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هيئة البيئة - أبوظبي
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52

IMPACTFUL BIODIVERSITY CASE STUDIES FROM THE UAE

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Supported By:





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FOREWORD



Ibrahim Al Zu'bi
Group Chief Sustainability Officer, ADNOC.

Dear Reader,

I am honored to present this remarkable report, "52 Impactful Biodiversity Case Studies from the UAE," on the occasion of the 52nd anniversary of the founding of our great nation. This report is a testament to the unwavering commitment of both the private and public sectors in the United Arab Emirates to safeguarding and promoting our precious biodiversity.

Biodiversity, the rich tapestry of life forms, is not only the heritage of our land but also an essential component of our future. As the Chief Sustainability Officer of ADNOC, I am deeply proud of the contributions that ADNOC and numerous other organizations in the UAE have made to protecting and nurturing our environment.

The 52 case studies in this report are a source of inspiration, highlighting innovative and collaborative efforts that have been launched and developed across the UAE. They showcase the remarkable progress we have achieved in conserving our unique ecosystems, supporting endangered species, and promoting sustainable practices.

In our ever-evolving world, it is imperative that we celebrate our achievements, learn from our experiences, and redouble our efforts to secure a sustainable future for generations to come. The diversity of these initiatives, which span a range of sectors, demonstrates the power of collective action and underscores the importance of partnerships in addressing environmental challenges.

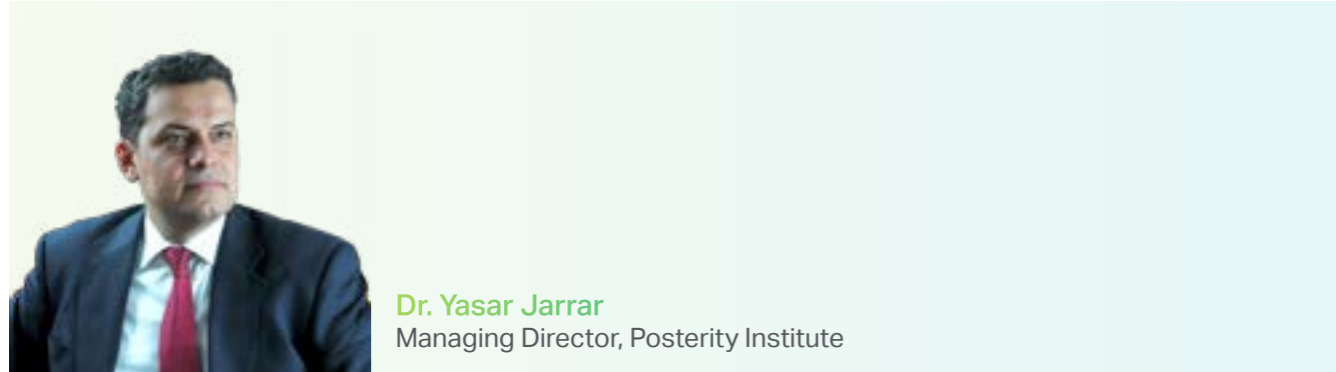
I would particularly like to highlight the significant partnership between ADNOC and Environment Agency – Abu Dhabi (EAD) to actively preserve and enhance the remarkable biodiversity of Abu Dhabi. Through our collaborative efforts, we aim to implement innovative conservation strategies and ensure the sustainable coexistence of natural ecosystems with economic development, setting an example for environmental stewardship in the region. One example of this is EAD's ongoing support for ADNOC's target of planting 10 million mangroves across Abu Dhabi. We have accelerated our planting efforts using drone technology and, so far, have planted 2.5 million mangroves using drones.

I encourage you to delve into these case studies, not only to gain insight into the profound impact of these initiatives but also to discover opportunities for further collaboration and innovation in the realm of biodiversity conservation.

As we celebrate the 52nd anniversary of our nation, let us recommit ourselves to being stewards of our environment and champions of sustainability. Together, we can ensure that the UAE's natural beauty and ecological diversity continue to flourish.

Thank you for joining us on this journey of conservation and sustainability.,

Introduction



Dr. Yasar Jarrar
Managing Director, Posterity Institute

Biodiversity is not merely an abstract concept, it is a fundamental necessity for life as we know it. It encompasses the wide array of species that coexist on Earth, each playing a unique role in the complex web of life. It is a critical component of our ecosystems, providing numerous benefits, from clean air and water to food security and climate regulation. However, our world is currently grappling with a biodiversity crisis of unprecedented magnitude. The World Wildlife Fund (WWF) reports a staggering 68% decline in global wildlife populations in just over four decades. This crisis is driven by human activities, including habitat destruction, climate change, pollution, and overexploitation of natural resources. The consequences of this decline ripple across ecosystems and threaten the very stability of our planet.

The UAE is a desert country with a surprisingly rich biodiversity, supporting a wide range of plants and animals. Despite its arid climate, the UAE has over 49 protected areas, and is home to over 8,400 species of wild fauna and flora, including over 1,000 species of birds, 100 species of mammals, and 500 species of reptiles. The UAE's National Red List of Threatened Species includes 157 species of plants and animals, of which 14 are critically endangered, 41 are endangered, and 102 are vulnerable.

The UAE's unwavering dedication to biodiversity is manifested through concrete achievements. This commitment extends to sustainable

practices, as the UAE sets a notable example by integrating biodiversity considerations into pivotal sectors such as agriculture, fisheries, and tourism. In addition to these national efforts, the UAE actively collaborates with the global community, sharing knowledge, experiences, and resources to collectively address the challenges confronting biodiversity conservation on a global scale.

This report delves into the extraordinary biodiversity of the United Arab Emirates (UAE) while shedding light on its global importance, the challenges faced not only on a regional but also a global scale, and the trailblazing initiatives undertaken by the UAE to safeguard our planet's rich biological diversity.

Explore this report for a refreshing dose of optimism, to find inspiration, and to discover ways to amplify your own impact in this realm. Above all, read these case studies and share the most inspiring initiatives you encounter with people in your circle.

Our collective responsibility is to ensure our planet's biodiversity endures and thrives. The protection of biodiversity is within reach, and here are some valuable lessons on its importance in a rapidly changing world.



Methodology

The protection of our planet's biodiversity is now more vital than ever. It is easy to feel hopeless in the face of biodiversity degradation and climate disasters. The UAE is stepping up to this challenge, however, and is inspiring the world with a broad range of initiatives to protect biodiversity.

Our methodology was created to situate these initiatives under these core categories:



Regulations & Standards

The UAE has codified laws to protect certain species. For instance, the conservation of the Arabian oryx, a once-endangered species, is regulated under [Federal Law No. 24 of 1999 for the Protection and Development of the Environment in the UAE](#). These regulations and policies stand as the cornerstone of biodiversity protection in the UAE, shaping the rules and frameworks that guide human interaction with our natural world. They establish the boundaries for responsible resource management, hunting, fishing, and land use, ensuring that ecosystems remain intact and species thrive. Additionally, these regulations enable the enforcement of conservation measures, aiding in the prevention of habitat destruction, over-exploitation, and pollution.



Protected Areas

The UAE understands how crucial it is to conserve its biodiversity and ensure the long-term sustainability of its ecosystems. Protected areas in the UAE are vital sanctuaries for safeguarding Earth's diverse life forms, and their importance cannot be overstated. Beyond their role as biodiversity bastions, these areas are living laboratories that help unravel the mysteries of our natural world. Protected areas are not just a fortress for biodiversity; they are also our planet's resilient defenders in the face of climate change. They store carbon, regulate local climates, and provide essential services like clean water and pollination, making them a crucial asset in the fight against environmental challenges.



Mangrove Preservation

Mangroves, often referred to as the "rainforests of the sea," hold a profound significance in the realm of biodiversity conservation. Mangroves in the UAE play a crucial role in maintaining the coastal ecosystem, providing habitat and breeding grounds for various species of fish, birds, and crustaceans. By safeguarding mangroves, we not only preserve the diverse web of life they harbor but also fortify coastal resilience, enhance water quality, and mitigate climate impacts, making them an essential element in our efforts to protect and sustain the world's biodiversity.



Research & Education

Research and education are pivotal pillars in the protection of biodiversity, working in tandem to advance our understanding of the natural world and inspire conservation efforts. Research efforts yield critical insights into species behavior, ecosystem dynamics, and the impacts of human activities, guiding the development of evidence-based conservation strategies. Education plays a vital role in raising awareness and fostering a sense of responsibility toward biodiversity. It empowers individuals, communities, and decision-makers to make informed choices that minimize harm to ecosystems and species. Together, research and education bridge the gap between science and action, forming a dynamic duo that drives biodiversity protection.



Strategic Initiatives & Partnerships

Strategic partnerships and initiatives are indispensable tools in the mission to protect biodiversity. The UAE has placed an emphasis on cultivating partnerships with a wide array of stakeholders to foster biodiversity protection. By forging strategic partnerships, organizations and governments can leverage each other's strengths and networks, amplifying the impact of conservation efforts. Initiatives, whether on a local or global scale, provide a structured framework for action, directing efforts toward specific goals and milestones. These initiatives facilitate the sharing of knowledge, best practices, and resources, accelerating progress and innovation.



Beyond The UAE

The UAE's global reputation as a hub for innovation in the realm of biodiversity cannot be overstated. By pooling a wide range of resources, knowledge, and expertise, global partnerships enable the development of comprehensive conservation strategies and initiatives within the UAE and beyond. They facilitate the sharing of data, best practices, and technology, amplifying the effectiveness of conservation efforts. Such collaboration can lead to the establishment of international conservation agreements and frameworks that provide a common ground for nations to work together in safeguarding biodiversity.

In developing this compendium of case studies, our methodology involved secondary research sourcing information from UAE-based official documents and authoritative local outlets. The project team accessed and analyzed data directly from UAE-based sources to ensure the reliability and accuracy of the information collected. To provide a comprehensive understanding of the context, we also referenced news sources from the UAE and official press releases. This approach allowed us to cross-verify information, improving the robustness of our report. While every effort has been made to present the most current data available, it is important to note that data, particularly in dynamic environments, is subject to change. Readers are encouraged to consult official sources for the latest and most up-to-date information on the subject matter.

01

REGULATIONS & STANDARDS





1. Biodiversity Strategy of the United Arab Emirates 2014-2021

National

The UAE Biodiversity Strategy is a [comprehensive plan](#) that aligns with national and global goals, such as Emirates Vision 2021 and Aichi Biodiversity Targets, to make the UAE's environment stronger and more sustainable. It has key goals: putting biodiversity into all sectors, sharing knowledge, protecting habitats and genes, reducing harm to marine and land life, and working with other regions and countries. This strategy has set [21 goals](#) in these areas. It is about making farming, forests, and fishing more eco-friendly, saving vulnerable ecosystems, and dealing with climate unpredictability whilst ensuring there is enough funding for these goals and for a designated committee to monitor progress.



2. Sustainable Blue Economy Strategy



Source: Gulf News

Emirate

Umm Al Quwain

Umm Al Quwain unveiled its Sustainable Blue Economy Strategy, showcasing the Emirate's attention to building a prosperous and sustainable economy. This strategy seeks to turbocharge investment attractiveness while unlocking the Emirate's untapped treasures in nature, culture, and human potential. One of the central objectives of this strategy is to [double GDP by 2031](#), with the blue economy contributing [40% of that total](#). A significant goal is to achieve net-zero emissions by 2031, while allocating 20% of Umm Al Quwain's area to nature reserves and establishing three carbon-neutral areas. With this strategy, the Emirate embarks on a transformative journey, driving Umm Al Quwain's [economy](#) to the forefront in the UAE.



3. National Action Plan for the Conservation of Marine Turtles

National

The United Arab Emirates has launched a [three-year National Action Plan for the Conservation of Marine Turtles](#) (2019-2021). This plan, undertaken by the Ministry of Climate Change and Environment (MOCCA), aims to safeguard the precious marine turtles that inhabit the UAE's waters. Their habitats are at risk due to the rapid economic and industrial development in the region. The plan places an emphasis on research and information exchange, recognizing the critical need for better data. It's not just about protection; it's about revival and rejuvenation, with provisions for habitat restoration, individual rehabilitation, and comprehensive training programs.

4. National Plan of Action for the Conservation & Management of Sharks



National

In order to combat declining shark populations, mitigate threats to shark species, and enhance research and data collection on the UAE's shark species and marine environment, the UAE has developed a Plan of Action for the Conservation and Management of Sharks in its territorial waters. The plan is aligned with the International [Plan of Action for the Conservation and Management of Sharks](#) (IPOA-Sharks). It seeks to conserve shark species, promote sustainable shark resource use, maintain ecosystem health, foster global cooperation, provide economic and social benefits, advance scientific knowledge, and demonstrate environmental stewardship.



5. National Invasive Species Strategy & Action Plan

National

The UAE grapples with Invasive Alien Species (IAS), referring to non-native organisms that threaten local biodiversity by disrupting ecosystems and harming native species. [This strategy and action plan](#) delves into the pathways through which these IAS enter the UAE and the potential consequences they bring, including competition for resources, predation, disease transmission, and habitat disruption. Currently, the UAE has identified [250 alien species and 24 invasive species](#) within its borders, underscoring the need for proactive measures to curb their negative impacts on the environment and native ecosystems.



6. National Red List of Cartilaginous Fishes

National

[The UAE National Red List of Cartilaginous Fishes](#) provides a stark assessment, revealing that 48 out of the 80 species of sharks, rays, skates, and related fish in UAE territorial waters, for which sufficient data are available, face critical threats of regional extinction. They are classified as Critically Endangered, Endangered, or Vulnerable. This alarming situation is attributed to their life cycle characteristics, such as small brood sizes, large body size, and slow growth, which increase their risk of national extinction. Addressing these threats requires an increase in fisheries management capacity in the region, along with robust enforcement of existing fisheries regulations.



7. National Red List of Select Bony Fishes

National

[The UAE National Red List of Select Bony Fishes](#) is a crucial evaluation of commercially significant bony fish species in UAE waters. It reveals that 11% of the 126 species assessed are threatened with regional extinction, sounding an urgent call for conservation efforts. This list brings about significant impacts: it focuses conservation efforts on the 14 threatened species, aids in sustainable fisheries management, underscores the importance of protecting critical habitats, emphasizes the need for further research on data-deficient species, guides environmentally responsible decision-making, contributes to national biodiversity reporting, raises public and private sector awareness, and informs marine conservation policies.



8. National Red List of Vascular Plants



National

In the UAE, there's a wealth of nearly 1,000 recorded vascular plant species, with 598 considered both valid and native. The Red List for Vascular Plants works to keep track of these plant species through regular assessments and research. [The Red List Index \(RLI\) scores](#) paint a vivid picture: in 2019, the UAE's vascular plants scored 0.94, showing an increase in regional extinction risk compared with the 1996 score of 0.96. It's interesting to note that the UAE's plant species, although facing some threats, fare better than the country's mammals (0.63) and herpetofauna (0.92), emphasizing varying conservation priorities.



9. National Red List of Birds

National

[The UAE National Red List of Birds](#) is a pivotal assessment, offering us a comprehensive look at the state of bird species in the UAE. With 167 bird species in the spotlight, it's evident that 53% of them are facing looming threats, while 14% are considered Near Threatened, and 33% are in the clear – at least for now. On the flip side, habitat loss due to land use changes and development remains a concern. More monitoring and ecological research is crucial. Repeating this assessment in 5 to 10 years will unveil the true impact of our conservation endeavors and determine the trajectory of the National Red List of Birds.



10. National Red List of Threatened Species



National

[The UAE National Red List project](#), initiated by the Ministry of Climate Change and Environment, addresses the critical issue of species conservation and biodiversity assessment in the United Arab Emirates. [This project](#) evaluates the extinction risk for 1,167 species in the country, identifying endangered species across mammals, herpetofauna, birds, and plants. It measures the effectiveness of current conservation policies, aligning with the UN Sustainable Development Goals, and enhancing the UAE's international competitiveness in biodiversity conservation. By developing distribution maps for endangered species and collaborating with various stakeholders, the project aims to inform conservation efforts to safeguard these species.

02

PROTECTED AREAS





Source: Trawell

11. Al Zorah Nature Reserve

Emirate
Ajman

The Al Zorah Nature Reserve, located in Ajman, features a tidal creek and a thriving mangrove forest, bustling with diverse bird species. Presently, Al Zorah is a lush green paradise and home to over [500,000 oxygen-producing trees](#). Under the guidance of Ajman's leadership, Al Zorah City plans to expand this protected reserve, home to over [200 bird species](#). Encompassing a sprawling expanse of 1 million square meters, this expansion serves as a remarkable testament to the UAE's unwavering dedication to environmental conservation. It also underscores Ajman's resolute commitment to championing sustainability, both locally and globally. The initiative aligns with the UAE's commitment to planting 100 million trees, fostering sustainability, and achieving net-zero emissions by 2050.

12. The Important Bird Areas in the UAE



Source: Gulf News

National

The Important Bird Areas (IBA) project in the UAE addresses the need to protect and conserve critical habitats for birds. These habitats are essential for various bird species, including both migratory and resident birds. To mitigate the ongoing threat to these important bird habitats, the project focuses on identifying, documenting, and implementing measures to safeguard these areas across the UAE. Over the past four decades, the project has identified and documented around [12,000 sites globally](#), amounting to around 6% of the world's surface area. It also seeks to raise awareness about the significance of these habitats in bird conservation efforts, and advocates for sustainable land use practices to ensure the long-term survival of these vital ecosystems.

13. Al Tawi Reserve

Emirate
Abu Dhabi

Nestled in the heart of Abu Dhabi, away from the bustling city life and iconic monuments, lies the serene Al Tawi Reserve, a testament to the Emirate's commitment to preserving its natural riches. As one leaves behind the urban landscape, they will find themselves surrounded by the breathtaking dunes and flourishing dwarf shrubs that define this unique sanctuary. The reserve invites visitors to explore its gravel plains, lush shrub vegetation and historic date plantations, each reflecting the deep-rooted traditions and culture of the Emirates. Al Tawi Reserve offers not just an escape into nature but a chance to reconnect with the land's heritage, making it an essential destination for those seeking to experience [Abu Dhabi's environmental treasures](#).



14. Al Ramlah Reserve

Emirate
Abu Dhabi

Al Ramlah Reserve in the UAE stands as a hidden gem of natural beauty and biodiversity. Located in a pristine desert landscape, this reserve showcases a unique combination of sand dunes, salt flats and sabkhas, creating a diverse habitat for various plant and animal species. Al Ramlah is one of the largest protected areas in the UAE, covering [544 square kilometers in the Al Dhafra region](#).

15. Lemdynah Protected Area

Emirate
Sharjah

Lemdynah Protected Area, strategically located in Sharjah's central region, emerges as an ecological gem of remarkable significance. This unique and diverse sanctuary spans across quintessential Arabian landscapes, from the [undulating sand dunes to the mudflats, and from the rocky gravel plains to the verdant presence of acacia trees](#).

But it's not just the scenery that sets Lemdynah apart; it's the thriving ecosystem it shelters. The significance of Lemdynah doesn't stop there. This protected expanse is host to [several species of endemic birds](#), offering them refuge in the desert. These creatures elevate the area's ecological importance, as they represent not only the beauty and diversity of local wildlife but also its fragile balance.



16. Sir Bu Nair Island



National

Known as the "teardrop" island for its distinctive shape, [Sir Bu Nair Island](#) serves as a crucial nesting ground for marine turtles and various bird species. It is home to various seabirds, including the lesser crested tern, great crested tern, red-billed tropicbird, and Socotra cormorant, with large colonies of sooty gulls and bridled terns. The island holds a unique and historically rich place in the maritime history of the UAE. It is also home to the endangered hawksbill turtles. Originally serving as a crucial haven for fishermen and pearl divers, the island played a major role in the nation's natural and cultural heritage.

17. Al Bidaa Reserve

Emirate
Abu Dhabi

Al Bidaa Reserve, located in the United Arab Emirates, is a vital conservation area that plays a crucial role in preserving the region's unique biodiversity. This reserve is a haven for various native plant and animal species, offering them protection and a safe habitat.

The conservation efforts here focus on maintaining the delicate balance of this ecosystem while promoting environmental awareness and education. Distinguished by its lush vegetation and rich biological diversity, the Al Bidaa Reserve comprises over [75% of its total area](#) as forests. Al Bidaa Reserve serves as a testament to the UAE's commitment to safeguarding its natural heritage and promoting sustainable environmental practices.



18. Barqaa Al Suqoor



National

The Barqa Al Suqoor region in the UAE is a captivating testament to the country's diverse natural landscapes. It serves as a vital habitat for a variety of perennial herbs and graminoids. This area is also an important breeding zone for the houbara bustard and features [thriving vegetation cover](#). The Barqa Al Suqoor Reserve stands out from others due to its rich biological diversity, which includes several rare species such as hunting spiders, "Besil May" plants and the Eurasian Eagle Owl.



Source: MOCCA

19. Bul Syayeeef

Emirate
Abu Dhabi

Bul Syayeeef, spanning over 14,500 hectares in Abu Dhabi, is a diverse coastal wetland habitat encompassing mangroves, salt marshes, and seagrass beds. It provides crucial homes for numerous species. Over 80 migratory and resident bird species thrive in its tidal mudflats, including the greater flamingo, which recorded one of its largest breeding events in 2009 with [2,000 breeding pairs and 801 hatchlings](#). Bul Syayeeef also plays a vital role in the protection of globally threatened species like the critically endangered hawksbill turtle and the endangered green turtle.

20. Ras Ghanada Coral Reef



Source: The National News

National

Ras Ghanada Coral Reef, located along the shores of the UAE, is a stunning coral reef ecosystem and a thriving underwater world. It harbors the largest aggregation of coral reefs in the UAE and the Southern Arabian Gulf region, preserving [21 bird species, 5 mammal species and 40 fish species](#). It serves as a crucial breeding ground for numerous marine species, including the iconic hawksbill turtle and an array of fish species that call these coral gardens home. In 2007, a study conducted in collaboration between the Emirates Wildlife Society – World Wide Fund for Nature (EWS-WWF) and EAD identified Ras Ghanada as ["Abu Dhabi's most robust and thriving coral reef"](#).

21. Al Marmoom Desert

Emirate
Dubai

Encompassing over 10% of Dubai's land area, this ambitious project aims to create the first unfenced desert conservation reserve in the country. The reserve's diverse landscape includes shrublands, artificial lakes, and even an archaeological site dating back [over 3,000 years](#). Its remarkable biodiversity boasts more than [204 native bird species](#), 158 migratory birds, numerous reptiles, mammals, and endangered animals and birds. Notably, it harbors the highest concentration of large flamingos in a desert region in the UAE. To further emphasize its dedication to preserving nature, the reserve houses the UAE's largest plant nursery, focusing on local species preservation, and the Marmoom Biosphere Centre, dedicated to sustainable development and ecotourism.



22. Jabal Ali Wildlife Sanctuary

National

This sanctuary is a vital refuge for a multitude of wildlife, offering a lifeline to both the creatures it shelters and the stability of its coastline. Among its cherished inhabitants are [the critically endangered hawksbill turtles](#), with Jabal Ali's sands serving as their last remaining breeding grounds in Dubai. The Jabal Ali Wildlife Sanctuary supports [619 species of birds, mammals, reptiles, invertebrates, flora, and fish](#) including Arabian Gazelles, foxes, lizards, and waterbirds. It's a popular spot for educational programs on animal and marine conservation, as well as events like coastal cleanups and initiatives to protect turtles.

23. Al Dhelaima Protected Area

Emirate
Sharjah

Al Dhelaima Protected Area, situated in the Al Dhaid region of Sharjah, UAE, is a natural reserve known for its distinct landscape of brown sand dunes, ghaf trees, and notable rock formations. Spanning an area of 2.2 square kilometers, this protected zone is a habitat for a [diverse range of wildlife](#), including gazelles, Arabian oryx, Ethiopian hedgehogs, reptiles, foxes, and a variety of bird species such as the Chestnut-bellied Sandgrouse, Grey Francolin, and Little Green Bee-Eater. It plays a crucial role in conservation and is a unique part of UAE's natural heritage.



24. Jabal Nazwa Conservation Reserve



Emirate
Dubai

The Jabal Nazwa Conservation Reserve, near the Sharjah border, promotes impressive biodiversity, with several endangered and vulnerable species like the Oryx, Mountain Gazelle, and Sand Gazelle freely roaming from the adjacent Dubai Desert Conservation Reserve. Additionally, it provides habitat to regional endemic species, such as the Persian Leaf-toed Gecko, various floral species, Gordon's Wildcat, and indigenous Arabian Peninsula bats. The reserve is vital for resident and migratory birds, serving as a nesting ground for Pharaoh Eagle Owls, Green Bee-eaters, and Southern Grey Shrikes, among others. [With 111 bird species, 20 mammals, 24 reptiles, 21 invertebrates, and 70 flora species](#), Jabal Nazwa Conservation Reserve is a treasure trove of biodiversity.

25. Al Ain Oasis

National

Al Ain Oasis is a critical hub for biodiversity. Stretching over [1,200 hectares](#), this verdant oasis hosts a variety of plant and animal species. Its palm groves provide a sanctuary for diverse birdlife, while the falaj irrigation system sustains numerous plant species, including date palms and fruit trees. It is the largest oasis in Al Ain, home to over [147,000 date palms](#) representing over 100 varieties, as well as an array of fruit trees like mango, orange, banana, fig, and sidr (jujube). The [UNESCO World Heritage status](#) of the six oases attests to their role in fostering fertility in arid conditions.



26. Al Wathba Wetland Reserve



Emirate Abu Dhabi

The Al Wathba Wetland Reserve is a sanctuary for Abu Dhabi's diverse species. The reserve is famed for its substantial Greater Flamingo population, with an average of [4,000 of these elegant birds](#) making it their seasonal home during autumn and spring. In addition to being a haven for flamingos, it boasts a diverse ecosystem, welcoming over [250 bird species, 37 plant varieties, and a thriving community of aquatic life](#).

27. Jebel Hafit Mountain

Emirate
Abu Dhabi

The mountainous terrain of Jebel Hafit serves as a vital sanctuary for biodiversity. Within the sweeping expanse of Wadi Tarabat, an abundance of [endangered flora and fauna finds](#) refuge. The caves of Jebel Hafit are home to a myriad of creatures, including bats, foxes, snakes, rodents, and hyraxes, as well as a total of 119 bird species. The region hosts approximately [200 different insects](#) and [23 butterfly species](#), with the discovery of seven lacewing species being a notable highlight.



28. Dubai Desert Conservation Reserve (Al Maha)



Emirate
Dubai

Dubai's Desert Conservation Reserve (DDCR), often known as Al Maha, is a captivating oasis in the heart of an arid desert landscape. This conservation effort showcases Dubai's commitment to preserving its natural heritage. Al Maha is a haven for unique wildlife, including the Arabian oryx and gazelles, which have made a remarkable comeback in this protected habitat. DDCR perseveres in its collaborative efforts with [leading experts](#), dedicated to initiatives aimed at monitoring, safeguarding, and re-establishing the UAE's native species. The reserve currently hosts [562 wildlife species](#).



Source: MOCCA

29. Wasit

Emirate
Sharjah

Wasit Nature Reserve in Sharjah is a notable environmental success story. Wasit has transformed barren land into a thriving ecosystem, featuring coastal sand dunes, salt flats, ponds, and a vast lake. Bird enthusiasts come to the reserve to spot [over 350 bird species](#) from eight well-equipped hides, while animal lovers come to witness the endangered Arabian oryx, the UAE's national animal, grazing amid lush vegetation.

The reserve also hosts [rare birds](#), including the majestic northern bald ibis, the elegant glossy ibis, the stately gray heron, the endangered marbled duck, the vibrant purple swamphen, the regal pink-backed pelican, and the iconic greater flamingo.

30. Khor Al Muzahmi Protected Area



Source: Wikimedia Commons

Emirate
Ras Al Khaimah

The Khor Al Muzahmi coastal protected area, located in Ras Al Khaimah, is a crucial habitat for [diverse species of environmental significance](#), including flamingos, fish eagles, and green turtles, which are threatened with extinction. The reserve's shallow waters serve as a crucial incubator for commercial fish, while programs to track and study sea turtles aim to protect these endangered creatures and marine habitats. The reserve's initiatives also involve the cultivation of mangroves, installation of solar-powered lights, and ongoing conservation efforts to safeguard this unique coastal ecosystem, contributing to the region's sustainability goals and enhancing ecotourism opportunities.

31. Wadi Wurayah National Park (WWNP)



Emirate
Fujairah

This protected area, covering 225 square kilometers, represents over 20% of Fujairah's total area and holds exceptional significance. Notably, it safeguards species like the Arabian Tahr and the critically endangered Omani Owl, contributing to global conservation efforts. This natural haven hosts [860 species, with 208 distinct plant varieties](#), including the nation's sole native orchid, *epipactis veratrifolia*. What truly sets Wadi Wurayah apart is its role as a sanctuary for rare and endangered species, such as the elusive Blandford fox, Gordon's wildcat, hedgehogs, Caracal, and the prized Arabian tahr, an indigenous mountain goat. Bird enthusiasts revel in the park's ornithological wonders, as it boasts 94 endangered bird species.



03

MANGROVE PRESERVATION





32. Mangrove National Park

Emirate

Abu Dhabi

Mangroves face grave threats, [with over 35% already lost worldwide since 1980](#), mainly due to coastal development. The Mangrove National Park, located along Abu Dhabi's coast, is a thriving sanctuary for mangrove forests and diverse marine life. Beyond its natural wonders, Mangrove National Park serves as [an educational hub](#), inspiring awareness and action among visitors about the importance of sustainable practices and the need to protect our planet.



33. Protecting Mangroves in the UAE



National

Mangrove forests play a major role in biodiversity. To help restore and expand these forests, Aldar is engaged in several initiatives in the UAE. The Seed Sowing Project collects and plants mangrove seeds in nearby areas. With over 100,000 seeds planted in October 2023, Aldar expects a success rate of 40-50%, which can be an effective alternative for establishing mangrove nurseries. To help revitalize mangroves, Aldar also undertakes proactive measures such as water recycling methods including channel excavation and soil quality assessments to support forest recovery. In addition, 10,000 sapling mangroves will be planted by December 2023 to rejuvenate and improve mangrove ecosystems in the UAE.



34. ADNOC's Mangrove Rehabilitation Initiative Using Drone Technology



National

ADNOC has committed to planting 10 million mangroves by 2030 and is accelerating its efforts by using drone technology. To date, the company has planted a total of 2.5 million successfully growing mangrove seedlings using drone technology.

The drones can drop around 2,000 germinated seeds or 500 seedballs in less than ten minutes, allowing the mangrove seeds to be planted faster, in harder-to-reach areas, and at scale. Using drones also facilitates extensive field observation and data collection, while minimizing human impact on the site. The drones are designed and engineered in the UAE for the UAE's environmental conditions by Distant Imagery, a UAE-based start-up company. Year-end monitoring demonstrated a success rate of between 40% to 44% within each site, and with a less than 1% loss rate of those that successfully took root.



04

RESEARCH & EDUCATION



35. Leaders of Change



National

Leaders of Change presents a unique opportunity to sponsor an individual for a full year in the program, focusing on mobilizing civil society for nature and climate. With access to over 100 diverse events, participants engage in hands-on experiences led by local experts, such as wildlife restoration, cleanups, mangrove planting, and turtle releases. Masterclasses cover subjects like conscious consumption and circular economies, while workshops and discussions provide a platform to address pressing issues, from climate anxiety to food waste. Participants track their journey on a digital platform to measure their progress and growth. The impact is notable: these upskilled individuals are poised to be future sustainability leaders, driving change across the UAE and supporting carbon sequestration and natural capital valuation through reforestation and blue carbon assessments.

36. Together for Turtles



National

Together for Turtles exemplifies the potential of nature-based solutions in the UAE. Its core mission is to safeguard two crucial marine habitats, serving as sanctuaries for endangered species, notably turtles, and delivering significant advantages to the local community. The research entails a range of essential activities, including assessing natural capital through blue carbon inventories, evaluating sea level rise and climate vulnerability. Drone surveys and underwater camera tracking provide valuable insights into marine life, while community engagement, including socioeconomic surveys, benefits local entrepreneurs and fishermen. Crafting a versatile Marine Protected Area management plan is a key component. This project underscores the interdependence of biodiversity, coastal ecosystems, climate mitigation, and socio-economic welfare.

37. Abu Dhabi Plant Genetics Resources Centre



Emirate
Abu Dhabi

Preserving endangered plant species is vital for their survival. EAD took a significant step in 2017 by establishing the [Abu Dhabi Plant Genetics Resources Centre](#) to support research and promote conservation efforts. This center collects and documents native plants in Abu Dhabi, ensuring their survival, even if they vanish in the wild. One such focus is the endangered Dwarf Palm tree, with only one known specimen in an undisclosed Abu Dhabi location. The center aims to collect seeds and tissue samples of all UAE plants, fostering conservation and potential economic benefits. It also explores plants for medicinal use and serves as an educational resource, playing a critical role in protecting the UAE's flora, threatened by urbanization and desertification.



38. Sahim

National

The UAE is encouraging people of all ages to become citizen scientists and join the Sahim initiative, a collaborative effort by the Environment Agency - Abu Dhabi (EAD) and Emirates Nature-WWF. [Sahim empowers volunteers and scientists](#) to work together on projects tackling real-world environmental issues such as climate change and biodiversity loss, right from their homes, backyards, or local neighborhoods. It's a way for everyday individuals to get involved in scientific research that contributes to national environmental and sustainability goals. By collecting valuable data about local species and habitats, citizen scientists play a vital role in informing decision-making, setting policies, and furthering conservation efforts in the UAE.

39. Connect with Nature



National

[Connect with Nature](#), a joint effort by Emirates Nature-WWF and the Environment Agency - Abu Dhabi, has made remarkable progress since its inception in 2019. This initiative has connected with over two million young individuals in the UAE, involving more than 10,000 in hands-on learning and nature-based activities. Designed for 18 to 24-year-olds, Connect with Nature focuses on environmental education and community engagement to nurture a sense of personal and societal responsibility towards the nation's well-being and its diverse biodiversity. Through access to unique conservation programs and mentorship, this initiative empowers young people with the skills and knowledge to drive meaningful change, aligning with national and global conservation and sustainability objectives.

40. Nature Champions

National

Promoting environmental awareness and education is crucial for empowering a generation capable of addressing pressing climate challenges. In pursuit of this goal, the [UAE Nature Champions](#) program was established by Emirates Nature and WWF to instill early environmental education within the community, specifically targeting primary-aged children (7-12 years old). This initiative aims to foster a community of young nature enthusiasts in the UAE. The program operates through three progressive stages – Academy, Simulations, and Adventures – equipping students with valuable environmental skills. Participants receive training on nature and contemporary environmental issues, brainstorm solutions to adopt a nature-friendly lifestyle, and engage in adventures to explore and safeguard the natural world.





41. Equipping the next generation for a sustainable future

National

Aldar Education has taken key steps to integrate sustainability into its curriculums in a very authentic way, which allows students to deepen their understanding of the environment and instills values of environmental stewardship. The curriculum is aligned with the UN Sustainable Development Goals and globally recognized by The Greening Education Partnerships in collaboration with The Ministry of Education. From an early age, students learn about the complex relationships within biodiversity ecosystems and the impact of climate change. Lessons are conducted through different modes of learning to create an engaging education environment, including partnerships with industry experts and field trips.

42. Abu Dhabi Blue Carbon Project

Emirate

Abu Dhabi

[The Abu Dhabi Blue Carbon Demonstration Project](#), conducted from 2012 to 2013, aimed to bolster local knowledge about coastal habitats for sustainable decision-making. It focused on data collection and analysis, quantifying carbon reserves in various ecosystems like seagrass, salt marsh, sabkha, and mangroves. At a local level, the project enhanced expertise in carbon measurement and monitoring within coastal ecosystems. On the global stage, it influenced Blue Carbon initiatives, providing vital guidance and inspiring others to develop science and data management tools for preserving these crucial habitats. This initiative shaped policies for the sustainable protection of these environments, both locally and internationally.



Source: Media office Abu Dhabi

05

STRATEGIC INITIATIVES & PARTNERSHIPS



43. Priceless Planet Coalition

Global

The UAE's mangrove and coastal ecosystems are facing a decline, resulting in adverse effects on climate, communities, and biodiversity. To combat this issue, a restoration project has been launched through the [Priceless Planet Coalition \(PPC\)](#). This collaborative effort brings together Mastercard, climate science experts from Conservation International (CI), and forest restoration specialists from the World Resources Institute (WRI). The project targets the rejuvenation of 50,000 mangrove trees and associated coastal ecosystems in the Northern Emirates. This undertaking encompasses [a comprehensive, ecosystem-based restoration approach](#), including mangrove planting and climate optimization. To ensure its success, the project meticulously monitors progress through remote sensing and field surveys.



44. Hospitality's Role in Protecting Biodiversity



National

Aldar actively works to protect and preserve the vast array of species in the UAE and its ecosystems, especially in close proximity to its hospitality assets. Many of Aldar's hospitality assets are located within the protected boundaries of Al Saadiyat Marine National Park, a habitat that features rich marine biodiversity, including the critically endangered Hawksbill Turtle. Promoting the coexistence between people and nature is paramount through Aldar's environmental policy to ensure maintenance of this ecological balance. Aldar works closely with the Environment Agency - Abu Dhabi (EAD) to protect wildlife such as gazelles, turtles, sea snakes, and dolphins.

45. Nature Based Solutions



National

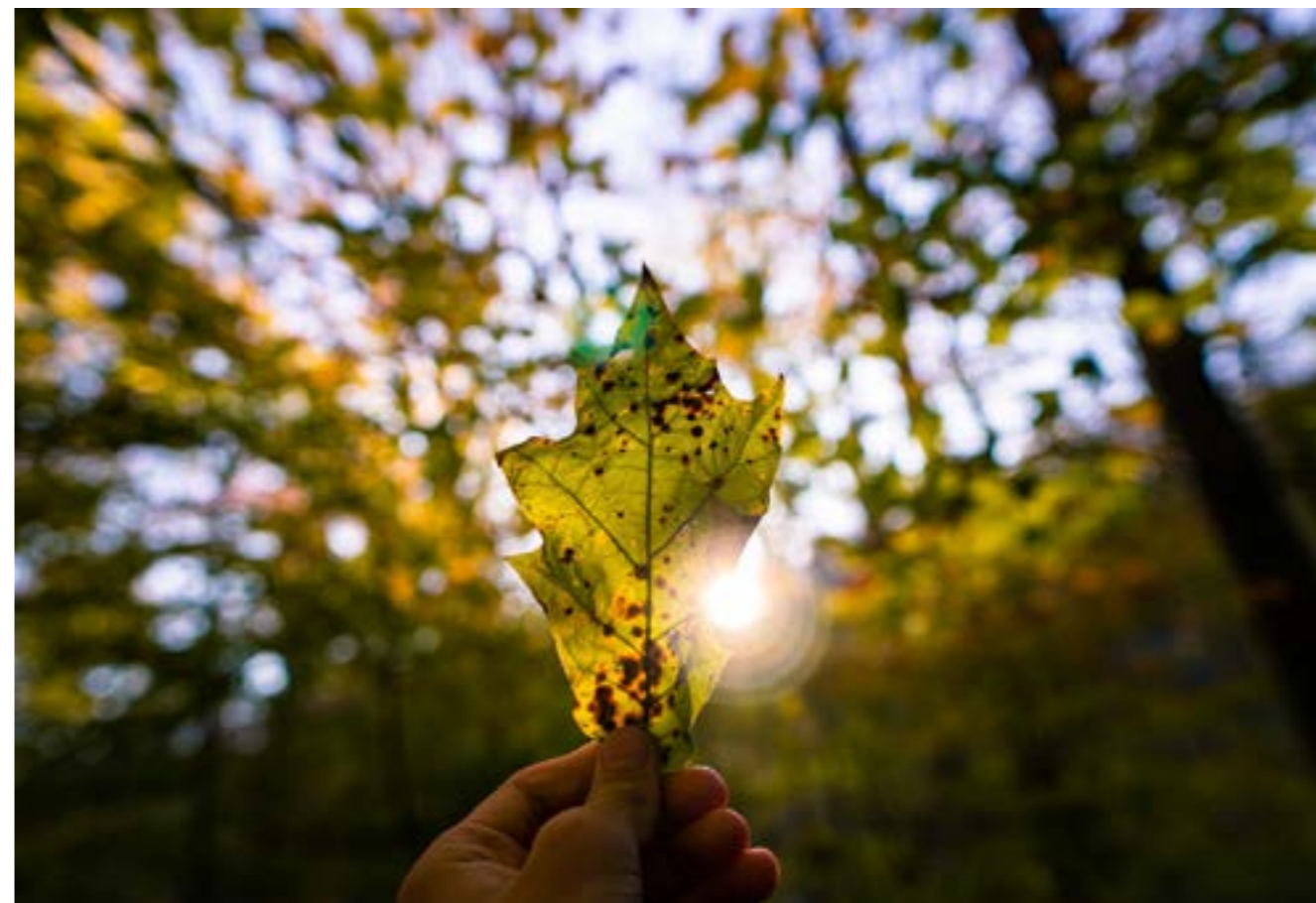
Harnessing the power of nature to combat climate change, protect biodiversity, and benefit communities is now more important than ever. [The Nature-based Solutions \(NbS\) for Climate, Biodiversity & People Project](#), has brought together key stakeholders such as the Ministry of Climate Change and Environment, the Ministry of Economy, the Environment Agency – Abu Dhabi, the Government of Umm Al Quwain, Emirates Nature-WWF and the International Center for Biosaline Agriculture (ICBA). The initiative is part of HSBC's Climate Solutions Partnership, a global philanthropic initiative in partnership with the World Resources Institute and WWF.

The project has identified strategic locations, including Khor Faridah in Abu Dhabi and Khor Beidah lagoon in Umm Al Quwain, to implement NbS interventions that promote resilient coastal ecosystems and deliver multiple socio-economic advantages, blending scientific data and local ecological expertise to achieve its goals.

46. Speak Up for Nature

National

[The Speak Up for Nature program](#) offers prominent sustainability advocates and influencers a unique opportunity to contribute a portion of their speaking fees to support projects dedicated to conserving the UAE's rich biodiversity and advancing sustainability throughout our broader community, all under the capable stewardship of Emirate Nature-WWF. The initiative's focus is to harness these generous contributions to fund four pivotal projects geared towards the protection of coastal and marine ecosystems. These projects include marine life conservation with an emphasis on sea turtle protection, sponsoring the engagement of civil society through Emirates Nature-WWF's Leaders of Change program, and the Reforestation of Shua'a Trees.



47. Reforestation of Shu'aa Trees



Emirate
Fujairah

[The Shua'a tree reforestation project](#), established by WWF, is a transformative effort focused on reviving native Shua'a trees in rural communities across Fujairah and the Northern Emirates. Beyond tree planting, it aims to develop products like soaps, oils, and shampoo, creating livelihoods, commercializing these products, and bolstering local biodiversity. A wastewater treatment plant is established to repurpose greywater for nursery and plantation irrigation. This initiative invests in local communities, helping them market tree-based products, aided by strategic collaboration for market access, branding, and distribution. Local volunteers join reforestation efforts, translating goodwill into sustainable practices and benefiting native species. This effort spurs economic opportunities for local farmers, boosts honey production, conserves water, and enhances carbon capture for a greener future.

48. Al Bithnah Site

Emirate
Fujairah

The Al Bithnah site in Fujairah has historical significance dating back to the late 1800s. Today, it has the potential to play a vital role in [sustainable rural development](#). A partnership between Emirates Nature-WWF, Etihad Rail, Crown Prince Court-Fujairah, Fujairah Environmental Authority, Fujairah Adventure, and local communities aims to revitalize this area. Plans include restoring the ancient falaj irrigation system, creating nature trails for eco-tourism, and rehabilitating the natural surroundings. Through training, collaboration, and volunteer opportunities, community members are actively involved in the restoration process, working towards a greener local economy and a sustainable future for Al Bithnah.



Source: Bayut

49. Beautiful in the Wild



National

Raising awareness among UAE residents and visitors about the critical importance of conserving endangered species is an important step towards protecting biodiversity across generations. The ["Beautiful in the Wild"](#) campaign is an initiative led by the Ministry of Climate Change and Environment in collaboration with the United for Wildlife Organization that aims to educate UAE residents on the importance of biodiversity through innovative and interactive methods. The campaign utilizes technologies such as HoloLens to allow people to virtually interact with wildlife in their natural habitats, fostering a deeper understanding of the need for conservation.



50. UAE Dugong Conservation

National

The Environment Agency - Abu Dhabi (EAD) has been dedicated to safeguarding and researching the dugong since 1999. The UAE has actively engaged in global dugong conservation efforts by signing the [United Nations Environment Programme Convention on Migratory Species Dugong Conservation Memorandum of Understanding](#) and collaborating with other dugong range states to safeguard these creatures and their habitats on a global, regional, and local scale. Additionally, EAD houses the Convention on Migratory Species office at its Abu Dhabi headquarters. EAD's extensive, long-term research and conservation initiatives encompass regular aerial surveys, mortality investigations, satellite telemetry for migration studies, and genetic research.

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BEYOND THE UAE



51. Falcon Conservation



Global

[The Mohamed Bin Zayed Raptor Conservation Fund](#) was developed for the protection and conservation of falcons and raptors. It saves them from being electrocuted by power lines and protects their homes. This fund, started in April 2018 by His Highness Sheikh Mohamed bin Zayed Al Nahyan, is carrying out [three important projects](#). For example, one project in Mongolia is helping saker falcons that were being electrocuted. They have found an innovative way to save these birds by covering power lines with a special plastic cover. [This has reduced bird deaths by 98%](#). These are not just words; they are substantial actions to protect falcons, thanks to strategic partnerships and teamwork.

52. Houbara Protected Area


Global

The houbara bustard faces threats from habitat degradation, overhunting, and climate change, making its conservation vital. Led by the International Fund for Houbara Conservation (IFHC), this project established protected areas where the Houbara bustard can thrive, offering a safe haven for their populations in Abu Dhabi. This project has produced [400,000 bustards](#). The IFHC's three breeding centers in Abu Dhabi and Morocco and Kazakhstan produce [50,000 houbara bustards](#) a year and release them to the wild. Interestingly, the program has also supported communities living near the protected area. This initiative has also boosted [women's employment rates](#) in nearby participating villages in Jordan, where the women are able to earn money through honey-making and painting ostrich eggs.



Source: MOCCA

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**IMPACTFUL
BIODIVERSITY
CASE STUDIES
FROM THE UAE**

