

# QATAR NATIONAL ENVIRONMENT AND CLIMATE CHANGE STRATEGY

"Protect and enhance our environment to safeguard the **well-being of our people** and ensure **long-term resilience of our economy**"

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#### I FOREWORD

Nature is a deeply rooted part of Qatar's heritage. Nature defines our history, affects our present and will shape our future. In line with our national vision, our mission is to live in harmony with nature.

Guided by H.H. the Emir of Qatar's vision and leadership, Qatar National Environment and Climate Change Strategy seeks to enhance that balance and safeguard our environment for present and future generations. It is the next chapter of the continuous journey to ensure welfare for our children.

The world has recognized that access to a healthy and sustainable environment is a universal human right. International climate negotiations and biodiversity summits have demonstrated the global willingness to act – and Qatar is committed to contributing.

Qatar National Environment and Climate Change Strategy affirms our commitment to protect and enhance the environment while establishing harmony between economic, social, and environmental aspects in line with Qatar National Vision 2030. Beyond efforts to mitigate climate change and protect habitats and species, our aspirations include efficient land use, optimal usage of scarce water resources, and effective resource and waste management towards a more circular economy.

The journey ahead of us is full of hope for a cleaner, greener, and more sustainable future. Qatar National Environment and Climate Change Strategy is the result of a joint effort among government, private sector, civil society, and Qatari citizens. I trust in the support of all people of Qatar to make this journey an astonishing success and deliver a sustainable future to the people of Qatar.

Doha, 2021



**HE Sheikh Khalid bin Khalifa bin Abdulaziz Al Thani,**Prime Minister and Minister of Interior



#### **INTRODUCTION TO**

#### **QATAR NATIONAL ENVIRONMENT** AND CLIMATE CHANGE STRATEGY

"Economic development and protection of the environment are two demands neither of which should be sacrificed for the sake of the other" - Qatar National Vision 2030.

Qatar National Vision 2030 (QNV) that was crafted more than a decade ago defined the "harmony between economic growth, social development and environmental protection" as a primary ambition. QNV embraces environmental stewardship as one of the strategy's four main pillars. Consequently, environmental considerations have shaped our national strategies such as Qatar's National Climate Change Action Plan, Qatar Water Strategy, Qatar National Biodiversity Strategy and Action Plan, and Qatar National Food Security Strategy.

Qatar has ensured development in recent years was achieved responsibly, and in a way to safeguard the state of the environment. Beyond our borders, we have played the role of a key contributor to regional efforts, for instance, to reduce transboundary pollutants and ensure regional protection for marine and terrestrial species. Qatar has also played a role in promoting efforts on the global environmental agenda such as climate change mitigation.

Led by the wise vision of His Highness The Emir, Qatar established a new Environmental Task Force in 2021 and embarked on the development of an integrated national environmental strategy.

Qatar National Environment and Climate Change Strategy (QNE) will deliver three objectives of enhancing the health and vitality of the environment, improving the well-being of the Qatari population and ensuring the resilience of our economy.

To achieve its objectives, QNE identifies five environmental priorities, which are reducing greenhouse gas (GHG) and air pollutant emissions, restoring biodiversity abundance. establishing sustainable water management, improving waste management and building a circular economy, and enhancing land use productivity.

QNE sets the foundation to tackle present and future environmental challenges while putting in place a structured process and governance to address these issues holistically.

Furthermore, we have also defined tangible targets to be achieved by the year 2030 across these 5 environmental priority areas. The launch of QNE marks the next chapter in the nation's environmental journey towards 2030 and beyond.

QNE embodies the commitment to our people and the world, and signifies the aspiration to make Qatar a cleaner, greener, and more sustainable nation for present and future generations.





#### **CREATION JOURNEY OF**

#### QATAR NATIONAL ENVIRONMENT AND CLIMATE CHANGE STRATEGY

Led by the wise vision of His Highness The Emir, a comprehensive effort was undertaken to integrate numerous perspectives and views from across our nation with the support of international consultants and experts. This collaborative journey was grounded in the deep commitment of Qatar's leadership to promote harmony between economic resilience, social development and well-being and environmental vitality.

We started with a detailed fact-based assessment to review Qatar's environmental point of departure and policy landscape. Subsequently, we compared Qatar's current environmental performance and trajectory with more than 30 countries globally, and engaged over 50 leading international experts across various environmental priority areas to identify potential opportunities, and socialized the findings with more than 20 different ministerial departments and external corporate stakeholders to gather feedback.

This comprehensive assessment was compared with the global emerging environmental actions to account for where the world is heading across landmark events such as the COP26, the Kunming 2021 conference on biodiversity, and other UN programs through discussions with international organizations and regulatory bodies that are supporting governments in driving forward environmental reforms globally.

Taskforce launched in 2021 to assess the environmental strategy

Comprehensive analysis of Qatar environment through discussions with experts and stakeholders

Strategy implementation and continuous journey to improve further

Additionally, the assessment offered a starting point for extensive engagement with domestic stakeholders across all sectors of the economy to develop environmental goals for environmental priority areas.

These goals represent commitments to be delivered by 2030 and are underpinned by specific initiatives and essential policy actions. The QNE also includes enablers to support integration among environmental priorities to ensure efficient delivery of goals.

Taken together, QNE represents a material commitment to a cleaner, greener, and more sustainable Qatar that is both ambitious in our aspiration and grounded in substance with clear commitments across the economy, the society and the environment.

QNE represents another milestone in Qatar's environmental journey, a journey that will continue beyond the strategy creation process. Plans will be reviewed every five-years to ensure that QNE is continuously improved.

Current plans will be extended, further study and analysis will be undertaken across priority areas ranging from air quality to circularity and waste management, and the commitment will be embedded throughout 2022 into an integrated governance structure to ensure timely and effective execution.

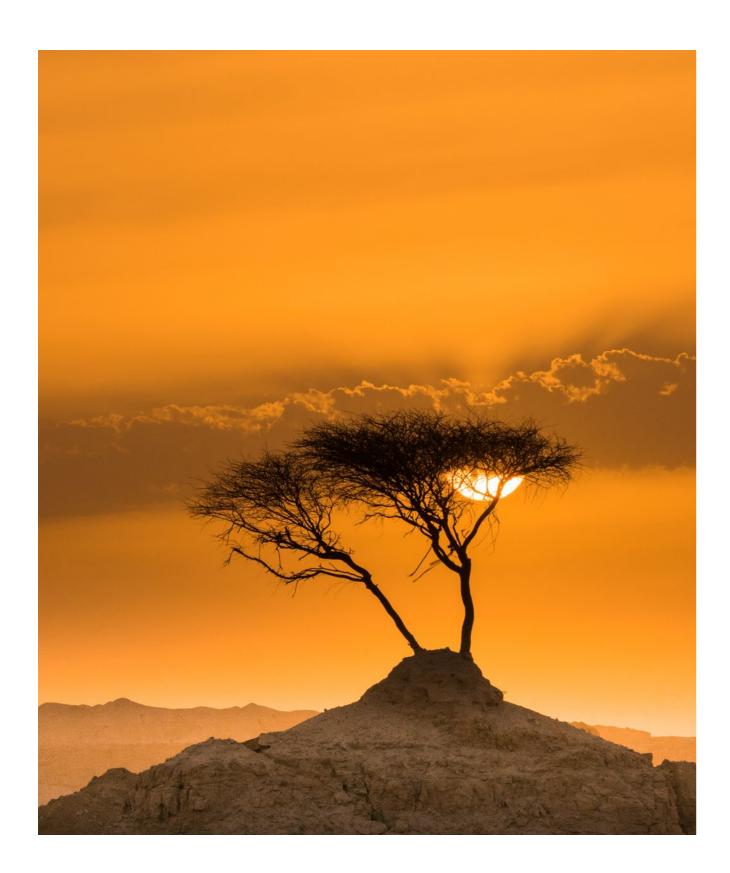
# STATE OF THE ENVIRONMENT

AND CASE FOR CHANGE



Qatar sees global environmental action as an unprecedented opportunity to mitigate climate change, protect and enhance biodiversity natural habitats, and sustain our planet for future generations. Qatar is committed to mitigating global warming to limit associated increases in sealevels and protecting ecosystems from related threats and climate disruptions.

Environmental development is deeply embedded in Qatar National Vision 2030, with an aspiration to become an advanced society capable of sustaining development and providing a high standard of living for our people. Having experienced accelerated economic and demographic growth over the past decade, Qatar has faced considerable pressures on its natural environment.



# **Current state of the environment**

Growing prosperity in Qatar has elevated consumption, which in turn has materially increased utilization of various natural resources such as water and other raw materials. This has directly caused stress on various environmental priority areas such as water and waste management, and has also indirectly impacted Qatar's biodiversity through the disruption of natural habitats.

In addition, greater energy consumption, growing mobility, and other emitting activities have led to an increase in GHG and air pollutant emissions.

Despite these challenges, Qatar has made significant strides in each environmental priority area. In water, for example, the National Program for Conservation and Energy Efficiency (Tarsheed) successfully reduced water consumption by 32 million cubic meters in 2020 compared to 2019.

In the waste management and circular economy, apart from robust waste collection and waste treatment systems, Qatar has also been making steady progress in circular economy activities, such as in construction, by recycling and re-using construction waste. In agriculture land use, Qatar has shifted toward more greenhouse technologies to promote sustainable farming.

Qatar's strategic position as a leading global supplier of natural gas allows the nation to play a key role in the transition towards a low carbon-future by promoting liquefied natural gas as a cleaner, economical and reliable component in consumers' energy mix. In addition, Qatar has maintained a strong collaborative spirit over the years by bringing together consumers, governments and producers in the transition towards cleaner energy.

Qatar also aims to contribute to this transition with a material reduction in GHG emissions by investing in innovative low-carbon technologies. This includes ambitious carbon capture and storage (CCS) commitments that will help mature the technology and drive down costs for others.

#### Looking ahead

In line with local and international environmental efforts, Qatar is proactively seeking to ensure a bright future for our future generations. The country must balance between its economic progress, the wellbeing of the Qatari population, and its commitment to safeguard the environment.

QNE aims to align the various environmental efforts taking place nationally, with each of the five priority areas seeking to achieve the three national objectives of economic resilience, population well-being and environmental vitality.

QNE provides a framework to realize medium-term objectives by 2030 while paving the way for long-term environmental management, with environmental stewardship remaining a continuous journey that will evolve as the world adapts to climate change and global trends.

QNE seeks to steer towards a future that accelerates tangible impact across specific priority areas, supported by a robust policy framework, strong governance and comprehensive infrastructure to safeguard Qatar's environment for future generations.



#### I FIVE PRIORITY AREAS

As part of our continued quest to tackle climate change and avoid the effects of further degradation of the environment, we have identified five priority areas in our bid to protect and enhance the health of natural ecosystems.



As a signatory to the Paris Agreement, Qatar is committed to limiting global warming. Alongside global communities' increased efforts to meet the Paris Agreement, Qatar is committed to responsibly supplying some of the world's cleanest natural gas at scale in order to facilitate the energy transition. Furthermore, Qatar submitted in 2021 an ambitious Nationally Determined Contribution (NDC) to the United Nations Framework Convention on Climate Change (UNFCCC), pledging to reduce GHG emissions by 25% relative to a business-as-usual scenario in 2030.

To achieve this target, Qatar plans to improve energy efficiency across all economic sectors. The plan is complemented by landmark initiatives, including further deployment of carbon capture and storage (CCS) technology, and expanding renewable energy generation. Further levers include electrifying transport, improving fuel economy, and investing in nature-based solutions such as blue carbon projects.

In addition to the expected co-benefits of these initiatives for air quality, Qatar will review ambient and indoor air quality standards to account for the latest scientific developments and guidance provided by the World Health Organization (WHO).

Furthermore, Qatar will put in place the instruments required for sustainable air quality improvements by expanding the national monitoring network to ensure sufficient coverage across Qatar and introducing systematic accounting of air pollutants by sector and activity. Together, these efforts will help in achieving the QNE ambition of a healthier ambient and indoor environments.



#### **BIODIVERSITY**

Natural capital is a vital part of Qatar's heritage that will be passed on to future generations.

Biodiversity plays a critical role across ecosystems. Besides providing raw materials, it also serves as a natural regulator that helps to maintain soil fertility, pollinate crops and control pest and diseases among other activities, supporting all the QNE priority areas.

QNE will ensure the enhancement of efforts to preserve, restore and protect natural ecosystems. To do so, Qatar will conserve and effectively manage more than 25% of the total land area by 2030.

In addition, restoration and protection plans will be put in place for endangered marine and land species alongside sustainable fishing practices. These priorities will also be complemented by increased biodiversity capabilities and integration into policies and activities.

These efforts will ensure that Qatar's habitats and species are protected and restored, and that the Qatari population will be able to enjoy clean air, fresh water, food and resources.



#### **WATER**

In recent years, Qatar has experienced a rapid pace of economic development, and a desire to enhance food self-sufficiency and green space within Qatar. These ambitions have led to increased water consumption and groundwater extraction, putting further strains on the already scarce water resources. QNE will enable these ambitions by providing sustainable

and integrated management of all water resources.

QNE aims to reduce the reliance on groundwater extraction by promoting the use of recycled water. At the same time, by leveraging initiatives targeting actual consumption behaviors and promoting awareness on conservation, Qatar seeks to reduce daily household water consumption by a third.

Lastly, Qatar also plans to almost double desalination via reverse osmosis or more sustainable technologies to 55%. These commitments will reduce strain on the natural aquifers, and cut related energy use and emissions tied to our reliance on thermal desalination technologies, while not compromising other national agendas such as enhancing food security and accessibility of green space.



#### LAND USE

All environmental efforts will be supported by strategic efforts to protect and optimize land use in order to ensure optimal utilization of resources for people and the environment. Qatar has put in place plans to improve land use in the agriculture sector through increasing yields and promoting sustainable farming.

In addition, there are opportunities to green the built environment and provide citizens with better accessibility to transport and green spaces. QNE will also provide the guardrails to ensure urban resilience as Qatar implements measures to mitigate and adapt to climate change.



As a nation that has experienced rapid development, imports of materials remain essential to the economy. With that in mind, turning today's waste into tomorrow's raw materials represents an opportunity for Qatar to reduce import volumes.

Therefore, waste management plays a critical role in the environmental vitality of Qatar and is an important foundation that can be further enhanced.

A more circular economy builds upon this foundation and goes one step further to enable the productive use of raw materials, hence channeling products, materials and resources around strategic areas in a sustainable manner. In addition, circular loops will also enhance economic resilience by further reducing resource intensity and import dependency.

QNE aims to establish clear, reliable, and aggregated data tracking systems, to modernize Qatar's waste infrastructure and improve material use in select streams such as construction, food and the industrial sector.

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#### I KEY OBJECTIVES

QNE champions multiple ambitions including the reduction of climate change effects, the restoration and protection of biodiversity, the improvement of water and waste management and the enhancement of land use to leave a positive impact on Qatar's economy and population well-being.



#### **GHG EMISSIONS**

Deliver material reduction in GHG emissions by addressing key emitting sectors and activities, with a focus on low-carbon technologies.



#### **AIR QUALITY**

Enhance ambient and indoor air quality standards, expand measurement and availability of information.



#### **BIODIVERSITY**

Enhance efforts to conserve, restore and protect biodiversity for healthy and resilient natural ecosystems.



#### WATER

Adopt an integrated and sustainable management approach for all water resources.



# CIRCULAR ECONOMY AND WASTE MANAGEMENT

Enhance critical infrastructure for sustainable waste management and drive more circular use of materials



#### LAND USE

Enhance the long term potential of Qatar's land through high yield and sustainable agriculture and sustainable urban planning.



#### **PROSPERITY**

Foster an economically prosperous and resilient society that has greater environmental awareness.

#### **I ENABLERS**

In line with the vision laid out - to "protect and enhance our environment to safeguard the well-being of our people and ensure long-term resilience of our economy" - a concerted effort will be required from all stakeholders ranging from state leadership, key stakeholders in the government sector, business and industrial sector, as well as the wider public.

A cross-ministerial taskforce, helmed by the guidance and direction of Qatar's leaders, will monitor and review QNE implementation and set key decisions. This ensures that a cross-sectoral view is captured when addressing each specific environmental issue.

Leading academics and technical experts will also be involved as part of the process to provide an independent quality assurance toward the implementation of the program. This will ensure transparency and accountability in the implementation of environmental measures.

Implementation efforts will be further supported by the cross-ministerial task force that will monitor progress and orchestrate cross-sectoral coordination. In addition, the QNE leadership is committed to providing regular reviews and amending critical policies and regulations to support the change.

As part of our goal to support the global efforts to protect and enhance the environment, we will be stepping up our collaboration with the broader international and scientific community.

Closer engagement will allow us to play an active role in environmental efforts while allowing the exchange of knowledge and capabilities.

QNE will also employ technology solutions to identify new ways of leveraging analytics, sensing, and Artificial Intelligence/Machine Learning systems to better track and manage key environmental priority areas. This will allow for better real time management of changes and public transparency in progress made over time by QNE.

Furthermore, adopting the most appropriate technology across the various priority areas will ensure robust execution.

Lastly, a host of further enablers such as adequate funding and budgeting mechanisms, instruments and legal frameworks supporting regulatory amendments, capacity building and upskilling of our workforce and national talents, as well as building public awareness and educational efforts will ensure the well-rounded execution of the strategy and continuous engagement with the public.

# GHG EMISSIONS AND AIR QUALITY

#### IN SUPPORT OF SDGs:







Reduce GHG emissions to limit global warming and improve ambient and indoor air quality to better protect public health and the wider environment.

Over the past few years, Qatar has accelerated efforts to improve energy efficiency and decarbonize the economy across all sectors, with a particular focus on the oil & gas sector as the largest emitter within the economy. On the air quality front, several efforts to curb various pollutants, such as NOx, have been put in place but the increasing exposure of the ambient environment to atmospheric pollution and the recurrent natural circumstances (e.g., seasonal sandstorms) stress and elevate the need for further action.

To make a tangible improvement on GHG emissions as well as on ambient and indoor air quality, the Qatar National Environment and Climate Change Strategy has laid out the following strategic priorities:

- National Climate Change Action Plan in place to reduce GHG emissions relative to a businessas-usual scenario which includes leveraging CCS, electrification, renewable energy, and improving fuel economy as key levers.
- Enhance ambient and indoor air quality in line with the latest scientific developments.
- Ensure a comprehensive understanding and holistic transparency of GHG emissions and air pollutant sources.

Qatar has put in place ambitious aims to achieve the above strategic priorities, including:

- Reduce **GHG emission by 25**% versus a business-as-usual scenario by 2030.
- Enhance Ambient Air Quality standards and update limit value aims by 2024.
- Enhance Indoor Air Quality standards by 2024 with reference to WHO guidelines and latest scientific developments.
- Establish national network of measurement stations with more than 30+ stations in operations by 2023 to improve ambient air quality monitoring.
- Establish comprehensive National Air Emissions Inventory by 2023.

The above aims and strategic priorities will ensure the protection of public health from rising pollution levels, as well as the resilience of the economy over the long-term given the technological upgrades in the various sectors.



In 2019, QatarEnergy commissioned the largest ever carbon capture and storage (CCS) facility in MENA region with an annual sequestration capacity of 2.1 MtCO2.



The CCS projects are closely linked to the Qatar's LNG expansion plans and NDC ambition to provide cleaner gas production to the world.



Qatar is planning to expand CCS projects to capture over 9 MtCO2 per annum by 2030.



Qatar will install over 30 air quality monitoring stations equipped with internationally approved technology by 2023.

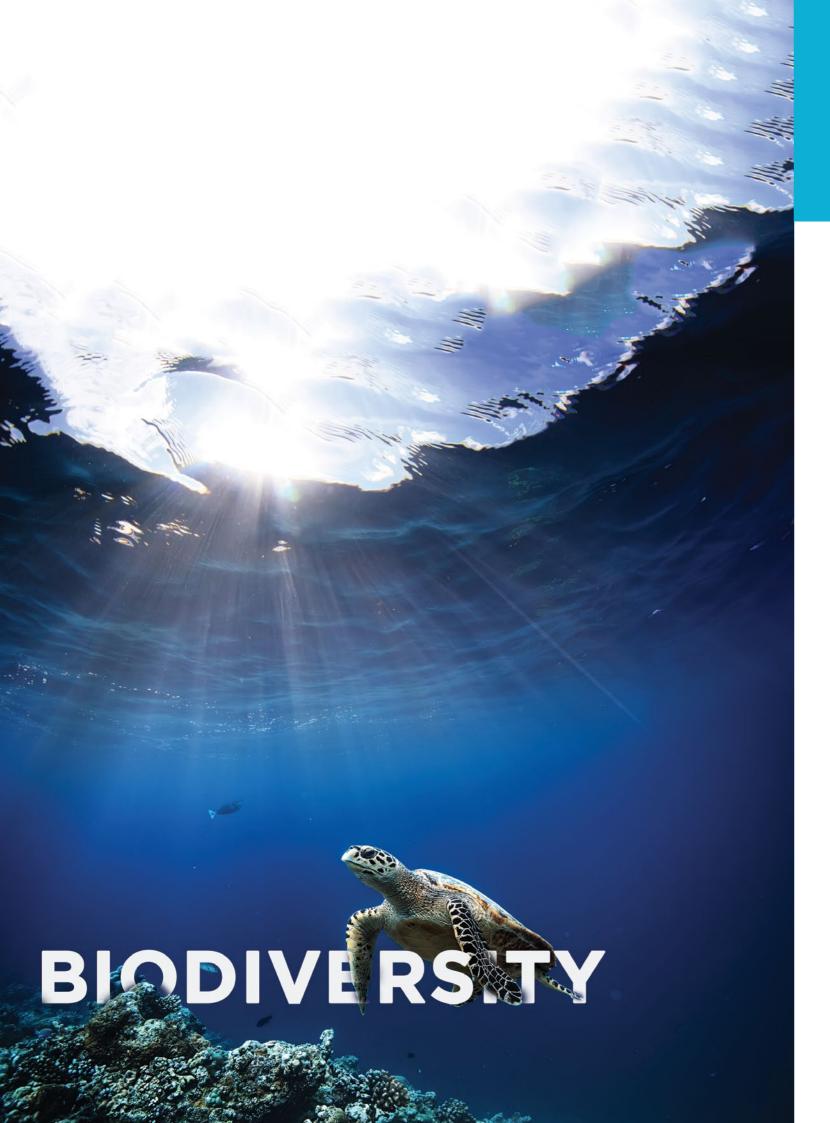


All monitoring stations will be linked to form a national network in order to provide real time reliable data.



Air quality data and modeling will be the basis for decision making to improve indoor and ambient air quality.





#### IN SUPPORT OF SDGs:





# Enhance efforts to conserve, restore, and protect biodiversity for healthy and resilient natural ecosystems.

For generations, the State of Qatar has deeply valued the wildlife and plants that inhabit the Arabian Peninsula. Today, we have put in place protected areas covering 24% and 2.6% of our terrestrial and marine areas respectively. In addition, Qatar is home to more than 2,000 species, with protection programs in place for key species such as the Dugong, Arabian Oryx etc. Specific to fish species, Qatar has a low percentage of fish caught from overexploited stocks

However, Qatar's biodiversity faces challenges and constraints that impede the country's ability to scale protection programs and practices. This is the opportune time for Qatar to reinforce biodiversity efforts, which will allow for simultaneous socio-economic benefits including the conservation of biodiversity and Qatar's natural heritage.

# QNE will hence prioritize the following strategic priorities:

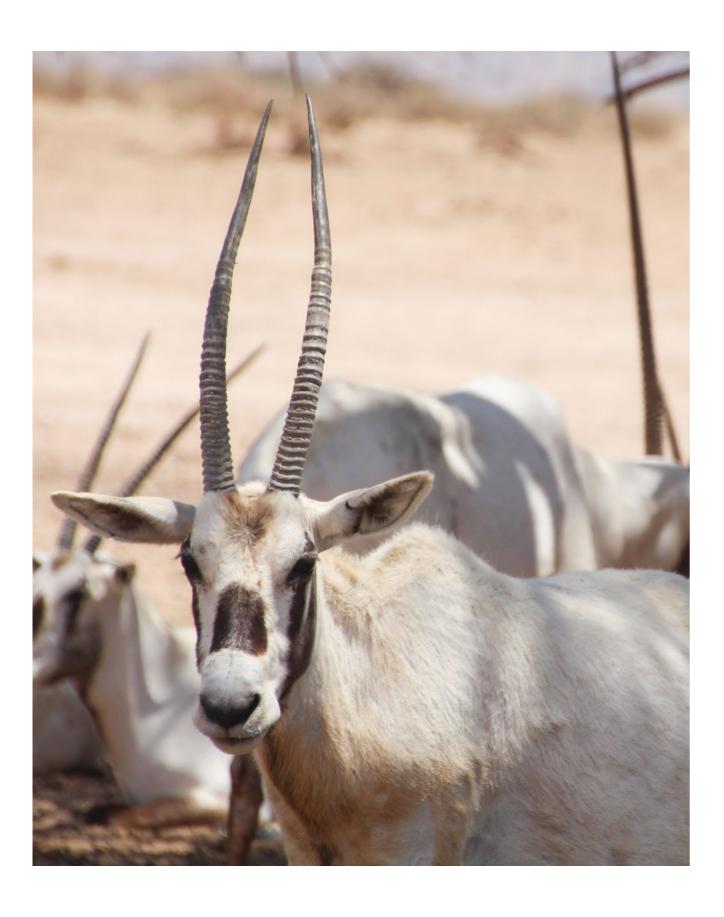
- Expand terrestrial and marine protection areas and conserve and restore natural habitats.
- Protect and recover marine and land species.
- Enhance sustainable fishing practices.
- Mainstream biodiversity and enhance knowledge management and capacity building.
- Integrate biodiversity into policies and activities.

# Qatar has put in place ambitious aims to achieve the above strategic priorities, including:

- Conserve and effectively manage more than 25% of land by 2030 and strive to meet sea area target in line with post -2020 Global Biodiversity Framework.
- Protect and recover **threatened species** with protection and recovery plans in place.
- All fish sustainably caught.
- Enhance awareness, participation and capabilities of biodiversity conservation.
- Ensure biodiversity conservation is incorporated in national & corporate planning.

Biodiversity plays a key role in providing a range of ecosystem services. Protecting biodiversity will ensure that Qatar's environment and the population can continue to flourish. Finally, understanding the status and trends of biodiversity is not only crucial for conservation and recovery efforts, but also essential to enable climate change mitigation and adaptation efforts.

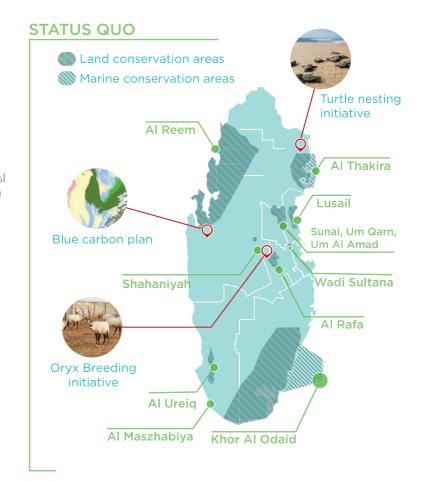
Qatar is committed to expansion of conservation areas as a key lever to preserve species and habitats.



#### **IMPORTANCE**



Conservation areas are intended to reverse environmental decline by protecting endangered species, shielding various land and ocean ecosystems from exploitation, and modifying economic sectors to be more sustainable.



#### **AMBITION**



Land conservation areas more than 25% of Qatar terrestrial territory.



Marine conservation areas in line with Global Biodiversity framework post 2020.

IN SUPPORT OF SDGs:





# Ensure sustainable and integrated management of all water resources.

The accelerated pace of economic development in Qatar, coupled with a desire to enhance food self-sufficiency and greenspace, have put further strains on the already scarce water resources. While Qatar has successfully ensured water provision to meet current domestic, industrial and agriculture needs, the sources of water used have not always been sustainable, with heavy reliance on thermal desalination and groundwater extraction threatening the quality and availability of water sources.

In order to safeguard the security of the nation, Qatar needs to think long term and ensure that the sustainability and quality of our water resources are protected.

There are four key areas of opportunities on which Qatar can capitalize to ensure a water-secure future supporting Qatar's socioeconomic development and competitiveness:

- Enhance water monitoring and control.
- Ensure reliable and sustainable water provision.
- Encourage efficient and sustainable water usage.
- Optimize wastewater collection, treatment and reuse.

Qatar has put in place ambitious aims to achieve the above strategic priorities, including:

- Regular and effective monitoring of all water sources (i.e., groundwater, seawater and potable water).
- More than 55% desalination from Reverse Osmosis or more sustainable technology
- Achieve a 60% reduction in groundwater extraction.
- Reduce and maintain total loss <8%, real loss to <4%.
- Conduct household water survey and develop roadmap to reduce per capita household water consumption by 33% from 2019 level to ~310 liters / capita / day.
- 100% of recycled water reused.

By establishing sound management of water resources, Qatar can ensure a continued and sustainable supply of quality water, reduce energy use and emissions tied to desalination, and contribute to safeguarding the marine aquatic biodiversity in Qatar.



# CIRCULAR ECONOMY AND WASTE MANAGEMENT

#### IN SUPPORT OF SDGs:





# Enhance critical infrastructure for sustainable waste management and drive more circular use of materials.

The State of Qatar has experienced rapid development coupled with a growing population over the past decades, with natural resources being a key driver underpinning this growth. Consequently, much pressure has also been inflicted on our waste management system – in terms of controlling the wastes generated, treated or keeping them in circular systems.

At the same time, the case for a circular economy and sustainable waste management system is gaining increasing international attention.

With that being said, Qatar has made some headway in recent years such as with the launch of the Domestic Solid Waste Management Center and waste sorting pilots by Qatar Foundation. However, significant opportunities remain in Qatar given our continued dependency on landfilling as the primary waste handling methodology.

Meanwhile, as a resource-intensive country, we intend to enhance our capability in critical material streams such as construction, food, industry and consumer products. Specifically, Qatar plans to reduce the quantity of wastes by building more closed-loop systems and improve the quality of wastes through waste separation facilities and procedures.

To develop a strong foundation in waste management and enable the productive use of materials through circularity, the QNE prioritizes several critical areas. These strategic priorities are as follows:

- Establish key enablers to effective waste management.
- Enhance sustainable waste treatment and develop circular loops.

- Drive circular practices within building and construction sector.
- Develop efficient food systems to minimize wastes and losses.
- Adopt circular principles in industrial processes.
- Shift behavior of population toward sustainable consumption.

Qatar has put in place ambitious aims to achieve the above strategic priorities, including:

- Account for 100% of all wastes.
- Achieve a 15% material recycling rate of municipal wastes.
- Close and rehabilitate 100% of unsanitary landfills.
- Use **35% of recycled materials** in construction project.
- Achieve **30% of circular procurement** in public infrastructure.
- **50% reduction** in per capita food waste at retail and consumer levels; and encourage reduction of food losses along production and supply chains.
- Apply circular industry principles across industrial cities.

Building a stronger foundation in waste management and taking active steps toward a circular economy will enhance Qatar's environmental vitality and economic resilience through reduced resource intensity and import dependency.



#### IN SUPPORT OF SDGs:







# Enhance the long-term potential of all land resources.

The sustainable and productive use of land is a key enabler for Qatar to achieve our national objectives.

There are four broad types of land usages, and each has varying objectives with close linkages to other priority areas:

- Agriculture Land: Balance the need to drive higher productive yield while ensuring the long-term productive potential of the land.
- **Urban Land:** Develop a resilient city within a compact space that provides access to green spaces.
- Industrial Land: Minimize pollution impact of industrial activities, which has already been covered under the air quality, water and waste priority areas.
- Natural Land: Conserving and restoring natural land which supports biodiversity and natural ecosystems, which has already been covered under the biodiversity priority area.

Specific to agriculture land, driving agriculture productivity is critical to meet Qatar's food security agenda. While measures to shift toward greenhouse technologies are underway, these can be accelerated and intensified.

For urban land, efficient land usage is key to enhancing the health and well-being of Qatar's population. However, unprecedented development growth in Qatar over the past few decades has brought about challenges including low adoption of public transportation as well as limited access to greenery.

To unlock Qatar's full potential, the QNE will prioritize high yield and sustainable agriculture production alongside sustainable urban planning programs. These strategic priorities are:

- Drive high yield & sustainable agriculture production.
- · Accelerate compact urban growth.
- Enhance quality and accessibility of green & open spaces.
- Ensure that Qatar's urban development is resilient to the potential impacts from climate change.

Qatar has put in place ambitious aims to achieve the above strategic priorities, including:

- More than **50% improvement in farm land productivity** from 2019 levels.
- 40% decrease in water consumption per ton of crop produced from 2019 levels.
- National agrochemicals usage monitored
   tracked with plan in place to drive per ton usage vol reduction.
- **Soil quality** monitored and tracked to improve soil carbon.
- 16% public transport modal share.
- Develop a comprehensive open space and recreation strategy by 2022 with the goal of providing green space access to the Qatari population.
- Establish and mandate **green building requirements** (e.g. energy efficiency, water efficiency, circular materials) for new developments.

In addition to protecting the environment, these land use priorities will also drive economic growth through a more productive agriculture sector while improving wellbeing of the population in the form of nutritious food and improved air quality.



# I PATH FORWARD

Protection and improvement of our country's environment is a challenging endeavor, yet it is a hopeful and rewarding one. The QNE represents the next chapter of Qatar's environmental journey and aspires to make it a cleaner, greener, and more sustainable nation for all our people today as well as the future generations.

To deliver on that aspiration, QNE sets ambitious goals to be achieved by the end

of this decade for each environmental priority area. The implementation of the underlying initiatives will be driven by the government of Qatar in collaboration with external stakeholders including local organizations and international partners.

Furthermore, the participation of the people of Qatar will be crucial to ensuring the successful fulfillment of this journey.

