

We have joined forces with the Cyprus Institute and the Max Planck Institute for Chemistry, Germany, on a major atmospheric research project, the Atmospheric Research Expedition to Abu Dhabi (AREAD). The EAD research vessel is equipped with advanced monitoring equipment supplied and operated by researchers from the Cyprus Institute's Climate and Atmosphere Research Centre (CARE -C), experts in the field of monitoring air pollution and climate change.

Aim



To monitor oceanographic air quality and climate change

The world's first expedition:
3 continents and 8 major bodies of water surveyed



Sailed off the coasts of 25 countries, starting in Spain and ending in the UAE

Started in the North Atlantic, crossed the Mediterranean, the Gulf of Suez, the Red Sea, the Gulf of Aden, the Arabian Sea and the Gulf of Oman and ended in the Arabian Gulf



Gained valuable new data that contributes significantly to our understanding of climate change and marine and air quality

- Total distance of 10 000 km
- 30 + high-level experts involved
- 22 + parameters monitored



◦ Invasive Marine Species Policy

During 2022, we developed a draft five-year policy to address the threat of invasive marine species in Abu Dhabi waters introduced through ballast water, hull fouling, aquaculture, the aquarium trade or through existing red tide forming dinoflagellates in sediments.

Aim



- To deepen our understanding of the threat posed to the Emirate of Abu Dhabi by invasive marine species and to protect and conserve the environment accordingly

◦ Sustainable Fisheries Policy

This year we drafted a five-year Sustainable Fisheries Policy, which is consistent with and implements the National Sustainable Fisheries Framework (2019–2030).

Aim



- To recover key demersal fish stocks to achieve the national target of sustainable fisheries levels by 2030. Other areas of focus include marine biodiversity, youth education and connecting traditional fishers with youth



Recreational Fishing Regulation

Following the introduction of the framework for the new UAE Recreational Fisheries Regulations in 2021, we have developed draft guidelines for Abu Dhabi in consultation with stakeholders. Daily limits are proposed for individuals and boats based on the scientific status of a fish stock. We have also collected data on recreational fishing, making Abu Dhabi Emirate the first in the UAE to do so.

Improving Maritime Governance

Consistent with the UAE's Maritime Framework and Implementation Plan, we developed a draft policy on the governance of the maritime domain in Abu Dhabi, partnering with Abu Dhabi Maritime and other stakeholders. It includes three levels of committees – Supreme, Executive and Technical – all working together to achieve a safe, secure, and sustainable maritime domain.

Marine Biodiversity Climate Change Adaptation Plan

The plan is a response to the impacts of climate change, which are already evident in locally adapted marine biodiversity in the world's hottest sea. The timeframe extends to 2040, which is defined by the Intergovernmental Panel on Climate Change (IPCC) as "near-term". Sensitivity to small changes in the environment is high, and a risk assessment helped identify 5 immediate risks that already exist, 6 moderate risks, 4 of which could occur by 2040. Projects addressing these risks are being prepared as part of this plan.

Aim



Strengthen Abu Dhabi's climate resilience by minimising risks and improving climate adaptation of marine habitats and species



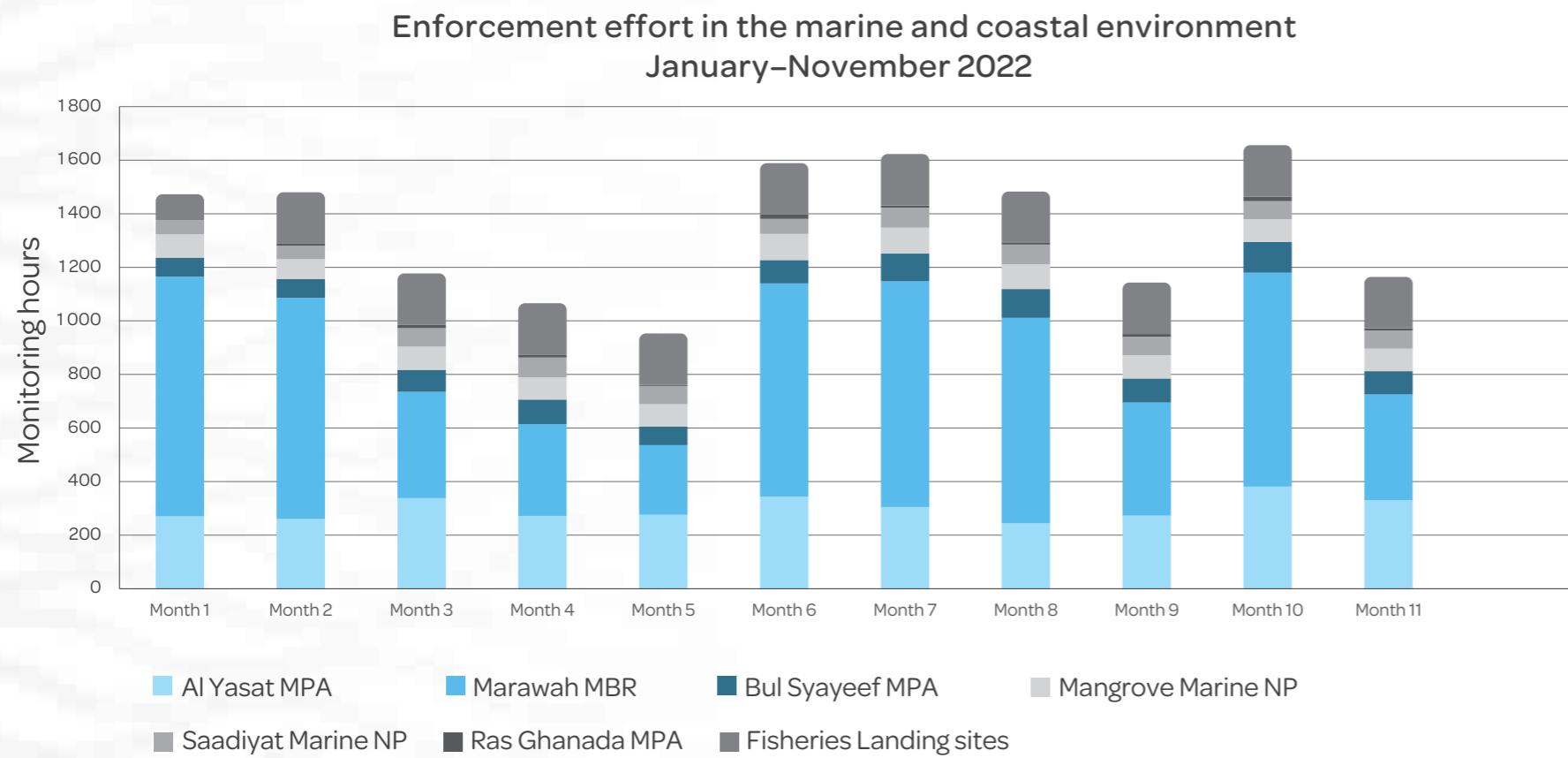
Monitoring Marine Protected Areas (MPAs)

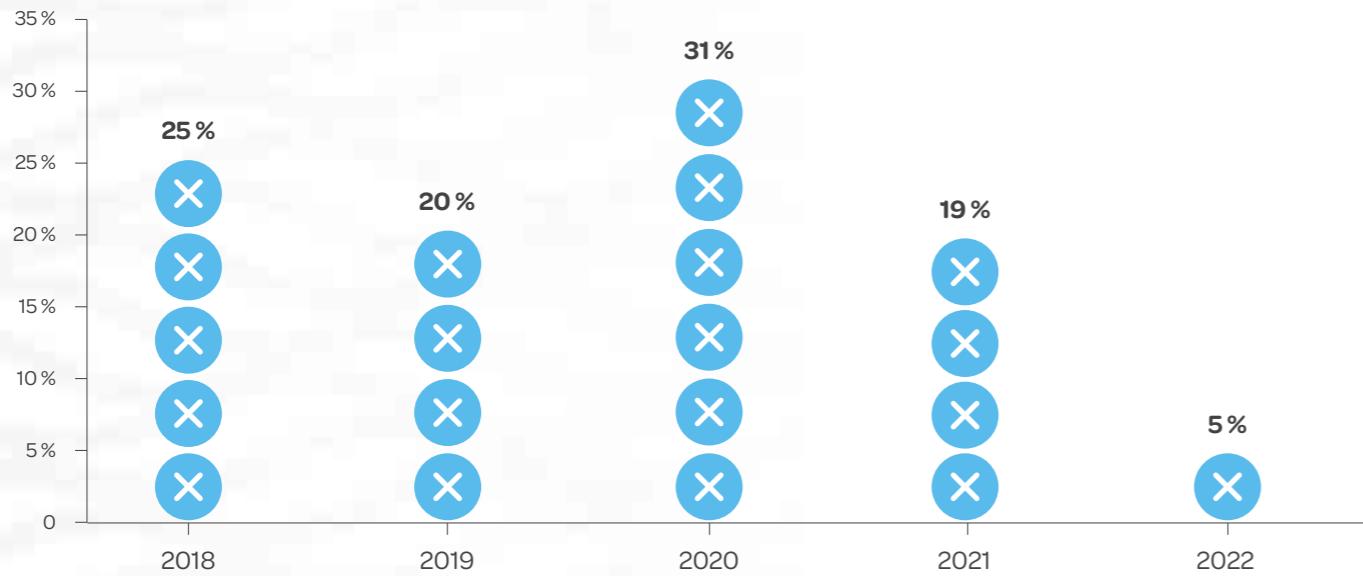
During 2022, we continued monitoring Abu Dhabi's MPAs, using daily patrolling by boat, car, and radar at the Bu Tinah and Al Fazia field stations.

 **14 807**
Monitoring hours

 **51**
Marine violations recorded

 **84.3 %**
Decline in number of violations since 2020





Comparison of the percentages of marine violations inside and outside marine protected areas 2018–2022

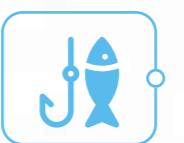
Human Activity in MPAs

A large number of tourists visit our MPAs, which indicates that our efforts to protect biodiversity in the emirate are successful.



71 768

Monitored
uses



57 %

of visitors
were tourists



7 %

of visitors were
commercial fishermen



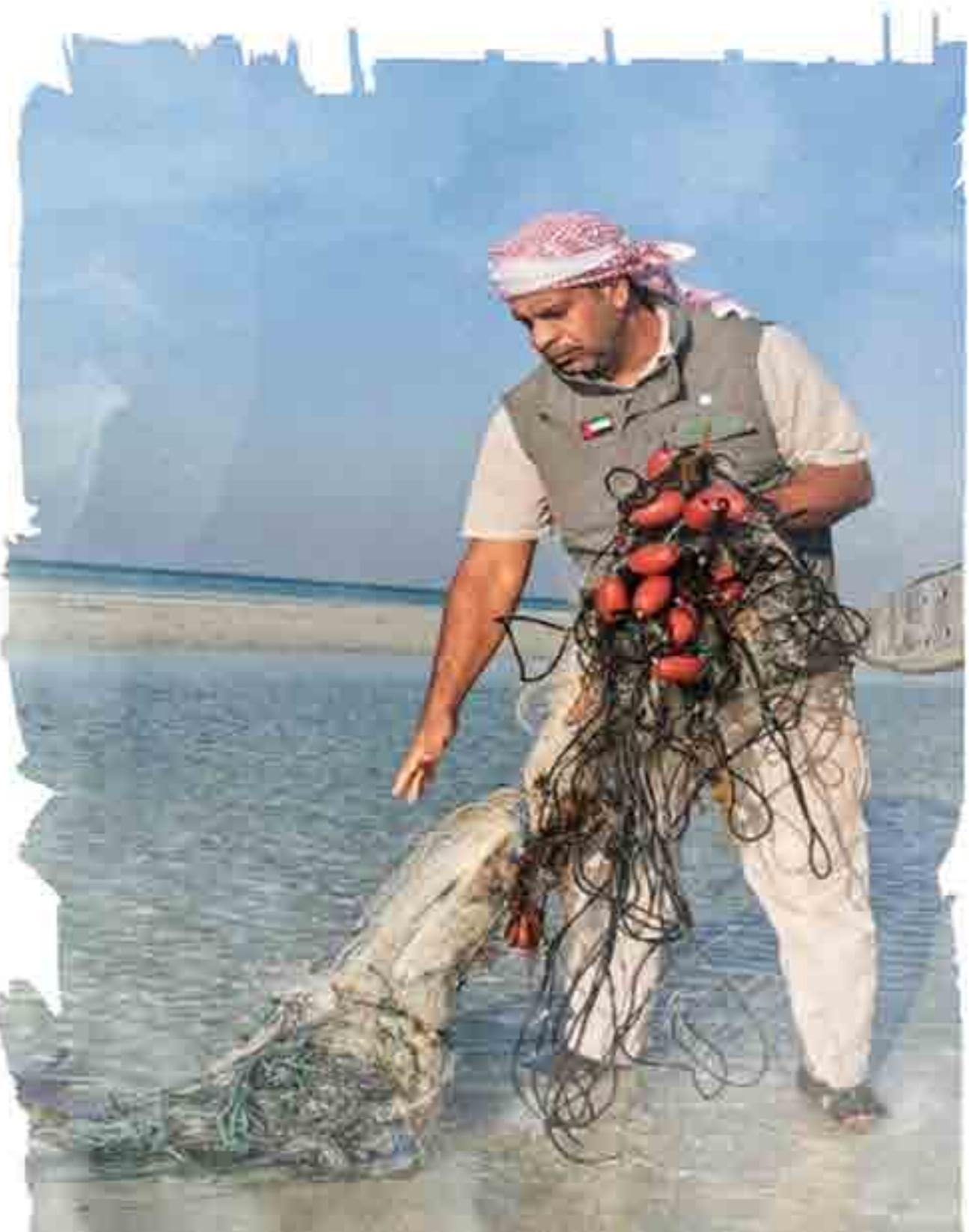
17 %

of visitors were
recreational fishermen



36.6 %

Increase in human activity
compared to 2020



Cleaning MPAs

In 2022, we successfully removed dangerous debris and obstacles from MPAs. Old and discarded fishing tools were removed, which can endanger organisms within the marine environment.



58

Marine sites
cleaned



87 000

Metres of net removed,
weighing 38 560 kg

Debris removed:

- Nylon fishing nets
- Hayal
- Multi-hooks
- Gargours (fishing traps)



482

Sites cleaned from
2020–2022

Jetty Redevelopment at Bu Tinah Island

In collaboration with ADNOC, we completed the redevelopment of the jetty on Bu Tinah Island, allowing boat access to the island at all times.

We also established a new management centre dedicated to overseeing the island's environmental initiatives.

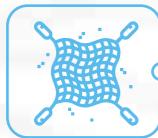


Bu Tinah Island Jetty



→ Fish Stocks in Abu Dhabi Emirate

2022 Achievements



Communicated the end of the enclosure trap fishing season on 1 October 2022 to strategic partners and stakeholders. This was also the deadline for removing metallic and material nets, cleaning the sites of waste



Our coastal and marine ecosystem rehabilitation programmes, which cover Abu Dhabi Emirate fisheries, were featured in the Top 10 World Restoration Flagships, as selected by the UN



Submitted a list of 16 permits needed for fishing rights in the buhoor (fishing method) in Abu Dhabi Emirate, with recommendations for approving 14 for a period of four years, with all procedures followed



We reported on the status of 130 Al Hadhra (enclosure trap) sites in Abu Dhabi Emirate, identifying those not renewed for two consecutive seasons



Continued to raise awareness among fishermen, fishmongers and the public about fishing season bans and restrictions on catching certain species and sizes through social media platforms, SMS and e-newsletters



Field Visits and Inspections

During 2022, we completed a number of inspections:



592

Field visits completed

- 358 in Abu Dhabi region
- 234 in Al Dhafra region



7

Violations reported

Fishing Licences



133

Commercial licences granted



3 091

Annual recreational licenses granted



229

Weekly recreational licenses granted



51

Marine violations reported

Fish Stock Assessment

Fish stock assessment studies were completed for **10** species of commercial importance in the waters of Abu Dhabi Emirate, with **240** samples collected per month for each.



Sea-Cage Aquaculture Projects

Delma Island

Three marine sites around Delma Island were chosen to establish a marine cage system for fish farming, the design and construction phase started in 2022



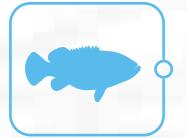
6

Cages



100

Tonnes of fish farmed per year



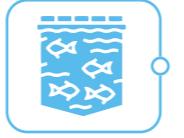
Species include:

- Hamour
- Shaari
- Qabit
- Safi

Al Sila'a

In line with the Abu Dhabi's sustainable aquaculture policy, EAD initiated a project to identify suitable sites for off-shore aquaculture development projects in Al Sila'a area within the Al Dhafrah region of the Emirate of Abu Dhabi. The following was completed in 2022:

- Data collection and collation
- Engagement with relevant stakeholders
- Determining environmental and technical criteria for site selection
- Identify suitable aquaculture sites within Al Sila'a waters



20

Sea cages



In 2023 aims to:

- Develop a hydrodynamic model to determine the carrying capacity for the selected site
- Select the most suitable site for aquaculture development
- Conduct habitat mapping for the selected site
- Develop a financial and operational feasibility study

Abu Dhabi Pearls Project

In 2022, a special classification system for cultured pearls was announced as part of the Abu Dhabi Pearls Project in collaboration with experts from Kyoto University. This system combines the international best practices for classifying pearl quality with the distinctive characteristics of the project's sustainably farmed oyster pearls.



Characteristics assessed:

- Lustre
- Surface clarity
- Shape
- Thickness



Grading system:

- AAA (very high)
- AA (high)
- A (medium)



Promoting Abu Dhabi Pearls Project

In 2022, the project was promoted in various means:



- Maritime Heritage Festival
- Historic Dalma Race Festival
- Organised field visits for Connect with Nature members, schools and universities
- Workshops for children of determination
- Collaborations with the UN's Food and Agriculture Organisation
- Promo material in six languages
- Social media campaigns

Rehabilitation Projects

Region's Largest Coral Rehabilitation Project

This year, under the directives of H.H. Sheikh Hamdan Bin Zayed Al Nahyan, Ruler's Representative in Al Dhafra Region and EAD chairman, we continued our project to increase the total reef coverage in the emirate's waters and reduce the negative impact of climate change on coral.



1 million

Reef colonies
to be cultured



128 000

Coral
fragments



Mangrove Rehabilitation Using Technology

In partnership with global energy company Engie, we continued with our Blue Carbon Environmental and Social Responsibility project, using drone planting technology to sow mangrove seeds.

In 2022

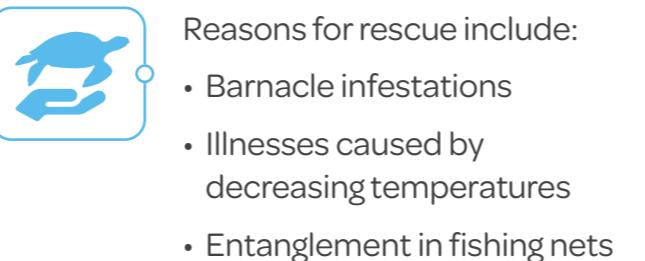
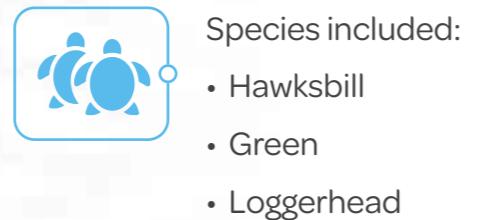


This project is contributing to the UAE's National Blue Carbon Project and several Nature Based Solutions (NbS) projects of the region.



Rehabilitation and Release of Sea Turtles

To mark World Sea Turtle Day in June 2022, together with our partners, the National Aquarium, we rescued turtles, rehabilitated them and released them back into the sea along the coast of Abu Dhabi Emirate.



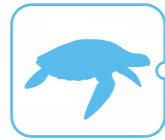
Sea Turtle Hatching Study Completed

We completed a three-year experimental study of hawksbill turtle hatching success on an offshore island, comparing success rates of relocated nests in the shade with natural nests. This experiment was part of the Sea Turtle Conservation Action Plan under the Indian Ocean-Southeast Asia (IOSEA) MoU signed by the UAE.



17 %

Higher success rate
for shaded nests



10 %

Heavier turtles, with longer curved
carapace, born in shaded nests



217

Turtle nests
recorded

The results show the impact of climatic conditions on the hatching success rate.



03

Groundwater

Groundwater in Abu Dhabi Emirate is non-renewable, and it is vital that we protect this natural resource. In 2022, we continued our efforts to monitor groundwater usage in the emirate and launched new initiatives to assess the long-term sustainability of Abu Dhabi Emirate's deep groundwater aquifers.



Groundwater Monitoring Programme

There are two monitoring networks for groundwater in Abu Dhabi Emirate:
one for levels, and the other for quality.

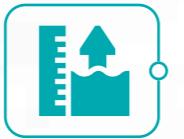
Groundwater Level Monitoring Network



441

Monitoring wells

- 97 automated, with real-time measuring and data delivery



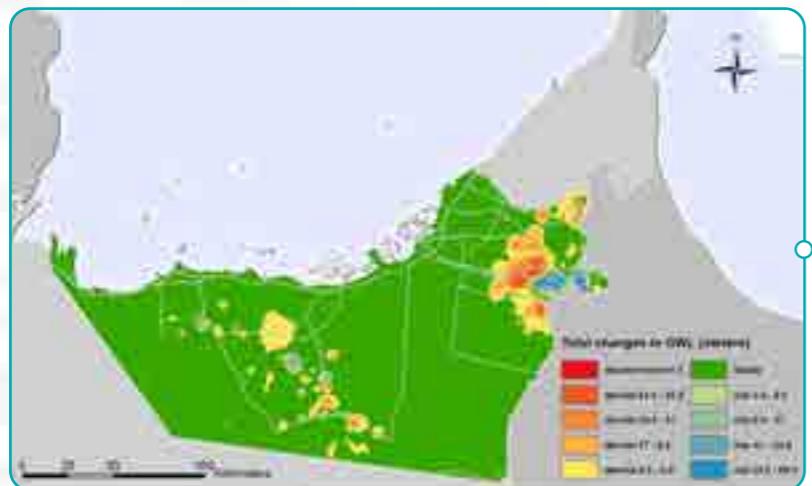
1100 +

Water level measurements collected and analysed



225

Additional measurements taken from non-monitoring wells



Declining, stable and recovering groundwater levels



The status of the groundwater saturated thickness



Monitoring Network Enhancements



Two new monitoring wells drilled to resolve a gap in Al Khatem. Four in total are planned. Maintenance and cleaning of the wells continues to be enhanced through new rehabilitation projects, along with maintenance workshops.

Groundwater Quality Monitoring Network

In 2022, a new trend assessment of groundwater quality was completed.



139

Samples collected from predefined wells



Aims

- Assess any changes in groundwater quality
- Look for possible contamination at the emirate level
- Conduct an intensive case study for any contamination

Results



No significant changes, compared to 2020 results



Stakeholder engagement at EAD's Al Ain office

Al Hiyar Groundwater Contamination Case Study

In the Al Hiyar area, we studied the extent of a confirmed contamination, and identified the source. An action plan was initiated, engaging all relevant stakeholders through a series of workshops, held at EAD's Al Ain office.



Groundwater Assessment and Development Programme

Hydrogeological mapping of the UAE



81%

of project completed



100 %

of hydrogeological maps and geodatabase for northern emirates completed

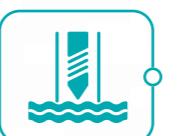
Comprehensive Assessment of Deep Groundwater Resources in Abu Dhabi Emirate

This integrated qualitative and quantitative assessment determines the sustainable development and resource utilisation of Abu Dhabi Emirate's deep groundwater aquifers.



100 %

of project completed



4

New exploration wells drilled



2

Major reports submitted
• Inception report
• Selection of deep drilling location report

2

in Al Ain region,
with depths of 254 m
and 350 m

2

in Al Dhafra region,
with depths of 705 m
and 975 m



Drilling a deep groundwater well



In 2022, we completed phase two of a project to produce a hydrogeological map of the UAE

Mussafah Channel Cleaning Project

The discharge of treated wastewater into the Mussafah South Channel has resulted in sediment, accumulated over many years. We provided consultancy on this project in 2022:



Over
3 000 000 m³
of sediment that needs removing

We reviewed the available data, assessed the change in the channel morphology, developed a monitoring plan, and recommended the budget, guidelines and contractors required



Conducting a bathymetry survey in the Musaffah Channel

Plugging an Artesian Well in the Baynunah Protected Area

In 2022, we permanently plugged an artesian (free-flowing) abandoned well in the Baynunah Protected Area.

Achievements



- The old well was sealed off by filling it with gravity cement
- This reduced the hydrostatic pressure at the base of the well
- The outflow stopped completely, and saline lakes nearby dried up

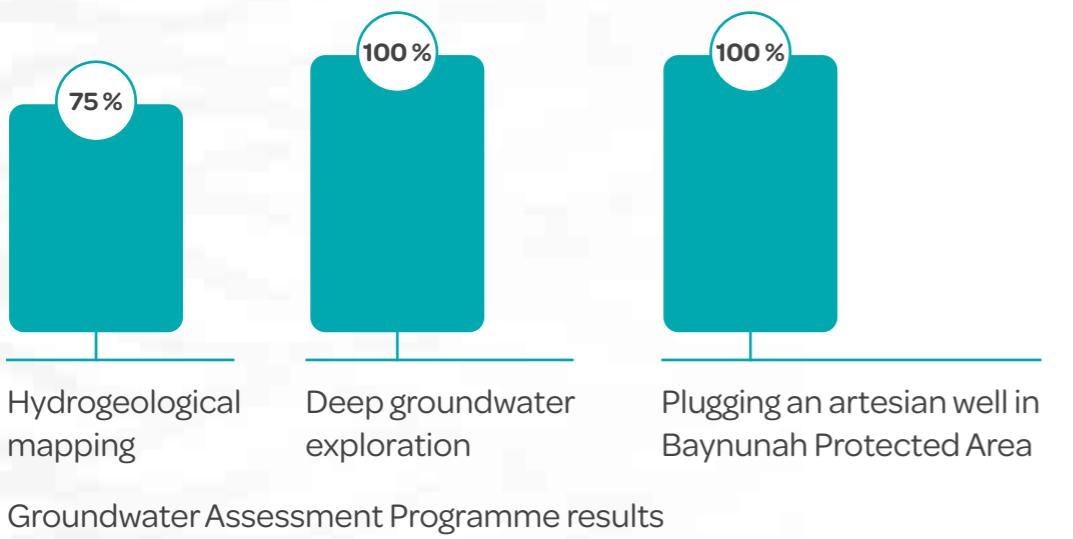


How the well looked before it was plugged



Once plugged, the leakages of saline groundwater ceased



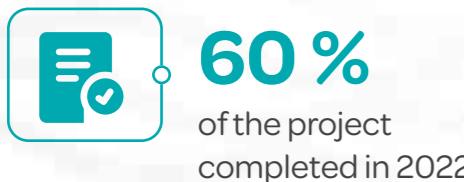


Groundwater Research and Development Programme

In 2022, we continued to work with our partners on our integrated management plan for water resources in the emirate. This aims to achieve sustainability, economic stability and investments through a number of projects:

Salt Leachate Project

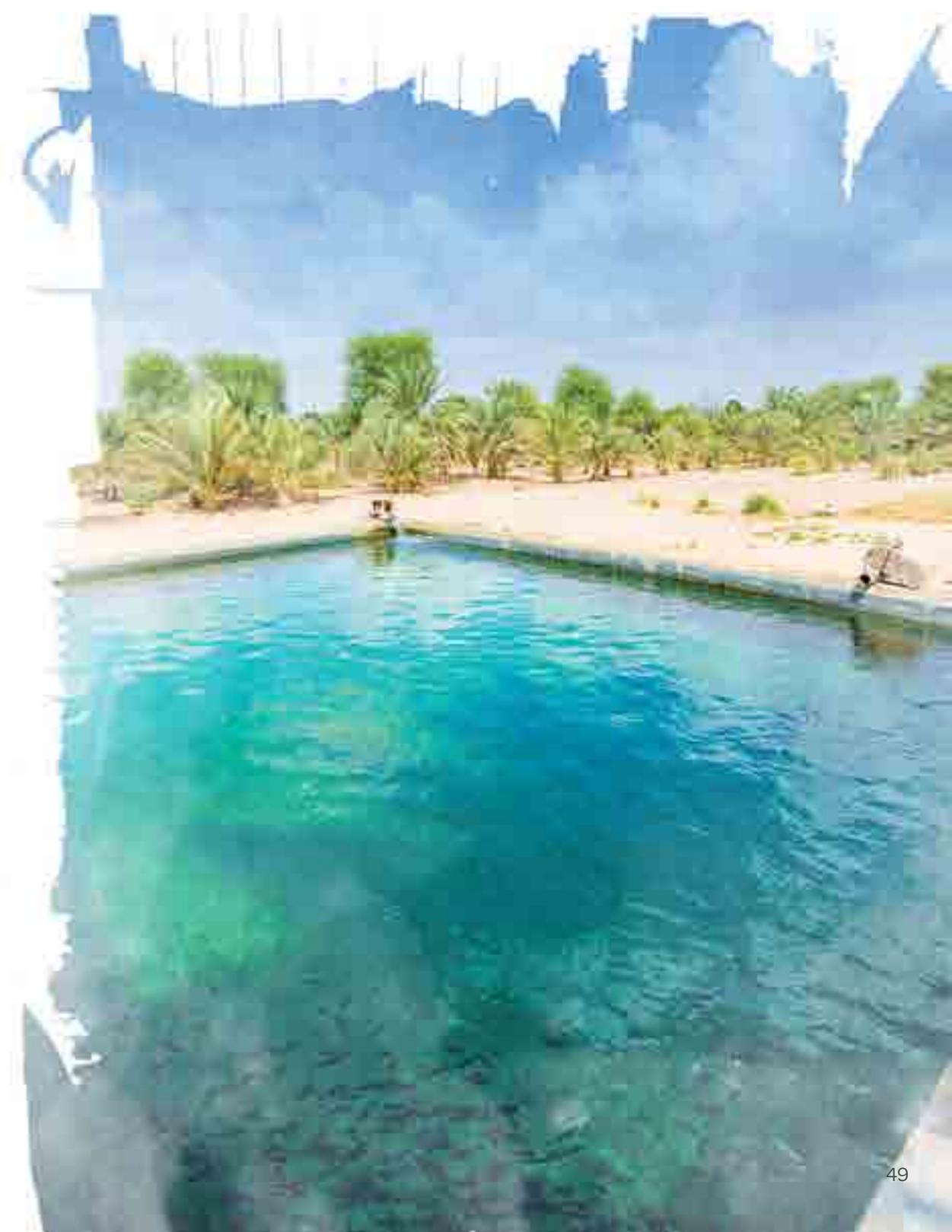
The aim of this project is to investigate the potential of using reject brine for food and forage production, and to assess the environmental impact on returning salt and nutrients to the groundwater.



Salicornia
An edible plant that grows in salt marshes, on beaches and in mangroves, was studied as part of the project



Harvesting salicornia



Studying Arsenic in the Strategic Water Reserve Project Area

2022 Achievements



- Developed a column test and hydrogeochemical assessment for high levels of arsenic in the Makhzan Al Khier project area, including a soil column physical model



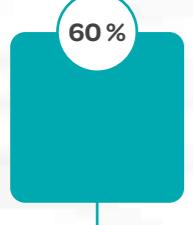
- Identified the root cause of elevated arsenic levels due to the infiltration of desalinated seawater into the dune sand aquifer



- Proposed sustainable and economic in-situ remediation measures to reduce and maintain arsenic concentrations in the aquifer below 10 µg/L



Arsenic column test device



Salt Leachate Project



Study the Arsenic in the Strategic Water Reserve Project Area

Groundwater Research Programme results



04

Air Quality

In 2022, we continued to develop our monitoring programme to measure ambient air pollution levels across Abu Dhabi Emirate. The data we collect allows us to recommend initiatives that will support the government's air pollution control policy.



Expanding Our Air Quality Monitoring Network

This year, several new initiatives were introduced:



Continuous Emissions Monitoring Systems (CEMS)

We signed a contract to implement a CEMS e-link project for five years, creating an integrated data system to electronically link the stack gas emissions of facilities with our own system. It will also help us to improve emission inventory reporting, air emission modelling and air quality management



Abu Dhabi Odorous Gases Monitoring Network

By adopting these initiatives we gain real-time monitoring data, and track gases from odour-generating facilities and activities within Abu Dhabi Emirate. Fixed and mobile odorous gas-detecting technologies are used as part of this continuous monitoring



Case study: Odour monitoring using e-Noses

In 2022 we mobilised:



2

Mobile air quality stations



13

Fixed electronic noses (e-Noses)



1

Mobile electronic e-Nose

The e-Nose is an electronic sensing device that detects odours from different sources.
Data gathered between April and June revealed:



MBZ City is impacted by odours emitted from local sources, such as pumping stations, manholes, sewage vent stacks with activated carbon filters (AC filters), illegal dumping, and other sewage-related operations



The odour emanating from the southeast part of the Al Mafraq Industrial Area had a significant impact. Detailed improvement plans could then be developed and implemented



CEMS e-link project



Odour monitoring project

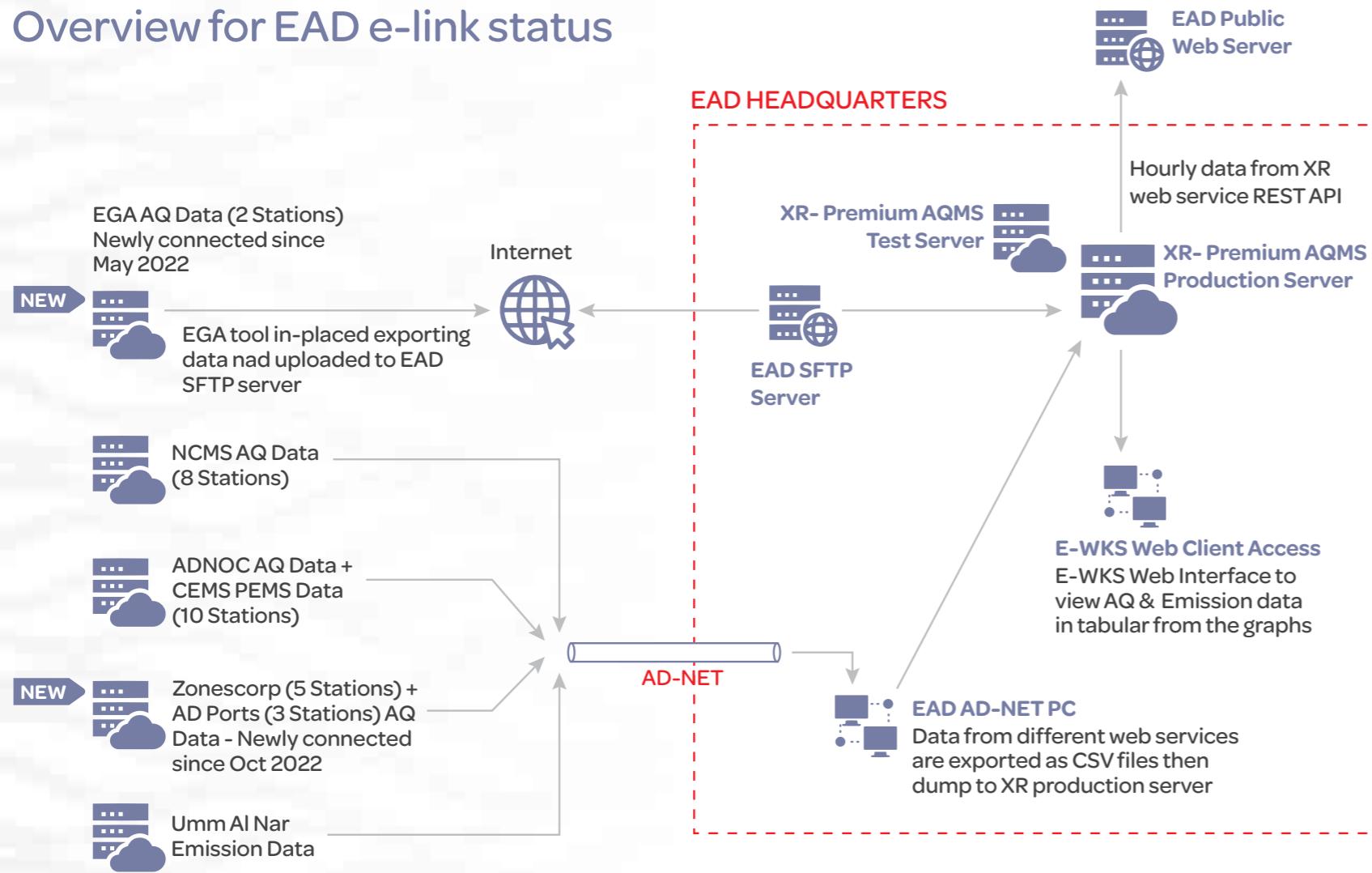


e-Nose odour monitoring study project

Establishing New Partnerships

We continue to establish partnerships that allow us to collect data from other networks. In 2022, we successfully linked to seven monitoring stations from Abu Dhabi Ports, and two from Emirates Global Aluminium (EGA). We achieved this by creating new web services, with the support of Abu Dhabi Digital Authority (ADDA). An application provides an electronic link, with data fed into the EAD database automatically.

Overview for EAD e-link status



2022 Achievements

World-first offshore atmospheric research expedition



A memorandum of understanding (MoU) was signed between EAD, the Cyprus Institute, and the Max Planck Institute for Chemistry, Germany, for the Atmospheric Research Expedition to Abu Dhabi (AREAD) project



Sailing from 25 countries, starting in Spain and ending in the UAE, the expedition increased our understanding of coastal marine, and air quality, including climate change



This world-first oceanographic air quality and climate change monitoring expedition covered three continents and eight major bodies of water, from the Atlantic Ocean to the Arabian Gulf



Air often traverses seas and oceans before it arrives on land. An instrumented vessel allows the study of physical and chemical processes that occur offshore



EAD team on board of the research vessel



Installation of the atmosphere-monitoring equipment



Research equipment inside the vessel's atmospheric lab

Advanced Air Quality Modelling Framework

We started the second phase of the Abu Dhabi Air Quality Modelling Initiative. EAD is leading the implementation and operation of an advanced air quality modelling framework with the aim of specifying and developing a multi-scale air quality modelling system that follows international best practise, with the necessary supporting frameworks and data streams.

We partnered with consultancy firms Earth Linked and Advanced Resources Development (ELARD) and RICARDO to enhance our atmospheric emissions and air quality modelling capabilities.

Aim



- Securing better air quality for all through science-based decision-making and advanced technologies to create the optimum balance between economic growth, environmental protection and social wellbeing



Kick-off meeting of Phase 2 of the Abu Dhabi air quality modelling initiative



05

Climate Change

Mitigating the impacts of climate change is a key strategic priority for EAD, it is intrinsically linked with our efforts to protect air, water and soil. Many of our policies to protect species and ecosystems are similarly developed to guard against the likely impacts of climate change.



Abu Dhabi Greenhouse Gas (GHG) Inventories

In collaboration with our partners, biennial greenhouse gas (GHG) inventories are part of our comprehensive plan to monitor atmospheric emissions across the emirate. These inventories enable the development of emirate-level climate policies and support the UAE Federal Government in fulfilling its commitments to the United Nations Framework Convention on Climate Change (UNFCCC).

Abu Dhabi Emirate GHG Inventory 5th Cycle

Aims

-  Update 2020 GHG Inventory

-  Refine predictions up to 2030

Emissions Targeted

-  Carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride

-  Carbon monoxide, nitrogen oxide, non-methane volatile organic compounds and sulfur dioxide

-  Anthropogenic black carbon emissions



Abu Dhabi Climate Change Taskforce

We continue to be entrusted with the leadership of the Abu Dhabi Climate Change Taskforce, which includes 26 entities from across the emirate, and have been involved in the development of several policies and strategies at the request of the Abu Dhabi Executive Office. The Taskforce was also represented at the Middle East and North Africa Regional Climate Week where we coordinated the Arab States Negotiating Team meetings and participated in the first Climate Change Research Network Conference.

Climate Change Policies and Strategies

In 2022, in close coordination with the Climate Change Taskforce, we led the development of:



The Abu Dhabi Climate Change Policy designed to reduce GHG emissions in the emirate in line with the UAE's Net Zero 2050 initiative, making Abu Dhabi Emirate a global leader in terms of addressing climate change



The Abu Dhabi Climate Change Strategy 2023-2027, focuses on mitigation and adaptation, and economic diversification towards innovative low-carbon solutions, carbon trade and green investment. This was developed with the support of a steering committee, featuring several government entities, and sets a GHG reduction target of 22 % by 2027 – or 30 million tonnes of gas



Participation in COP27

We participated in the 27th Conference of Parties (COP27), held in Sharm El Shaikh, Egypt, in November 2022. We supported the Ministry of Climate Change and Environment (MOCCAE), and the Special Envoy Office, across a range of initiatives:



During Youth Day, in collaboration with the Federal Youth Authority, we organised a series of youth debates. This was a chance to engage the younger generation and highlight our many climate initiatives



We showcased Abu Dhabi's Single-use Plastic Policy implementation and achievements during a panel discussion focused on best practices regionally and internationally and helped foster cooperation possibilities for the UAE



Organised by the Department of Energy in Abu Dhabi, we participated in a panel discussion about the emirate's sustainable water journey



Formal meetings at COP27 were also held by H.E. Dr Shaikha Salem Al Dhaheri, Secretary General of EAD, with dignitaries and ministers. Topics discussed included:



We participated in a panel organised by MOCCAE about our mangrove initiatives, as well as a panel discussion on blue carbon and nature-based solutions



At COP27 Water Pavilion, we took part in a panel discussion on climate-smart agriculture, achieving food security, adaptation, and sustainability



We participated in a panel discussion organised by the Green Jobs for Youth Pact, entitled 'Climate Action, Just Transition and the Youth Employment Challenge'

- Public-private partnerships
- Sustainable schools
- Hosting the World Environmental Education Congress 2024
- The role of technology in reducing emissions



06

Marine Water Quality

Maintaining marine water quality (MWQ) in Abu Dhabi Emirate is critical to preserving and improving the productivity and value of vital natural resources. The main goal of our MWQ monitoring programme is to assess and review existing and potential threats related to biodiversity and public health, and to develop measures to ensure that our coastal waters are safe and healthy for people, plants and animals.



Long-Term Marine Water Quality Monitoring

In 2022, additional sampling stations were included in the programme: one in a confined area, and the other in a new development.



28

Marine water quality parameters



11

Marine sediment quality parameters



228

Water samples collected in 2022, with **6 384** tests



228

Sediment samples collected, with **2 508** tests

2022 Results

The MWQ programme reveals that the quality of marine water in Abu Dhabi has slightly declined:



85

Microbial index results, down from 100 in 2021



89

Sediment metal index results, down from 93 in 2021



14

Red tide incidents recorded in eutrophication index



2

Fish kill incidents





MWQ sampling sites



MWQ sampling site inspection



Water quality problems at Al Qurm



Marine Water Quality Automation Programme

Our data buoy network of nine stations continuously monitors MWQ at sensitive sites along Abu Dhabi Emirate's coastline. In 2022, the data-gathering software was upgraded, with findings stored in the environmental portal.

Monitoring Sites



- Confined areas
- Beaches
- Critical marine habitats (coral reef, seagrass and mangroves)
- Newly-developed areas
- Nuclear power plants



MWQ automated buoy locations



MWQ buoy at Bateen Beach

Data helps us to develop marine water quality forecasting systems, assess the health of our coastal waters and predict marine heat waves

Monitoring HAB and Red Tide Incidents

Our red tide monitoring project continues to look for harmful algal blooms (HAB).

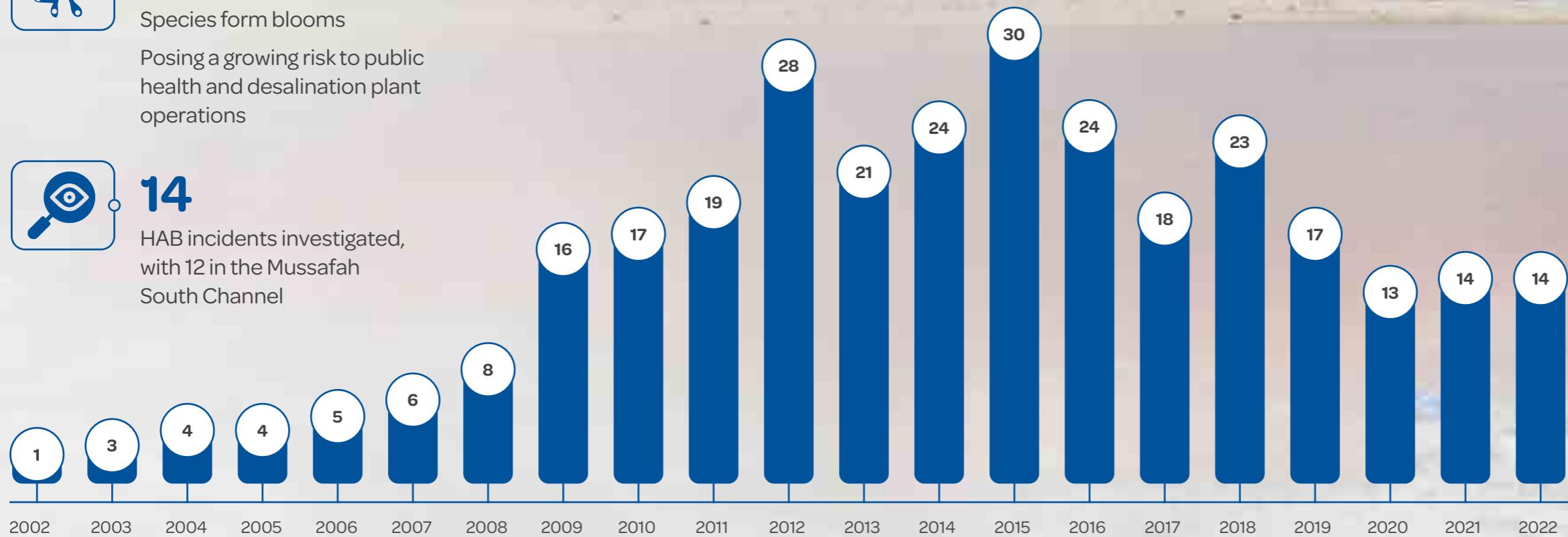
 **275**
Species of phytoplankton identified

 **9**
Species produce toxins

 **34**
Species form blooms

Posing a growing risk to public health and desalination plant operations

 **14**
HAB incidents investigated,
with 12 in the Mussafah
South Channel



Harmful algae can produce domoic acid, saxitoxin, okadaic acid, brevetoxins, and other toxins



Impact of Desalination Plants on the Marine Environment

Desalination plants, which produce drinking water for Arabian Gulf countries, can impact marine life with their intake of ocean water, and with the discharge of brine and chemicals. At least 20 desalination plants are in operation in Abu Dhabi Emirate.

The Mangrove Alliance for Climate (MAC) and EAD have initiated a project to collect data and assess the impact, with four surveys completed for the Al Mirfa Power and Desalination Plant in 2022.

What we assessed



- Marine water quality
- Amounts of phytoplankton, zooplankton, fish eggs, larvae and microbenthic organisms
- Habitat and seagrass distribution



7
Locations where samplings were taken every quarter

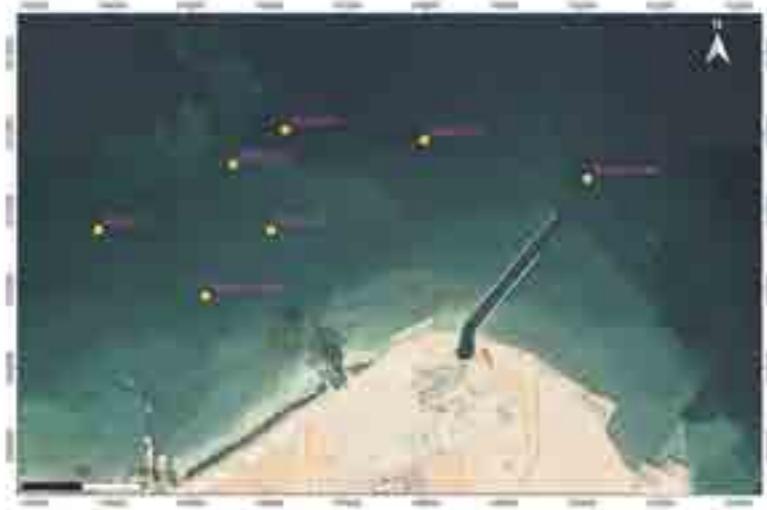


6
Parameters exceeding Abu Dhabi guidelines



21
Parameters detected, out of 41





Desal plant area sampling sites



Desal plant area substrate types



Seagrass % cover

- DDV Locations
Bathymetric Levels
Project Boundary
Hard/Rocky
Hard/Sandy
Sandy
Sandy/Dead Shells
Sandy/Dusty
Sandy/Rocky
Sandy/Silty
Silty
Silty/Sandy/Live Shells
Silty/Sandy
Silty/Sandy/Dead Shells
- 0% (Bare Substrate)
0-25% (Low)
25-50% (Medium)
50-75% (High)
Project Boundary
DDV Locations



07

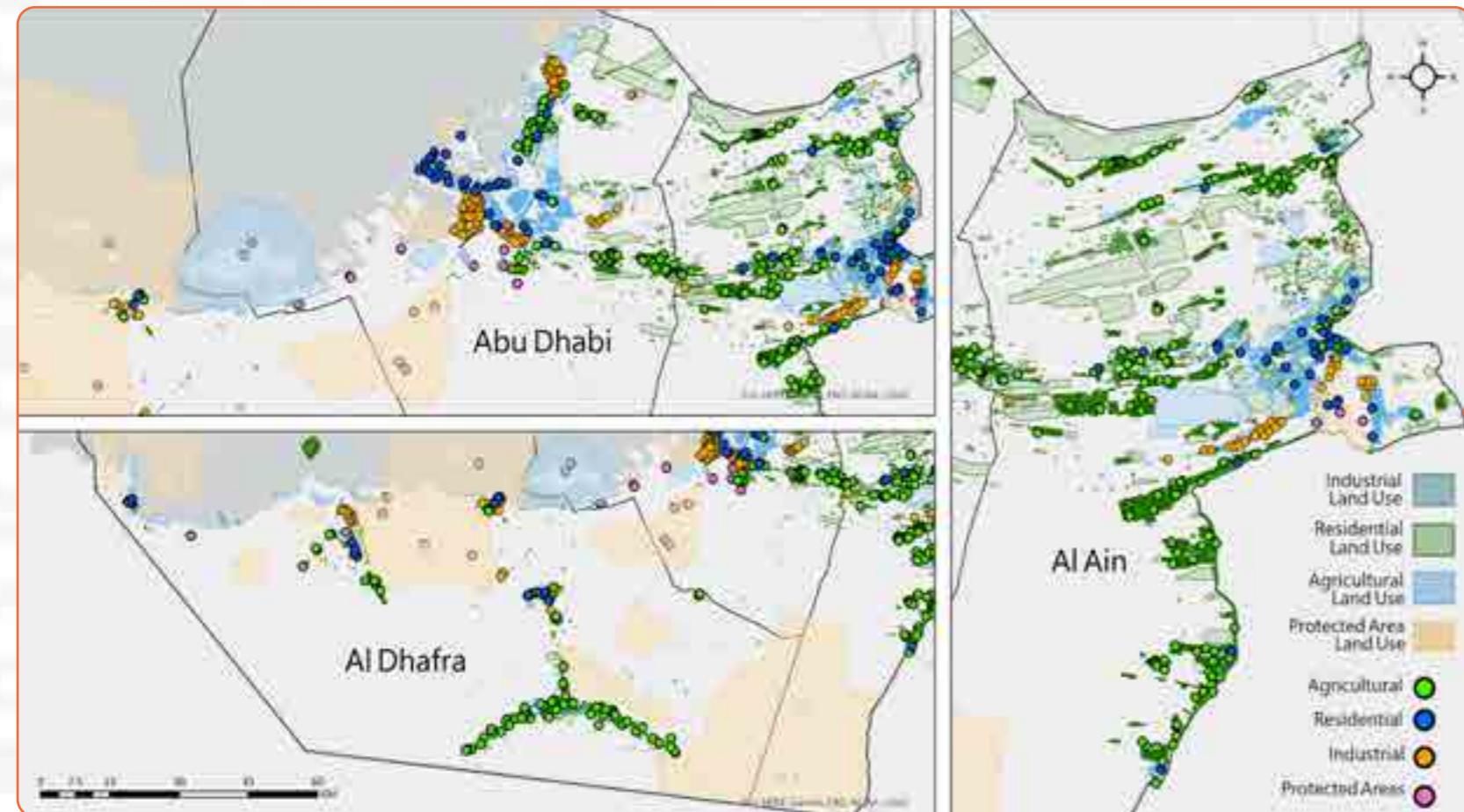
Land and Soil

There can be no life without soil, and no soil without life; the two have evolved together. Our 2021–2025 strategy emphasises the need to protect land and soil through the adoption of two overarching objectives. First, we must develop an integrated approach and regulatory framework for soil protection, in coordination with our partners. We also need to monitor soil quality to enable data-driven policies and regulations.



Abu Dhabi Soil Quality Monitoring Programme

Our soil quality monitoring programme enables us to assess the state of the soil and understand the impact of anthropogenic activities on its quality and identify areas that require further investigation or remediation. The scientifically-robust, long-term datasets support effective policy and decision-making, and can serve as a basis for research and prediction-modelling.



Coverage of the soil quality monitoring programme grew from 25 % in 2021 to 29 % in 2022



Soil health can greatly impact the ecosystem



First monitoring programme in the Near East and North Africa (NENA) region to achieve ISO 16133:2018 accreditation



In 2022, for the first time, we documented the ambient anthropogenic background concentrations of selected parameters in the surface soil (first 5 cm) of urban areas



600

Sites monitored on an annual basis



95 %

Compliance with soil quality regulations



Monitoring Through Cutting-Edge Technology

We are leading the application of hyperspectral imagery and artificial intelligence (AI) for soil contamination prediction.

In Phase 2 of our drones project, we expanded the survey process to cover 3.75 km² of Musaffah industrial area through 250 aerial drone surveys:

- To improve our predictions, we created a smart calibration method using 600 analysed samples from the Abu Dhabi Soil Archiving Facility. This facilitated the development of the first spectral library in the region
- A number of AI models were tested to find the best correlations between real and predicted soil contamination levels. Some models achieved accuracy results of 68–90 % for specific parameters
- We are continuing to pursue our objective of achieving an end-to-end workflow that can be deployed at a large and efficient scale



Utilising technology for mapping and predicting amounts of heavy metals in soil



Soil Archiving Facility and Database



Our soil data has helped research and academic institutes, including Khalifah University in Abu Dhabi, the University of Sharjah, and Zayed University in Dubai



Data has also helped other stakeholders, including the Abu Dhabi Agriculture and Food Safety Authority (ADAFSA)



7 000

Samples preserved and archived



72 000

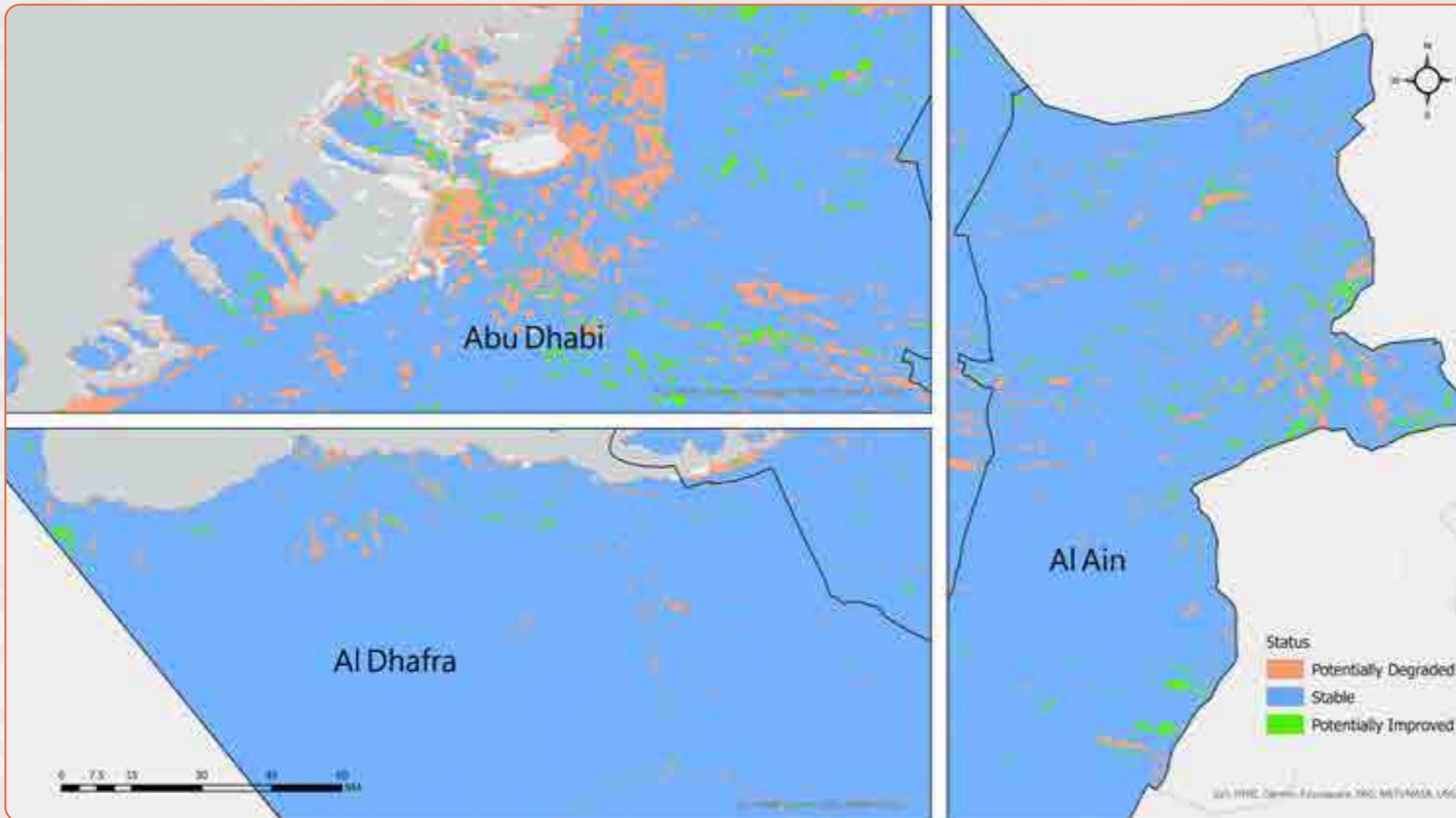
Records document Abu Dhabi soil for more than 10 years



Each soil sample contains information on human history



International Efforts in Soil Protection



Calculating the LDN indicator baseline in Abu Dhabi

2022 Achievements



We have produced a detailed report on the calculation of SDG indicator 15.3.1 (proportion of land degraded over total land area)



The report revealed that **2 %** of the total area of Abu Dhabi Emirate has improved during the last 20 years, while **3.69 %** has shown degradation, with a net degradation of **1.69 %**. This value is one of the lowest (best) in the world

Soil Protection Policy and Regulations

New Policy Development

In 2022, we developed a new soil protection policy for Abu Dhabi Emirate. This is designed to create legislations and monitor their implementation, in coordination with our stakeholders and strategic partners; maintain soil quality and rehabilitate degraded areas; adopt sustainable land and soil management schemes to maintain public health and the ecosystem; and enhance our cooperation with strategic partners, leading to the effective participation of the community. The policy is considered the first we have developed following the endorsement of the Abu Dhabi Public Policy Framework, issued by the Abu Dhabi Executive Office in 2021.



We develop evidence-based regulatory instruments



22

Experts,
representing nine
entities, helped
develop the policy



World Soil Day 2022

On 5 December 2022, we joined the world in celebrating World Soil Day. The theme of the event was "Artificial Intelligence and Remote Sensing in Environmental Quality Monitoring- A Pioneering Step Towards the Future". Experts at national and international levels specialising in artificial intelligence and remote sensing participated in the event and demonstrated their applications in the environmental field.

The event underlined our leading role in implementing state-of-the-art AI and remote sensing technologies for monitoring soil quality. We were able to share our experiences with local, federal and international parties.



Capacity Building



World Soil Day Event



08

Waste Management

As Abu Dhabi Emirate aims to be recognised as a world leader in waste management, one of our key priorities is to ensure integrated solutions across the emirate.



→ Solid Waste in Abu Dhabi Emirate, 2021



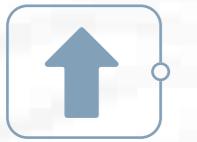
10.4

Million tonnes,
total solid waste
generated



98.9 %

Non-hazardous
waste (10.41 million
tonnes)



6.5 %

Increase
compared to
2020

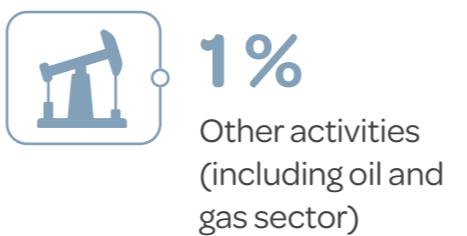


1.1 %

Hazardous waste
(0.116 million
tonnes)



Non-hazardous solid waste by source activity



Management of non-hazardous waste



Waste Management Targets

We have set three sectoral targets to establish a sustainable waste management system by 2025.



Target 1

Reduce municipal solid waste production to 1.4 kg/capita/day



Currently at 1.92 kg/capita/day



Target 2

Increase the treatment of total hazardous waste to 97 %



Currently at 92.02 %



Target 3

Increase the treatment of total non-hazardous solid waste to 50 %



Currently at 39.78 %



Waste Management Plan

In 2022, we worked on the development of a waste management plan which includes various actions and initiatives within an agreed timeframe, assigning requirements, roles and responsibilities including budgets and targets to entities.



30 +

Meetings and workshops conducted



5

Themes identified

1. Policies and Legislative
2. Infrastructure and Data
3. Permitting
4. Inspection
5. Awareness

◦ New Regulatory Instruments

In 2022, we developed an Integrated Waste Management Policy to strengthen the legislative and regulatory instruments in the waste management sector. This enables us to:



Manage and license economic activities related to waste management, and allow for inspection and control



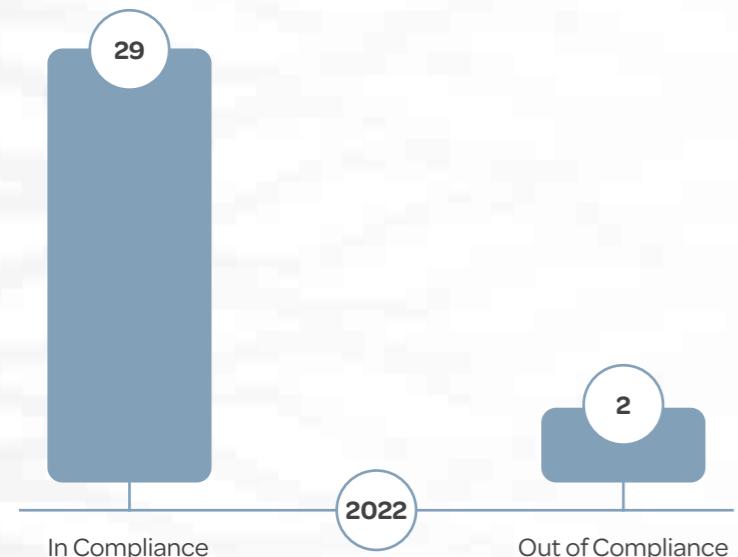
Strengthen the waste management infrastructure to attract investment and develop a unified waste database



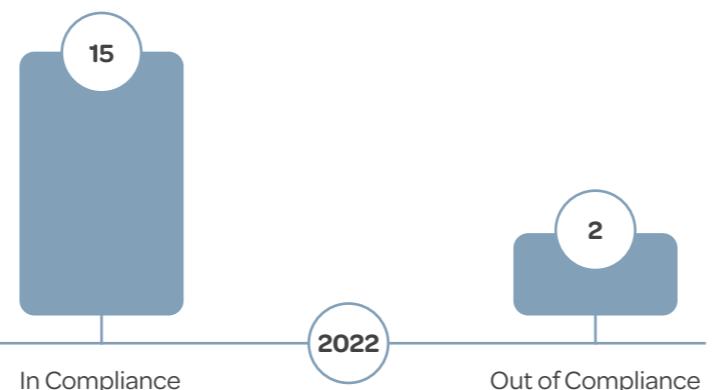
Regulate the segregation of waste at the source, and collection from different sectors



Waste Sector Inspections

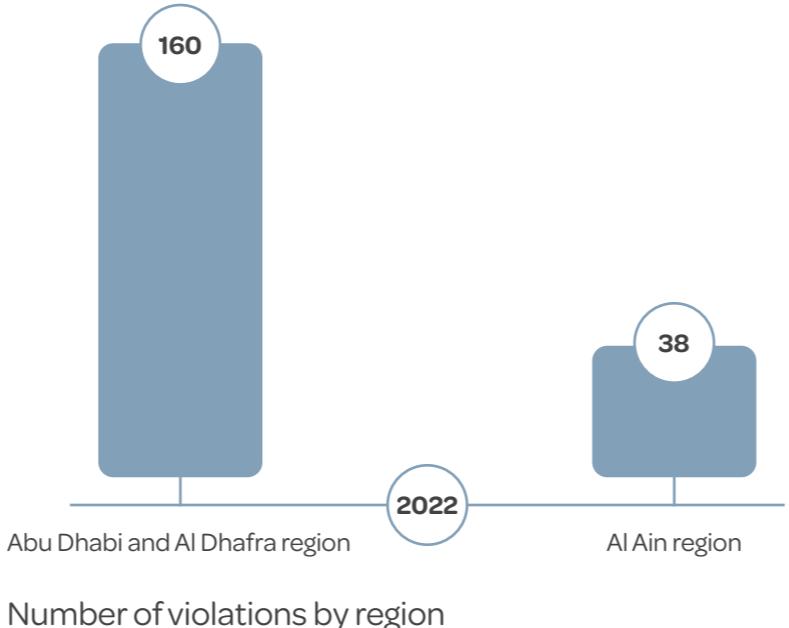
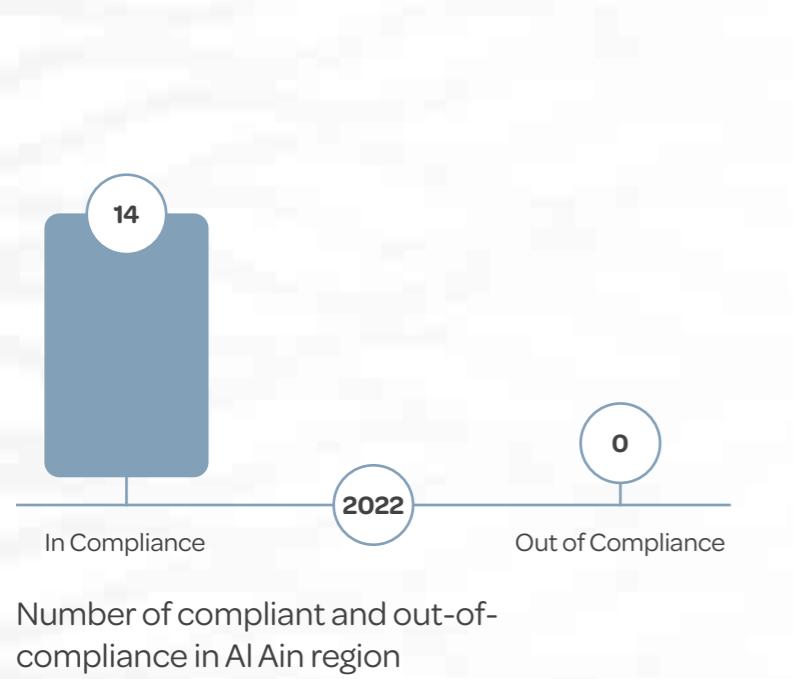


Number of compliant and out-of-compliance inspected facilities



Number of compliant and out-of-compliance in Abu Dhabi and Al Dhafra region





Raising Public Awareness

To raise the awareness of waste management among the public, we engaged in a variety of activities during 2022.

 **21**
Awareness sessions held with **1000** attendees taking part

 **3**
Baadr days organised as part of our Green Business Network initiative, encouraging sustainable work practices

 **9**
Clean-ups organised - **237** volunteers - **2116** kg of waste collected

 **5**
Clean-ups organised as part of the new Clean Your Perimeter campaign, aimed at businesses, with **162** employees collecting **1075 kg** of waste

09

Environmental Policy and Regulation

In 2022, we continued to develop policies based on rigorous scientific research, international best practice and the highest quality data.



→ 2022 Policies and Regulations Roadmap

We worked on set of environmental policies and regulations to ensure that we achieve better state of Environment in Abu Dhabi.



11

Policies



25

Regulations

→ Abu Dhabi Single-Use Plastic Policy



- An executive regulation was signed by H.H. Sheikh Hamdan bin Zayed Al Nahyan, EAD Chairman of the Board, stating a ban date for plastic bags as of 1 June 2022, and styrofoam products as of 1 June 2024
- We finalised a study on an incentive-based bottle return scheme that recovers 50 % of bottles, as well as a study to develop the Abu Dhabi Environment Fund
- We launched a 'Becoming Free of Single-Use Products' guide to 60 entities in Abu Dhabi Government, and conducted awareness sessions
- We launched a 'Mission to Zero' campaign aimed at the public
- We mobilised major retailers to sign a declaration, charging a voluntary fee of at least 50 fils on each reusable plastic bag



Results



As a direct result of our actions, we witnessed the following in 2022:

- Release of an executive regulation
- **90 %** reduction of plastic bags, and half a million bags per day since 1 June 2022
- Over **80 %** of the retail sector committed to voluntary fees
- Recovered **30 million** bottles in 2022 compared to **7 million** in 2021
- Collected **10 tonnes** of bottles (600 000 to 850 000) per week
- Encouraged all government entities to be free of single-use products, with more than **3 000 employees** attending introductory sessions on our guide
- Organised **20 awareness sessions**, targeting different groups, with **3 700 attendees** and **25 promotional materials** shared as part of our 'Mission to Zero' campaign
- Launched the 'Collect it All' challenge to encourage water bottle recycling



Remote Work Policy

- We supported the development of a Remote Work Policy for public sector employees in Abu Dhabi Emirate
- Our assessment of the lockdown showed that preventive measures introduced to mitigate the COVID-19 pandemic also reduced air pollution and GHG emissions, largely due to less traffic and electricity consumption
- The Remote Work Policy looks at increasing the number of public sector employees working remotely to improve air quality and mitigate climate change
- The policy has benchmarked international and local remote work practices, proposing high-, medium- and low-emission reduction scenarios
- It was proposed that our Executive Management Committee conduct a pilot in 2023 in EAD



Implementation of the single-use plastic bag ban in Abu Dhabi

Analysis and Evaluation



We conducted analysis to support the development of a circular economy policy and highlights the importance of reducing waste production as well as management after collection

- Evaluated the impact of 6 environmental regulations to support their effective implementation
- Developed evaluation plans for 5 policies and 4 regulations

Policy Visioning for the Future: Environment Centennial 2071

In April 2022, we launched the Abu Dhabi Environmental Centennial 2071, a shared environmental vision that draws three pathways toward the future, developed with the assistance of eight government partners.

Aim



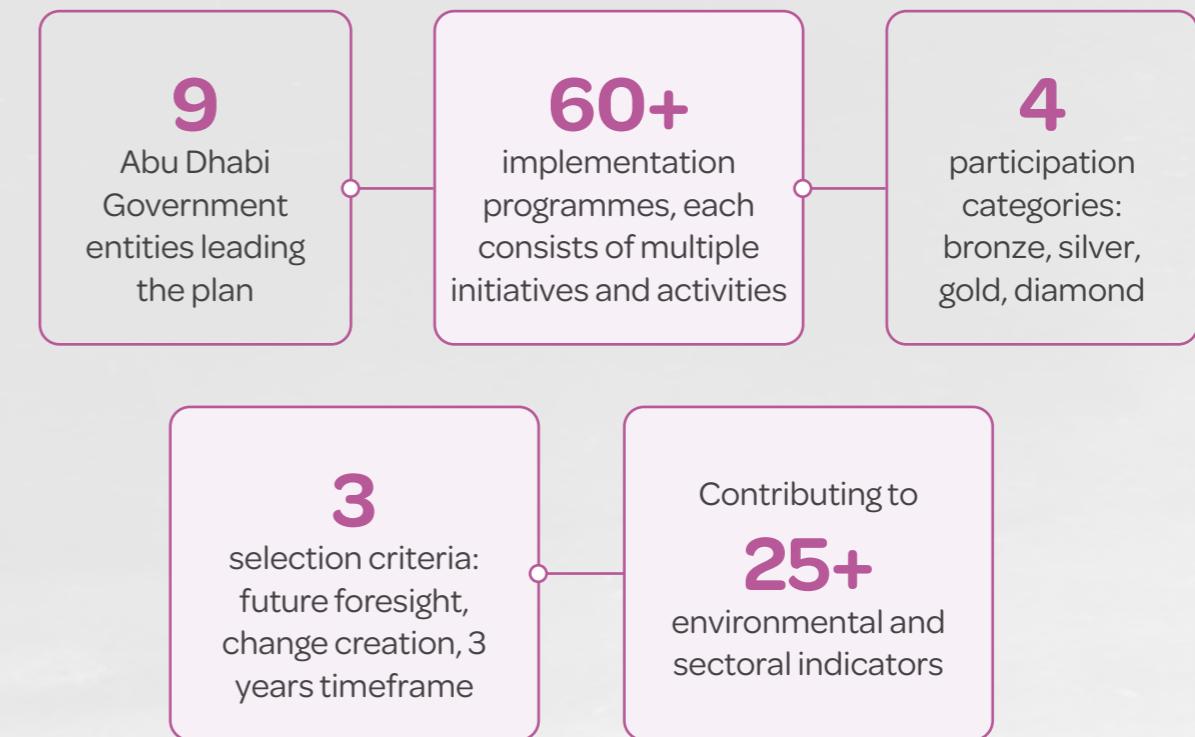
To help Abu Dhabi Emirate become a world leader in environmental conservation

Vibrant emirate thriving in nature

Green force resilient to climate change

Enablers for future environmental leadership

To transform the Centennial vision to action, EAD championed the development of Abu Dhabi Environmental Plan toward the Centennial's first cycle.



Abu Dhabi Environmental Plan toward the centennial in numbers

Partnerships: Management of MoUs and Agreements



12

MoUs and agreements signed during 2022



Internal system developed to manage and track all MoUs and agreements between EAD and external entities



58

Active MoUs and agreements managed on a quarterly basis



All MoUs and agreement management experience is shared with external government entities

Partnership highlights



- In 2022, we partnered with the Abu Dhabi School of Government (ADSG) to help government employees better understand green policies. We created five programmes to target different sectors, creating a workforce able to meet future challenges
- We published a report celebrating 22 achievements from across Abu Dhabi, that stemmed from partnerships with eight local entities, launched in 2019, that made a commitment to clean up our marine environment

Government accelerators towards environmental leadership

Diversified awareness of environmental practices

Environmental insights for leaders

Sustainable public policy programme

Masters scholarships in environmental sustainability

ADSG and EAD partnership programmes



Cap-and-trade scheme



- In 2022, we looked into establishing a regulatory framework for a cap-and trade scheme, also referred to as an emission trading system. This would introduce economic incentives for companies to reduce their GHG emissions
- The project is a collaboration between the Abu Dhabi Department of Economic Development and the UAE Ministry of Climate Change and Environment, with trading systems introduced at emirate and national levels
- As part of the scheme, the government would set a cap or upper limit on carbon emissions for an entity based on historic emissions and detailed in a permit granted to them. An entity must either pay to exceed the cap or invest the amount in low-carbon technology
- Entities from Abu Dhabi Emirate involved in the steering committee include: Abu Dhabi Department of Energy; Industrial Development Bureau; Abu Dhabi National Oil Company; Abu Dhabi Department of Municipalities and Transport; Abu Dhabi Agriculture and Food Safety Authority; and the Abu Dhabi Global Market and representatives from entities in other emirates
- Feasibility and design, the first phase of the project, details the current situation, outlines an appropriate trading system and its implementation, and assesses the potential economic impacts and other challenges. The second phase reveals how a pilot programme can be enacted



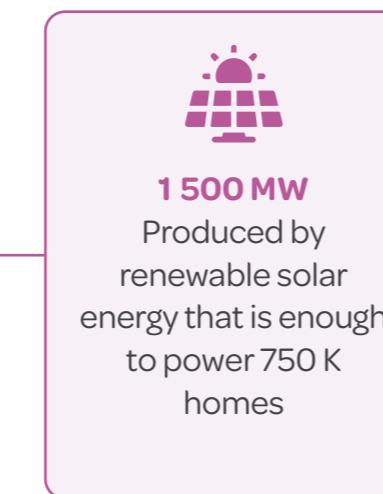
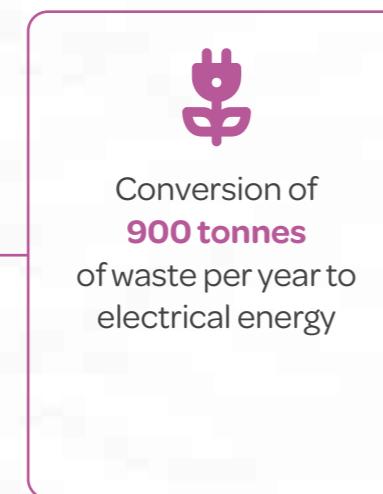
Environment Fund



- We completed a proposal for the establishment of an environment fund in Abu Dhabi Emirate
- This would enhance the financial sustainability of the environment sector, driving innovation and engaging stakeholders in various schemes
- The fund would prioritise interventions in waste management; promote the circular economy; improve resilience to environmental emergencies; conserve natural resources and biodiversity; support climate change mitigation and adaptation; and enhance environmental compliance

Environmental Assessment and Permitting Operations

Our environmental assessment and permitting programme help us to assess the potential environmental impacts of major projects and facilities during the early design stages, to ensure the implementation of the best available practices, and compliance with applicable environmental laws and regulations.



Environmental outcomes of major projects and facilities, 2022



Environmental outcomes of some major projects and facilities in 2022

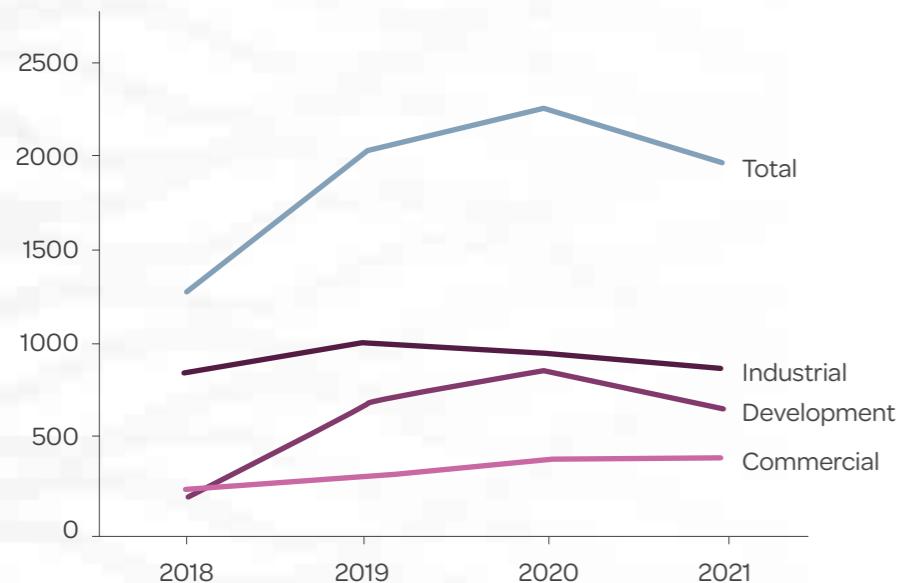
 **1 452**
Permit applications processed

 **89**
Environmental consultancy offices processed

 **211**
Environmental studies, plans and reports produced

 **98 %**
Compliance for processing environmental permit applications

 **89 %**
Compliance for review of environmental studies

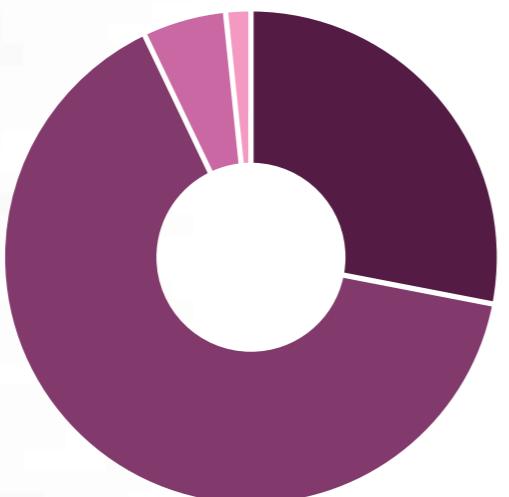


Environmental permitting applications processed, 2021

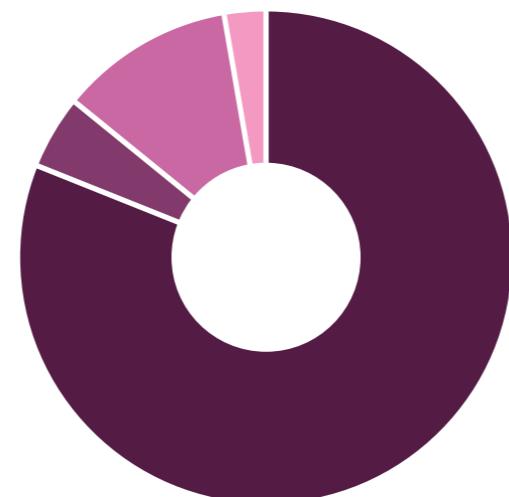




● Industrial: 56 %
● Development: 28 %
● Commercial: 16 %

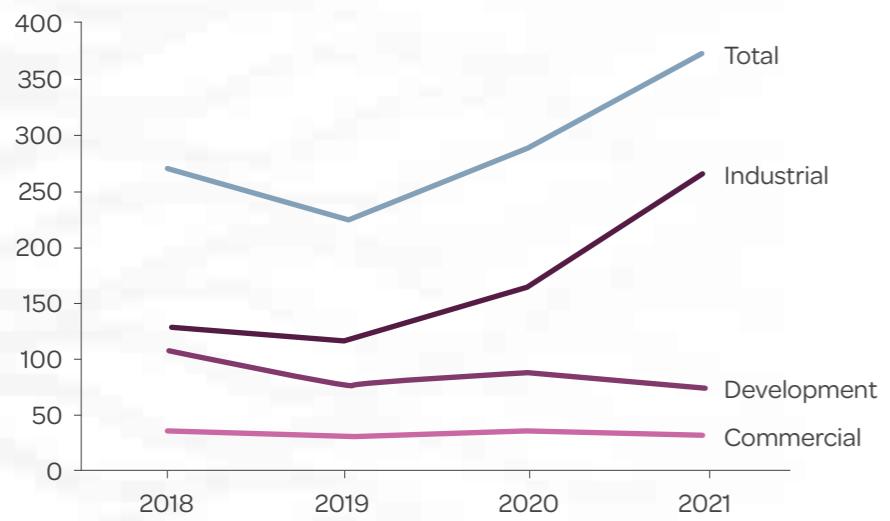


● New: 28 %
● Renewal: 65 %
● Modification: 6 %
● De/Commissioning: 1%



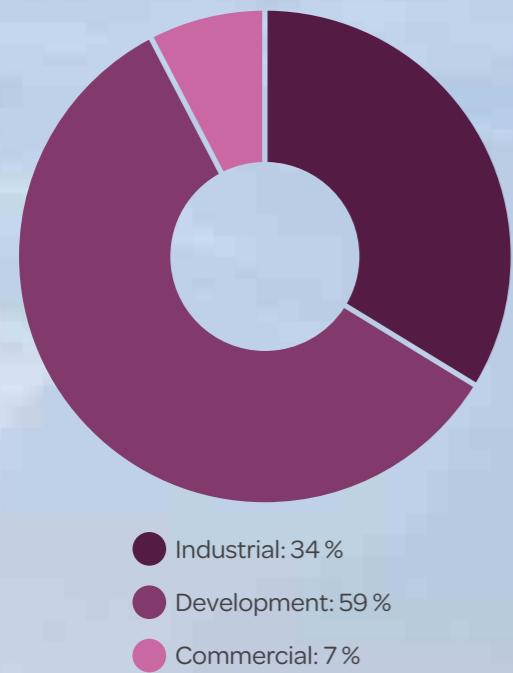
● Issue Permit: 82 %
● Request Study: 4 %
● Request Resubmission: 12 %
● Rejected: 2 %

Classification of processed environmental permitting applications, 2021

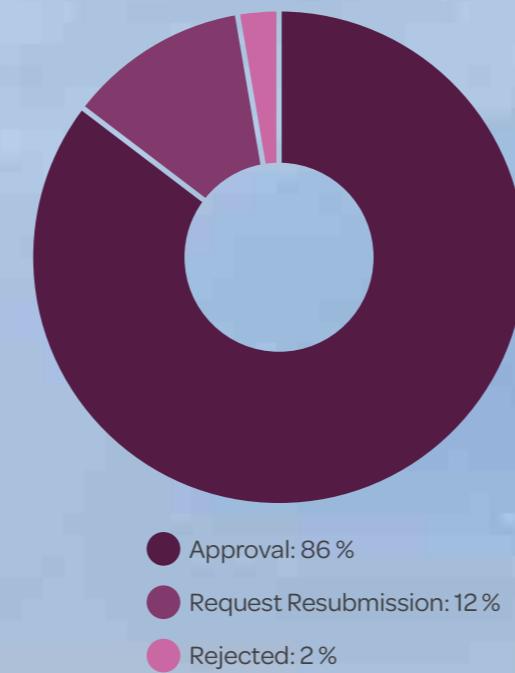
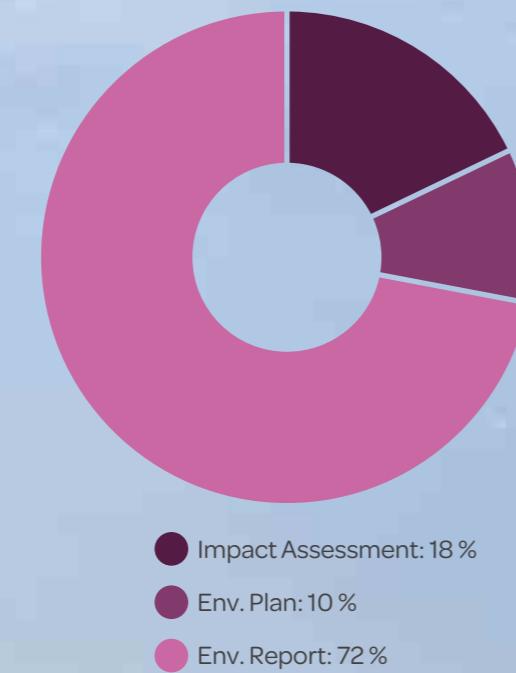


Environmental studies, plans and reports processed, 2021





Classification of environmental studies, plans and reports processed, 2021

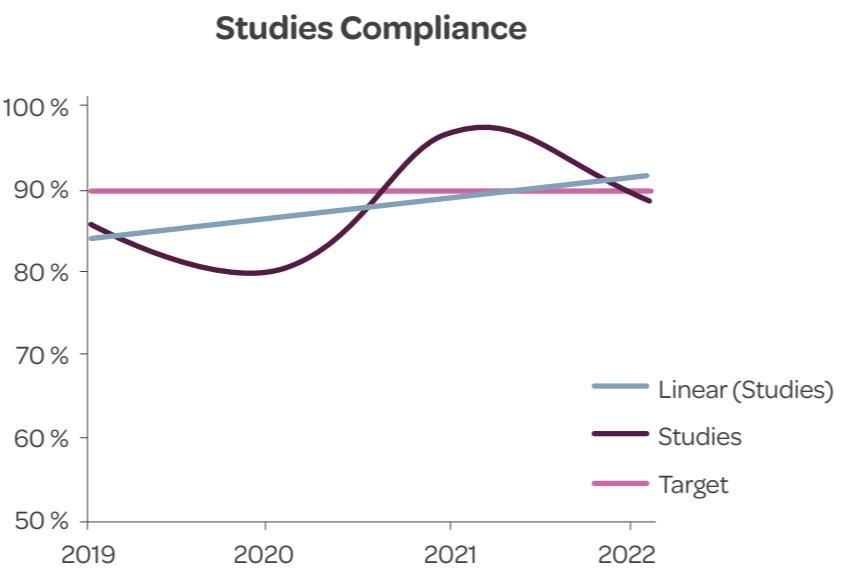
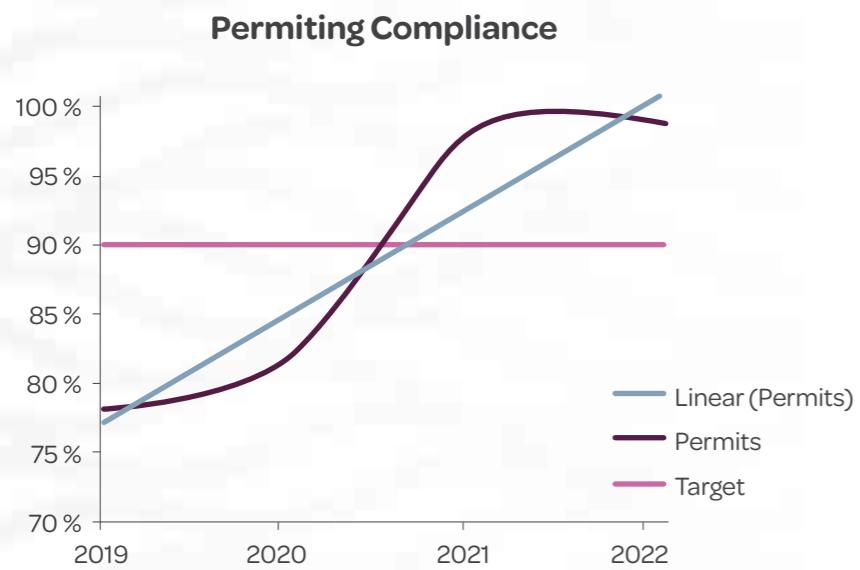


Classification of environmental studies, plans and reports processed, 2021



Registration of environmental consultancy offices, 2022





Environmental compliance trends, 2022



Enhancing Our Assessment and Permitting Programme

2022 Achievements



Strategic Environmental Assessment Programme: The decree for the implementation of this programme was approved and signed by our Board of Directors (Decree No. 3, 13 July 2022). Its implementation will commence in 2023, with an extensive media and awareness campaign. It will ensure the integration of environmental aspects in new strategies, masterplans, and development programmes.



Green Industries Environmental Labelling Programme: Announced in June 2022, this programme was developed in line with best international practices in the field of eco-labelling. It encourages industrial facilities to find innovative pollution-control solutions and apply best practices, with an 'environmental label' given to those that demonstrate an outstanding performance



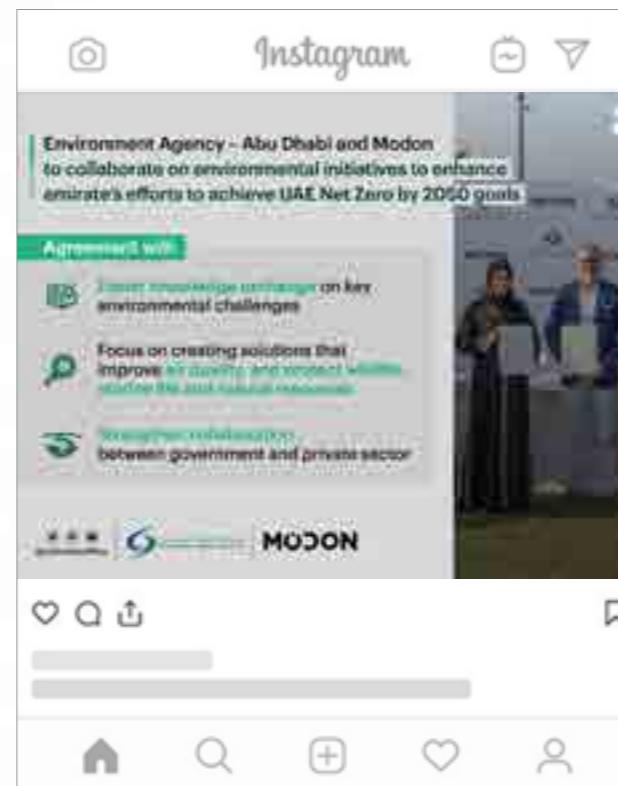
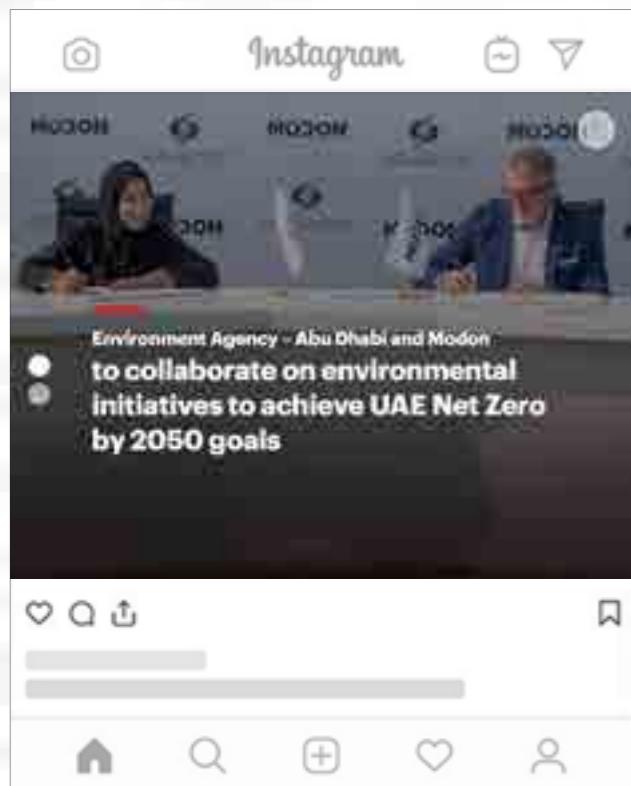
Development of the Self-Reporting Programme: We completed the development of our programme aimed at standardising and facilitating environmental monitoring and reporting based on sector activities. The programme has been developed for 46 sectors, with the launch of the first phase scheduled for 2023



Continuous Coordination with Stakeholders

Modon Properties

EAD signed an memorandum of understanding (MoU) with Modon Properties, a real estate development company that specialises in unique leisure destinations in Abu Dhabi Emirate. The MoU seeks to develop environmental initiatives and pilot projects that boost sustainable development and assist the UAE's net zero targets



Department of Municipalities and Transport (DMT)

In order to identify environmental permit requirements for projects and facilities in Abu Dhabi Emirate, our assessment and permitting team was given access to the DMT ePASS system. Here they were able to review applications for emirate-level projects. The initiative meant processing multiple approvals through a smaller number of transactions, requiring fewer resources.



Environmental Permitting and Compliance Awareness

Key achievements



Promoting new initiatives

The Green Industries Labelling Programme team conducted a series of awareness sessions and site visits to **130** facilities from various industries, to promote the programme and encourage user registrations



External workshops

We organised six workshops, with environmental consultants and to present the TAMM services related to the permitting process





Internal workshops

Our permitting and assessment team organised two internal workshops for the Abu Dhabi and Al Dhafra inspection teams on the new digital permitting and assessment service. This ensured a better understanding of the current status of the inspection project, and how prepared it is for the future linkage of both divisions' systems



Internship programme

We hosted five national interns from different universities and educational institutions across the emirate, who collectively gained more than 3 600 hours of work experience. We introduced them to our permitting processes, such as reviewing and processing applications and reviewing environmental studies, and helped them improve their presentation skills, time management, leadership, communication and problem-solving skills



→ Inspection, Compliance and Enforcement

This programme aims to improve the environmental regulatory framework and enhance the compliance of all industrial and commercial establishments, hazardous materials (HazMat) stores, and development and infrastructure projects.

Environmental Inspection Checklist



- This tool assesses various parameters that have a potential for environmental harm. The main environmental aspects are:
 - Surrounding area surveillance
 - Recordkeeping and training
 - Material transfer, storage and handling
 - Combustion units and process operations
 - Solid waste and wastewater management
 - Safety and emergency response
 - Spill prevention and response
 - Stormwater pollution
 - Specific operations
 - Noise
 - Permit specific conditions
 - Decommissioning



Inspected Environmental Sectors

We conduct on-site field inspections of facilities and projects in Abu Dhabi Emirate and evaluate their compliance to environmental laws and regulations.



51

Licensed sectors
inspected



45 %

Increase in
inspection visits
compared to 2021



1 098

Inspections in
2022, compared
to 755 in 2021



Sectors covered, and percentage of total:

- Metal related industries: **28 %**
- Food and beverage: **15 %**
- Chemical manufacturing and trading: **13 %**
- Cement and building materials: **10 %**
- Wood and furniture manufacturing: **8 %**
- Plastic and rubber industries: **5 %**
- Paper and paper products: **3 %**
- Other industries: **17 %**



Holistic Compliance and Enforcement Programme

Our field visits identified the prominent environmental aspects that warranted corrective actions.



44.5 %

Recordkeeping
and training



12.6 %

Combustion units and
process operations



7.7 %

Solid and liquid waste
management



Actions

- **149** follow-up visits
 - **44** environment mitigation plans
 - **28** environment action plans
 - **12** environmental permits stopped
-
- **8** admin fines, totalling AED **260 750**
 - **10** legal cases
 - **97 %** compliance rate achieved



20.5 %

Material transfer,
storage, and handling



12.2 %

Safety and emergency
response



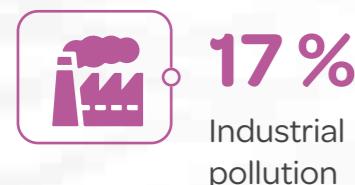
2.5 %

Other violations

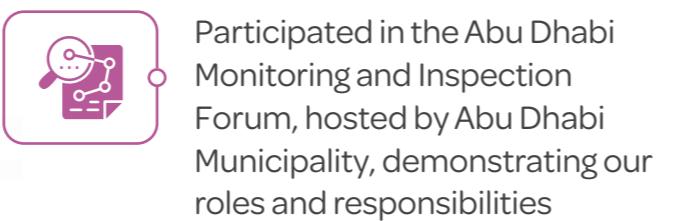
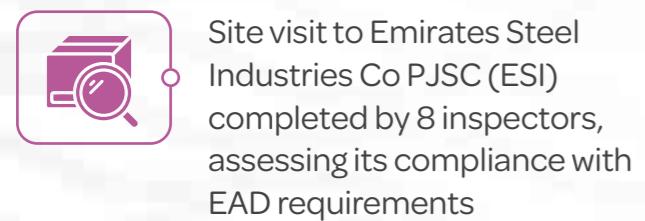
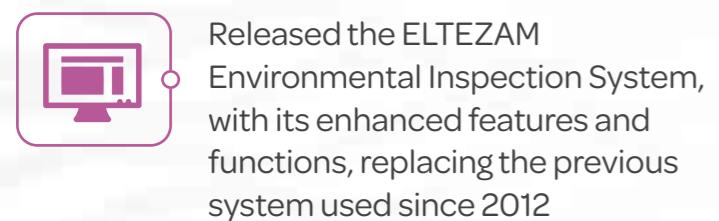


Complaints and Environmental Incidents

150 environmental complaints and incidents responded to:



2022 Achievements



Major Initiatives to Protect Abu Dhabi Emirate

To celebrate the UAE's 51st National Day, we supported the Ehtifal Al Emarat two-day art festival, held at the Abu Dhabi National Theatre. With a sustainability theme, the event highlighted the work of 51 artists from around the UAE, who joined forces on a single canvas as part of a Guinness World Record attempt.



51 m canvas,
featuring 51 paintings,
depicting 51 sustainability themes,
using 51 sustainable art products,
completed in five hours and 51 minutes



Working with Local and Federal Government Entities

We assisted the following government entities with summaries of our inspections, software and practices, and our admin fines initiative:



- Fujairah Environmental Authority
- Dubai Municipality
- Department of Energy
- Abu Dhabi Police - Crime Scene Store

10

Environmental Information and Community Engagement

Engaging with the community to promote sustainable practices.



Green Business Network (GBN)

GBN is a community of like-minded businesses committed to environmental causes, sharing their knowledge and experiences, and working together to contribute to a more sustainable future for all.

2022 Achievements



92

Members from government and private sectors



3

Baadr Activities



Paperless Month,
13 entities participated, saving:

- Up to **100 000** pieces of paper
- 13** trees
- 1216** litres of water



Clean Your Perimeter campaign

- A collaboration between GBN and AD Ports Group
- Empowers industrial entities to adopt more sustainable waste management practices and minimise single-use plastics
- 5** entities conducted **8** citizen science clean-ups, collecting **934 kg** of waste



8

Virtual sessions organised

- Audit session teaching members to calculate carbon emissions, **45** members attended
- 2-day case study session showcasing GBN members' environmental efforts, **112** attendees
- 2 sessions introducing the Green Industries Environmental Labelling Programme, **162** attendees



Raising Awareness on Biodiversity and Protected Areas

In 2022, we undertook many outreach efforts, reaching stakeholders and the general public.

ADIHEX 2022

Our participation in ADIHEX 2022 centred around the 'Mission to Zero' campaign, focusing on the Single-Use Plastic Policy and the emirate-wide ban on single-use plastic bags.

Aim:



To guide Abu Dhabi residents towards sustainable environmental alternatives, such as reusable items



Offline and online initiatives aimed at community members, government departments, businesses, and youth



4 500 +
Visitors



ADIHEX 2022



ADIHEX 2022

ما مدى استدامتكم؟
HOW SUSTAINABLE ARE YOU?

Volunteer with Us!



Our volunteers play an indispensable role in increasing social consciousness, building communities that advocate for sustainability and putting in the hard work to improve our environment. No action is too small in our effort to secure a better tomorrow for the generations to come.



Maritime Heritage Festival

In February 2022, we participated in Abu Dhabi Emirate's first-ever Maritime Heritage Festival, with majlis sessions discussing legislation and administrative procedures related to marine fishing.

Stakeholder Collaboration

We collaborated with Total Energies on a few initiatives:

2 virtual sessions:



Mangroves virtual session, with **64** attendees



Seagrass meadows coastal communities' session, with **63** attendees

Marine Water Quality (MWQ) Monitoring Programme Outreach

We have a comprehensive outreach programme to raise awareness of our MWQ monitoring.

1 virtual session conducted:



Abu Dhabi marine ecosystem session, with **90** attendees



Virtual Engagement

We harnessed the virtual world to reach a wider audience, through virtual environment sessions, competitions, and online challenges.

4 Main Virtual Talks Series



Environmental Talks

- 8 sessions
- 396 attendees



Youth Talks

- 14 sessions
- 322 attendees



Storytelling Sessions

- 4 sessions
- 189 attendees



Environmental Education Talks

- 6 sessions
- 189 attendees



Total of:

- 32 sessions
- 1096 attendees



Waste Challenges Outreach



21

- Awareness sessions
• 1033+ attendees



2022

Achievements:

- Launched, '50 Years, 50 Environmental Ambassadors' initiative
- Organised 25 clean-ups, with 1034 volunteers collecting 7010 kg of waste

Single-Use Plastic Policy

Mission to Zero Campaign



- Raised awareness of the Single-use Plastic Policy and encouraged the public to switch to reusable products



- 25 promotional materials sent to businesses and government entities, with 20 awareness sessions attracting 3 700 attendees



- Promotional campaigns at ADIHEX and Abu Dhabi Moments events, reaching 9 500 attendees in total



Big Zero 2022



- Launched the Pile It Up Challenge, with 250+ schools recycling 48 000 kg of single-use plastic bottles



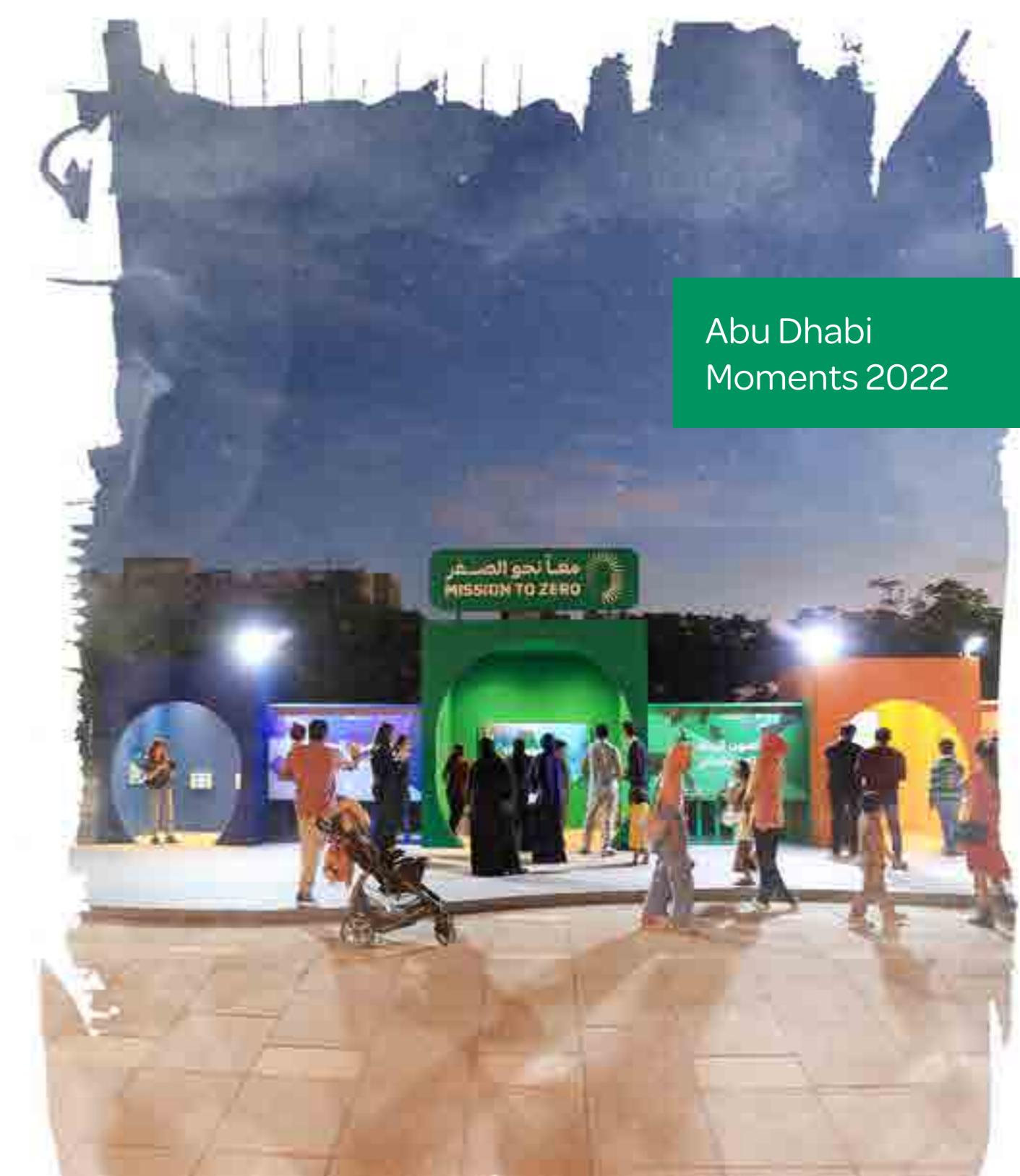
- Awareness tours conducted for 240 convenience stores



- 10 Big Zero single-use bottle recycling containers installed around Abu Dhabi Emirate



Convenience stores awareness tours



Abu Dhabi
Moments 2022

>Youth Outreach

Sustainable Campus Initiative (SCI)

2022 Achievements



International Environmental Youth Debate,
'Who is responsible for ecosystem restoration?',
49 attendees



Clean-up of Al Wathba Fossil Dunes with **41 SCI** members, removing **250 kg** of waste



Additionally smaller beach and urban clean-ups initiated, with **255 kg** total removed



11

Virtual sessions with schools conducted, **405** youth



Green Youth Majlis (GYM)

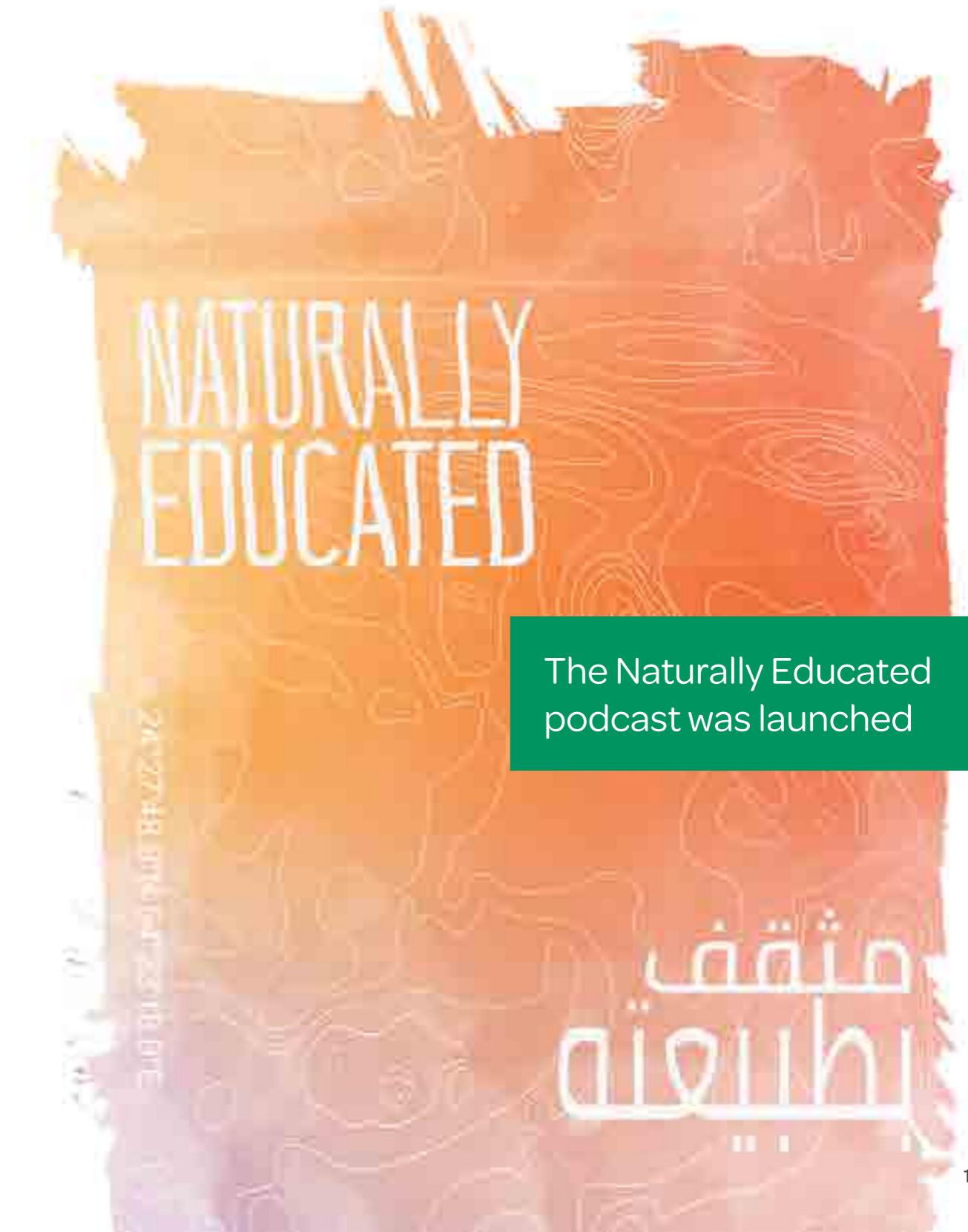
- Held a Eid decoration workshop for **40** children, recycling scrap paper
- Storytelling sessions for schools
 - World Wildlife Day, **101** attendees
 - Earth Day, **53** attendees



Workshop held at 4th International Conference on Sustainability Education (ICSE) in India, presenting international case study, **35** attendees



Launched a **10**-episode podcast series, Naturally Educated, aimed at young students



The Naturally Educated podcast was launched

Sustainable Schools Initiative (SSI)

2022 Achievements



- Launched “Tide Turners Plastic” Challenge for SSI members on World Habitat Day, in collaboration with the United Nations Environment Programme (UNEP)
 - Aimed at ages **11–18**, raising awareness about the impact of plastic pollution on biodiversity



- 2** new episodes of “Nature Inspired Tours and Talks” published, focusing on sustainable fishing
 - 7** episodes are now available on Etihad inflight entertainment



- Arranged a school visit to Abu Dhabi Pearl Project Centre, **11** student attended



- Mushred Programme launched, sponsored by Total Energies, encouraging children ages **14–17** to be eco-rangers, develop leadership skills, and raise awareness of environmental concerns



- For Earth Day, **73** Champions of the Earth were announced from **11** schools in the SSI network
 - 1188** submissions from **49** schools received



- 5** Virtual environment education talks, reaching **282** children



- 2** Storytelling sessions, **101** student attendees



- New Enviro-Spellathon app launched in summer 2022, aimed at ages **5–13** encouraging environmental knowledge
 - 6 000** downloads since August 2022





Launched e-Green, an online education platform – the first collaborative e-learning tool in the Middle East dedicated to the environment

- **60** certificates generated since October 2022, with **250** registered users, and total course watch time of **10** days and **4** hours



Launched the Baadr app in January 2022, in collaboration with Borodge, suggesting daily environmental actions, with users accumulating points and earning rewards

- **1771** users so far, with **25** vendors offering rewards



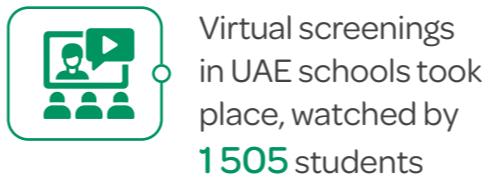
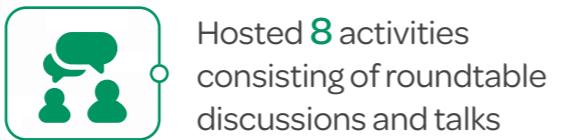
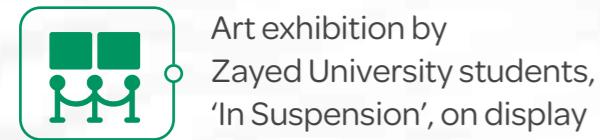
BAADR
Love the Environment. Get Rewarded

Baadr app
dashboard & logo



Al Sidr Environmental Film Festival

We worked with Zayed University and the Manarat Al Saadiyat cultural district once again to host the four-day Al Sidr Environmental Film Festival (SEFF).



Connect with Nature (CWN)

A collaboration with Emirates Nature-WWF, this innovative programme aims to inspire UAE youth between the ages of 15 and 30, giving them access to different experiences, knowledge, and opportunities to enhance their capabilities in becoming future sustainability leaders.



- Activities included: recycling workshops, visits to Abu Dhabi Pearl Project Centre, debates and environmental sessions
- 5 projects submitted by youth on plastic pollution, sustainable fashion and innovation

World Environmental Education Congress (WECC)

Abu Dhabi will host the 12th WEEC in early 2024, with the theme of 'Connecting People, Creating Tomorrow'. The announcement was made in Prague in March 2022, with an official invitation made to stakeholders at the International Conference of Sustainability Education (ICSE) in India, and at COP27 in Egypt.



The official announcement of
WEEC 2024 in Prague



International Conferences

We participated in international conferences, discussing sustainability education programmes with speakers from Emirates Nature-WWF and schools in Abu Dhabi Emirate.



30

Students and
educators attended,
with **19** participations



4th International Conference on
Sustainability Education

Environmental Information

Abu Dhabi Nature Application



This year we launched the Abu Dhabi Nature Species application to enable people to learn more about the fauna and flora of Abu Dhabi Emirate and report their sightings to EAD. The application is a free tool comprising of over **4 000** species of animals and plants living in the emirate.

The app is available on Android and iOS by visiting the [Abu Dhabi Nature website](#)



11

More Achievements

- Abu Dhabi Falcon Hospital (ADFH)
- Abu Dhabi Sustainability Group (ADSG)
- 2022 Awards



Abu Dhabi Falcon Hospital (ADFH)

Established in 1999, Abu Dhabi Falcon Hospital (ADFH) is the world's largest facility for falcon and avian medicine and research. It is also home to the ADFH Pet Care Centre, and the Abu Dhabi Animal Shelter.



140 000 +

Patients since opening



ISO/IEC 17025:2017

Reaccreditation awarded to ADFH Laboratory from the Emirates International Accreditation Centre (EIAC)



104

Laboratory tests accredited



10

Consecutive years winning the Middle East Responsible Tourism Award

Winner of the World Responsible Tourism Award for two consecutive years and the 2022 Experts' Choice Award



54

Local and international awards won by ADFH

More info at www.falconhospital.com



Abu Dhabi Falcon Hospital is the world's leading institution for falcon and avian medicine and research

Abu Dhabi Sustainability Group (ADSG)

Established by EAD in 2008, ADSG is a multi-stakeholder organisation that encourages economic, environmental and social sustainability. ADSG has grown from an initial membership of 14 in 2008, to 53 in 2021.

2022 Achievements

Launched ADSG Carbon Management



5

- Key focus areas, allowing members to:
- Explain importance of carbon management
 - Identify sources of carbon emissions
 - Undertake carbon footprint calculations
 - Understand mandatory carbon reporting
 - Describe principles of carbon mitigation and offsetting

Launched Circle of Practice Sustainability Case Study



6

- Contributing organisations:
- Etihad Airways
 - Masdar
 - Gulf International Bank
 - EAD
 - Emirates NBD
 - Majid Al Futtaim

Launched ADSG Sustainability in Practice Report 2022



4

- Key focus areas:
- Economy
 - Environment
 - Social
 - Governance



2022 Awards



MENA Digital Awards

In June 2022, we won the Golden category for 'Best Use of Social Media – Small Budget (below US \$ 20 000)' at the MENA Digital Awards. This recognised the content on our social media channels, used to raise awareness of campaigns, events, and public activations



ESQR Quality Achievements Awards

We are among the winners of the Quality Choice Prize in the Gold category of the European Society for Quality Research (ESQR). We were recognised for our quality management, which have achieved numerous successes in the field of environmental and species protection at local, regional and global level. 1st environmental institution in the MENA region to receive this prestigious international award



LEED Certification

In September 2022, we received Leadership in Energy and Environmental Design (LEED) v4.1 certification from the US Green Building Council. This is the next generation standard for green building design, construction, operation and performance and was awarded in recognition of our sustainable and eco-friendly facilities



NCEMA Recognition

We won 2nd place in applying the National Standard for Business Continuity Management System NCEMA 7 000 for the application of precautionary measures to control the Corona virus



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Emergency, Safety and Business Continuity

The Emergency, Safety and Business Continuity Division works to enhance the readiness of EAD and ensure the continuity of vital activities during emergencies.



Implementing Occupational Health and Safety (OHS) System Criteria

We aim to provide a safe and healthy work environment for all through training, awareness programmes, audits, and inspections:



42

Training and awareness sessions held



70

Publications, guides and educational videos released



780

Employees attended training and awareness workshops



10

Drills for evacuations, based on different scenarios

2022 Achievements



Emirati Genome, seasonal flu vaccinations, COVID testing and workplace health among the campaigns promoted



We won the Reyada Award for our health and safety systems



Virtual reality (VR) equipment used to train responses in emergency situations



Green Oxygen Initiative initiated, installing air quality monitoring and measurement devices in Al Mamoura Building A



During COVID, PPE provided to all employees, with safety guidance on posters, and all EAD sites sanitised and disinfected



Single-use Plastic Policy implemented, through inspections and awareness programmes



Corporate Business Continuity System

The Business Continuity Management System (BCMS) works to reduce and respond to risks, ensuring the continuity of our critical activities and services.



31

Training courses
organised



540

Employees attended
business continuity
workshop

2022 Achievements



Held a virtual panel discussion with business continuity and information security experts from Disaster Recovery Institute (DRI) Malaysia



Participated in the BCI World Hybrid Conference



Awarded ISO 22301 Business Continuity certification



Earned second place in the Hassad Award outperforming around 75 government agencies at the emirate level



Won first place in the EAD Reyada Award and third place in the EAD Al Dana Award in the Strategic Sub-priorities category (Enablers Sub-priorities)



We were shortlisted at the BCI Middle East Awards 2022



13

Driving Our Own Sustainability



Corporate Sustainability Management

Corporate sustainability is one of our institutional enabling priorities. We capture and analyse regular performance results to develop efficient plans to achieve our objectives. Performance indicators include:



6

Categories
of waste
generation



Utilities
consumption



Printing
and paper
consumption



Fuel
consumption

We ensure compliance to environmental, national, and international occupational health and safety standards through regular inspections of our activities and facilities. The following guiding principles are used to manage our sustainable practices:



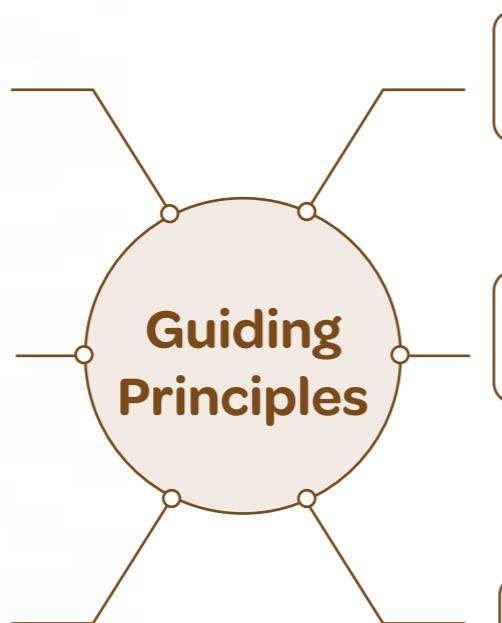
EAD Environmental
Sustainability Policy – sets the
foundation, focus areas and
direction



LEED certification – awarded for
our green building practices, with
a Platinum certification for our
headquarters and the Al Wathba
Wetland Reserve, and a Gold
certificate for our Al Ain office



Abu Dhabi Government Guide
for Becoming Free of Single-Use
Products – helps government
entities reduce their reliance on
single-use products



ISO 14001 certification
– helps us to comply with
international standards of
environmental management
systems



ISO 45000 and OSHAD requirements
– our occupational health and safety
standards align with recognised
international standards, and national
standards set by the Abu Dhabi Public
Health Centre (ADPHC)



ISO 20400 certification
– provides guidance to
sustainable procurement
practices



• EAD's Environmental Footprint

Corporate sustainability is one of our institutional enabling priorities. We capture and analyse regular performance results to develop efficient plans to achieve our objectives. Performance indicators include:



14

Site inspections conducted in 2022



0

Environmental-related findings or non-conformities

Increases and reductions in 2022:



2 %

Reduction in GHG emissions per employee



48 %

Increase in water consumption
• Due to the return of our employees to EAD HQ in 2022 after the Covid 19 restrictions were lifted



6 %

Increase in electricity consumption



83 %

Increase in waste generation per employee
• Due to the return of our employees to EAD HQ in 2022 after the Covid 19 restrictions were lifted
• 2019 = 114 kgs/ employee
• 2022 = 50 kgs/ employee





37 %

Average waste recycling rate



4 %

Reduction in plastic waste



25 %

Reduction in paper waste



15 %

Reduction in paper printing per employee



30 %

Increase in fuel consumption



Our GHG emissions include:

- Fuel
- Utilities consumption
- Generated waste
- Paper printing services



Our eco-friendly solutions include:

- Energy-saving systems
- Motion sensors to turn appliances on/off
- Controlled timers
- Automated internal processes and operations

Annual GHG Per Capita - Metric Tonnes (CO2 Eqv.)



- 9.50 mt
- Target: 8.38 mt



- 8.17 mt
- Target: 7.88 mt



- 8.61 mt
- Target: 7.41 mt



- 8.42 mt
- Target: 8.96 mt



- 6.14 mt
- Target: 8.63 mt

*Figures reflect 9 months results
(Jan-Sept 2022 vs. Jan-Sept 2021)*



Initiatives to Raise Environmental Sustainability Awareness

2022 Achievements



Showcasing our sustainability best practices, including a presentation for Abu Dhabi's Department of Economic Development (DED)



Launched Paperless April, where EAD employees are encouraged to reduce printing and utilise digital solutions, recognising sectors/divisions with low paper consumption



As part of the global plastic-free month in July, we encouraged employees to reduce their reliance on single-use plastics and products



Launched our Environmental Multipliers Team initiative, where employees motivate their colleagues to 'multiply' sustainable behaviours



Presented at a workshop on food waste at the Emirates Red Crescent discussing sustainable solutions



EAD presenting about food waste at the Emirates Red Crescent workshop

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preserving our heritage · protecting our future

Environment Agency - Abu Dhabi
P.O. Box 45553, Abu Dhabi, UAE

Tel : +971 2 6934444
Fax : +971 2 4463339

customerhappiness@ead.gov.ae
www.ead.gov.ae

