

ANNUAL REPORT **2023**



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.



CHAIRMAN'S MESSAGE

The Environment Agency – Abu Dhabi (EAD) plays a pivotal role in supporting the emirate's sustainable development goals via the implementation of ambitious projects and initiatives to preserve Abu Dhabi's environment and biodiversity, while enhancing its environmental leadership on a local, regional and global level. This reflects the Abu Dhabi government's vision and aspirations for the next fifty years, which is to become the world's most effective climate action and environmental body by 2071.

During 2023, the Year of Sustainability, EAD doubled its environmental preservation efforts to keep pace with the rapid developments taking place in the emirate, the country, and the region. The Agency continued to conserve Abu Dhabi's precious natural resources – from protecting freshwater and terrestrial and marine biodiversity, to setting air quality standards and providing a clean environment, helping to preserve it for future generations.

Climate actions were also intensified during 2023, with the Agency reaffirming its commitment to Abu Dhabi's plan of reducing greenhouse gas emissions in line with the UAE's goal of achieving climate neutrality by the year 2050. To this end, the Agency launched and implemented the Abu Dhabi Climate Change Strategy to accelerate climate action and enhance the Emirate's ability to confront climate change. The strategy also enhances Abu Dhabi's resilience and its readiness to embrace and adopt cutting-edge innovation, helping to attract investment and improve the quality of life for all residents of the Emirate.

The Agency's participation in COP28, which was hosted by the UAE at Expo City Dubai, allowed us to highlight a wide range of innovations that we have pioneered to monitor and protect Abu Dhabi's environment, and announce our participation in key initiatives to conserve and protect seagrass and mangroves in cooperation with local and international entities.

During 2023, EAD also expanded the scope of its efforts to preserve and restore mangrove ecosystems and enhance their important and effective role in combating climate change. The Agency, along with its partners, planted 23 million mangrove trees within a two-year period – covering 9,200 hectares – within the framework of the Abu Dhabi Mangrove Initiative, and as part of the UAE's efforts to plant 100 million mangrove trees by 2030 to support the achievement of climate neutrality by 2050.

Hamdan bin Zayed Al Nahyan

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



VICE CHAIRMAN'S MESSAGE

In 2023, the Environment Agency – Abu Dhabi continued the series of successes that began with its inception in 1996 – successes achieved in cooperation with its strategic partners that embody the vision of the wise leadership to protect the environment and sustain natural resources for present and future generations in light of the tremendous development transformation that Abu Dhabi is witnessing on all levels.

Pioneering projects were launched throughout 2023, driven by the Agency's commitment to implementing its corporate strategy 2021-2025 – a comprehensive framework that defines its strategic direction and expands the scope of its projects and initiatives as per the best international practices in the field of environmental work, contributing to holistic environmental protection efforts while ensuring the sustainability of natural resources and sustainable development.

We will continue our work towards further progress in the fields of science, technology, research and environmental innovation to better understand environmental impacts, take effective measures to protect the environment and our natural resources, and create new opportunities and possibilities that will help us achieve our environmental goals.

Mohammad Ahmed Al Bowardi

Vice Chairman, Environment Agency - Abu Dhabi



MANAGING DIRECTOR'S MESSAGE

The year 2023 was a busy one for the UAE, with the entire country committed to hosting the remarkable COP28. The Environment Agency – Abu Dhabi played a major role in this leading global forum, participating in more than 170 events – marking a significant contribution by an Abu Dhabi government agency to this annual international climate forum. We have sustained our position as the primary stakeholder for climate action in Abu Dhabi, and asserted our commitment to achieving the UAE's goals of achieving climate neutrality by 2050 by joining the global dialogue on climate change and sharing our expertise and experience in the field of sustainability.

This year has also been notable in terms of our efforts for the conservation of species. After nine years of directing our ambitious, globally recognized Scimitar-horned Oryx reintroduction programme in Chad, we have succeeded in improving the conservation status of this species. Having previously been classified as "Extinct in the Wild", it was reclassified as "Endangered" in December 2023 by the IUCN Red List of Threatened Species. This wonderful result is a testament to the visionary leadership in this field of His Highness Sheikh Hamdan bin Zayed Al Nahyan, Ruler's Representative in Al Dhafra Region and Chairman of the Environment Agency - Abu Dhabi, and a reminder that our efforts and those of Abu Dhabi extend beyond the borders of the UAE and the region.

Razan Khalifa Al Mubarak

Managing Director, Environment Agency - Abu Dhabi



SECRETARY GENERAL'S MESSAGE

The Environment Agency – Abu Dhabi had a busy year full of achievements. In 2023, we launched and implemented several ambitious projects and initiatives that reaffirmed locally, regionally and globally Abu Dhabi's important leadership role in preserving the environment. These projects were implemented in line with the UAE's ongoing commitment to achieving sustainable development, and its endeavour to enhance its reputation as a key player in the field of environmental protection around the world.

Abu Dhabi's success in protecting the environment and its efforts in the field of sustainability and climate action – all driven by innovation – is an extension of the forward-thinking approach of the UAE, and is undoubtedly thanks to the guidance and support of our wise leadership, represented by the ambitious vision and insightful outlook of His Highness Sheikh Mohamed bin Zayed Al Nahyan, President of the UAE.

The unlimited support of His Highness Sheikh Hamdan bin Zayed Al Nahyan, the Ruler's Representative in the Al Dhafra Region and Chairman of the Agency's Board of Directors, has also enabled us to continue implementing our strategic initiatives and projects as we progress on our journey towards achieving our vision, mission and goals, and ensuring the sustainability of our natural resources and biodiversity, for current and future generations.

As the UAE was preparing to host COP28, the Agency took several varied and important steps to confront climate change, starting with the launch of a comprehensive climate change strategy for Abu Dhabi. This important framework aims to reduce emissions by 22% over the next five years, and to expand mangrove cultivation, and helped the nation achieve exceptional success during its participation in COP28. As part of our implementation of the single-use plastics policy, we succeeded in avoiding the use of 245 million plastic bags, collecting 1,000 tons of plastic bottles, and installing more than 70 bottle recovery machines and 26 smart containers in Abu Dhabi.

The year 2023 also witnessed the launch of the first edition of Sheikh Hamdan Bin Zayed Environmental Award, which generated great interest, demand and interaction, and helped instill a culture of sustainability. The award's inaugural edition recognised and highlighted a group of individuals and institutions that displayed unwavering leadership and commitment in the field of environmental preservation and protection.

For the fifth consecutive year, our efforts saw an increase in the sustainable fishing index, which rose from 8.9% in 2018 to 83.1% by the end of 2023. We also discovered 8 new species of invertebrates that were added for the first time to scientific lists, and two species of fish that were recorded for the first time in Abu Dhabi waters.

I am pleased to present our annual report for 2023, which reviews our achievements throughout the year. We look forward to more progress and further successes in protecting the environment and our natural resources, and leading positive change towards a more sustainable future.

Dr. Shaikha Salem Al Dhaheri

Secretary General, Environment Agency – Abu Dhabi



01 TERRESTRIAL BIODIVERSITY

In 2023, we discovered a number of “new to science” and new records of invertebrate species in Abu Dhabi and the UAE, and continued our efforts to protect important and threatened species in Abu Dhabi and globally through effective monitoring and policy making.



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Discovering 'New to Science' Species



8

'new to science' species discovered in our protected areas in 2023

All new discoveries are Digger wasp species:

- *Didineis mokrousovi*
- *Gastrosericus albidaaensis*
- *Gastrosericus alwathbaensis*
- *Gastrosericus barqaalsuqoorensis*
- *Gastrosericus sheikhae*
- *Oxybelus sajiae*
- *Parapiagetia alwathbaensis*
- *Parapiagetia huwrobertsi*



New Records for the UAE and Abu Dhabi

In 2023, we continued to discover species that are newly-recorded in the UAE and Abu Dhabi Emirate.

New distribution for the UAE:



Digger wasps

- *Gastrosericus funereus*
- *Gastrosericus sabulosus*
- *Odontosphex leleji*



Jewel beetle

- *Acmaeoderella (Omphalothorax) prosopiphaga*

New distribution for Abu Dhabi Emirate:



False Army Worm

Antlion

- *Mythimna loreyi*

Flower moth

- *Eremocera impactella*

Digger wasps

- *Gastrosericus funereus*
- *Odontosphex leleji*
- *Palarus comberi*

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Abu Dhabi Invertebrate Inventory Programme

We have continued to digitise our collection in 2023 by developing the Invertebrate Information Management System (IIMS).

2023 Achievements



Dry and wet collections updated



1 077 records added



Deposited the voucher specimens of the Common Banded Awl (*Hasora chromus*) – the UAE's first record of this species



2 330 records in total

Water Quality and Invertebrate Species Monitoring

In 2023, we initiated an assessment programme at Al Wathba Wetland Reserve (AWWR) for blood sucking insect vectors, such as mosquitoes and midges, using the 'Miniature Downdraft Blacklight (UV) Trap'. We also continued our water quality and Artemia monitoring programmes at the reserve.

Results



Artemia
concentration (cysts, juveniles, and adults)
highest in 3 years



73 198 and 138 mean Artemia/L recorded



334 highest number of Artemia/L recorded (from Site 10 in 2021)

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Assessment and Monitoring of Reptiles

In 2023, we undertook surveys for the Wonder Gecko (*Teratoscincus keyserlingii*), categorised as critically endangered (CR) on the Abu Dhabi Red List of Species. Usually found along the coastal belt stretching from Abu Dhabi to Ghantoot, their numbers are decreasing due to habitat loss caused by development. Currently the species is found only at one location in Abu Dhabi.



22

individuals were recorded including adults and juveniles

Reptile Survey Results

- 16 species across 7 families
- 8 species of **Gekkonidae** (geckos) – most prevalent
- 3 species of **Colubridae** (snakes)
- **Red Sea Gecko** (*Hemidactylus robustus*) – most prevalent in all habitats
- **Arabian Sand Gecko** (*Stenodactylus arabicus*) – second most prevalent in all habitats
- March 2023 recorded the highest number of species

Assessment and Monitoring of Important Breeding Birds

In 2023, we continued to monitor resident and migratory birds across Abu Dhabi Emirate.



175

bird species from 44 families and 20 orders



55

locations



73

species at Al Wathba Wetland Reserve (highest number)



68

species at Abu Al Abyad (second highest)



~11 %

of bird species recorded classified 'threatened' on the Abu Dhabi Red List





Socotra Cormorant (*Phalacrocorax nigrogularis*)

We surveyed Socotra Cormorant from eight nesting colonies throughout the emirate during winter season, revealing a stable breeding population.



>60 000 breeding pairs recorded
in winter 2022-2023



21 500 pairs recorded at
Ghagah Island

Red-Billed Tropicbird (*Phaethon aethereus*)

Surveys took place at all the three known breeding sites during the 2022-2023 breeding season.



3 nests recorded
• 2 on Zirku
• 1 on Jarnein

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Western Osprey (*Pandion haliaetus*)

We undertook the first emirate-wide comprehensive breeding survey in the 2022-2023 breeding season.

 **127**
active nests
recorded

 **43**
From 43 sites in
Abu Dhabi Emirate

 **19**
attended nests
recorded

 **39 %**
natural
nests

 **18** active nests at
Al Bazam (highest)

 **9** active nests at Futaisi Island
(second highest)

 **8** active nests at Al Aryam
(third highest)

 **62** of the sites surveyed included
small and large islands

 **44 %**
artificial nesting
platforms

 **17 %**
nests on manmade
structures





Crab Plovers (*Dromas ardeola*)

2 colonies in Abu Dhabi

- Abu Al Abyad island
85 % active nests recorded
- Umm Amim island
15 % active nests recorded



1768

active nests recorded
(highest since 2003)

Breeding Terns

In 2023, we assessed breeding terns on nearshore and offshore islands in Abu Dhabi Emirate.

Crested Tern
(*Thalasseus bergii*)

1162 pairs recorded from Jarnein only



White-cheeked Terns
(*Sterna repressa*)

4 893 pairs recorded from 10 sites



Lesser-crested Terns
(*Thalasseus bengalensis*)

27 658 pairs recorded from 5 sites



17 637 pairs recorded from Jarnein



Bridled Terns
(*Onychoprion anaethetus*)

16 590 pairs recorded from 11 sites

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Greater Flamingo (*Phoenicopterus roseus*)

In 2022 to 2023, Greater Flamingos bred successfully at Al Wathba Wetland Reserve, the only site in the Arabian Peninsula where the species has bred continuously since 2011.

473

chicks fledged in
2022-2023



920

eggs laid



Tracking Important Migratory Bird Species

In 2022-2023, Greater Flamingos bred successfully at Al Wathba Wetland Reserve, the only site in the Arabian Peninsula where the species has bred continuously since 2011.



Fitted with 5g
Argos satellite
transmitters



Bar-tailed Godwits
tracked since
January 2022

4



11 800 km covered
in total

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Mammal Assessment and Monitoring

In 2023, we conducted mammalian surveys across various habitats in Abu Dhabi.



Trapping surveys conducted in Al Wathba Wetland Reserve and Al Wathba Fossil Dunes Protected Area

- 1 record of **Cheesman's Gerbil** (*Gerbillus cheesmani*)



6 species of mammals
.4 orders
.5 families



3 species of Carnivora (cats, dogs, foxes)
• **Feral Cats** – most frequently recorded mammal

Arabian Oryx Populations in Range States

In 2023, EAD continued to support the General Secretariat for the Conservation of the Arabian Oryx (GSCAO) and conducted a regional survey on population demography and management practices of Arabian Oryx in range states.



10 110

Arabian Oryx recorded in range states



8 016

Arabian Oryx recorded in the UAE



5 679

Arabian Oryx recorded in Abu Dhabi Emirate

.71 % of total UAE Arabian Oryx population



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Abu Dhabi City Biodiversity Index

Abu Dhabi City was the first in the region to join 38 international city governments to apply the Singapore City Index.



Species numbers in Abu Dhabi City and Al Ain City

- 367 bird species
- 231 plant species
- 302 invertebrate species
- 25 reptile and amphibian species
- 15 mammal species

Terrestrial Wildlife Incidents

In 2023, EAD managed incidents related to terrestrial wildlife and responded to information requests on terrestrial biodiversity.

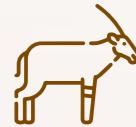


- Included injured birds and gazelle
- Reports on injured birds were highest
- Requests for information on protected areas was second highest

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Conservation and Reintroduction of Wildlife

Translocating Arabian Oryx for Conservation Breeding



80

In 2023, **80 Arabian Oryx** (*Oryx leucoryx*) were translocated to Deleika Wildlife Conservation Centre from Sheikh Mohammed Bin Zayed protected area (Ashab)



Endangered Species Reintroduction in Chad



50

animals screened and fitted with satellite collars for monitoring them before release

- 15 Scimitar-horned Oryx (*Oryx dammah*)
- 35 Addax (*Addax nasomaculatus*)



21

Dama Gazelle (*Nanger dama*) in Chad in total (in enclosures)



>630

Scimitar-horned Oryx in Chad in total

• 62 calves born in 2023



160

Addax in Chad in total

• 24 calves born in 2023

Reassessment of the **Scimitar-horned Oryx** to change conservation status from 'Extinct in the Wild' to 'Endangered' submitted to IUCN

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Building World Class Conservation Breeding Facility at Deleika



Phase 2 of Delekia Wildlife Conservation Centre to launch in 2024. It will include:

- Veterinary clinic
- Administrative centre
- Researchers and staff accommodation
- Wildlife habitat to highlight endangered species

IUCN World Conservation Congress 2025

In June 2023, it was announced that the IUCN World Conservation Congress will be held in Abu Dhabi from **9 to 15 October, 2025**.



>10,000

delegates expected
(including many head of states)



1st

time in the UAE



2nd

time in the Middle East



Plant Genetic Resources Centre

In 2023, we undertook many initiatives to safeguard the UAE's native flora, including updating our digital and lab resources and propagating threatened species.

2023 Achievements

Equipping the Plant Genetic Resources Centre Laboratories



6

labs were equipped with new, highly specialist equipment to preserve the native flora of the UAE



AED 3.5

million in value

Ensures functionality, including:

- Seed collection, testing and preservation
- Tissue culturing
- Genomics
- Cryopreservation

First-Time Flowering of the Single Sarh Tree (*Maerua Crassifolia*)



Flowering and fruiting was recorded for *Maerua crassifolia* for the first time since it was recorded in 2020. The species is listed as Critically Endangered in the UAE

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Updating the New Herbarium Management System and Digital Herbarium

In 2023, we updated the Herbarium Management System database with over 2 660 records and their digitized images.

 10 new records of macroalgae added

 6 new records of mushroom species added

Floral Survey of Jarneen Island

The 2023 floral survey of Jarnain island resulted in:

 19 different plant species recorded

 3 Of which 3 are new records for the island

Propagation of Selected Threatened Flora

In 2023, we succeeded in propagating two important and threatened species in the native plant nursery in Al-Dhafra region:

-  • *Salsola cyclophylla*
- *Ochradinthus arabicus*



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Environmental Tourism in Protected Areas

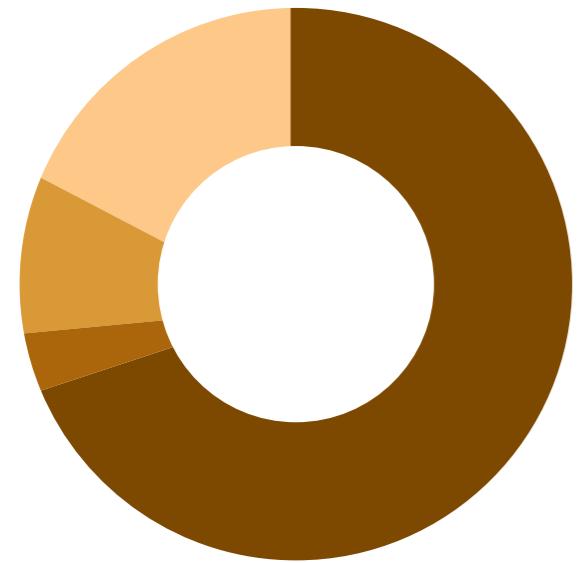


Users visited protected areas in 2023 with 37 % increase more than 2022



Touristic and recreational activities inside the protected areas reached 69 % in 2023. Sixfold the percentage recorded in 2022

% of key activities in the protected areas in 2023



- Tourists - 69 %
- Recreational fishing - 4 %
- Commercial fishing - 9 %
- Housing activities - 18 %



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Grazing and hunting licenses in the Emirate of Abu Dhabi



35

Grazing license issued in 2023 for the first time and grazing season was identified from the 1st of May to 15th of October 2023 as per resolution No. (5) of 2023 of Law No. (11) of the year 2020 and its executive regulations on identifying grazing season and areas in Abu Dhabi



2 603

Falconry license issued via Tamm platform in accordance with Law No. (22) of the year 2005 on regulating hunting in the Emirate of Abu Dhabi and its executive regulations



02 MARINE BIODIVERSITY

Throughout 2023, we continued our efforts to protect Abu Dhabi Emirate's marine environment, through restoration initiatives, fisheries data collection, aquaculture projects and the launch of the Jaywun research vessel.



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Restoration of Marine Habitats

Abu Dhabi Mangrove Initiative (ADMI)

ADMI was launched in 2022, with the aim of establishing Abu Dhabi Emirate as a local and global centre of excellence in mangrove and blue carbon ecosystem restoration. In September 2023, ADMI formally launched its partnership programme.



4

local partnerships with private sector

- Goumbook
- Mubadala Energy
- ADNOC
- Jubail Island Investment Company



2

international partnerships with research and conservation institutions

- Zoological Society of London
- University of St. Andrews

2023 Achievements



6 782 080

mangroves
rehabilitated in 2023



2 712

ha of mangrove ecosystems
under rehabilitation
programmes



1 200 000

mangroves
rehabilitated in 2022



100 %

rehabilitated
mangroves areas being
monitored



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 **1356**
Mg/Carbon/Year estimated
carbon sequestration from
rehabilitated sites by 2043

 **565 %**
annual increase in carbon
sequestration from 2022
mangrove rehabilitation project

 **18**
key community
engagements
. >1400 participants



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Coral Reef Restoration in Abu Dhabi

The coral reef restoration project in Abu Dhabi Emirate targets active restoration through adaptation.

2023 Assessment Results



Restoration sites

- Ghasha Island,
Um Al Diem, Bu San'ia
and Ruqqat Yabr



312 025

corals translocated
from the nursery since
the project began



71.8

ha covered

- Compared to 0.21 ha
covered in 2022



65 340

corals in the nursery



90 %

survivorship, despite a
coral bleaching event



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Rescue and Rehabilitation of Marine Wildlife

Dugong

Malquot, the dugong calf, rescued in 2019, suffered from dehydration and malnutrition due to being separated from his mother. Since then, EAD and its partners have cared for him in a controlled environment. In 2023, he was relocated to SeaWorld Abu Dhabi where a dedicated team of animal care specialists, supported by EAD's marine animal experts, ensures his well-being.



Sea Turtles

The Wildlife Rescue Programme, in partnership with The National Aquarium, achieved the following in 2023



>800

turtles rescued since 2020 inception



12

equipped with satellite tags



178

turtles rescued from November 2022 to May 2023

- **121** successfully reintroduced into their natural habitat



2

turtles have been rescued and rehabilitated



We signed an MoU with The Department of Culture and Tourism – Abu Dhabi (DCT) to create a pre-release turtle rehabilitation area at Louvre Abu Dhabi, an extension of the Wildlife Rescue Programme.

EAD and Miral signed an MoU to enhance marine conservation and research through Yas SeaWorld® Research & Rescue Centre.

Sea Turtles

The annual survey for marine turtle nesting and hatching was expanded in 2023 to cover more locations.



Dolphins

The Abu Dhabi City Dolphin Survey, a collaboration between EAD and Zayed University, studied the occurrence of dolphins and porpoise in the emirate's waters.



Monitoring and Assessment of Marine Species

Barnacle and Epiphyte Species Found on Rescued Hawksbill Turtles

 25

species of epiphyte recorded from 29 rescued yearling Hawksbill turtles

 4

algae species

 1

seagrass species

 19

epiphyte fauna species

Fish Stocks in Abu Dhabi Emirate Fisheries Data Collection and Monitoring

2023 Assessment Results

 1135 tonnes

Total volume of landings of commercial fisheries

 5 777

Total number of observations and interviews conducted

 49 502

Total number of samples collected from 15 species

 360

Age, growth and reproductive biology analysis conducted on 360 samples of Shaari (*Lethrinus nebulosus*)



Improvement in overall fish stock status

- Sustainable Exploitation Index (SEI): increase from 8.9 % in 2018, to 83.1 % in 2023 - Exceeding 2023 target: 75 %
- Spawning Biomass per Recruit: increase from 7.6 % in 2018, to 42.2 % in 2023 - Exceeding 2023 target: > 40 %



Fisheries Research

King Fish Study

In collaboration with United Arab Emirates University, we began implementing the first project of its kind in the world, tracking king fish via satellite tagging.



8

tracking devices installed
(out of a total 18)



350 km

travelled in 9 days –
preliminary result from one
sampled fish

- ~40 km per day at 1.8 km/hour average speed

AI Smart Fish Identification System

In collaboration with Bayanat, we initiated a project utilising cutting-edge technology for smart fish data collection, analysis and AI identification.



10

month project

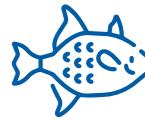


- Enhances EAD's fisheries data collection
- Provides instant fish species identification and measurement tools
- Improves decision-making and assessment

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Increased Occurrence of Rare Species

In 2023, there was an increased occurrence of several notable rare species, due the ongoing improvement in the status of Abu Dhabi Emirate's fish stocks.



Large scale triggerfish
(*Canthidermis macrolepis*)
and Spotted oceanic
triggerfish (*Canthidermis
maculata*) observed for the
first time in the Arabian Gulf



Spotted Scat fish
(*Scatophagus argus*)
observed in Abu Dhabi
waters for the first time



Increased observations of rare
commercial fish species:
• Ghazala (*Elagatis bipinnulatus*)
• Sobaity (*Sparidentex hasta*)



>100 kg
in 2020 to over
4 tonnes in 2023



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Fisheries Management and Licensing Recreational Fishing Regulation

In 2023, we introduced Regulation No (4) of 2023, the first in the region to enforce catch limits for 24 commercially important fish species, regulating recreational fisheries in Abu Dhabi.

2023 Fisheries License Figures



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Aquaculture

Sea Cages Aquaculture Project

In 2023, we launched a project to identify areas suitable for offshore aquaculture development initiatives in the Al Sila'a area, within the Al Dhafra region.



11

sites were identified as potentially suitable for sea cage aquaculture development



1

site selected as the most suitable and studied utilizing advance integrated hydrodynamic modeling tool



24

sea cages



720

tonnes annual estimated production



7.5

year payback period

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Abu Dhabi Pearls Centre

 560
visitors

 100 %
visitor satisfaction

Oyster Restoration Programme

An initiative under the research path of Abu Dhabi Pearls Centre in 2023, we began its implementation, surveying 40 out of 337 traditional oyster beds, and choosing 1 site for restoration.

Aims:



- Collect data of historical pearl diving sites
- Survey and assess all sites to evaluate site condition, oyster availability, health and density
- Select a site to begin restoration using cultured oysters
- Develop an updated accurate digital map



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Pilot Scale Freshwater Pearl Oyster Project at Al Fayah

In 2023, we launched a first-of-its-kind research project to produce pearls by cultivating freshwater pearl oysters.



- 10 grow-out tanks
- 20 quarantine tanks
- 10 000 oysters production by 2024 is the target
- Operation process completed on 3 699 out of 5 282 imported oysters





Jaywun Research Vessel

In 2023, EAD launched 'Jaywun' the UAE's first and most technologically advanced marine research vessel in the Middle East. The 50-metre, state-of-the-art multipurpose marine conservation and fisheries vessel uses environment-friendly technologies to conduct research in the Arabian Gulf.

2023 Achievements



Participated in multiple events



- Naval Defence & Maritime Exhibition (NAVDEX), Abu Dhabi
- Abu Dhabi International Boat Show (ADIBS), Abu Dhabi
- 34th Annual International Research Ship Operators (IRSO), Bruges
- 1st phase of Fisheries Resources Assessment Survey completed
- 1st eDNA baseline and genomic sequencing of fish species completed
- 1st biological and physical oceanographic survey of Southern Arabian Gulf completed
- Future Fit seal awarded by Government Development and the Future Office

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Sheikh Zayed Protected Areas Network

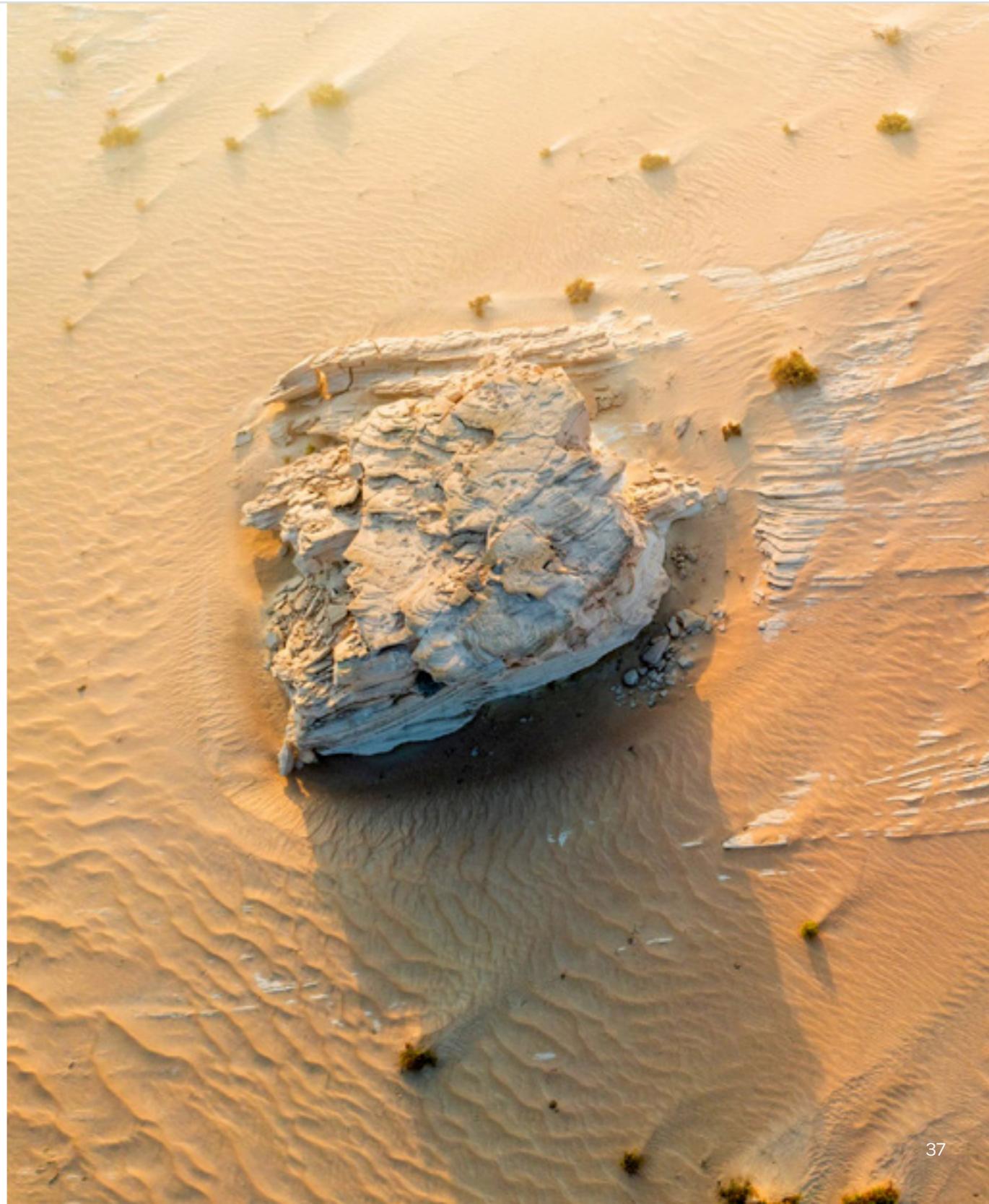
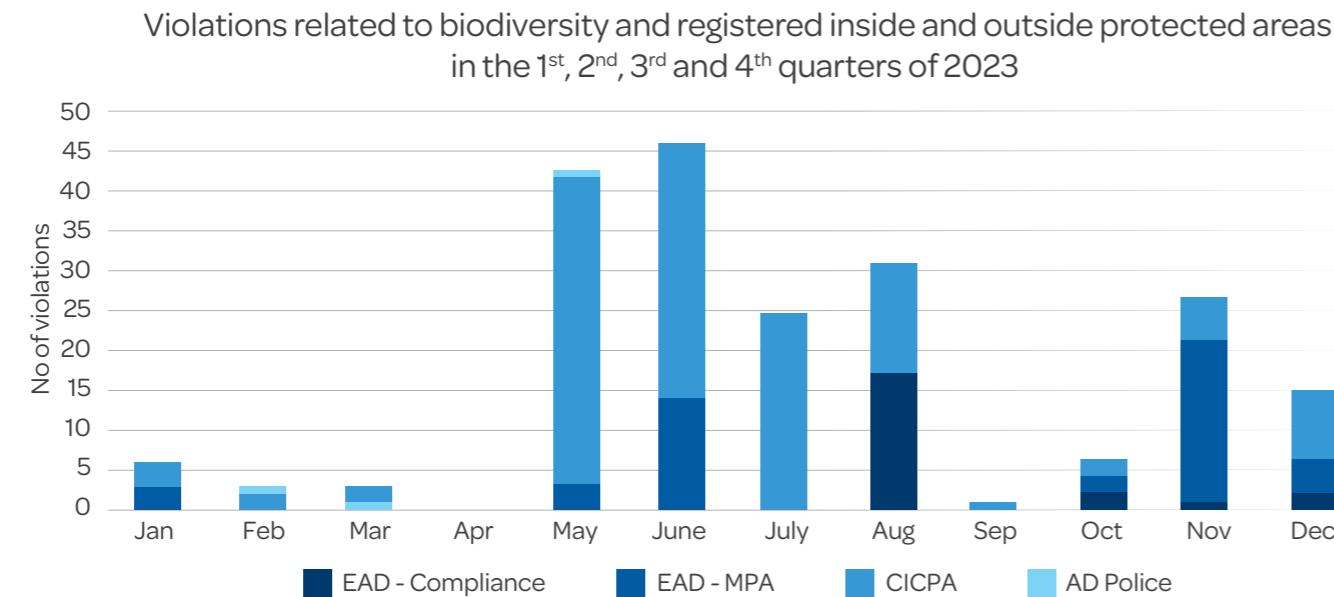
In 2023, we enhanced monitoring and enforcement efforts to ensure compliance with biodiversity regulations.

 **16 564**

Monitoring hours inside and outside marine and terrestrial protected areas in the 1st, 2nd, 3rd and 4th quarters of 2023, including the islands, coastal and marine areas, fish landing and selling sites, as well as grazing and falconry areas

 **188**

Environmental violations reported in marine and terrestrial areas throughout 2023, with a fourfold increase over the violations recorded in the same period in 2022 after activating EAD board's resolutions including administrative violations and fines table No. (2) of the year 2023, Recreational Fishing No. (4) of the year 2023 and Law No. (11) of 2020 regulating grazing in the Emirate of Abu Dhabi



03 GROUNDWATER

An non-renewable resource, protecting Abu Dhabi Emirate's groundwater supply is one of our key priorities. In 2023, we continued to gather important data through our comprehensive monitoring network, and launched new studies and policies to further understand and protect this precious resource.



Groundwater Monitoring Programme

Due to the growing pressures on non-renewable groundwater resources, we are proactively updating our groundwater monitoring objectives.



2

monitoring networks

- Groundwater levels
- Groundwater quality

Groundwater Level Monitoring Network 2023 Achievements



441

monitoring wells

- 97 automated with real time measuring and data delivery



>1100

water level measurements collected and analysed

- 225 further measurements collected from non-monitoring wells



4

monitoring wells drilled at AlKhatem, to enhance data



Groundwater depleted zones reviewed



New well rehabilitation and maintenance project launched



Annual Report 2023 | Groundwater

Groundwater Quality Monitoring Network 2023 Achievements



2

year project launched to study impact of animal production facilities on groundwater quality



480

groundwater samples to be collected across 2 years



220

samples collected in 2023

Groundwater Assessment and Development Programme

Hydrogeological Mapping of the UAE

In 2023 we completed the hydrogeological map of the UAE. Knowledge of the country's groundwater is essential for ensuring social wellbeing and a viable economy.



- Phase 2 complete
- Field investigations conducted
- Data assessment report reviewed



Cleaning of Unused Groundwater Wells in Bu-Hasa.



Annual Report 2023 | Groundwater

Cleaning the Unused Groundwater Wellfield in Bu-Hasa

Following the rehabilitation of 200 unused groundwater wells in the Bu-Hasa area of the Al Dhafra region between 2017 and 2020, EAD completed the cleaning and maintenance of 50 groundwater wells in 2023, ensuring their operational readiness in emergencies.

Groundwater Research and Development Programme

Salt Leachate Project

Aim: to investigate the implications of using reject brine for food and forage production; to assess the impacts on the receiving environment in terms of the return flows of salt and nutrients to the groundwater.



4

year PHD study



Food grown -
Salicornia and Quinoa



100 %

complete in 2023



Fodder grown -
Blue Pannicum



The Salicornia Basin.

Annual Report 2023 | Groundwater

Groundwater Aquifers Artificial Recharge with Treated Wastewater

With tendering, awarding and date collection completed in 2023, this study at the Abu Dhabi-Al Ain Road Area evaluates the following:



- Water transmission infrastructure
- Appropriate aquifer location
- Recharge quantities
- Identification of techniques for facilitating artificial aquifer recharge



Groundwater Regulations

Decree No. (1) of 2023 was issued by EAD for the protection of groundwater from pollution.

Aims



- Protect groundwater quality from deterioration
- Detail requirements to protect wellheads from pollution sources
- Specify commitments on well owners during well drilling, operation, extraction of groundwater and decommissioning

04 AIR QUALITY

Monitoring ambient air pollution levels in Abu Dhabi Emirate gives EAD high quality scientific data on where the pollution is, how much there is and when it takes place, enabling us to develop and adapt an air pollution control policy across the emirate.



Annual Report 2023 | Air Quality

Air Quality Monitoring Network

Our data comes from an integrated network that continuously monitors ambient air quality and averages the data every minute.



20

fixed stations:

- 8 in Abu Dhabi
- 6 in Al Ain
- 6 in Al Dhafra



ISO 17025:2017 awarded to EAD for the efficiency of our air quality monitoring network calibration laboratory

Learn more visit adairquality.ae



2 mobile stations



>17 monitoring devices and sensors per station



69

reports scheduled each year



Air Quality Calibration Laboratory.



Air Quality Monitoring Station.

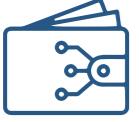
Annual Report 2023 | Air Quality

Stacks Continuous Emissions Monitoring System (CEMS) Project

EAD launched a ground-breaking project electronically linking all industrial Stacks Continuous Emissions Monitoring Systems (CEMS) in Abu Dhabi Emirate directly to our emissions monitoring system, gathering real-time data.

 500
Connects to up to 500 stacks

 30
Every 30 mins – real time data collection

 35
stacks e-linked

 >50
facilities visited

 3
e-linked facilities tested for accurate data

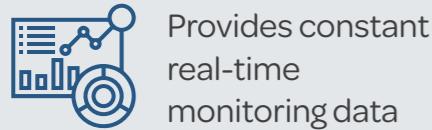


CEMS E-link Project.

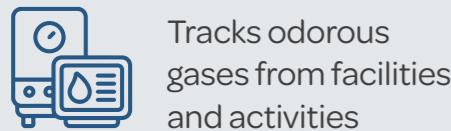
Annual Report 2023 | Air Quality

Abu Dhabi odorous gases monitoring network

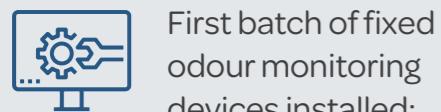
EAD launched a regional-first project – the ‘Abu Dhabi Odorous Gases Monitoring Network’ – as part of a drive to improve environmental protection, air quality and public health.



Provides constant real-time monitoring data



Tracks odorous gases from facilities and activities



First batch of fixed odour monitoring devices installed:

- 7 in Abu Dhabi
- 3 in Al Ain



2

regulatory odorous gas mobile monitoring stations approved



12

parameters monitored, including:

- Sulphur dioxide
- Hydrogen sulphide
- Ammonia
- Total volatile organic compounds
- Formaldehyde
- Chlorine
- Methyl mercaptan
- Nitrogen dioxide



Odour Monitoring Project.



Air Purification Tower
in Hudayriat Island.



Air Purification Tower

EAD inaugurated the region's first smog-free tower at Hudayriat Island, designed to enhance air quality in the area and provide an insight into a clean and green future.



metre,
aluminium tower



30 000 m³

air cleaned
per hour



Environmentally-friendly
positive ionisation
technology purifies
surrounding air



Only
1170
watts of electricity



Air Purification Towers.

Annual Report 2023 | Air Quality

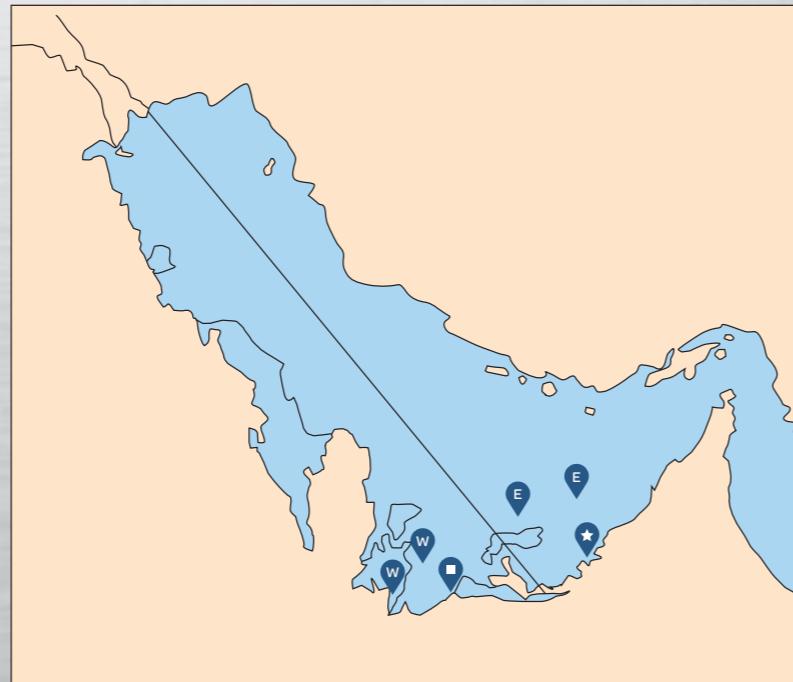
Atmospheric Research Expedition: Transport of Hydrocarbons and Ozone Formation Downwind of the Arabian Gulf (THOFA)

In June 2023, EAD continued its collaboration with The Cyprus Institute and the Max Planck Institute for Chemistry, Germany, and conducted an atmospheric field campaign across Abu Dhabi waters in both Abu Dhabi and Al Dhafra regions, on board the Marine Research Vessel "Jaywun".

Aims:



- Monitor primary gaseous air pollutants downwind of the Arabian Gulf
- Evaluate the transport of background pollution from the Arabian Gulf
- Enhance our comprehension of the sources and dispersion mechanisms of regional tropospheric ozone



THOFA Sampled Locations.



Marine Research Vessel "Jaywun".

Annual Report 2023 | Air Quality

Remote Vehicle Emission Testing

In 2023, EAD used innovative, laser-based technology to complete an on-road vehicle emissions monitoring project in partnership with Abu Dhabi Police, Department of Municipalities and Transport and Integrated Transport Centre. The project was part of our Integrated Air Quality Management Programme.

Aims:



- Gain understanding of air emissions from road transport
- Develop best policies to improve air quality in the emirate



6

locations



134 000

vehicles measured



108 957

valid readings



Remote Sensing Device Measuring Emissions from Passing Vehicles in Abu Dhabi.



Annual Report 2023 | Air Quality

Advanced Air Quality Modelling Framework

EAD has developed and implemented a sophisticated, multi-theme air quality modelling system for Abu Dhabi. The system will:



- Support regulation via the assessment of cumulative air quality impacts expected from new facilities and urban development projects
- Reduce public exposure to air pollution
- Support the improvement in air quality across Abu Dhabi
- Assess the effectiveness of future action plans and policies
- Provide expert technical support, training and capacity building to enable the identification of pollution hotspots
- Aid the development of detailed emirate-wide annual air quality maps
- Include 7 types of model tailored to Abu Dhabi Emirate's climate, economy and geography

Air Quality Regulation for the Emirate of Abu Dhabi

The air quality regulation was drafted to be an umbrella for any development of a regulatory instrument in the future to protect air quality in the emirate. Developed after benchmarking global best practices it aims to:



- Build a strong relationship with industries to improve their emission reduction programmes and implement innovation ideas
- Support Federal targets



Air Quality Modelling Stakeholder Workshop.

05 CLIMATE CHANGE

Addressing the impacts of climate change is a key priority for EAD, closely interconnected with our commitment to preserving the quality of our air, water and soil. Many of our strategies for safeguarding species and ecosystems are designed to combat the potential consequences of climate change.



Annual Report 2023 | Climate Change

Setting the Scientific Foundation for Climate Action in Abu Dhabi through GHG Inventories

National efforts to reduce human impacts on climate rely on knowing the quantity of emissions released and the carbon absorbed as a result of human intervention.

Abu Dhabi's GHG inventories:



Provide vital information to develop emirate-level policies and measures to reduce GHG emissions and enhance their removal in forests and other terrestrial areas



Support the federal government in fulfilling its reporting commitments to the United Nations Framework Convention on Climate Change (UNFCCC)

GHG Inventory and Emissions Projections: Fifth Cycle

In 2023, in cooperation with our partners across all sectors, we successfully completed the fifth cycle of the GHG inventory and emission projections for the emirate.

Aims:



- Update the inventory following Intergovernmental Panel on Climate Change (IPCC) guidelines
- Refine emission projections up to 2030
- Analyse entities' strategies and development plans

5 key economic sectors analysed:



- Energy
- Industrial processes
- Agriculture
- Waste and land-use change
- Forestry



Annual Report 2023 | Climate Change

6 primary gases targeted:

- CO₂
- CH₄
- N₂O
- HFCs
- PFCs
- SF₆

4 precursors and indirect emissions targeted:



- CO
- NOx
- NMVOCs
- SO₂

Total anthropogenic GHG emissions in Abu Dhabi Emirate:



10 %

reduction
from 2016



0.91

correlation with
population (good)



0.84

correlation with
GDP (good)



54 %

reduction projected
by 2030 (compared to
business-as-usual levels)



114 968 Gg

CO₂-eq total emissions
estimated by 2030





Strengthening the EAD Transparency Framework Under the Paris Agreement

Our climate change team participated in specialised training programmes by the UNFCCC. The aim was to strengthen the UAE's transparency framework under the Paris Agreement on climate action. This included:



UNFCCC-accredited certificates of competence for GHG compilers for Training Course A



Participation in a MRV Transparency System Capacity Building training course

Developing GHGs Emission Factors for Abu Dhabi Emirate

In 2023, we issued a competitive call for proposals for a funded research collaboration to EAD's Abu Dhabi Environmental Research Network (ADERN). The 12-month research project was scheduled to begin in Q4 of 2023.

Aim:



To develop locally optimised greenhouse gas emission factors

The study will:



- Review the current state of knowledge
- Propose methods
- Collect primary data from key stakeholders
- Propose corrections to account for Abu Dhabi specificity
- Assess impact of uncertainties
- Develop an emission factors guidebook for Abu Dhabi

Competition winners:



Zayed University multi-disciplinary team

Annual Report 2023 | Climate Change

Climate Change Strategy in the Emirate of Abu Dhabi

This year, the Executive Council approved the Abu Dhabi Climate Change Strategy submitted by EAD. The strategy includes:



85
projects



15
government and
private sector entities



2
pillars

- Climate risk adaptation plans for 4 vulnerable sectors (environment, energy, infrastructure, public health)
- Climate change mitigation through 22 % reduction in GHG emissions in key emitting sectors by 2027

Climate Change Adaptation Planning for the Emirate of Abu Dhabi

EAD is leading the environment adaptation plan for Abu Dhabi.

In 2023, this included:



Launching preparatory analysis of current and future climate change scenarios and conducting thorough risk assessment based on them



Convening several meetings to engage with the most vulnerable sectors



Developing a risk assessment on the expected impacts of climate change, which will be input into the action plan development



Consulted most vulnerable sectors to develop climate change adaptation plans



Annual Report 2023 | Climate Change

MoU to Develop a Measurable Reportable Verifiable (MRV) System for Abu Dhabi

In 2023, we took part in the technical evaluation of MOCCAE's national MRV tender. Our team participated in reviewing the alpha version of the national MRV system. Achievements include:



An MoU between EAD and GGGI to implement a plan for proposed projects between 2024 and 2026



Near completion of data mapping with stakeholders



The assessment of the legal risks of the impregnation process, completed by the end of 2023



The development of institutional frameworks, completed by the end of 2023



COP28



EAD supported the UAE's efforts at COP28 on Climate Change including:

- EAD signed **3** MOU's, **1** corroboration letter & **2** ADERN research collaboration with
- Coordinating with the COP28 office, MOCCAE and Salama Bint Hamdan Al Nahyan Foundation
- Participating in **14** international events
- **41** employees coordinate the events and worked on the plan
- **3** EAD employees assigned to the Envoy office to support the UAE negotiation portfolio
- **38** future opportunities identified
- **49** events attended by EAD

GThe announcement of the **Ghars Al-Emirates Initiative** marked a unique milestone at COP28 as no similar initiatives had been unveiled in previous years



6
events in
Blue zone



25
Events Organized by EAD in the Green Zone - 17 were EAD youth council lead



4
films displayed
in the Green zone



3
sponsored
events



06 MARINE WATER QUALITY

We monitor Abu Dhabi Emirates' marine water quality (MWQ) via conventional and automated sampling. In 2023, our additional initiatives included evaluating the effects of desalination plants on the marine environment and conducting an assessment of microplastics in the marine ecosystem.



Drivers, Pressures and Impacts on Abu Dhabi Waters

Economic forces exert stress on the marine environment, stemming from anthropogenic influences.



Drivers of environmental change in the Emirate of Abu Dhabi include:

- High population growth rate
- Increased shipping
- Oil extraction
- Coastal development



Pressures on the marine waters of the Emirate include:

- Coastal modifications
- Increased production of solid and liquid waste
- Introduction of air emissions into the ocean
- Climate change



Pollution in marine waters can potentially:

- Reduce biodiversity
- Cause fish kills
- Could potentially result in increased number of Algal Bloom cases
- Affect the ability of water to be used in processes such as desalination and cooling
- Cause an accumulation of heavy metals and other toxins in fish and seafood



EAD Marine Sampling Sites.



Algal Blooms.



Abu Dhabi Marine Waters.

Annual Report 2023 | Marine Water Quality

MWQ Conventional Sampling Programme



43

area of possible pollution sources
• Ecologically important areas
• areas of possible pollution sources



33

marine water quality parameter



12

Marine sediment Quality Parameters



Expansion of WQ by adding 20 new sampling sites in 2023



421

samples collected in 2023



MWQ meets public health criteria for recreational activities



Annual Eutrophication Index for 2023 is 64



Annual Microbial Index for 2023 is 100



38.57 °C

maximum temperature of marine waters at Um Al Hatab area

·1.38 °C increase compared to 2022



17

marine Water Quality Incidents reported in 2023



5

harmful Algal Bloom incidents reported in 2023



Sediment Sample Collection.



MWQ Automation Programme

EAD's Marine Water Quality Automation initiative is a vital component of the MWQ Programme.



10

strategically placed
marine buoys across
Abu Dhabi waters



- Provides real-time marine water quality data
- An early warning system for algal blooms
- Readings logged every 15 minutes
- Hourly temperature data logged



9

key marine water quality parameters measured, including:

- Salinity
- Temperature
- Conductivity
- Dissolved oxygen
- Chlorophyll a

Impact of Desalination Plants on the Marine Environment

To understand the impact of desalination plants on the marine environment, we ran a project in 2021 to collect data from the marine environment surrounding the brine discharge area of Mirfa Desalination Plant.



4

surveys completed
in 2023 to assess

- Water and sediment quality
- Habitat
- Biodiversity

Annual Report 2023 | Marine Water Quality

Microplastic Assessment in the Marine Environment

We have initiated a microplastic assessment project for the marine environment that will run until 2025. We began a comprehensive survey to measure microplastic content in Abu Dhabi waters and sediment in October 2023.

Aims: Understand the extent and impact of microplastic pollution
Establish a standard reporting methodology



32

sites strategically selected for biota, marine water, and sediment sample collection

- Samples will be analysed in collaboration with QCC

Collaboration With External Entities and Integration of Marine Water Quality Environmental Data

We have collaborated with external entities to create a comprehensive repository of marine environmental data.



82.3 %

total geographical coverage

Data from:

- 10 ADNOC sampling stations
- 15 DMT tidal stations
- 3 AD Port marine buoys

Annual Report 2023 | Marine Water Quality

Marine Water Quality Policy & Regulations

Policy on Sustaining Marine Water Quality in the Emirate

In 2023, we approved a policy on sustaining marine water quality in Abu Dhabi Emirate, and issued the resolution No. (4) of 2022.



Aims:

- Enhance regulatory and operational frameworks
- Combat marine contamination through fostering reuse of treated effluents for beneficial uses
- Ensure awareness on marine water quality in Abu Dhabi Emirate

Decree on Mixing Zones Requirements that are Related to Discharges to the Marine Environment in the Emirate

We issued decree No. (7) of 2023 on mixing zones requirements that are related to discharges to the marine environment in Abu Dhabi Emirate.



Aims:

- Preserve and sustain the marine environment by setting specific conditions and requirements of mixing zones for land-based discharges
- Approve a mixing zone on a case-by-case basis
- Take into consideration the quantities and quality of discharges as well as characteristics of the receiving marine environment



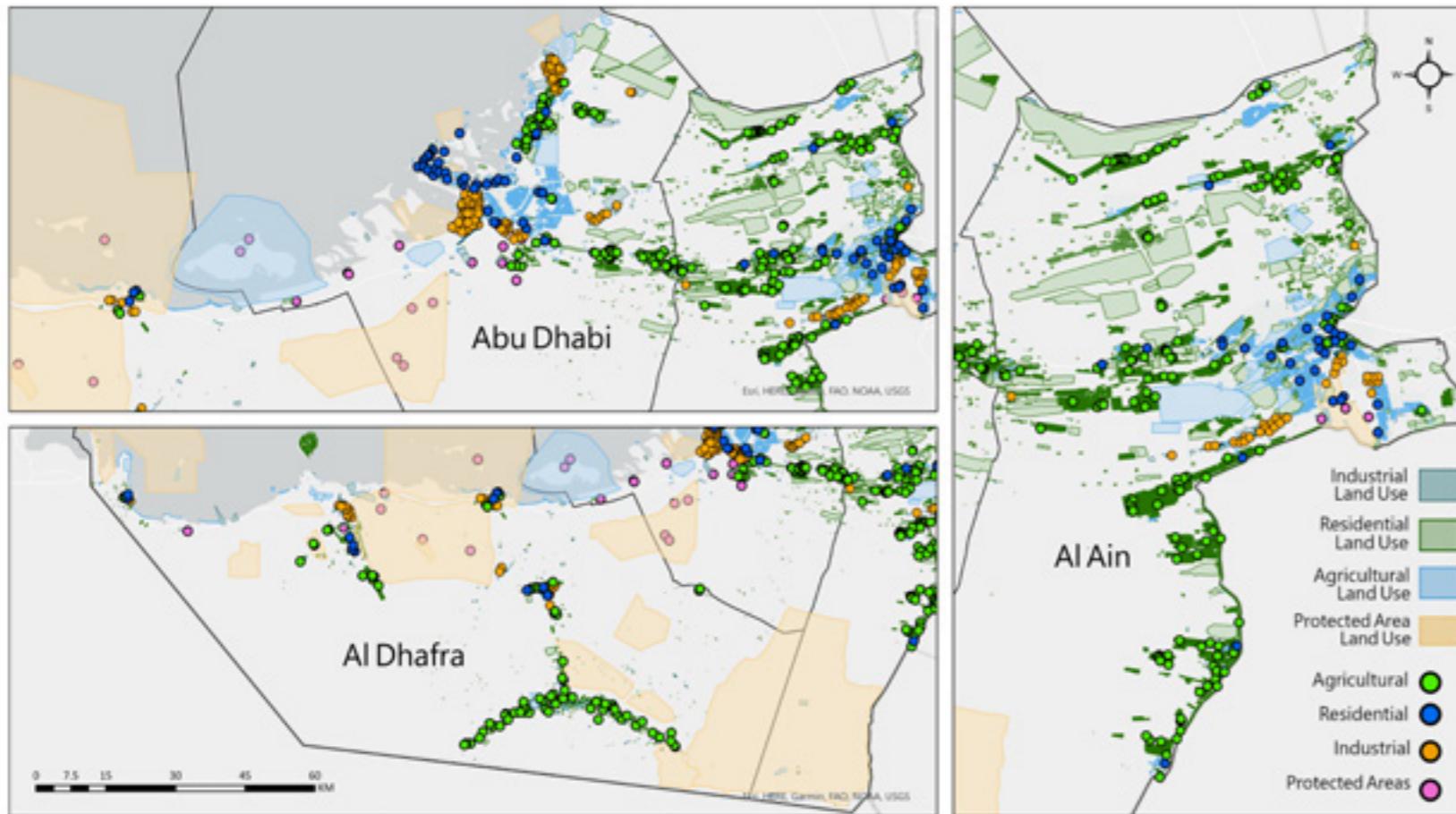
07

SOIL PROTECTION REGULATIONS AND MONITORING

In 2023, our activities centred on two main goals: establishing an integrated approach and regulatory framework for soil protection in collaboration with partners, and enhancing soil quality monitoring to inform data-driven policies and regulations.



Abu Dhabi Soil Quality Monitoring Programme



Soil quality monitoring sites 2023.

Soil Quality Monitoring Sites

664
sites across the Emirate

> 1374
soil samples collected and analysed annually

> 35
elements/contaminants examined

72 102
soil records in soil database

36
thematic maps

Soils collected at both surface and subsurface depths

Sampling methodologies:

- Grid Sampling Strategy for industrial activities
- Complete Random Stratified Design for agricultural activities (plant/animal)
- Random Sampling Strategy for development/residential activities



The Drone Project.

Soil Quality Mapping with Drones, AI and Remote Sensing

Using drones, hyperspectral remote sensing and AI, this project is a significant step forward in the development of sustainable soil management practices in Abu Dhabi, with reduced costs, improved speed and accuracy of monitoring and maps.



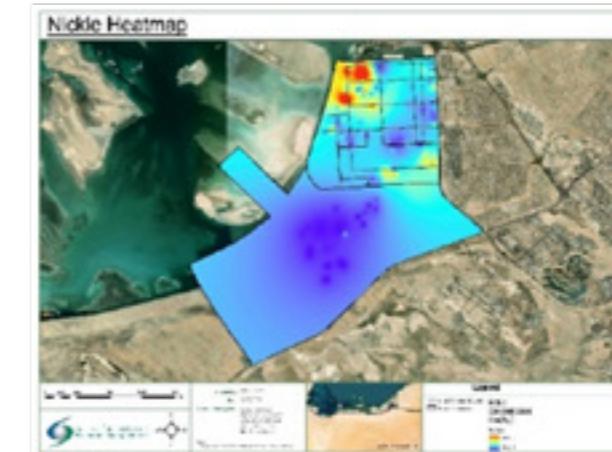
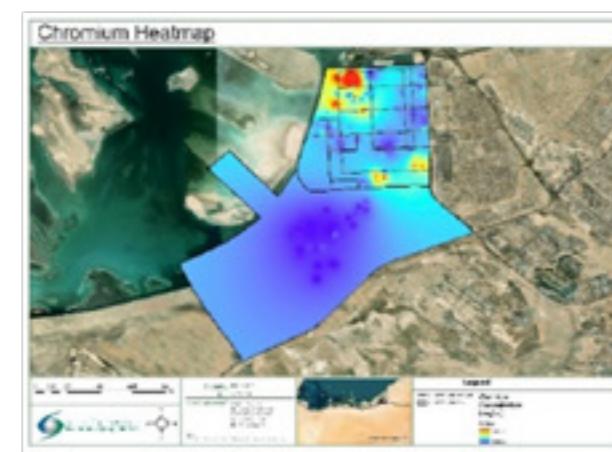
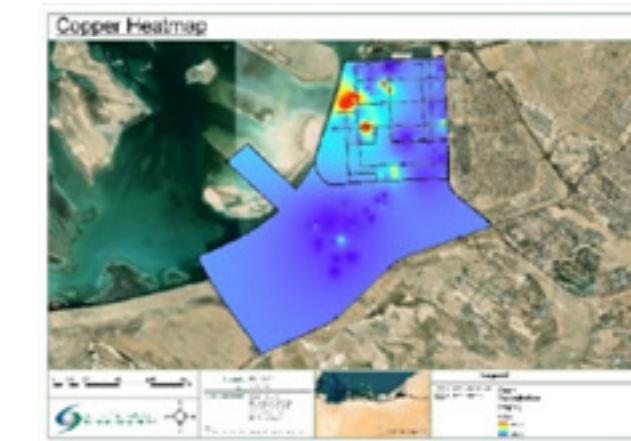
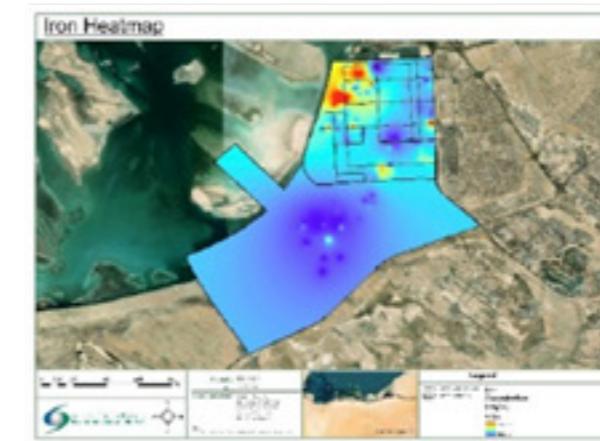
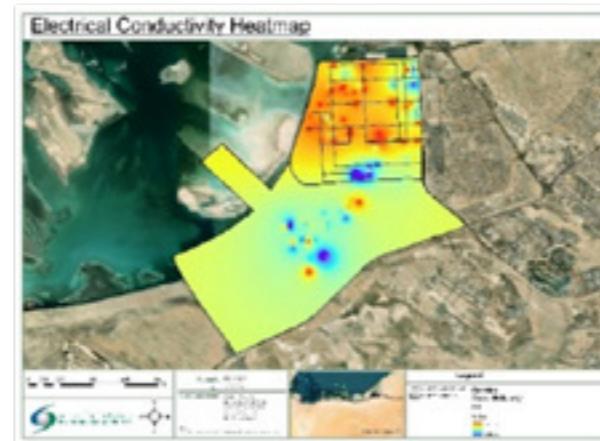
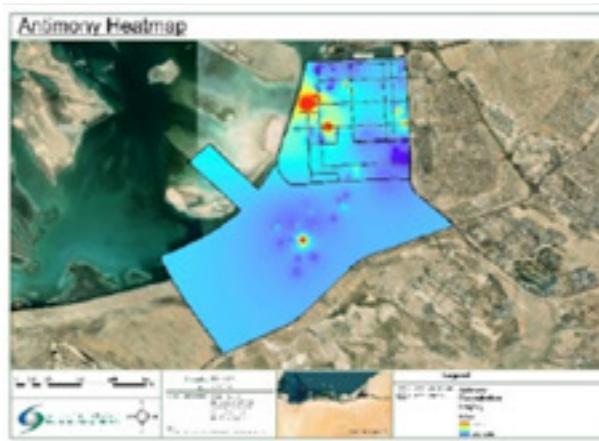
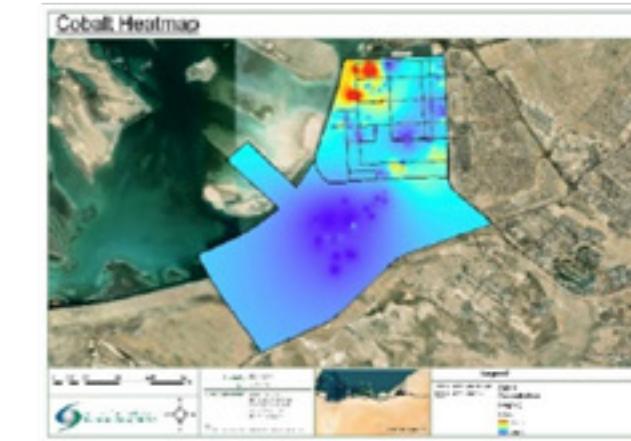
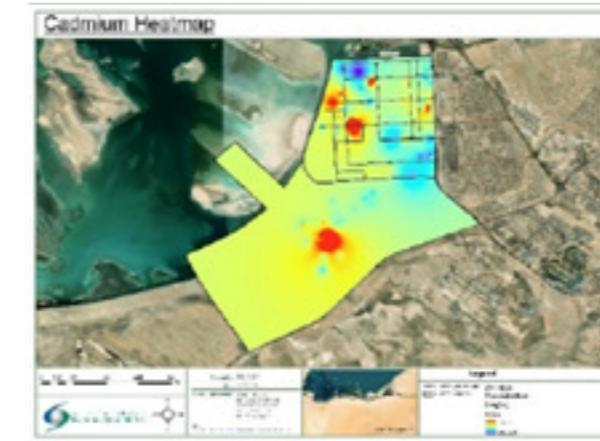
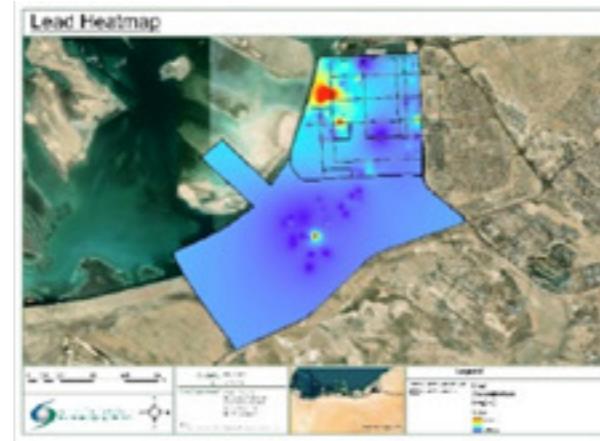
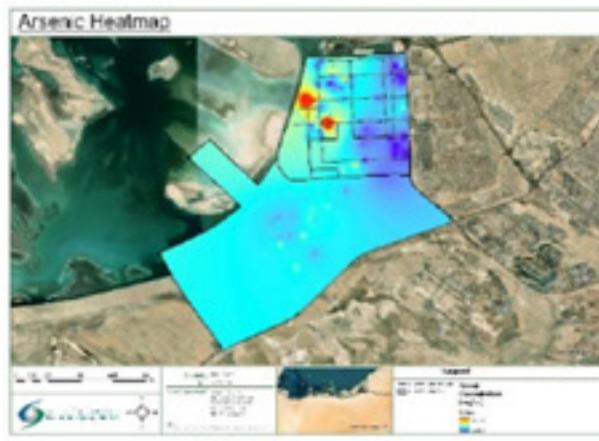
Aims:

- Develop sustainable soil management practices
- Support soil management decision-making through data collection

Classification models effectively predict heavy metal soil contamination with up to 89 % accuracy



Annual Report 2023 | Soil Protection Regulations and Monitoring



Heat maps for the Musaffah Industrial Area.

Annual Report 2023 | Soil Protection Regulations and Monitoring



Abu Dhabi Soil Archiving Facility

In 2016, EAD established the soil archiving facility to bolster the soil quality monitoring programme.



120 000

geospatial
records



25 000

sample
capacity



679

samples shared
with researchers



7 000

preserved soil
samples



10

years of samples
stored

International Efforts in Soil Protection and Land Use Sustainability

In 2023, we were a key member of the UAE delegation at United Nations Convention to Combat Desertification Committee for the Review of the Implementation of the Convention (CRIC 21) Meeting. This achieved:



A showcase of the progress made by the UAE to implement the United Nations Convention to Combat Desertification and Land Degradation



A commendation from the Secretariat of the UN Convention acknowledging the UAE's significant efforts in combatting desertification and land degradation



Interaction with the Arab Group, paving the way for collaborating with other Arab states in the future



Contribution to Soil Contamination Control and Land Rehabilitation

Addressing an Oil Leakage Incident in the Industrial Area



Evaluated an oil leakage incident in the industrial area, in collaboration with the Abu Dhabi Crisis, Emergency and Disaster Management Centre



Identified the potential source of the leakage through a site assessment



Developed a remediation plan in collaboration with relevant authorities

Annual Report 2023 | Soil Protection Regulations and Monitoring

Assessing the Environmental Conditions of Open Ponds in Mohamed Bin Zayed City and Al Mafraq Industrial Area



Conducted a comprehensive study on the environmental conditions of open ponds in Mohammed Bin Zayed City and Al Mafraq industrial area



Provided recommendations for managing these sites

Evaluation of Soil Contamination at an Illegal Dumping Site in Tawelah



Conducted an assessment to evaluate contamination levels resulting from illegal disposal in Tawelah



Took immediate measures to clean and remove contaminated materials

Environmental Restoration: Umm Al-Nar Refinery Soil and Groundwater Remediation Project



Provided technical assistance to ADNOC



Assisted in formulating a remediation plan with distinct goals, taking into account the intended future land use, and ensuring environmental restoration

Annual Report 2023 | Soil Protection Regulations and Monitoring

Collaboration with Khalifa University Focus on Employing Remote Sensing and Hyperspectral Imaging Technologies to Assess Soil Quality

We partnered with Khalifa University to employ advanced hyperspectral satellite imagery to predict concentrations of organic matter in the soil.

 More than 300 soil samples provided by EAD

 Facilitated spectral measurements

 Contributed to research and development of hyperspectral imaging



Visit from a Saudi Arabian Delegation

H.E. Dr. Shaikha Salem Al Dhaheri, the Secretary-General of EAD, welcomed a delegation from Saudi Arabia's Ministry of Environment, Water and Agriculture. The meeting focused on:



- Highlighting EAD expertise in soil quality monitoring
- EAD's use of cutting-edge technologies
- The soil monitoring and assessment programme and its objectives
- The operational mechanism of the drone and artificial intelligence project
- Significant project outcomes

08 WASTE MANAGEMENT

EAD is committed to developing a sustainable, efficient and integrated approach to waste management, to counteract the growing pressure on natural resources and waste management in Abu Dhabi Emirate.



2022 Results

 **10.47 m**
tonnes solid waste generated
.0.5 % year-on-year decrease

 **98.2 %**
non-hazardous solid waste
.10.28 m tonnes

 **1.8 %**
hazardous solid waste
.0.188 million tonnes

Non-hazardous Solid Waste Sources

 **35.4 %** construction and demolition activities

 **32.4 %** industrial and commercial activities

 **17.8 %** municipal activities

 **13.4 %** agricultural and animal activities

 **1.1 %** other activities

Non-hazardous Solid Waste Treatment

 **33.6 %** recycled

 **0.6 %** composted

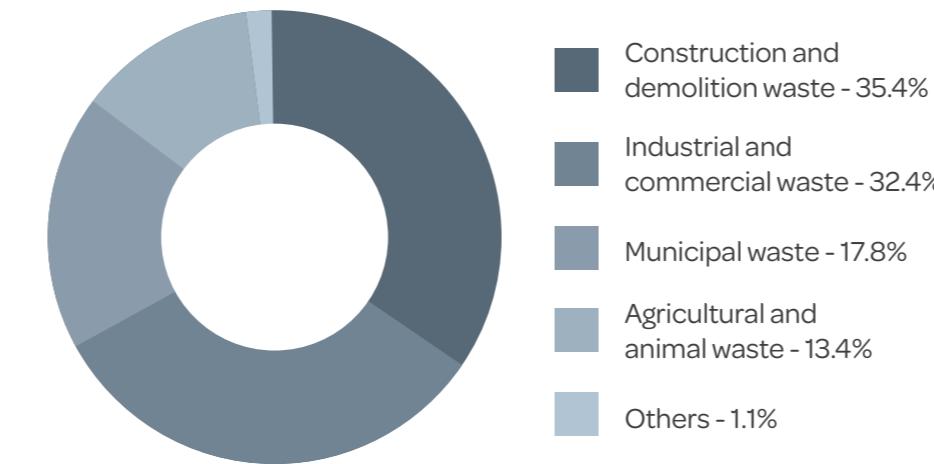
 **0.1 %** incinerated

 **64.6 %** sent to dumpsites

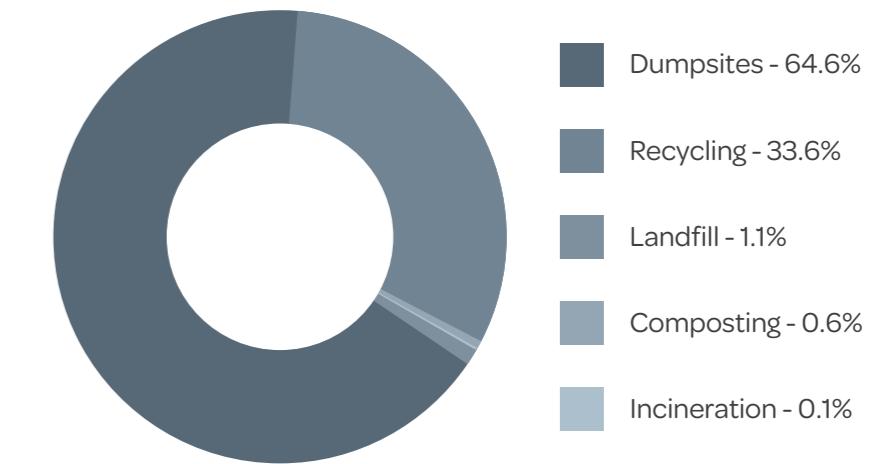
 **1.1 %** sent to landfill



Annual Report 2023 | Waste Management



Percentage distribution of non-hazardous solid waste by source activity.



Percentage distribution of non-hazardous solid waste management.

Licensing and Sector Regulatory Authority (SRA) Carve-Out From Tadweer To EAD

In 2023, EAD and Tadweer worked to transfer the licensing services related to waste management from Tadweer to EAD.

The transfer included:



- Licensing and permitting services
- Tracking and monitoring registered waste vehicles
- Tariff system
- Sector Regulatory Authority (SRA) function for waste sector
- Inspection and compliance activities on waste traders, transporters, collectors and others

Abu Dhabi Waste Management Strategy

In 2023, we developed a Waste Management Strategy for the management of waste streams within the Emirate of Abu Dhabi.

Aims:

- Stimulate a long-term systematic approach to the management of waste within Abu Dhabi
- Achieve the vision of becoming a net zero waste emirate by 2041

A framework was developed which defined 6 strategic targets to be achieved by 2041:



1.0 kg

MSW generated per capita per day



90 %

treated MSW of total generated MSW



90 %

treated non-hazardous waste out of the total non-hazardous waste generated



99 %

treated hazardous waste out of total hazardous waste generated



40 %

non-hazardous solid waste recycled



90 %

reduction in recorded illegal waste dumping activities



Annual Report 2023 | Waste Management

Introducing New Regulatory Instruments

In 2023, EAD amended Law No. (21) of 2005 regarding Waste Management in the Emirate of Abu Dhabi, based on the Law No. (13) of 2022 regarding the establishment of Abu Dhabi Waste Management Company (Tadweer) – a public joint-stock company within ADQ portfolio to replace Abu Dhabi Waste Management Centre.

Permitting Waste Management Facilities

In 2023, we renewed the Environmental Permit for 48 facilities specialised in several activities related to waste management and treatment, as well as permitting three waste management facilities:



- RWM - Sole Proprietorship L.L.C. (known as BeATT)
- Green Mountains Cleaning Services Establishment
- G M R Recycling Casting of Non-Ferrous Metal Castings Factory - Sole Proprietorship L.L.C



Inspection for Waste Sector

We conducted an inspection campaign in 2023, focusing on monitoring facility violations in the construction and demolition waste recycling sector.

Campaign Results

 **14** inspection visits in Abu Dhabi City

 **7** inspection visits in Al Ain City

 Operation stopped at 6 facilities for operating without a permit

 **8** facilities escalated to court due to a serious violation

2023 Achievements

 **49** inspection visits at 36 waste management facilities

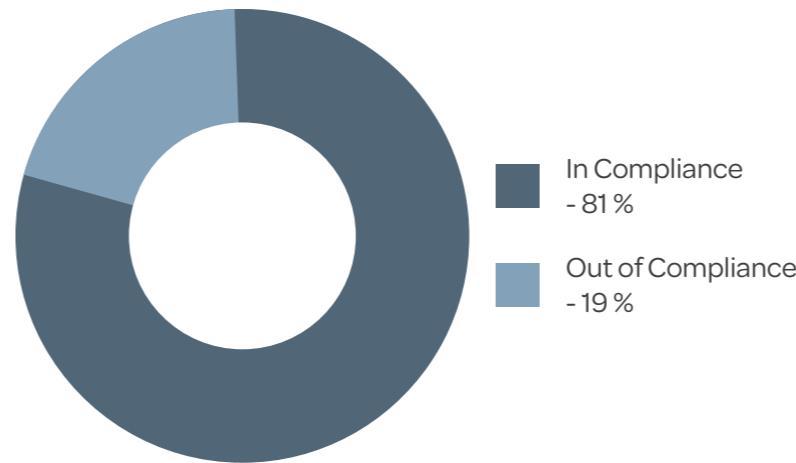
 **170** violations revealed

 **26** complaints responded to

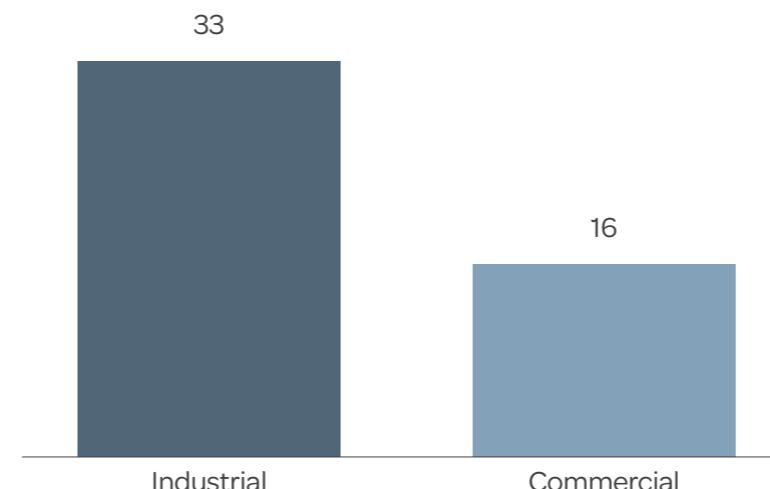
 **29** compliant facilities

 **81 %** overall compliance rate

 **7** non-compliant facilities



All regions compliance percentage.



Type of facilities inspected at all regions.



Raising Awareness on Waste Challenges

2023 Achievements

 **12**
awareness sessions
• 1325 attendees

 **11**
citizen science 'Sahim'
clean ups
• 7602 kg waste collected
• 756 volunteers



09

ENVIRONMENTAL POLICY AND REGULATION

In 2023, we strengthened our rigorous inspection, compliance and enforcement programme through dynamic new technology, focusing on adhering to international best practices and gathering the highest quality data.



2023 Achievements



Policies:

- 5 approved
- 4 under approval
- 3 in development



Regulations:

- 6 approved
- 12 under approval
- 9 in development

EAD Policies and Regulations Issued in 2023

Policy on Sustaining Marine Water Quality



Aims:

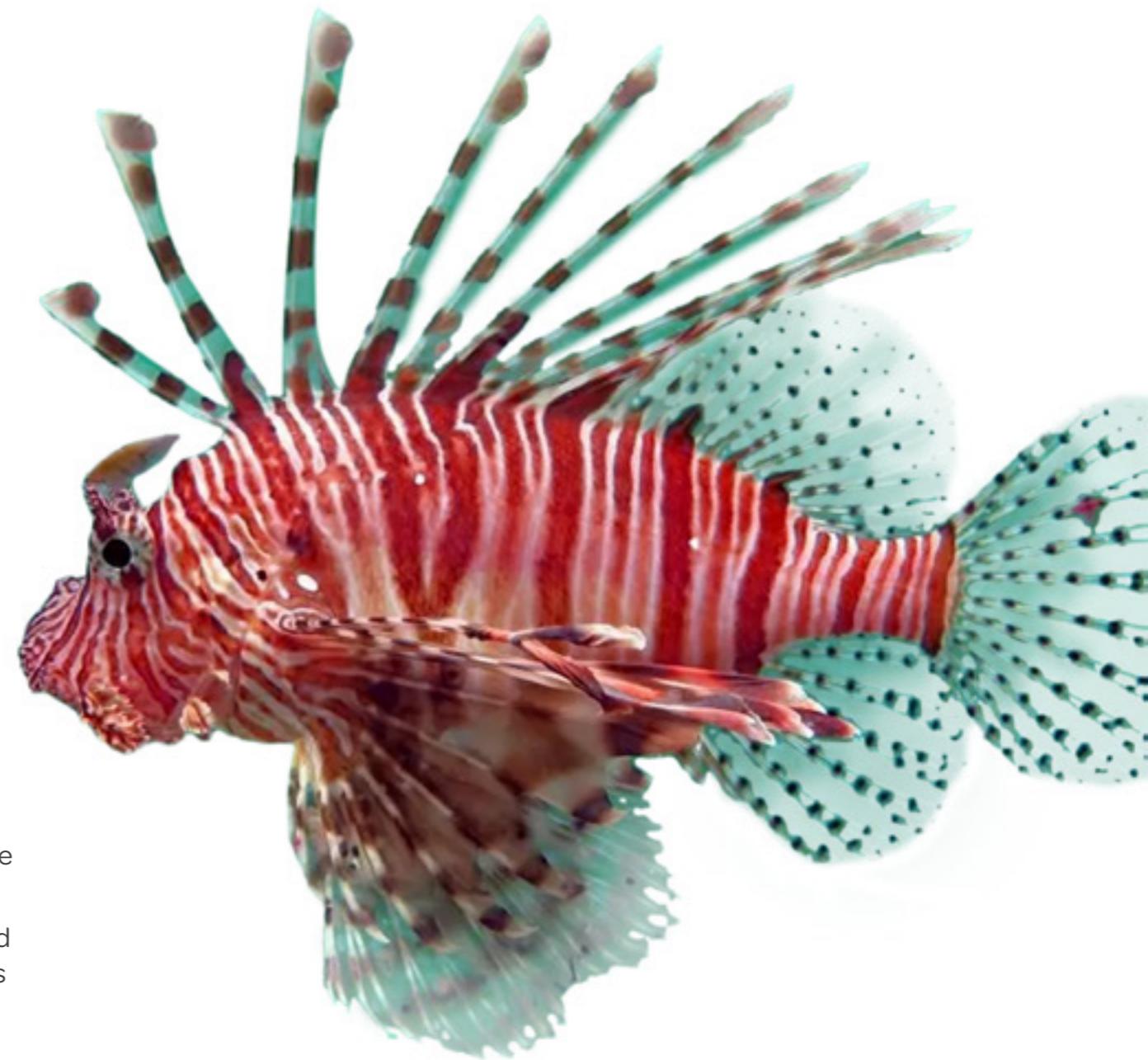
- Enhance regulatory and operational frameworks
- Combat marine contamination through fostering reuse of treated effluents
- Ensure comprehensive knowledge of marine water quality in Abu Dhabi Emirate

Invasive Marine Species Policy (2023-2027)



Aims:

- Enhance knowledge of the threat posed by invasive marine species in the Emirate
- Manage the path of these species to preserve the environment, economy and the health and wellbeing of communities



Annual Report 2023 | Environmental Policy and Regulation

Policy for Managing, Regulating and Protecting Groundwater Resources for Abu Dhabi Emirate



Aims:

- Ensure optimal use of groundwater reserves
- Explore alternatives to groundwater while promoting food security
- Ensure comprehensive knowledge of groundwater resources
- Promoting the use of good irrigation techniques

Protected Areas Policy in Abu Dhabi Emirate



Aims:

- Provide an agreed framework for issuing legislation related to the establishment and the management governance of Protected Areas
- Support the objectives of the Abu Dhabi 2030 Plan and the UAE's national biodiversity strategy

Decree on Mixing Zones Requirements Related to Discharges to the Marine Environment in the Emirate



Aims:

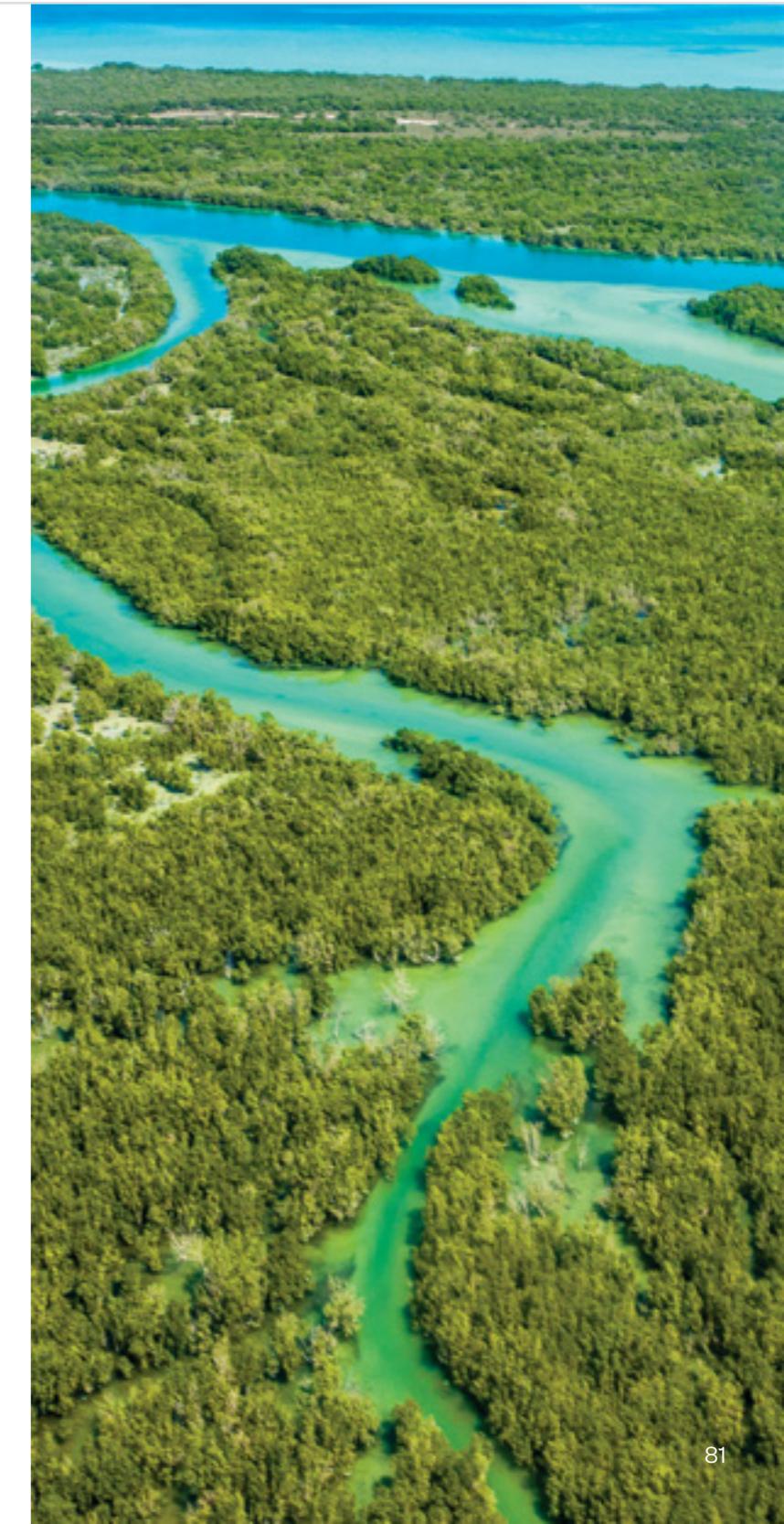
- Preserve the marine environment by setting specific conditions and requirements of mixing zones for land-based discharges
- Enable EAD to approve a mixing zone on a case-by-case basis

Climate Change Strategy for Abu Dhabi Emirate (2023-2027)



Aims:

- Ensure Abu Dhabi's resilience to the consequences of climate change
- Outline the emirate's plan to significantly reduce GHG emissions in line with UAE's declaration to achieve climate neutrality by 2050



Annual Report 2023 | Environmental Policy and Regulation

Sustainable Grazing in Abu Dhabi Emirate



Aims:

- Achieve the sustainability of natural pastures through scientific evaluation, field monitoring and community awareness
- Set permitting requirements and obligations
- Highlight the enforcement role of EAD

Decree on the Protection of Groundwater from Pollution



Aims:

- Protect groundwater quality from deterioration
- State specific requirements to protect the wellhead from various pollution sources
- Specify commitments on the well owner during well drilling, operation, extraction and decommissioning phases

Decree on Recreational Fishing



Aims:

- Set daily fishing limits for individuals and boats based on the scientific status of fish stocks
- Set permitting requirements and obligations on recreational fishing competition applicants
- Highlight the enforcement role of EAD

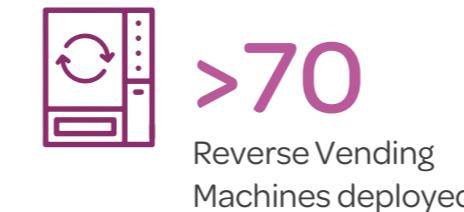




Abu Dhabi Single Use Plastic Policy

In 2023, EAD continued to implement the Abu Dhabi Single Use Plastic Policy, with an ongoing ban on single use plastic bags incentives for bottle return scheme and a government free-from initiative.

2023 Achievements



Annual Report 2023 | Environmental Policy and Regulation

Policies and Regulations Evaluation

2023 Achievements



- Developed evaluation plans for two regulations
- Conducted evaluation of two environmental policies and four regulations, based on approved action plans
- Conducted a detailed evaluation to Law No. (5) of 2016 for regulating groundwater in the Emirate of Abu Dhabi

Reviewing Policy, Regulations and Plans to Ensure Environmental Integration

2023 Achievements



56

documents reviewed to incorporate environmental considerations and align with environment policy:

- 4 policies
- 35 regulations
- 17 others



- Developed a guide and process map to review received policy and regulations
- Established a tracking tool for all reviewed documents received





Abu Dhabi Environment Future Vision: The Environmental Centennial 2071

Implementing Abu Dhabi Environmental Plan towards the Centennial

In 2023, we continued to work with our strategic partners to transform this vision into reality and achieve the goals of the Environmental Centennial 2071 through flexible planning cycles that adapt future changes.

9
government organisations

65
action programmes
over 3 years

3
strategic pathways

30 +
environmental and sectoral indicators

Incentives Programme to Enhance Capabilities and Skills in Environmental Sustainability and Green Policy

EAD formed a joint partnership with the Government Academy in the Department of Government Enablement.

Aims:

- Provide skills and knowledge to help achieve sustainable development
- Support the UAE's climate neutrality goals

Annual Report 2023 | Environmental Policy and Regulation

Developing a Business Framework for the Establishment of the Water, Environment, Energy and Food Nexus Project (Nexus)



Aims:

- Increased sustainable utilisation of natural resources in the Emirate of Abu Dhabi
- Improved water, energy and food security
- More cost-effective projects and efficient management



2023 Achievements:

- Developed the NEXUS framework
- Defined NEXUS objectives
- Defined activities of focus of the framework
- Designed the governance model of NEXUS
- Developed a high-level implementation plan of the DSS

Assessing Environmental Interlinkages with Society and Economy

Feasibility of Cap-and-Trade Scheme (Phase one)

Phase 1 finalised:



21 stakeholders consulted



4

worldwide Emissions Trading Systems reviewed and interviewed for benchmarking and linking

3 strategic components delivers:



a proposed design for a Cap & Trade scheme in Ad or the UAE including the governance model



proposed legislation



a road map which starts with developing & implementing an MRV system for GHG emissions at the facility level



Annual Report 2023 | Environmental Policy and Regulation

Climate Change

Climate Change Strategy in The Emirate of Abu Dhabi

The Abu Dhabi Climate Change Strategy was approved and launched by Abu Dhabi Executive Council in 2023.

 81
initiatives

 12
key projects

 22 %
carbon emissions reduction target

 2050
carbon neutrality goal

 20
initiatives led by EAD

Strengthening EAD's Leadership on Climate Change

EAD participated in preparing the national system for measuring, reporting and verifying greenhouse gas emissions and air pollutants, under the supervision of the Ministry of Climate Change and Environment, which began in 2023.

Develop a Study on GHG Emission Factors in Abu Dhabi

Universities were approached to submit proposals for research cooperation to conduct a study on GHG emissions transactions in the Emirate of Abu Dhabi.

 7
proposals evaluated
• Zayed University chosen to carry out the research



Measurement, Reporting and Verification within the GHG Emissions Management System

2023 Achievements:



9

employees joined a capacity-building workshop organised by MOCCAE



- EAD employees selected to lead a number of topics
- MoU signed between EAD and the International Green Development Institute

Climate Change Adaptation Plan for the Emirate of Abu Dhabi



Emirate level: Meetings held with strategic partners to prepare plans to adapt to the impact of climate change



Authority level: Meeting was held with EAD sectors to prepare an environmental adaptation plan on the impact of climate change



Annual Report 2023 | Environmental Policy and Regulation

Environmental Assessment and Permitting Operations

The environmental assessment and permitting programme aims to assess the potential environmental impacts of project and facility activities during their early design stages, to ensure implementation of best available practices and compliance with applicable environmental laws and regulations.

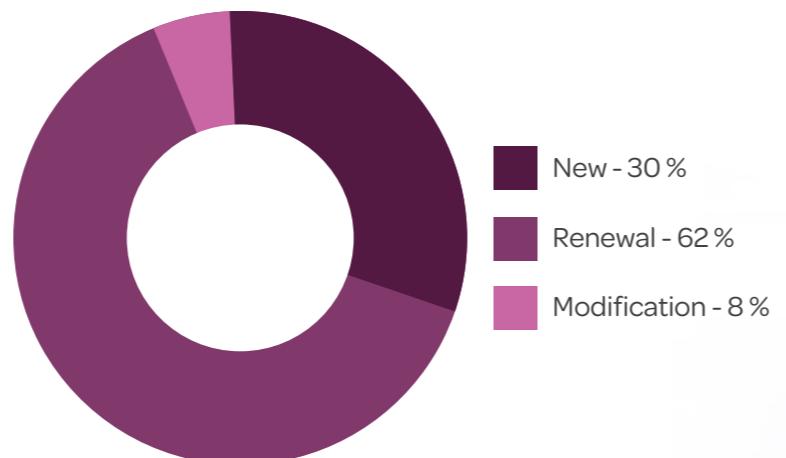
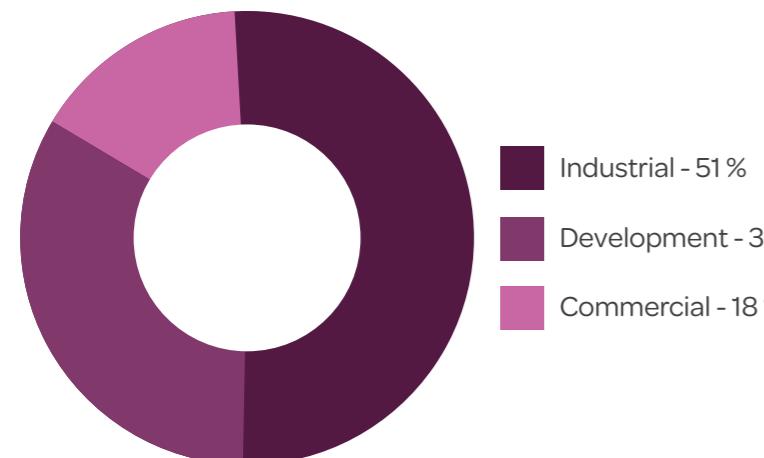
2023 Achievements:

 ~10 000 m² mangroves protected

 ~55 % industrial applications auto-permitted since Automated Licensing (X71) launch

 >30 % expected CO₂ emissions reduction per year from oil and gas marine exploration

 2 906 permit applications assessed



Environmental Permitting Applications Processed in 2023.





Environmental Studies

We develop environmental studies, plans and reports to ensure environmental issues are embedded into project designs. This includes:



- Review of current baseline conditions
- Definition of the potential impacts of project/facility activities
- Alternative analysis
- Setting proper mitigation measures

282 environmental studies, plans and reports processed in 2023

Environmental Consultancy Offices

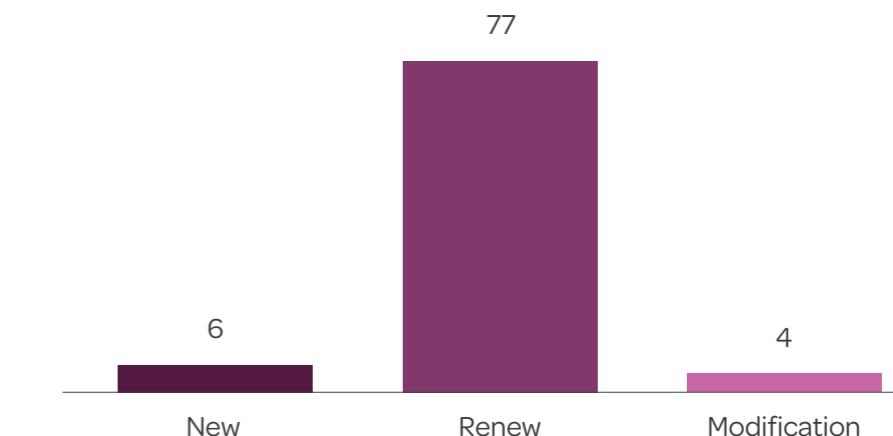
EAD registers environmental consultancy offices to ensure availability of required technical experts to prepare environmental studies and plans and to maintain high quality assessments.



87

consultancy offices processed in 2023

- 6 new
- 77 renew
- 4 modification



Registration of Environmental Consultancy Offices in 2023.

Compliance to Operational Permitting KPIs

Compliance rates for timeframes required to review permit applications and environmental studies have improved over the last few years.

Overall Compliance, 2023



Assessment and Permitting Programme Enhancement

Strategic Environmental Assessment (SEA) Programme



Launched in 2023, the SEA programme aims to:

- Assess the environmental impacts for projects, plans and programmes in Abu Dhabi Emirate
- Ensure all impacts are properly mitigated
- Ensure implementation of best international practices



Annual Report 2023 | Environmental Policy and Regulation



Government Entities Working with EAD on SEA Submission



- Department of Culture and Tourism (DCT)
- Abu Dhabi Agriculture and Food Safety Authority (ADAFSA)
- Al Ain Municipality (ADM)
- Abu Dhabi Police GHQ

2023 Achievements:



50

government agencies,
consultancies and
developers attended
introductory workshops



2-day

workshop held for
all EAD staff

Annual Report 2023 | Environmental Policy and Regulation

Green Industries Environmental Labelling Programme

The programme recognises and encourages industrial facilities to adopt and follow best environmental standards during the manufacturing process. In 2023, the programme underwent significant updates to improve efficiency, transparency and appeal for facilities to join. These include:



- Launch of an electronic system that allows facilities to complete and submit their applications seamlessly
- Introduction of new benefits to incentivise participating facilities

2023 Achievements:



Green Industries Environmental Labelling Programme is an important step towards Abu Dhabi's goal to become a sustainable city



10 facilities awarded Green Industries label



3 workshops conducted for 74 industrial facilities



Launch of Auto Permit X71

During 2023, we launched the Auto Permit X71 Automated Licensing Service for Industrial Facilities. This will:



- Facilitate the licensing process of industrial facilities in specific and environmentally studied areas such as KEZAD and ICAD
- Enable investors to receive an environmental license by reducing the environmental studies application requirements, and time to 6 minutes



Auto Permit X71 Launch Event.

2023 Achievements:



Cross channel social media campaign launched



~55 % of industrial applications Auto Permitted since launch



1 introductory virtual workshop held



Environmental Self-Reporting Programme

This year, EAD launched the Environmental Self-Reporting Programme. This aims to:



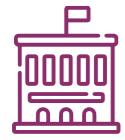
- Standardise and facilitate the environmental monitoring and reporting programme, based on sector activities
- Help EAD and decision makers by providing the necessary information and environmental data

Continuous Coordination with Stakeholders in 2023

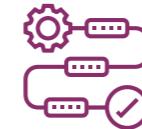


We signed two Memoranda of Understanding to create incentives for the Green Industries Labelling Programme. These were with:

- Abu Dhabi Department of Economic Development (ADDED)
- Abu Dhabi Ports (AD Ports)



We continued coordinating with the Department of Municipal Affairs and Transport to determine permitting requirements for projects and facilities in Abu Dhabi Emirate



1404
eNOCs processed



2197
MEPS transactions



19
ePASS



📍 MoU Signing with ADDED.

Annual Report 2023 | Environmental Policy and Regulation

Inspection, Compliance and Enforcement Programme



This programme is designed to:

- Enhance the environmental regulatory framework
- Promote compliance among industrial and commercial facilities, hazardous materials (HazMat) stores as well as development and infrastructure projects

Eltezam Inspection System

In 2023, EAD launched Eltezam, a new environmental compliance inspection system. This dynamic system gives inspectors flexibility to evaluate the operational facilities based on the actual operations and process available on site.



Site inspection goals:

- Evaluate facilities' and projects' adherence to environmental conditions
- Investigate environmental incidents and complaints
- Identify operational deviations that may lead to environmental problems
- Identify environmental violations
- Collect field data for specific sectors, activities, zones and facilities
- Enforce environmental compliance, implement admin fines and initiate litigation procedures and legal actions
- Demonstrate the Government's commitment to environmental protection

Eltezam Elements



96

permitted sectors



38

industrial operations



277

violation statements that target protection of the environment



Inspected Industrial, Commercial and Development Sectors

EAD's environmental inspection, compliance and enforcement team plays a crucial role in ensuring adherence to environmental laws and regulations within a regulated community.

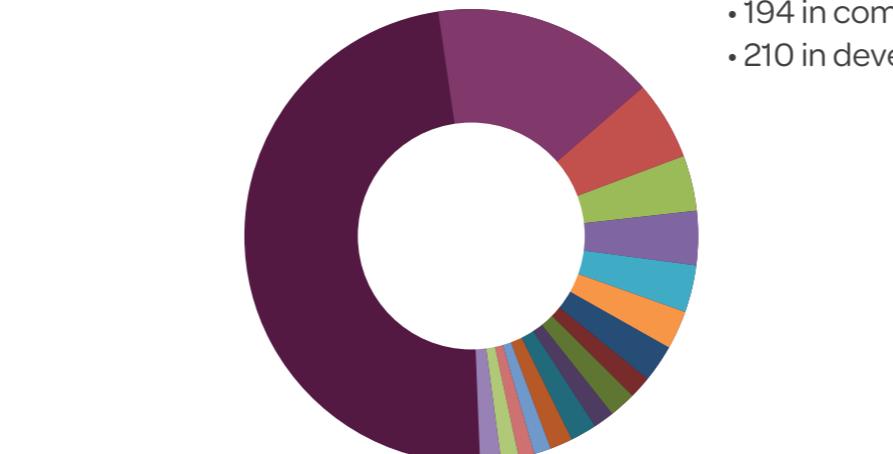
2023 Achievements

 **96**
permitted sectors
represented

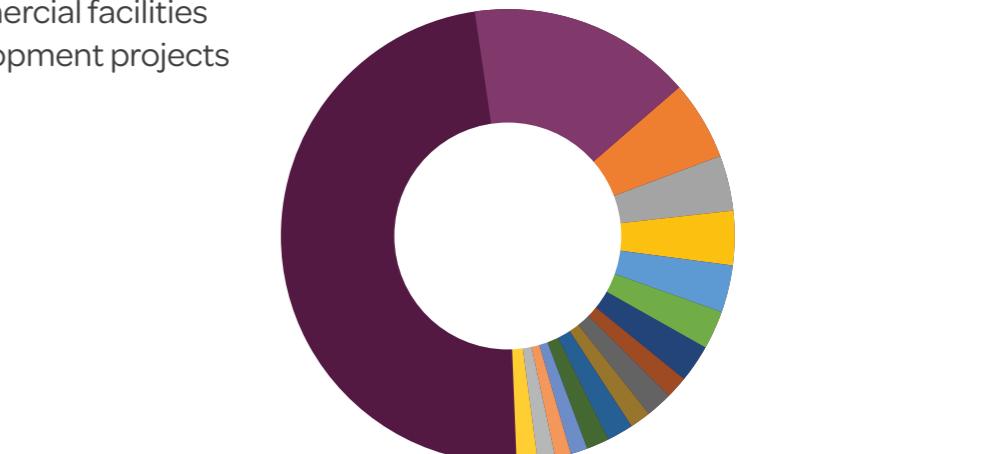
 **1241**
inspections conducted in Abu Dhabi,
Al Ain and Al Dhafra Region

- 837 in industrial facilities
- 194 in commercial facilities
- 210 in development projects

 **13 %**
year-on-year
increase



Cement Products - ready-mix and precast	- 14%	District Cooling Plant	- 2%
Food and Beverages	- 4%	Textiles and Wearing Apparel	- 1%
Chemical Manufacturing	- 3%	Other Sectors	- 49%
Furniture Manufacturing, Wood Products Manufacturing	- 2%	Hazardous Materials Trading	- 4%
Food and Beverages	- 1%	Sewage Treatment Plant	- 3%
Waste Management and Treatment (non-recycling)	- 1%	Poultry Farms	- 2%
Plastic Products	- 5%	Machinery Manufacturing	- 2%
Metal Fabrication	- 4%	Fertilizers and Nitrogen Compounds - Organic	- 1%
Paper and Paper Products	- 2%		



Cement Products - ready-mix and precast	- 172	District Cooling Plant	- 21
Food and Beverages	- 52	Textiles and Wearing Apparel	- 16
Chemical Manufacturing	- 34	Other Sectors	- 604
Furniture Manufacturing, Wood Products Manufacturing	- 22	Hazardous Materials Trading	- 54
Food and Beverages	- 17	Sewage Treatment Plant	- 38
Waste Management and Treatment (non-recycling)	- 14	Poultry Farms	- 26
Plastic Products	- 59	Machinery Manufacturing	- 19
Metal Fabrication	- 50	Fertilizers and Nitrogen Compounds - Organic	- 15
Paper and Paper Products	- 28		

"Covered Sectors Summary" and "Inspections per Sector (All)".

Annual Report 2023 | Environmental Policy and Regulation

Compliance Rate of Regulated Community, 2023



Data from 884 facilities and projects



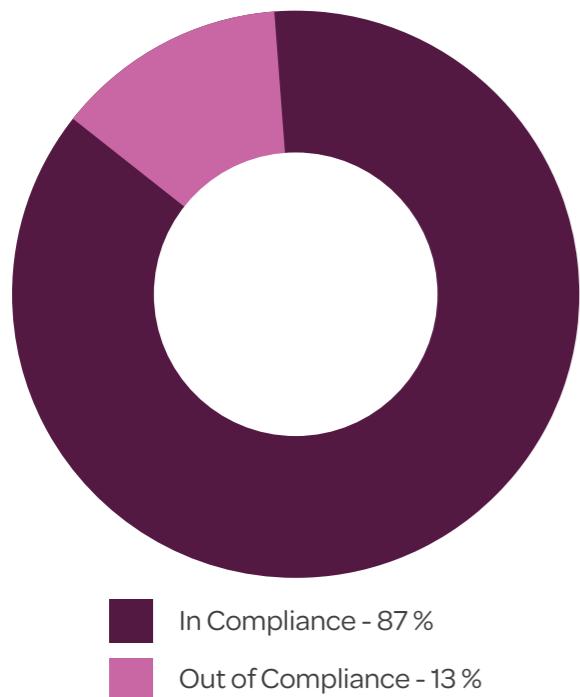
87.05 %

facilities and projects adhered to environmental regulations

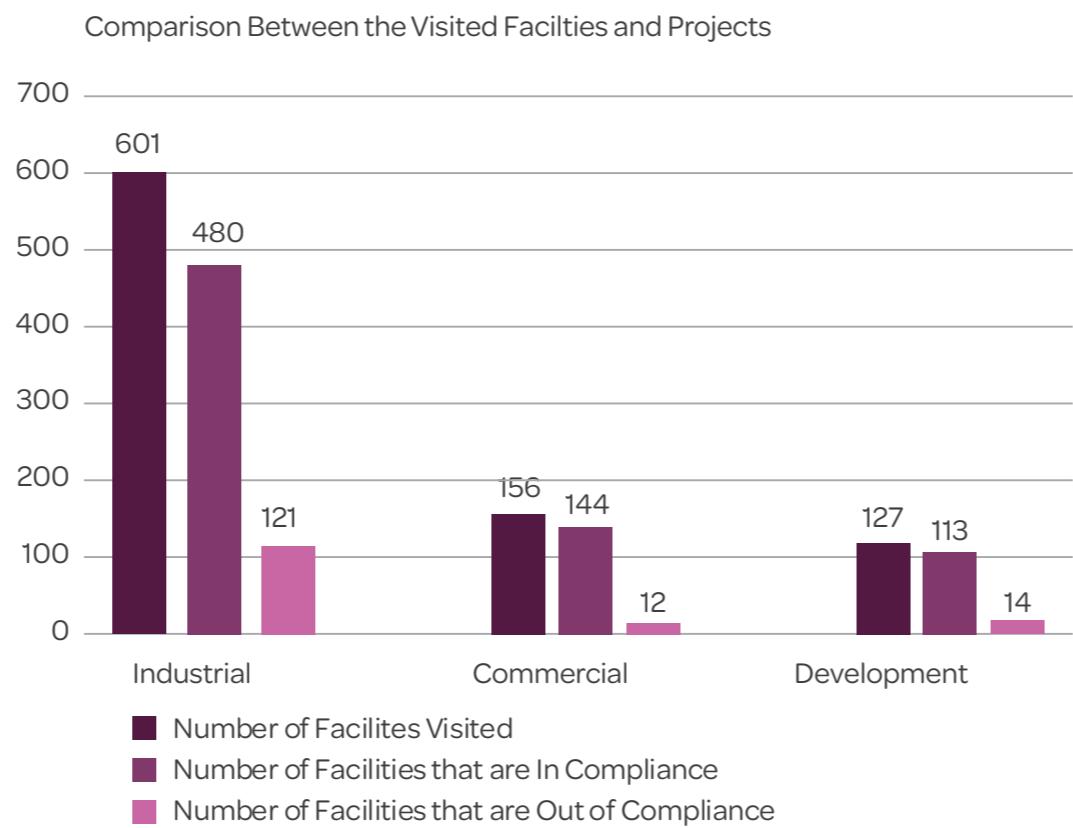


12.95 %

facilities 'Out of Compliance'



"Compliance Rate and Comparison".



Annual Report 2023 | Environmental Policy and Regulation

Holistic Compliance and Enforcement Programme

The inspection team worked closely with violating facilities and projects to rectify their environmental compliance status.

2023 Achievements

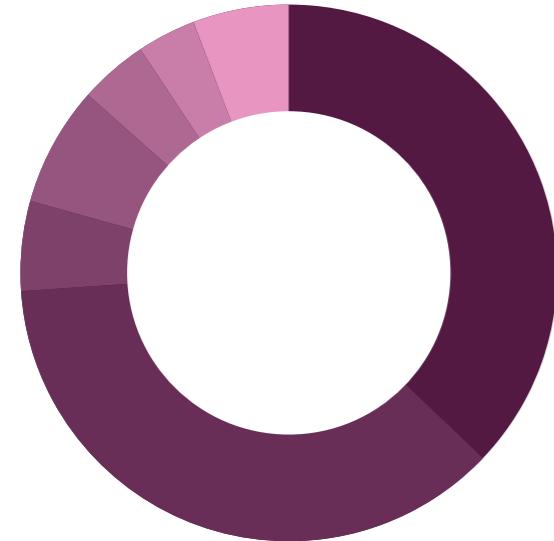
 346
fines with total value of
AED 2 610 000

 87 %
Compliance rate due to holistic
inspections approach

Complaints and Environmental Investigations

During 2023, we responded to 125 environmental complaints and incidents.

Environmental Investigations Percentage & Numbers



37 %	Gas Emissions -	45
35 %	Water Pollution, Discoloration, Discharge, Algal Bloom, Sewage -	43
7 %	Noise and Dust -	9
8 %	Oil Spill, Soil Contamination, Chemical Leak -	10
4 %	Waste Generation, Farm Related Wastes, Illegal dumping, others -	5
3 %	III Animal, Invasive species, Damaged mangrove communities -	4
5 %	Other -	6

"Complaints Categories (All)".

Environmental Eyes Programme Launch

Launched in 2023, this environmental education and reporting programme is designed to engage and enlist volunteers from the public, focused on fostering an understanding of diverse environmental domains.



Aims:

- Develop an integrated platform for capacity building and environmental protection
- Promote community participation and increase environmental awareness
- Expand the scope of environmental monitoring
- Respond promptly to environmental issues
- Enhance environmental compliance



Annual Report 2023 | Environmental Policy and Regulation

Groundwater Compliance Monitoring, Inspection and Enforcement

EAD has an ongoing commitment to preserving groundwater as a vital resource.

2023 Achievements

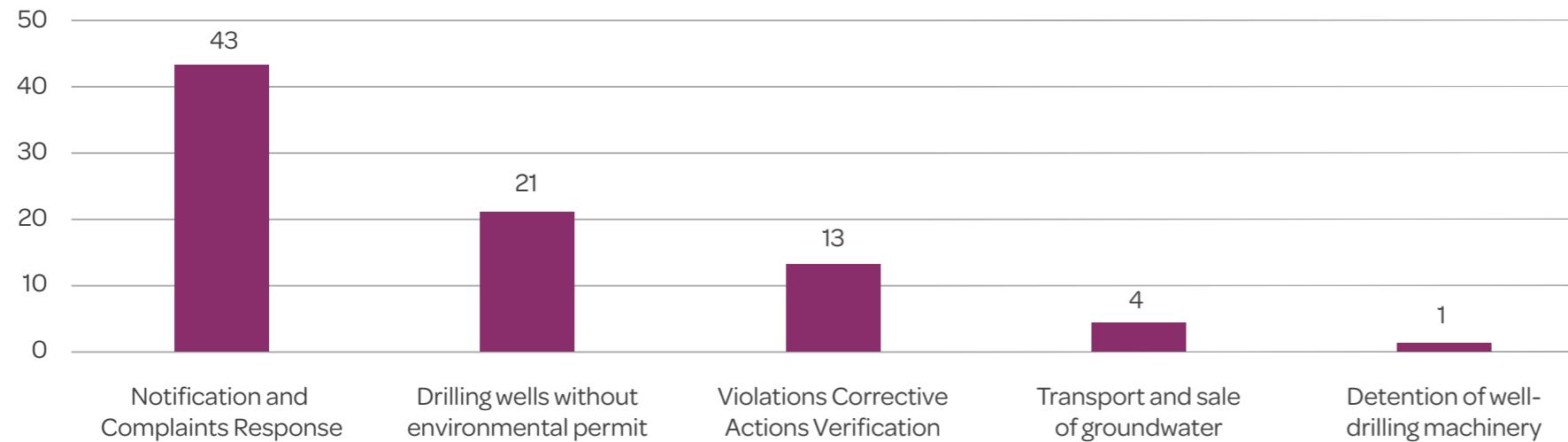
 **1 025**
compliance
monitoring surveys

Groundwater Monitoring Surveys

1025

Notifications and Complaints Response	43
Drilling wells without environmental permit	21
Violations Corrective actions Verification	13
Transport and sale of groundwater	4
Detention of well-drilling machinery	1

Groundwater Inspection Activities Summary



10

ENVIRONMENTAL INFORMATION, SCIENCE AND OUTREACH MANAGEMENT

Throughout 2023, we engaged with our stakeholders and the community to share our environmental data, knowledge and achievements.



Annual Report 2023 | Environmental Information, Science and Outreach Management

Environmental Information Management

2023 Environmental Reports and Dashboards



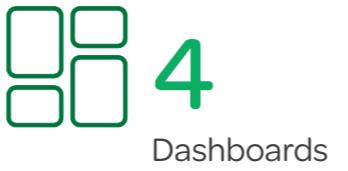
6

Reports



6

Factsheets



4

Dashboards

Environmental Information Services

2023 Measurement, Reporting, Verification (MRV) Project Achievements



MoU signed with
the Global Green
Growth Institute



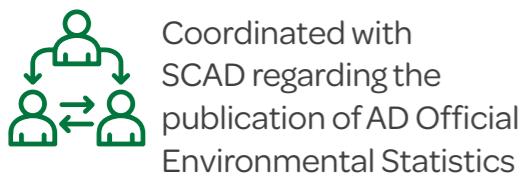
Capacity-building
training held for AD
MRV team



Stakeholder engagement in
data mapping survey, based
on Intergovernmental Panel
on Climate Change (IPCC)
standard

Abu Dhabi Official Environmental Statistics with the Statistic Centre Abu Dhabi (SCAD)

2023 Achievements



Coordinated with
SCAD regarding the
publication of AD Official
Environmental Statistics



Developed the
publishing policy of AD
Official Environmental
Statistics



1st place for EAD in the
2023 Statistical Maturity
Index for Abu Dhabi
Emirate



Annual Report 2023 | Environmental Information, Science and Outreach Management

Bird Tracking



In 2023, we developed a Bird Tracking Information system for the archiving, processing, mapping, visualisation and sharing of telemetry data

Environmental Science Development

Interdisciplinary Research and Partnerships

2023 Achievements



Environmental Knowledge Graph:

EAD's word-first environmental knowledge graph made strong progress, enabling holistic and objective analysis of environmental issues

Abu Dhabi Environmental Research Network (ADERN):

Launched in 2023, we processed 15 NOCs from January to September 2023.



8

institutional members:

- Abu Dhabi University
- Zayed University
- Sorbonne University
- Alain University
- Khalifa University
- American University of Sharjah
- New York university
- UAE University



233

members



Collaboration with scientists in the following projects:

- Soil experts
- Mangroves
- Microplastics



2

ADERN-facilitated,
EAD-funded research
projects



Annual Report 2023 | Environmental Information, Science and Outreach Management



ADERN Research Directory:



Catalogues all researchers, research institutions, research facilities and more

Developing a Research Hub on the EAD website:

We added a Research Hub to the EAD website in 2023, with information for researchers on:



- Jaywun Research Vessel
- EAD scientific reference collections
- Submission of research inquiries
- Learning about ADERN
- Research opportunities to support EAD's work

Bilateral, framework MoUs for research partnerships:

Partnerships signed with 8 UAE Universities to fast-track project-specific research in collaboration with EAD:



- Al Ain University
- Abu Dhabi University
- American University of Sharjah
- Khalifa University
- New York University – Abu Dhabi
- Sorbonne University – Abu Dhabi
- UAE University
- Zayed University

Annual Report 2023 | Environmental Information, Science and Outreach Management

Managing an agency review of EAD's science-based outputs:



We approved and launched the Technical Outputs Final Review and Approval (TOFRA) review process in 2023. This system aims to automate TOFRA process and facilitate submission of EAD outputs for the official review process.

Scientific Knowledge Management Knowledge Portal



The knowledge portal is designed to serve as a central resource for staff, providing access to all intellectual assets and simplified links to resources. It also includes interactive communication features that allow staff to connect with scientists, key agency personnel, and certified professionals.



Environmental Outreach

2023 Achievements

Green Business Network

 **150**
members from
different governments
and private sectors

 **3**
virtual sessions for
644 members

 'Mission to Zero' government
challenge launched
• **28** entities participated
• **7** entities awarded for
100 % reduction

 **20**
entities
recognised in
awards ceremony

 **3**
industries awarded
the 'Green Label' for
their exceptional
performance

Naha platform

In 2023, we launched Natural Habitat (NAHA), an environmental engagement digital platform in partnership with du.

Aims:



- Promote sustainability
- Elevate environmental awareness
- Encourage green practices across Abu Dhabi and beyond



Annual Report 2023 | Environmental Information, Science and Outreach Management

Abu Dhabi International Hunting & Equestrian Exhibition (ADIHEX)

In 2023, we participated at ADIHEX with an interactive stand, fusing science and nature to address climate change. There was a specific focus on the role of youth in efforts to protect the environment and address climate change, including a space for 'Green Youth Majlis' members to exchange experiences and present environmental sessions and dialogue.



40

youth sessions
presented, attended by
498 people



5175

visitors in total

Outreach Around Biodiversity and Protected Areas

In partnership with Total Energies, we organised a family experience in the Al Wathba Fossil Dunes Reserve



9

awareness sessions
in 2023



>360

attendees

Annual Report 2023 | Environmental Information, Science and Outreach Management

Outreach Around Waste Challenges

 **12**
awareness sessions
. >1325 attendees

 **11**
citizen science 'Sahim' clean-ups
. 7 602 kg waste collected
. 756 volunteers

 **2nd**
edition of the 'Pile It Up' schools challenge
. 100 schools participated
. 1 389 kg single use plastic bottles collected and recycled
. 9 schools recognised

Outreach Around Youth

Sustainable Campus Initiative (SCI)

 **26**
colleges and universities

 **4**
newsletters

 **1**
submission for a sustainable project

 **12**
environmental sessions attended by 1128 youth

 **8**
audit reports from SCI members

 **>570**
members of the 'Green Youth Majlis' (compared to 187 in 2022)
. 492 took part in initiatives



Annual Report 2023 | Environmental Information, Science and Outreach Management

Naturally Educated Podcast

 2 & 3
season published

 20
episodes

 1688
users

 >270
downloads

Sustainable Schools Initiative (SSI)

 464
schools

 4
newsletters

 34
audit reports

 2
introductory sessions
for SSI coordinators,
attended by 144
coordinators

 370 kg
waste collected by
>200 school participants at
Al Bahia beach clean up



Annual Report 2023 | Environmental Information, Science and Outreach Management

Murshed Eco-Rangers Programme

In 2023, EAD launched the Murshed Eco-Ranger Programme, which motivates students aged 14 to 17 to volunteer as youth rangers. The students completed 288 hours of volunteering in the Al Wathba Wetland Reserve.

Aims:



- Develop leadership skills
- Raise awareness of environmental challenges
- Showcase environmental and conservation careers

Enviro-Spellathon



An EAD-led annual activity within Abu Dhabi Emirate's schools which promotes eco-literacy for students aged between 5 and 13 in both Arabic and English.

In 2023 we launched level 7, focusing on climate change for grade 7 children

e-Green Platform

In 2023, we launched a free digital environmental educational platform, the first collaborative e-learning tool dedicated to the environmental sector in the Middle East.



new courses

- Climate Change
- Public Participation in Scientific Research
- Marine Invertebrates



2070

users registered and 1259 certificates issued since the launch

- Available in Arabic and English



Annual Report 2023 | Environmental Information, Science and Outreach Management

Al Sidr Environmental Film Festival



A two-day programme organised by EAD and partner New York University Abu Dhabi. In 2023, the theme aligned with COP28, highlighting water and its crucial connection to climate change, ecological balance and human survival

Connect with Nature (CWN)

Co-founded by EAD with Emirate's Nature-WWF, this innovative programme targets UAE youth and young adults aged 15 to 30.



30

events, attended by
1731 participants



1508 kg

waste
collected



3 024

hours for nature
in 2023



Sahim Citizen Science Programme

In 2023, EAD and Emirate's Nature-WWF launched Sahim, which aims to engage volunteers in large-scale public projects that address real-world environmental problems.



3

programmes launched in 2023

- Sahim clean-up surveys
- Suaalif Ajdadna
- Mangrove monitoring programme



11

Sahim clean ups

- 7 602 kg waste collected
- 756 volunteers



11

volunteers were trained to
collect oral history from
elders on the environment

11 MORE ACHIEVEMENTS

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



Annual Report 2023 | More Achievements

Abu Dhabi Falcon Hospital (ADFH)

Established in 1999, ADFH has become the world's leading institution for falcon and avian medicine and research. The award-winning facility is also home to the ADFH Pet Care Centre, which is a leading small animal veterinary hospital, and manages the Abu Dhabi Animal Shelter.

2023 Achievements



- One of the top tourism destinations in Abu Dhabi Emirate



- Middle East Responsible Tourism Award – 11 consecutive years
- World Responsible Tourism Award – 2 consecutive years
- Top 10 Best Vet Hospitals in the World – News Explorer Network



**ISO/IEC
17025:2017**

awarded to ADFH Laboratory in 2023



Annual Report 2023 | More Achievements

Abu Dhabi Sustainability Group (ADSG)

In 2023, ADSG celebrated its 15th anniversary, which coincided with the Year of Sustainability announced by His Highness Sheikh Mohamed bin Zayed Al Nahyan, President of the UAE.

The 8th Annual Abu Dhabi Sustainable Business Leadership Awards 2023

Launched in 2015, the Annual Abu Dhabi Sustainable Business Leadership Awards are the region's only independent awards for sustainability achievements.



2023 Winners:

- Best Sustainability Initiative - **Abu Dhabi Ports Group**
- Best Sustainability Report - **Schneider Electric**
- Sustainability Manager of the Year - **Mr. Eissa Al Jenaibi, ADNOC Gas**
- Sustainability Leader of the Year - **Shargiil Bashir, First Abu Dhabi Bank**
- Best Sustainability Communication Programme - **Schneider Electric**
- Best Energy Management Initiative - **ADNOC Gas**
- Award of Remarkable Commitment to ADSG - **Dolphin Energy**

The 8th Annual ADSG Sustainable Business Leadership Forum 2023

This year the event was held under the theme 'Nature Positive Growth'.



200

delegates from corporations, government, NGOs and academia



6

plenary sessions



2

workshops



12 CORPORATE SUSTAINABILITY

Sustainability has always been an integral part of EAD's institutional identity, with 2023 declared as the 'Year of Sustainability', we sought to continue shaping a more sustainable future, with clear responsibilities for environmental, social and governance issues.



Our Corporate Sustainability Strategy



- Adopting an integrated approach to sustainable business
- Managing the impact of operations on local economies, communities and environments
- Spearheading corporate sustainability as an institutional priority
- Collecting regular performance results: oil consumption; printing and paper; waste and recycling; utilities consumption

We obtained the '**Carbon Neutrality Certificate**' ahead of COP28, which is given to individuals, companies or organisations that reduce their carbon emissions to the lowest possible level



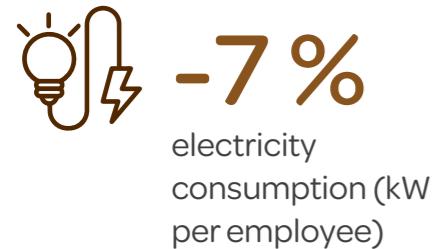
2023 Achievements

- 17 site inspections completed
- 0 environmental non-conformities
- Updated occupational health and safety (OHS) report to ensure consistency with EAD's Single-use Plastic Policy
- Added 'Awareness About Sustainability' to OHS induction
- Strategic Environmental Assessment Programme launched
- Participation in Abu Dhabi Sustainability Week, highlighting balance between economic development and preserving biodiversity
- Hosted sustainability and innovation workshops during Innovation Month
- Won 'Best Innovation in Achieving Sustainability' for the Green Business Network at the Emirates Innovates Award 2023
- 3rd place in the Arabia Corporate Social Responsibility Awards



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Environmental Initiatives (year-on-year)



Annual GHG Per Capita (Tonnes) *

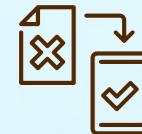
	2023 - 5.77 (target 8.32)
	2022 - 7.29 (target 8.63)
	2021 - 8.42 (target 8.96)
	2020 - 8.61 (target 7.41)
	2019 - 8.17 (target 7.88)

*Figures reflect Jan to Sep 2023



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Paperless Office Initiatives



- Awareness campaigns, eg. Print Free Month
- Employee 'EAD Free of Printing' pledge
- Internal awareness initiatives, eg. workshops and digital posters
- Reduction of printers
- Monthly consumption reports



Enhancing Corporate Sustainability

- Recycling waste and composting food waste into organic plant fertiliser
- Motion sensors on lights and faucets
- Automatic off settings for lights, computers and printers
- Reusable shopping bag distribution
- Employee awareness initiatives
- Sustainable stock management and recycling
- Paper saving initiatives



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