



2025



**25** YEAR  
PLAN



Department of the Environment,  
Sustainability, Climate Change  
and Heritage

HM Government of Gibraltar





**Department of the Environment,  
Sustainability, Climate Change  
and Heritage**

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# **25 Year Plan 2025**





## **Department of the Environment, Sustainability, Climate Change and Heritage**

**HM Government of Gibraltar**

The 25 Year Plan is available electronically on the Gibraltar Government Website  
(<https://www.gibraltar.gov.gi/environment/policy-and-legislation>)

Department of the Environment, Sustainability, Climate Change and Heritage  
2B Leanse Place,  
50 Town Range,  
Gibraltar

Tel No: (+350) 20065964

Email: **[info.environment@gibraltar.gov.gi](mailto:info.environment@gibraltar.gov.gi)**

Website: **[www.thinkinggreen.gov.gi](http://www.thinkinggreen.gov.gi)**

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# Foreword from the Minister for Education, the Environment, Sustainability, Climate, Heritage, Technical Services and Transport

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**P**lanning ahead for 25 years is both ambitious and dangerous. It is ambitious because it commits the future – or those who will be the decision-makers of the future – to targets that are relevant today in the hope that they will be at the very least relevant tomorrow. It is dangerous – 25 years is a long time – because of the temptation to procrastinate.

And yet it is the right thing to do because, and this is one of the positives, it gives us time to persuade and change mindsets, and time to act.

Gibraltar's 25 Year Plan covers the full range of environmental aspirations, from small local changes to improve our immediate surroundings, to wide ranging policy that commits policy-makers and other stakeholders today and in the future. Both are important.

Our quality of life is closely tied to our local environment, but increasingly it is global events that have led the environmental headlines. Gibraltar has assumed its global responsibilities in relation to Climate Change, declaring a Climate Emergency, adopting a Climate Change Strategy as policy, and enacting Climate Change legislation as law. If our impact on a global scale is minuscule, our duty to act responsibly is not diminished, and the benefits at a local scale of a low carbon and low emission economy are clear – in particular with regard to the quality of the air that we breathe, as our power generators and our traffic are, of necessity given our size, so close to where we live and work.

Gibraltar over the last decade and a half has proven that it is possible to develop an economy and grow in population and human activity while protecting its environment, enhancing its biodiversity, and increasing green spaces. Gibraltar, in the region and beyond, is an example of commitment to improving the Environment. Its suite of environmental laws is second to none, its biodiversity significant for an area its size, and its protected areas cover a sizeable proportion of its territory and waters.

That said, there is a great deal that we need to do over the next 25 years. As I write this in 2025, I am worried for the world, with Climate Change action nowhere near enough to achieve international targets and avoid endangering human life on our Planet. But at the scale of Gibraltar, I am convinced that we can increasingly be an example of good environmental governance. Our air quality is improving, our biodiversity is stable with potential to expand, and we are at the cusp of big steps forward – in renewable energy, in sewage treatment, in active transport and urban green areas.

A pleasant, sustainable environment is everyone's aim, and we all need to work to achieve it and grasp the opportunities in our daily lives to make it happen.

The messages are not new, but they do not grow old. Reducing consumption, recycling, replacing personal motor vehicle transport, producing less waste, consuming less electricity, are all principles with which all current generations are familiar. These are all embodied in the Plan. But there is much more, including the relevance to better health, and the recognition of the benefits of green education and of a green economy.

As the reality of a UK-EU Treaty gets closer, this Plan cements Gibraltar's commitment to the Environment, with aims, ambition and intention being right up there with the best that Europe aspires to.

Our 25 Year Plan is not just the Government's. It is Gibraltar's. It is every citizen's. It is a challenge to each and every one of us for the present and the future.

And it is a message to all our neighbours, to the region as a whole and to Europe and beyond, that we treasure our homeland and that we accept the responsibility of its stewardship for the benefit of all.



**John Cortes MP**

**Minister for Education, the Environment, Sustainability, Climate, Heritage, Technical Services and Transport**



# Executive Summary

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# Executive Summary

The 25 Year Plan is a comprehensive document outlining goals and initiatives that the Government has set out to achieve over the next 25 years. Our policies will focus on 6 global environmental themes which encompass all areas of environmental management, from ensuring clean air and water and a thriving natural environment, to creating a smart and sustainable city.

Our 25 Year Goals are:

- To develop a strong and resilient environmental governance framework
- To protect, conserve and enhance Gibraltar's natural capital
- To turn Gibraltar into a resource-efficient, green and competitive low-carbon economy
- To safeguard Gibraltar's citizens from environment-related pressures and risks to health and well-being so that they can live and prosper sustainably.
- To secure investment for environment and climate policy
- To participate in international initiatives that are of mutual benefit
- To create a green and efficient transport network
- To ensure economic growth is consistent with the Sustainable Development Goals and the Climate Emergency
- To combat climate change and adapt to its impacts

# 1. Environmental Governance

Sound environmental governance is critical to delivering our environmental ambitions. Post Brexit, Gibraltar will incorporate EU environmental principles into our national legislation through an Environmental Governance Act. Parliament and the Select Committees on the Environment and the Climate Emergency will play a critical role in holding government to account and scrutinizing its effectiveness. We will also establish an Environment Tribunal to adjudicate environmental law in Gibraltar and an Environmental Audit Committee to ensure the governance principles are adhered to.



Gibraltar will seek to promote the principle of environmental justice through greater environmental education, making it a key component of the curriculum and embedding environmental learning into a pupil's educational experience. This will begin with the provision of sustainably designed working environments in the form of the new schools and will develop through the work of educational professionals to establish activities, projects, events and opportunities to enhance pupils' knowledge of contemporary environmental issues. The continuation of the ClimACT Schools project will support the foundation of this work.

Gibraltar will adopt a No Boundaries Approach to environmental protection by creating partnerships with Morocco and across the Mediterranean as well as with the UK and other UK Overseas Territories and other small territories.

# 2. Healthy & Sustainable Cities

Ensuring a healthy city is a multifaceted challenge which requires work across multiple disciplines. Sensitive and sustainable urban renewal is a key component of this work and Government will seek to generate investment into parts of the Old Town of Gibraltar that have gone untended for years. This will largely be done through the ongoing release of old Government housing properties to private tender but will also involve engaging with private landlords of rented or vacant accommodation.

We will set more stringent standards for development going forward with the introduction of BREEAM (Building Research Establishment Environmental Assessment Method) certification and the development of a Net Zero Building standard. New developments will be required to demonstrate Biodiversity Net Gain and should also seek to demonstrate environmental benefits in a wider context e.g. energy, pollution and waste management. Government will also seek ways to encourage energy efficient renovation in the private sector and boost this sector of the economy.

Government will continue to work towards a Green Gibraltar through the creation of new green spaces in the north and south and connecting green ways along Queensway. It will work to increase tree planting in urban areas and explore possibilities for vertical gardens. All this additional planting will increase our urban biodiversity and also help to eliminate pollutants from our environment.

Recognising the impact that access to the natural world can have on both physical and mental well being, Government will explore and develop an “ecotherapy” approach within healthcare with green prescribing forming part of solutions and interventions offered by health providers where relevant.

### 3. Combating Climate Change

Climate change will be tackled via three principle strands:

- the decarbonisation of the energy sector by boosting renewable energy generation capacity, principally via the roll out of rooftop solar PV but also exploring viable marine renewable options and connecting to other regional grids;
- the decarbonisation of the building stock through energy efficiency measures and the introduction of net zero energy building standards; To turn Gibraltar into a resource-efficient, green and competitive low-carbon economy
- the decarbonisation of the transport sector via a move towards vehicle fleet electrification as well as strategies to encourage modal shift to more sustainable transport forms such as walking, cycling and public transport.

Further details on all these measures can be found in the 2021 [Climate Change Strategy](#).

Energy efficiency will continue to form a key cornerstone of carbon reduction efforts and direct engagement with high energy users should yield significant improvements in this respect.

Government will also focus on horizontal measures such as encouraging more plant based diets and on nature based solutions such as increasing planted areas and reintroducing effective carbon sinks such as seagrasses.

## 4. Reducing pollution & waste

Pollution and waste have a significant impact on people's health & quality of life. Efforts to reduce air pollution will focus primarily on the transport sector – moving towards electric vehicles but also, critically, getting people out of their private vehicles altogether and walking, cycling and using public transport. This will result in greater improvements to public health and well-being as lower pollution levels are accompanied by increased levels of activity and engagement with others in the community. Government will seek to facilitate this transition through a mix of incentives and penalties in order to generate substantial changes in the shortest amount of time.



In respect of waste, efforts will focus on greater education and awareness in order to create the cultural changes necessary to eliminate this long standing problem in Gibraltar. Again, measures will be both incentivizing – such as deposit return schemes and the provision of better facilities; and punitive – more regulations, increased fines and greater enforcement. The Environmental Agency will continue to work to reduce other environmental pollutants and nuisances such as noise, dog fouling and foul odours.

## 5. Developing the Green Economy

Government will develop a comprehensive Sustainable Finance Strategy that seeks to capitalise on Gibraltar's strong finance sector credentials as well as the growing international movement towards green finance. It will also promote Gibraltar's green economy by helping to green the market through the provision of positive incentives and the removal of negative subsidies; greening government spending and decision making and providing strong and clear leadership on the environment and sustainability, promoting policies that support sustainable choices across society.

## 6. Ensuring Healthy Ecosystems

Government will focus on restoring and protecting the natural biodiversity on our land and in our waters through conservation measures, rewilding programmes and ongoing surveillance and monitoring. The Bern Convention on the Conservation of European Wildlife and Natural Habitats and the Convention on Biodiversity will form the legal backbone of Gibraltar's work in this respect. Existing programmes will be expanded and new measures introduced, working with citizens and NGOs to develop a deeper understanding of our natural world and how we can best protect it.

On land, efforts will focus on rewilding projects in the Gibraltar Nature Reserve as well as ongoing management of invasive species and other measures to control human interference with nature.

Key measures for the protection of the marine environment will be the wastewater treatment plant, a marine litter management programme and the expansion of the strictly protected (no take) marine protected areas network.

## 7. Implementing the Plan

The 25 Year Plan is an ambitious one and will require commitment and determination from all players for it to succeed. We will:



Measuring progress against the strategy requires the development of a monitoring and evaluation framework with key performance indicators (KPIs) that can provide an objective measure of how well we are performing. Keeping with the principle of continuous improvement, the plan will be formally reviewed every 5 years, and the indicators will be reported on every year.

Not every goal or target is easily quantifiable e.g. goals that relate to greater awareness or behavioural change, however, the KPIs will provide a reference point for overall progress in the context of our wider goals and objectives.

# Glossary

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<b>BGTW</b>	British Gibraltar Territorial Waters
<b>BNG</b>	Biodiversity Net Gain
<b>BREEAM</b>	Building Research Establishment Environmental Assessment Method
<b>CBD</b>	Convention on Biological Diversity
<b>CIEEM</b>	Chartered Institute of Ecology and Environmental Management
<b>CIRIA</b>	Construction Industry Research and Information Association
<b>CJEU</b>	Court of Justice of the European Union
<b>COP</b>	Conference of the Parties
<b>DESCCH</b>	Department of the Environment, Sustainability, Climate Change and Heritage
<b>DPC</b>	Development and Planning Commission
<b>EDR</b>	Environmental Data Repository
<b>EIA</b>	Environmental Impact Assessment
<b>ESG</b>	Environmental Safety Group
<b>EU</b>	European Union
<b>EV</b>	Electric Vehicle
<b>GEA</b>	Gibraltar Electricity Authority
<b>GHA</b>	Gibraltar Health Authority
<b>GHG</b>	Greenhouse Gas
<b>GLISPA</b>	The Global Island Partnership
<b>GONHS</b>	Gibraltar Ornithological and Natural History Society
<b>GSBG</b>	Gibraltar Sustainable Buildings Group
<b>GPS</b>	Global Positioning System
<b>HGV</b>	Heavy Goods Vehicle
<b>IEMA</b>	Institute of Environmental Management and Assessment

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<b>IMO</b>	International Maritime Organisation
<b>IUCN</b>	International Union for Conservation of Nature
<b>KPIs</b>	Key Performance Indicators
<b>MEA</b>	Multi-lateral Environmental Agreements
<b>MCZ</b>	Marine Conservation Zone
<b>MPA</b>	Marine Protected Area
<b>NGO</b>	Non Governmental Organisation
<b>NZDB</b>	Net Zero Delivery Body
<b>PV</b>	Photovoltaic
<b>SAC</b>	Special Area of Conservation (Habitats Directive)
<b>SPA</b>	Special Protected Area (Wild Birds Directive)
<b>STTPP</b>	Sustainable Traffic, Transport and Parking Plan
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>WHO</b>	World Health Organisation
<b>WMF</b>	Waste Management Facility

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# Introduction

**G**overnment recognizes the importance of protecting the natural environment and our collective responsibility in paving the road towards a future in which we can leave our environment in a better state than we found it. The [UN 2030 Agenda](#), adopted in 2015, is underpinned by the concept of environmental sustainability and each chapter in this Plan is linked to the relevant UN Sustainable Development Goals.

Government is committed to carrying forward this Agenda in Gibraltar and ensuring that no-one is left behind in the transition to a sustainable future. The 25 Year Plan is the road map via which we will achieve these goals setting the course for environmental policy and action for Gibraltar for the next quarter of a century, with strict targets to which we will keep. It encompasses all areas of environmental responsibility and sets standards for the whole community as we embark on our collective goal of a Green Gibraltar and Child Friendly City.

The Plan is set out under 6 broad environmental themes:

- 1. Environmental Governance**
- 2. Healthy & Sustainable Cities**
- 3. Combating Climate Change**
- 4. Reducing pollution & waste**
- 5. Developing the Green Economy**
- 6. Ensuring healthy ecosystems**

Under each theme we have set out our aims and objectives and the projects and initiatives that will help to deliver these. There will inevitably be a degree of overlap on some of these and where possible we will prioritise those projects that contribute to multiple themes.

The final part of the document deals with accountability and how we will ensure the success of this plan and the delivery of the goals within it.

## Our environment, your future.

Our 25 Year Goals are:

- To develop a strong and resilient environmental governance framework
- To protect, conserve and enhance Gibraltar's natural capital
- To turn Gibraltar into a resource-efficient, green and competitive low-carbon economy
- To safeguard Gibraltar's citizens from environment-related pressures and risks to health and well-being so that they can live and prosper sustainably.
- To secure investment for environment and climate policy
- To participate in international initiatives that are of mutual benefit
- To create a green and efficient transport network
- To ensure economic growth that is consistent with the Sustainable Development Goals and the response to the Climate Emergency
- To combat climate change and adapt to its impacts

Our policies will focus on the 6 environmental themes and encompass all areas of environmental management, from ensuring clean air and water and a thriving natural environment, to creating a smart and sustainable city.



This is a dynamic document that will evolve as the details of the UK-EU Treaty on Gibraltar become clear.

# The UN Sustainable Development Goals

## SUSTAINABLE DEVELOPMENT GOALS



<b>Goal 1</b>	End poverty in all its forms everywhere.
<b>Goal 2</b>	End hunger, achieve food security and improved nutrition and promote sustainable agriculture.
<b>Goal 3</b>	Ensure healthy lives and promote well-being for all at all ages.
<b>Goal 4</b>	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
<b>Goal 5</b>	Achieve gender equality and empower all women and girls.
<b>Goal 6</b>	Ensure availability and sustainable management of water and sanitation for all.
<b>Goal 7</b>	Ensure access to affordable, reliable sustainable and modern energy for all.

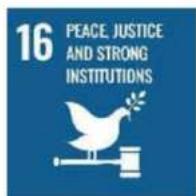
<b>Goal 8</b>	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.
<b>Goal 9</b>	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.
<b>Goal 10</b>	Reduce inequality within and among countries.
<b>Goal 11</b>	Make cities and human settlements inclusive, safe, resilient and sustainable.
<b>Goal 12</b>	Ensure sustainable consumption and production patterns.
<b>Goal 13</b>	Take urgent action to combat climate change and its impacts.
<b>Goal 14</b>	Conserve and sustainably use the oceans, seas and marine resources for sustainable development.
<b>Goal 15</b>	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.
<b>Goal 16</b>	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.
<b>Goal 17</b>	Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development.

# 1. Environmental Governance

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# 1. Environmental Governance



**E**nvironmental governance is the term used to describe how we exercise authority over natural resources and systems. It refers to the questions concerning how and who makes environmental decisions in society. It therefore involves much more than the work of Governments. In its simplest form, environmental governance deals with who is responsible, how they wield their power and how they are held accountable. In other words, it refers to decision makers at all levels of society – governments, businesses and citizens.

The European Union's (EU) approach to environmental decision making is not perfect, but it does call on well-developed institutional arrangements. Careful thought must be given to domestic capacity, and to the governance mechanisms that will replace the responsiveness, and the democratic and expert contributions present at the EU level. A range of institutions must be involved, namely Parliament and Select Committees, Government and government bodies such as the Environmental Agency. New institutional arrangements will be necessary. The precise role of each of these bodies will vary, depending on significance, urgency, subject area and level of detail. Without any claim to comprehensiveness, five governance principles will guide the future development of environmental law and policy (Figure 1).



Figure 1. The five governance principles

## Principle 10 of the Rio Declaration

Environmental issues are best handled with the participation of all concerned citizens at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.

## Principle 11 of the Rio Declaration

States shall enact effective environmental legislation. Environmental standards, management objectives and priorities should reflect the environmental and developmental context to which they apply. Standards applied by some countries may be inappropriate and of unwarranted economic and social cost to other countries, in particular developing countries.

### 1. Broad Inclusion

A diverse range of interests should be involved in developing environmental standards. Open consultation is an important part of that, as may be more detailed discussions including environmental and industrial groups. This should be coupled with a mandatory explanation, by the public body making the decision, of the balance of consultation between different interests, of who was consulted, what was said, and how observations were taken into account; as per Principle 10 of the Rio Declaration.

### 2. Scientific Evidence

Environmental standards must take account of the latest scientific evidence. Environmental protection depends heavily on scientific and technical knowledge, and regulation should reflect our continuous learning.

### 3. International & European Standards

Those developing new environmental standards and policies should have regard to International and EU standards. This is in addition to Gibraltar's obligations to comply with international law, and beyond any (possibly extensive) obligations in future trade deals to comply with evolving EU environmental rules.

### 4. The Environmental Principles

The principles in the EU Treaties include the precautionary principle, a high level of protection, and the polluter pays principle. Environmental principles are capable of underpinning judicial review and have the potential to shape and guide the development of the law. New environmental governance frameworks must adopt these principles and include others such as a non-regression principle.

These concepts are important. Policy-making does not just consist of scientists identifying problems and then policy makers finding solutions; policy is mediated through existing concepts and sometimes we have to develop new ones. One of the key risks with our departure from the EU was that these principles may not survive the transposition of EU law onto the statute book in a meaningful way.

Government has therefore introduced an **Environmental Governance Act** that defines each of these principles and enshrines them in law.

## Gibraltar's main environmental principles:



In this way policy-makers will avoid an 'unprincipled' Brexit in the field of environmental protection, so that they do not find themselves left with legislation that makes reference to important principles and concepts, but does not provide for their meaningful implementation in future Gibraltar policy. The Environmental Governance Act ensures the content and form of government action is in keeping with the environmental principles.

## Principle 13 of the Rio Declaration

States shall develop national law regarding liability and compensation for the victims of pollution and other environmental damage. States shall also co-operate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction.

## Principle 14 of the Rio Declaration

States should effectively cooperate to discourage or prevent the relocation and transfer of any activities and substances that cause severe environmental degradation or are found to be harmful to human health.

## Principle 15 of the Rio Declaration

In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost effective measures to prevent environmental degradation.

## Principle 16 of the Rio Declaration

National authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment.

## 5. Reporting & Accountability

The department responsible for taking decisions will report against each of these principles, explaining how they were incorporated into the law and policy making process. EU environmental law is embedded in a dense governance framework that shapes and drives environmental protection. The need to develop equivalent governance frameworks that will ensure the accountability of government for its environmental commitments, including obligations to consult and report, are equally important. The twelve governance principles outlined in this section are the pillars of the framework within which domestic environmental norms are to be developed and assessed.

Under current EU environmental governance arrangements, the European Commission monitors the implementation of EU environmental law and, where necessary, brings cases to enforce it in the Court of Justice of the European Union (CJEU). The CJEU provides rulings on the interpretation of EU environmental law to ensure it is applied correctly by Member States. Having left the EU, and regardless of the nature of the future relationship we negotiate, we will no longer be a party to the EU Treaties or under the direct jurisdiction of the CJEU.

It is, and it will remain, the role of Parliament, including Select Committees, to hold the government to account and scrutinise its effectiveness. Parliament passes legislation and is ultimately accountable to the electorate. We also have a strong legal framework for environmental protection, including the implementation of environmental laws by regulatory authorities and their enforcement through the courts. The courts can also review the actions of government and its delivery bodies. The Government will also consider the establishment of an Environmental Audit Committee to hold the Government, and other actors to account in the delivery of its environmental commitments.

# Environmental Justice

Environmental Justice refers to the fair distribution of environmental benefits and burdens. The US Environmental Protection Agency defines it as “the meaningful involvement of all people regardless of race, colour, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies” and states that this goal will be achieved when everyone enjoys:

1. The same degree of protection from environmental and health hazards, and
2. Equal access to the decision-making process to have a healthy environment in which to live, learn and work.

Developed countries have historically been and remain responsible for a disproportionately high share of global environmental destruction and resource consumption. For instance, estimates suggest that 40% of food consumed by Europeans is grown on other continents. This can mean depletion of land and water resources, contribution to soil degradation through the use of pesticides, and increased emissions as a result of long transportation routes, to highlight just a few negative impacts. Controlling a country’s ecological footprint is therefore an important aspect of environmental justice. However, geopolitical and geographical circumstances can make this difficult to accomplish, as is the case for many island states and for Gibraltar. Our shortage of land means that local agriculture is impossible and manufacturing greatly limited, resulting in the community relying almost exclusively on importation.

Environmental justice calls for the education of present and future generations to focus on social and environmental issues and to appreciate global cultural perspectives. Critically, it also calls for all individuals to choose to consume less and to consciously challenge and re-prioritise our lifestyles.

## Principle 4 of the Rio Declaration

In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.

## Principle 7 of the Rio Declaration

States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth’s ecosystem. In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.

## Principle 9 of the Rio Declaration

States should cooperate to strengthen endogenous capacity building for sustainable development by improving scientific understanding through exchanges of scientific and technological knowledge, and by enhancing the development, adaptation, diffusion and transfer of technologies, including new and innovative technologies.

## Principle 12 of the Rio Declaration

States should cooperate to promote a supportive and open international economic system that would lead to economic growth and sustainable development in all countries, to better address the problems of environmental degradation. Trade policy measures for environmental purposes should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade. Unilateral actions to deal with environmental challenges outside the jurisdiction of the importing country should be avoided. Environmental measures addressing transboundary or global environmental problems should, as far as possible, be based on an international consensus.

## No Boundaries Approach

Collaboration, engagement and discussion are critical for successful environmental protection. In nature nothing occurs in isolation, every action has a number of possible outcomes and repercussions. Successful environmental protection therefore involves working at a local, national, regional and global level. The environment knows no borders, therefore environmental management and stewardship should not either.

The planetary boundaries framework identifies a set of nine planetary boundaries within which humanity can continue to develop and thrive. Crossing these boundaries increases the risk of generating large-scale abrupt or irreversible environmental changes.

“

*“Planetary Boundaries do not dictate how human societies should develop but they can aid decision-makers by defining a safe operating space for humanity”*

**Sustainability Science for Biosphere Stewardship**

Six of the nine planetary boundaries have now been crossed as a result of human activity. These are climate change, biosphere integrity, land-system change, freshwater change, biogeochemical flows and novel entities.

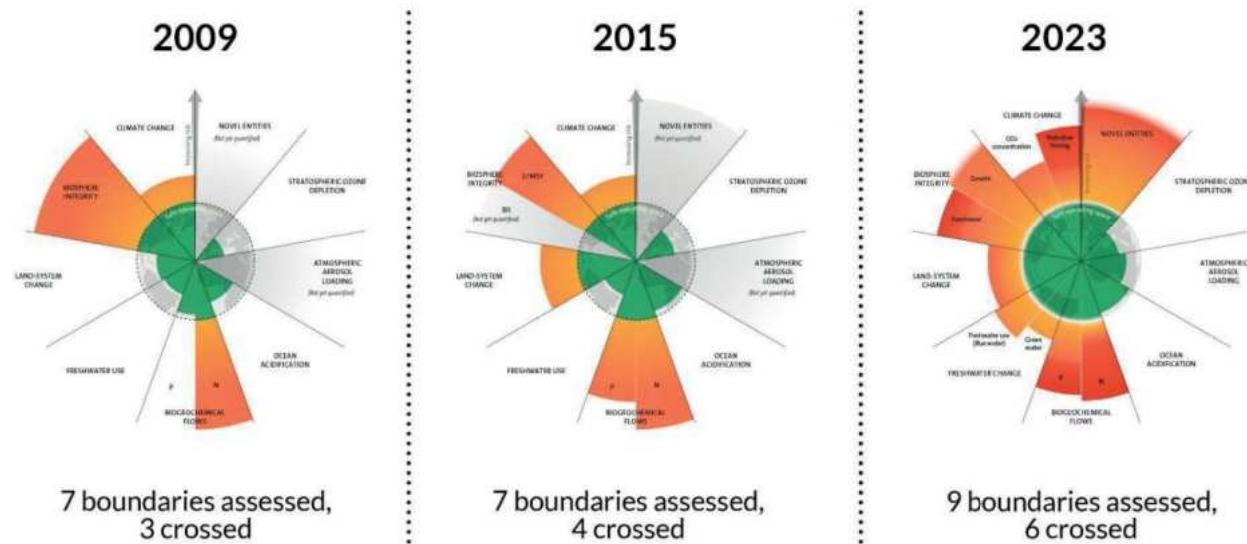


Figure 2: The planetary boundaries

Image credit: Azote for Stockholm Resilience Centre, based on analysis in Richardson et al 2023.

“

*“Transgressing a boundary increases the risk that human activities could inadvertently drive the Earth System into a much less hospitable state, damaging efforts to reduce poverty and leading to a deterioration of human wellbeing in many parts of the world, including wealthy countries,”*

**Will Steffen, Australian National University, Canberra.**

In the last few years policymakers, industry and organisations have explored how the planetary boundaries approach could be used as a framework for sectors of society to reduce risks while developing sustainably. With the right ambition, this could create the conditions for long-term human prosperity within planetary boundaries.

## Gibraltar and the No Boundaries Approach

Gibraltar aims to work across boundaries and build strong and resilient partnerships at different levels. We will therefore be seeking to create partnerships, for instance with Morocco, across the Mediterranean and the UK, and with UK Overseas Territories and Crown Dependencies and other small countries to promote environmental leadership, collaboration and commitment in tackling green issues on a wider regional and global scale.

We believe strong partnerships are critical to making solutions to environmental issues a reality. They can also allow Gibraltar to become a part of inspiring global platforms such as GLISPA ([The Global Island Partnership](#)) and to work closely with colleagues in other UK Overseas Territories.

### Set Target



- We commit to working with any and all jurisdictions.

## Environmental Education

“

*“In the end, we will conserve only what we love; we will love only what we understand and we will understand only what we are taught.”*

**Baba Dioum, Senegalese poet and environmentalist, 1937**

Environmental education is vital, in that it allows individuals to explore environmental issues, engage in problem solving, and take action to improve the environment. As a result, individuals develop a deeper understanding of environmental issues and have the skills to make informed and responsible decisions.

Environmental education does not advocate a particular viewpoint or course of action. Rather, environmental education teaches individuals how to weigh up various sides of an issue through critical thinking and enhances their own problem-solving and decision-making skills. Government is committed to ensuring the next generation is aware and prepared to help tackle current and future environmental issues.

The key components of environmental education are:

**Awareness & sensitivity to the environment & environmental challenges.**

**Knowledge & understanding of the environment & environmental challenges.**

**Attitudes of concern for the environment and motivation to improve or maintain environmental quality.**

**Skills to identify and help resolve environmental challenges.**

**Participation in activities that lead to the resolution of environmental challenges.**

A strong start has already been made with the ClimACT Schools Project which looks to promote environmental learning and embed sustainability into the school policy and curriculum. Schools in Gibraltar all provide a strong focus on environmental learning inside and outside the classroom with gardening clubs, outings and project based learning activities creating opportunities for young learners to connect with and learn about their environment.

### **Box 1: ClimACT Schools**

**Our policy is to develop and foster an environmental ethos within our schools by embedding environmental learning into a child's educational experience.**

The programme has two core principles. The first is to develop a framework for the integration of environmental management practices in all schools; to reduce their existing carbon footprint with the aim of gaining green certification. The second calls for environmental and sustainable development themes to be embedded within the curriculum so that pupils understand the valuable role they have to play in protecting their environment.

As part of the programme, participating schools have created an Eco-Committee where selected representatives, from pupils to head teachers, will lead actions to improve the school environment. For pupils, this programme grants them the opportunity to experience active citizenship and have a voice in key sustainability decisions made for the school. For the environment, reductions in energy and water consumption will result in lower carbon emissions. ClimACT Schools will also allow for the involvement of local stakeholders, resulting in a more integrated community.

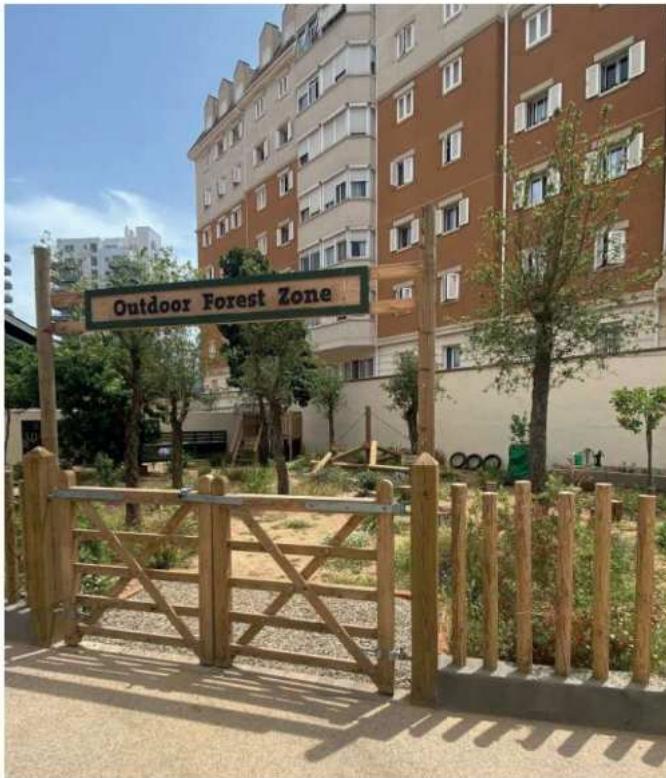


Figure 3: Images from St. Paul's Lower Primary School outdoor forest zone

We will continue to provide a learning environment that supports pupils as they develop an awareness, understanding and appreciation of natural and built environments.

The Education and Training Act has been amended to require schools to teach about the climate and ecological emergencies which will provide further impetus to this work.

## Box 2: Extract from Education Act

### **Duty to promote environmental education.**

8A. In addition to section 8(2), it shall be the duty of the Director, to promote education in regard to the environment with particular emphasis on -  
(a) the climate emergency and the ecological crisis; and  
(b) the provision of opportunities for pupils to experience the outdoors, build relationships with nature and understand that their actions have an impact on others and the environment.

## Summary

Sound environmental governance is critical to delivering our environmental ambitions. After Brexit, Gibraltar will continue to incorporate EU environmental principles into our national legislation such as through an Environmental Governance Act. Parliament and the Select Committees on the Environment and the Climate Emergency will play a critical role in holding government to account and scrutinizing its effectiveness. We will consider establishing an Environment Tribunal to adjudicate environmental law in Gibraltar and an Environmental Audit Committee to ensure the governance principles are adhered to.

Gibraltar will seek to promote the principle of environmental justice through greater environmental education, making it a key component of the curriculum and embedding environmental learning into a child's educational experience. This will begin with the provision of sustainably designed working environments in the form of the new schools and will develop through the work of educational professionals to establish activities, projects, events and opportunities to enhance pupils' knowledge of contemporary environmental issues. The continuation of the ClimACT Schools project will support the foundation of this work.

Gibraltar will adopt a No Boundaries Approach to environmental protection by creating partnerships with Morocco and across the Mediterranean as well as with the UK and other UK Overseas Territories, the Crown Dependencies and other small territories.

## Short Term

- Climate Change teaching to be included in the Education Act
- Establish a Select Committee on the Environment & Climate Change
- Provide recycling facilities at all new schools and improve existing facilities.
- Manage schools grounds in accordance with the principles of ecologically sustainable development.
- Ensure that all new schools are fitted with the latest technologies to enhance their environmental performance and reduce energy consumption
- Empower students and staff to decrease their energy consumption by providing access to school energy bills.
- Ensure that new school plans maximize the use of passive design techniques to minimize energy use, such as natural ventilation and daylighting.
- Encourage the allocation of green spaces in schools for gardening groups or other project based learning activities.
- Ensure that all schools are equipped with drinking fountains.
- All teachers to undertake climate literacy training as part of their inset programme
- Continue to work and co operate with the UK Overseas Territories on environmental matters

## Medium Term

- Create a range of environmental resources and educational materials that can be loaned or used across schools to support environmental education.
- Establish activities and classroom projects that maximise learning opportunities across the breadth of the school curriculum.
- Coordinate environmental events, days and projects that complement learning in the curriculum and involve students and staff.
- Provide teachers with opportunities to attend lectures and workshops that enhance knowledge on environmental issues and broaden teaching skills for the delivery of these.
- Develop a Climate Change Curriculum bespoke to Gibraltar which will provide schools with the framework for learning on this vital agenda.
- Establish a working partnership with Morocco and other regional partners.

## Long Term

- Identify opportunities to increase students' understanding of contemporary environmental issues, such as climate change and species extinction.
- Coordinate field trips with schools to cultivate their understanding of local environmental issues and their effect on a global scale.
- Introduce students to environment related career opportunities and support students as they pursue those pathways.
- Ensure that food provided on site meets healthy eating guidelines, with meat free options.

## 2. Healthy & Sustainable Cities **#Green Gibraltar**

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## 2. Healthy & Sustainable Cities #Green Gibraltar



The development of Gibraltar's landscape, through both public and private projects is deemed necessary for continued growth and prosperity. Yet urban areas can often be unhealthy places to live, characterised by heavy traffic, pollution, noise and social isolation for elderly people and young families.

The World Health Organisation (WHO) has found that the environment in which one lives is a major determinant of health, with adverse environmental conditions estimated to account for almost 20% of all deaths in the WHO European region.

The Covid-19 pandemic further highlighted the links between health and urban environments and the relevance of sustainable and resilient planning.

*"Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."*

**WHO 1948.**



Figure 4. Commonwealth Park

## Examples of urban renewal



Police Barracks



Castle Street



Tarik Views



St Bernard's Schools

Sustainable development can tackle the challenges faced by compact urban environments by requiring the city to be designed in a way that is socially cohesive, that ensures access to basic goods and services, promotes good physical and psychological wellbeing and protects the natural environment.

### Connecting with Nature

Numerous studies confirm that 'living close to nature and spending time outside has significant and wide-ranging health benefits,' including reducing the risk of type II diabetes, cardiovascular disease, premature death, preterm birth, stress, fatigue, anxiety and depression, among other benefits. It can also help combat loneliness and bring communities together.

Commonwealth Park and Campion Parks are examples of successful projects which reclaimed urban infrastructure, previously dedicated to cars, and converted it into serene city centre parks. Government is committed to continuing to provide green spaces for all to enjoy and to creating a Green Gibraltar, by providing more parks, through the provision of new green areas in the North and South districts and a green corridor along Queensway, and the north/south "Walk the Wall".

It will also legislate to require all new developments to deliver either a minimum of 5% of the total land area or 25% of the buildings total façade as green area/green wall.

Green spaces in the city centre help to increase resilience to the effects of climate change by reducing the urban heat island effects and managing surface water runoff, as well as directly removing pollutants from the atmosphere, improving air quality and health.

## Urban Renewal

Urban renewal is an economic development tool, allowing the revitalisation of run down areas through public and private development for the benefit of residents and visitors as well as for aesthetic reasons. The goal of sustainable urban development is to enable all people to satisfy their basic needs and enjoy a better quality of life without compromising the quality of life of future generations. Government will seek to provide opportunities for Gibraltar to flourish through increasing sustainable economic growth whilst still ensuring that Gibraltar preserves its character and charm.

The new Development Plan will incorporate the principles of sustainability and will set out a holistic and coordinated vision for Gibraltar's future.

## Active Travel

Traffic is one of the most significant problems found in cities. Creating and reinforcing transport infrastructure for vehicles and users, other than motorised cars (particularly cycle paths and pedestrianised routes) can help to tackle this whilst promoting more active lifestyles.

Gibraltar is a compact city which lends itself well to the reality of the 15-minute city. The recently launched Active Travel Strategy sets out the ways in which Government will seek to promote alternative sustainable modes of transport.

Gibraltar's vision for its future transportation system supports quality of life and economic vitality, through safe, efficient and connected movement of people and goods, using a range of modes and sustainable infrastructure. This policy is in-line with the recommendations of the **Sustainable Traffic, Transport and Parking Plan** (STTPP) and supports the targets of the Gibraltar Climate Change Strategy 2021.

## Measures already implemented

- Creation of Commonwealth & Campion Parks.
- Restoration and refurbishment of Wellington Front.
- The creation of the small boats marina, providing berthing and recreational facilities in the centre of town.
- Re opening of Old Nuffield Pool site to the public.



## Measures already implemented

- Electric and hybrid vehicles are exempt from import duty.
- Cashback scheme for electric and hybrid vehicles.
- Installation of EV charging points.
- Free bus service for local residents.
- Residential parking scheme.
- Paid parking zones.
- Installation of bicycle parking racks.
- A topping up point for scooters in town.
- SMART parking which guides motorists to vacant parking spaces.
- Creation of new pedestrian footpaths where none existed at South Barrack Ramp and Prince Edwards' Road.
- Launch of an Active Travel Strategy.
- Banned the importation of used passenger cars and LCVs over 5 years old.
- Removal of derelict vehicles from public highways, including bicycles.

Through improvements to our transport system we can transform the built environment to drive environmental improvement. Reducing emissions from transport is essential to deliver better air quality, leading to improvements in public health, helping to protect the environment and support clean growth.

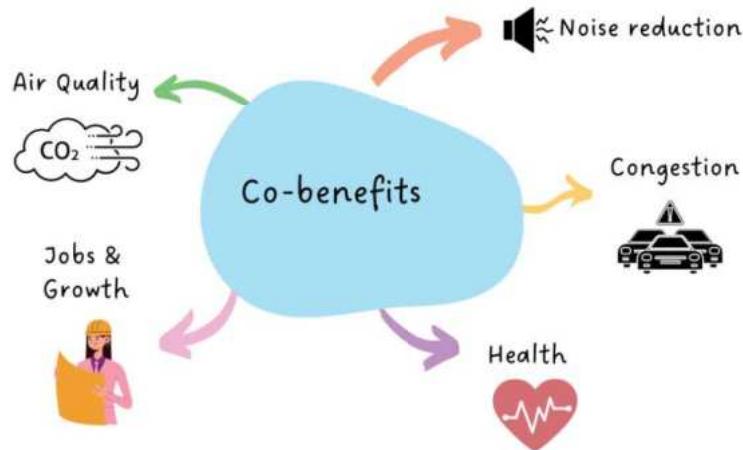


Figure 5. Co-benefits of transitioning to a more sustainable transport system.

## Biodiversity Net Gain Principles

Biodiversity is the cornerstone of our environment's health. Achieving net gains, where there are wider benefits to society, requires more than just outweighing losses with gains. It means doing everything possible to avoid losing biodiversity in the first place. It also requires the gains in biodiversity to be valuable locally, as well as contributing to wider regional priorities for nature conservation. Achieving Biodiversity Net Gain (BNG) in the right way can bring about long-lasting and meaningful benefits for our environment, society and the economy.

The Construction Industry Research & Information Association (CIRIA), the Chartered Institute of Ecology and Environmental Management (CIEEM) and the Institute of Environmental Management and Assessment (IEMA) have developed the first UK principles on good practice to achieve BNG. These are set out in table 1.

The first principle is perhaps the most critical and refers to the Mitigation Hierarchy. It is essential that everything possible be done to first avoid and then minimize impacts on biodiversity. Only as a last resort, and in agreement with the Department of the Environment, Sustainability, Climate Change and Heritage (DESCCH) and the Development and Planning Commission, must we compensate for losses that cannot be avoided. If these losses cannot be compensated for within the development footprint, or this does not generate the most benefits for nature conservation then these losses must be offset by gains elsewhere.

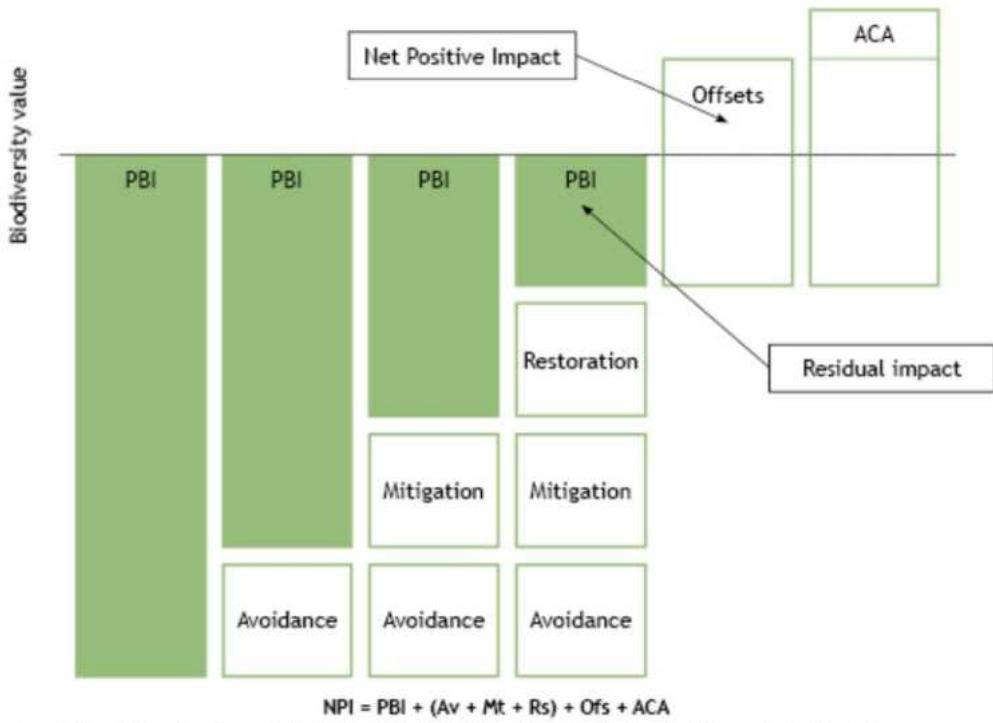


Figure 6. Mitigation Hierarchy, adapted from <https://www.cbd.int/images/biz/biz2010-03-03-p36.jpg>

## Good Practice Principles

<b>Principle 1</b>	Apply the Mitigation Hierarchy.
<b>Principle 2</b>	Avoid losing biodiversity that cannot be offset by gains elsewhere.
<b>Principle 3</b>	Be inclusive and equitable.
<b>Principle 4</b>	Address risks.
<b>Principle 5</b>	Make a measurable Net Gain contribution.
<b>Principle 6</b>	Achieve the best outcomes for the Environment.
<b>Principle 7</b>	Be additional.
<b>Principle 8</b>	Create a Net Gain legacy.
<b>Principle 9</b>	Optimise sustainability.
<b>Principle 10</b>	Be transparent.

Table 1. Biodiversity Net Gain Good Practice Principles

## Measures already implemented

- All building applications are reviewed by the Department of the Environment, Heritage and Climate Change.
- Installation of bird and bat boxes in all developments where suitable.
- A tax relief scheme to encourage the improvement to building facades.
- All new builds or buildings undergoing major refurbishment must meet minimum energy performance standards i.e. EPC rating of a B.
- Installation of green/brown roofs and/or solar panels on suitable developments.
- Tax relief on the installation of solar energy.

## Gibraltar Biodiversity Net Gain Priorities

We will develop a tool to measure BNG and make its use compulsory for all new developments. We will also develop a policy on BNG that ensures biodiversity conservation on both land and sea developments, offering a potential source of long term investment in the delivery of an improved environment, together with the health and well-being benefits that entails. Regular workshops on BNG and wider sustainability issues will be organized commencing in summer 2024 to help developers with the BNG policy transition.

## Sustainability in Buildings

Buildings are long-lived, and cities have even longer lives. A large part of building sustainably is concerned with addressing the emissions that are driving climate change, increasing energy conservation and using techniques such as life-cycle assessment to maintain a balance between capital cost and long-term asset value.

Buildings account for over 40% of carbon emissions in Gibraltar. These are the result of the end use of electricity to heat, cool and provide power to buildings. Luckily, buildings represent the largest un-tapped source of cost-effective energy saving and CO<sub>2</sub> reduction potential within Europe, so the possibilities for positive intervention are considerable.

Emissions from this sector can be tackled in two ways: by reducing emissions associated with electricity (see Combating Climate Change) and through improved building design and increased energy efficiency and conservation.

It is also important to consider the environmental impact of the construction process itself, including the embodied carbon in the materials used on site.

Overall building design can help to determine the amount of lighting, heating and cooling a building will require. It is also about enhancing biodiversity, creating spaces that are healthy, economically viable and sensitive to social needs.

## Green Construction

Construction is an important driver of the economy but the negative impacts on the environment can be considerable. Reducing these negative impacts by requiring contractors to prioritise local communities in the design and execution of new projects will help to improve air quality and facilitate the inclusion of green spaces for the protection and enhancement of biodiversity and the creation of active travel options that link in to the wider community.

Government will require all new developments to demonstrate that they have incorporated sustainable design principles including:



Figure 7. St. Anne's Upper Primary School green wall

- Optimising the site potential i.e. through building orientation, etc
- Durability
- Energy efficiency
- Waste reduction
- Indoor air quality
- Water conservation
- Use of sustainable materials with low embodied carbon
- Incorporation of greenery on walls, terraces, balconies, roofs etc.

This information will have to be provided at outline planning stage to ensure that developers bring sustainability experts onboard at the earliest opportunity.

Government will also introduce BREEAM to the planning and development process. BREEAM is a sustainability assessment used to masterplan projects, infrastructure and buildings. It focuses on sustainable value across a range of categories including energy, ecology, water, pollution, transport, materials and waste. Developments are rated and certified on a scale of Unclassified (<30%), Pass (>30%), Good (>45%), Very Good (>55%), Excellent (>70%) and Outstanding (>85%).

## Net Zero Buildings

Gibraltar introduced Nearly Zero Energy Building standards in 2021. These require all new buildings to meet between 40 and 50% of their energy from onsite renewables.

### NZEB System Schematic

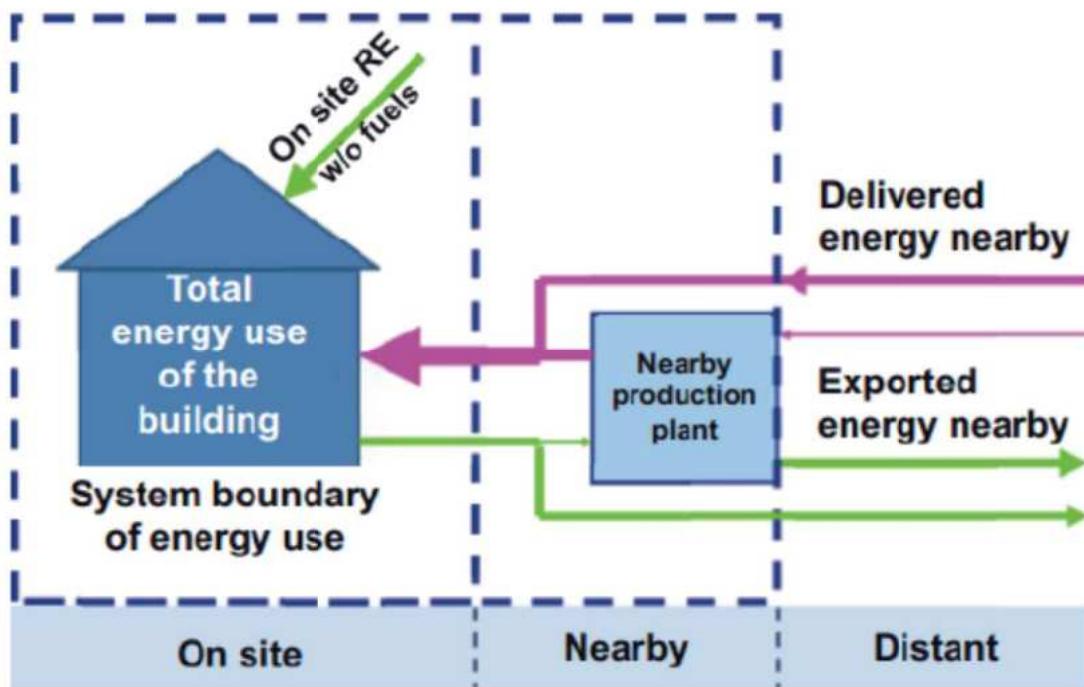


Figure 8. Schematic of a Nearly Zero Energy Building

Where a building is unable to meet its renewable energy requirements onsite, or near site, Government will work to develop a formula to calculate the monetary equivalent of the shortfall which will be paid into the Climate Action Fund and then invested into other renewable energy projects by government.

Whilst this target is a considerable improvement on the previous standards it still falls short of the Net Zero target set for 2045. Government will work with industry to develop a Net Zero Standard for buildings in Gibraltar that is appropriate to its climate.

## Making the case for retrofit

Government is committed to understanding the opportunities lying within building renovation activities and energy efficiency improvements. Gibraltar's building stock varies widely in both age and type and consequently the energy performance of these buildings can also vary enormously. Government is committed to bringing as many residential and commercial buildings as possible up to a high level of energy performance. This is in keeping with its commitments to reduce overall energy consumption and carbon emissions and to improve the comfort and well-being of the occupiers of said buildings.

With 40% of Government housing stock built before 1963, Government undertook the renovation of numerous Government Estates, including Glacis, Laguna and Moorish Castle Estate. The refurbishment programme consisted of the replacement of windows with double glazing, external cladding, LED lighting and the introduction of smart metering, as well as improvement works to roof structures.

In order to improve the efficiency of the private rental market Government will legislate to ensure that rental properties meet a minimum EPC rating of a 'D'.

Government will consider ways of providing incentives for such works in other private homes and estates in order to encourage this type of energy efficient refurbishment and to stimulate growth in this sector of the green economy.

Introducing whole lifecycle assessments to existing buildings will help to more realistically determine the environmental and economic costs and benefits to retrofitting versus demolition and new construction.

In addition to energy efficiency gains, a renovated building stock can also:

- create economic, social and environmental benefits;
- contribute to the improved health, comfort and wellbeing of their residents by reducing respiratory and other illnesses caused by a poor indoor climate;
- make homes more affordable to run.



Figures 9. Refurbishment works at Laguna and Glacis Estates

## Financial Schemes

A tax relief scheme is in place which offers households or businesses tax relief of up to £6000 over two years upon installation of solar water heating systems or PV systems. A further grant scheme is being considered whereby individuals will be able to apply for fixed sums of money for certain building improvements, such as window replacement, roof insulation, replacement of HVAC systems and replacement of lighting with LED.

These schemes will continue to be monitored and reviewed in order to ensure that they help to deliver change.

## Short Term

- Defining a Net Zero Energy Building & guidelines.
- Developing a matrix for BNG.
- Introducing BREEAM.
- Introducing legal requirement for all new builds to maximise roof space for ENG.
- Increasing tree planting in urban areas.
- Requirement for legal minimum of renewable energy on buildings to be provided onsite.
- Introducing a legal requirement for new developments to include minimum 10% of footprint as green area or 25% of building surface as green area.
- Smart meter roll out to all new households.
- Continued roll out of bicycle lane infrastructure.
- Introducing cycling incentives.
- Encouraging cycling deliveries.
- Providing information on bicycle parking online.
- Introduction of timed wayfinding signs across Gibraltar.
- Phasing out of older polluting diesel buses.
- Encouraging walking by highlighting routes in urban areas.

## Medium Term

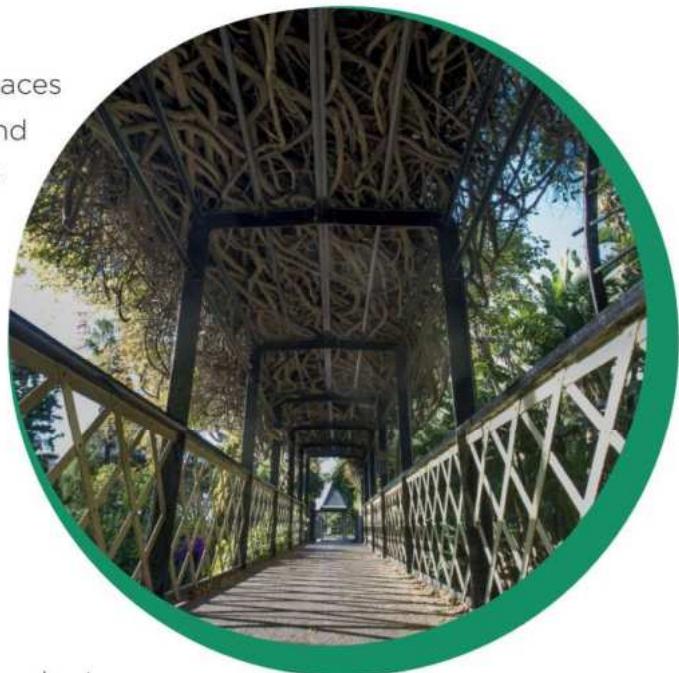
- All new builds to have hot water air source heat pumps.
- Introducing whole lifecycle assessment for buildings
- Rolling out of smart meters to existing households
- Promoting financial assistance scheme to encourage energy efficient renovation in the private market.
- Introducing minimum of a D rating for rental properties.
- Developing a beautification scheme for Line Wall Road.
- Creation of the Queensway Parks.
- Gradually remove on street parking (to be replaced with multi storeys if need be) in the city centre to be replaced with pavements and/or cycle lanes and trees.
- Exploring options for the establishment of a Ride to Work Scheme.

## Long Term

- Retrospectively, where possible, greening up existing large concrete structures to reduce temperature, absorb carbon and create a greener environment overall.
- Rolling out of smart meters to commercial premises.
- Introducing rate relief for any commercial building introducing solar energy generation that achieves a reduction of 20% or more of ongoing power requirements.
- Developing sustainable travel plans with local businesses and schools to enable people to understand how their own travel patterns can contribute towards achieving a more sustainable, cleaner and attractive environment.

# Ecotherapy

It is believed that living near to green and blue spaces offers more opportunities for physical activity and socializing and nature may provide exposure to healthy bacteria that offer benefits for the immune system and reduce inflammation. We are fortunate to have accessible natural spaces in Gibraltar, such as the Upper Rock, the Gibraltar Botanic Gardens at the Alameda, Commonwealth Park and our beaches. This section sets out ways in which Government will make it easier for more people, from every background, to enjoy nature.



## Encouraging 'green' prescribing

Government will encourage health professionals to adopt a practice known as 'green prescribing', a type of social prescribing where nature based interventions are used to treat people with certain health conditions, with activities such as gardening and hiking. This will involve teaching and improving the necessary skills and knowledge to facilitate 'eco-therapy' in the GHA, especially amongst primary care clinicians. A directory is to be developed, listing a menu of intervention options, green offers and NGOs that can partner their delivery.

## Encouraging children to be close to nature, in and out of school

Playing and learning outside is a fundamental part of childhood and helps children grow up healthily. We know that regular contact with green spaces, such as a park, beach or playground, can have beneficial impacts on children's physical and mental health. The ClimACT Schools Programme, will help ensure that all schools increase green spaces within their premises and offer opportunities for children to take part in 'green activities' such as gardening, visits to Tovey Cottage and the Marine Interpretation Centre at Europa Point.

## Greening our City

Green and blue spaces in our built environment are essential to our health and happiness. The provision of more and better quality green infrastructure, including urban trees and green walls, will make our urban space a more attractive place to live and work, and bring about key long term improvements in people's health. Better green infrastructure will also help promote better social interaction and help to develop strong community networks through participation and shared achievements. Maintaining access and links to our marine environment is also a critical part of this work and developing a shared understanding of the importance of this resource, through the valuable work being done by the environmental NGOs shows how this can work in practice.

## Short Term

- Take an active part in Mental Health Awareness Days.
- Raise awareness of the health benefits of connecting with nature.
- Access to green space to be considered as a key issue in all care planning and care assessment.

## Medium Term

- Designing for mental well being to be recognised as good practice for architectural designs and town planning.
- Creating more green spaces, including vertical spaces such as vertical urban forests, living walls and city trees.
- Developing a directory of "green" intervention options for GPs.
- Work with healthcare professionals to introduce activities/programmes that aim to improve mental and physical well being through outdoor activities in the natural environment.

## Long Term

- Explore novel methods of encouraging wildlife.

## Environmental Heritage

Environmental heritage, protected for its social, aesthetic, economic, historic and environmental values, is defined as the places, buildings, works and relics, of local heritage and environmental significance. This includes both natural and built heritage, places and objects, and cultural heritage, such as language, stories, traditions and events inherited from the past. Environmental heritage incorporates the tangible and intangible values that make places special to past, present and future generations and often includes sites of important biodiversity and cultural value.

Heritage identification, management and interpretation are required so that heritage places and stories can be experienced by current and future generations. Gibraltar's rich environmental heritage echoes the diverse origins of Gibraltarians, reflected in the culture and lifestyle of its people, as well as in its many historic buildings and sites.



## Gorham's Cave Complex - A UNESCO World Heritage Site

The Gorham's Cave Complex is the name given to the area covering some 28 hectares on the eastside of Gibraltar from sea level to the top of the Rock. In July 2016, it was inscribed as a UNESCO World Heritage Site for its exceptional testimony to the occupation, cultural traditions and material culture of Neanderthal and early modern human populations through a period spanning approximately 120,000 years. The striking cluster of sea level caves contain archaeological deposits that provide evidence of Neanderthal and early modern human occupation of Gibraltar, and the landscape setting and natural species which assist in presenting the natural resources and environmental context, including climatic conditions, of Neanderthal life.

Figure 10. Gorham's Cave Complex

The combined impact of atmospheric pollution, sea level rise, urbanisation, excessive tourism, negligence and inappropriate restoration measures can impact on our natural and built heritage if not properly managed. In order to safeguard our environmental heritage for future generations measures will be implemented to assess damage to cultural heritage, develop innovative conservation strategies and foster the integration of heritage into the urban setting.

We will protect our environmental heritage by following a set of key principles:

## 1 LEADERSHIP

Demonstrating the protection, conservation, promotion and management of heritage values, through leadership and the application of best practice.

## 2 MANAGING CHANGE

Improving the efficiency and effectiveness of statutory identification and conservation of heritage by strengthening the cooperation and collaboration between Government, heritage and planning agencies and other stakeholders.

## 3 SUSTAINABILITY

Encouraging a viable future for heritage assets and sustainable heritage conservation outcomes through appropriate use and adaptive re-use of heritage places.

## 4 PARTNERSHIP

Promoting and celebrating the value and diversity of Gibraltar's heritage through partnerships which will enhance community appreciation.

## 5 COMMUNITY SUPPORT

Supporting the conservation of privately owned and community managed heritage places through a wide range of conservation and policy incentives.

## 6 EDUCATION

Ensuring ever greater understanding of the value of heritage through the continuous development of a comprehensive heritage education and learning strategy.

## 7 EXPECTATIONS

Ensuring that the regulatory processes for heritage protection are open and transparent, simple to operate and understand, able to deliver accountability to all stakeholders and reflect community expectations.

## 8 ENVIRONMENTAL HERITAGE REGISTER & LEGISLATION

A register listing all heritage sites and assets with protection status.

Recent projects which have showcased the benefits of preserving and restoring our historical and natural areas include the restoration works at the Northern Defences and Wellington Front.

## **The Gibraltar National Park**

The Gibraltar National Park was created in law in 2023 in order to provide a structure and means of coordinating the management and potential of Gibraltar's Heritage assets both natural and built.

We will develop the National Park as a concept, and a practical means of protecting and promoting all of Gibraltar's Heritage for both its intrinsic value and its economic potential.

## **Summary**

Ensuring a healthy city is a multifaceted challenge which requires work across multiple disciplines. Sensitive and sustainable urban renewal is a key component of this work and Government will seek to generate investment into parts of the Old Town of Gibraltar that have gone untended for years. This will largely be done through the ongoing release of old Government housing properties to private tender but will also involve engaging with private landlords of rented or vacant accommodation.

We will set more stringent standards for development with the introduction of BREEAM certification and the development of a Net Zero Building standard. New developments will be required to demonstrate Biodiversity Net Gain and should also seek to demonstrate environmental benefits in a wider context e.g. energy, pollution, waste etc. Government will also seek ways to encourage energy efficient renovation in the private sector and encourage this sector of the economy.

Government will continue to work towards a Green Gibraltar through the creation of new green spaces in the north and south and connecting green ways along Queensway. It will work to increase tree planting in urban areas and explore possibilities for vertical gardens. All this additional planting will increase our urban biodiversity and also help to eliminate pollutants from our environment.

Recognising the impact that access to the natural world can have on both physical and mental well being, Government will develop an "ecotherapy" approach within healthcare with green prescribing forming a core part of solutions and interventions offered by health providers.

The Gibraltar National Park will serve as a way of co-ordinating and promoting our Heritage both natural and built.

## Short Term

- Produce and publish a new Gibraltar Development Plan.
- Creation of new parks along Queensway.
- Establish legal mechanism for the inclusion of BNG and development of BNG policy & tool
- Define Net Zero Energy Buildings and associated guidelines.
- Introduce BREEAM requirements for new builds.
- Create legal requirement for all new builds to maximise roof space for BNG.
- Increase tree planting in urban areas.
- Create legal requirement for a minimum amount of renewable energy to be produced onsite.
- Create legal requirement for all new development to provide a minimum of 5% of footprint as a green area or 25% of facade as a green wall.
- Smart meter roll out to all new households.
- Active promotion of Nature in mental health awareness days.
- Raise awareness of the health benefits of connecting with nature.
- Access to green space to be considered a core part of care planning and care assessment.

## Medium Term

- Create new parks in North and South Districts.
- Walk the Wall project.
- Rental properties to meet minimum EPC rating of a D
- All new builds to have hot water air source heat pumps.
- Roll out of smart meters to existing households.
- Provision of financial assistance for energy efficient renovation in the private sector.
- Require whole lifecycle assessments of existing buildings before determining whether they can be demolished.
- Designing for mental well being to be a core consideration in architectural design and town planning.
- Increase the creation of green spaces, including vertical spaces such as vertical forests, living walls and city trees.
- Develop a directory of “green” intervention options for GPs.
- Work with healthcare professionals to introduce activities/programmes that improve well being through being outdoors.

## Long Term

- Retrospectively, where possible, green up existing large concrete structures to reduce temperature, absorb carbon and create a greener environment overall.
- Roll out of smart meters to commercial premises.
- Rates relief for any commercial building introducing solar energy generation that achieves a reduction of 20% or more of ongoing power requirements.
- Explore novel methods of encouraging wildlife.

# 3. Combating Climate Change

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# 3. Combating Climate Change



**C**limate change is the single biggest challenge facing the world today, playing such a major part in our planet's environmental system that even minor changes can have complex and far-reaching impacts.

Around the globe, seasons are shifting, temperatures are climbing and extreme weather events are becoming more frequent. These changes present new threats and exacerbate existing ones, threatening the security of basic necessities such as food and water.

COP28, the 28th session of the Conference to the Parties to the UN Framework Convention on Climate Change was held in Dubai towards the end of 2023. It achieved some historic outcomes, such as the establishment of a loss and damage fund to provide financial support to developing countries already being impacted by climate change.

It also resulted in the adoption of an agreement to phase out fossil fuels in a just, orderly and equitable manner – the first time that an international agreement has explicitly addressed the need to end the use of coal, oil and gas in order to achieve the goal of limiting global temperature rise to 1.5°C. This will require a rapid shift towards renewables, as evidenced by the fact that the outcome also includes an agreement to triple the world's renewable energy capacity and double its energy efficiency by 2030.

## Measures already implemented

- Regular reporting of GHG emissions.
- Commissioning of new LNG power plant.
- Launch of Solar Tender
- Expressions of Interest for Onshore wind power.
- Expressions of interest for electric vehicle charging points.
- Launch of Energy Savings Opportunity Scheme.
- Launch of Energy Performance of Buildings assessments and update to requirements.
- Removal of import duty on renewable technologies.
- Introduction of solar power to the GHA.
- Pilot wave energy plant EcoWave.
- Introduction of a tax allowance to households for the installation of solar thermal or PV systems.

Climate change is a major de-stabilising force, which undermines the global economy, threatens health and will increasingly lead to the movement of climate refugees and to military conflict.

Gibraltar, although a small contributor to global greenhouse emissions, will still face climate change repercussions alongside the rest of the world. The Government is committed to doing its part to curb emissions and deliver on the Paris Agreement, through sound environmental governance to include: the implementation of legislation and action plans, the development of renewable energies, energy efficiency and environmentally conscious development. We will take all possible action to mitigate climate change, while adapting to reduce its inevitable and unavoidable impacts. We will ensure we reduce the energy intensity of our economy, whilst delivering clean, smart and flexible power to households and businesses.

## The Climate Emergency

2019 saw unprecedented recognition of climate change and the dangers it poses with mass climate protests around the world, school strikes and warnings from the Bank of England. In November 2019 over 11,000 scientists in 153 countries from a broad range of disciplines warned that the planet “clearly and unequivocally faces a climate emergency”.

“

*“Climate Emergency’ is an internationally recognised declaration being used by Parliaments, Councils and Local Authorities, predominantly in the UK, Canada, Australia and the USA, to publicly declare concern over the Intergovernmental Panel on Climate Change (IPCC) findings which recognise the adverse global impact of the changing climate. The declaration also serves as a commitment to take urgent action and aspire towards carbon neutrality.”*

### **The Gibraltar Parliament – Climate Emergency Motion**

In March 2019, the Gibraltar Parliament unanimously declared a climate emergency.

Echoing the Paris Agreement's priority to limit global warming to 1.5°C, Gibraltar's climate emergency declares ambitious targets that include the following:

- A pledge to make Gibraltar carbon neutral by 2030;
- A pledge to reduce emissions by 50% by 2035;

- Work with other governments in the UK family, including the devolved administrations, the UK Overseas Territories and the Crown Dependencies to determine and implement best practice methods to limit Global Warming to less than 1.5°C;
- Work with partners across Gibraltar and in the region to deliver this new goal through all relevant strategies and plans;
- Report to Parliament by the end of 2019 with a climate emergency action plan which will include a carbon reduction plan.

In response to this motion, the Government adopted its Climate Change Strategy which sets out detailed actions and targets to mitigate climate change and adapt to the inevitable consequences to which we are already committed by virtue of historic emissions.

The package of measures contained in the Strategy is designed to:

- Cut greenhouse gas emissions across the economy, helping Gibraltar to achieve its target of climate neutrality by 2030.
- Be transformational, accelerating emissions cuts that are commensurate with the emergency.
- Be achievable now: these steps can all be implemented starting right now, with existing technology and supporting innovation.
- Help the people of Gibraltar by providing the infrastructure, support and incentives required to help people make climate- friendly decisions.
- Make Gibraltar wealthier, healthier and greener, supporting prosperity and social well-being and working with nature to deliver wider environmental benefits.



Climate change is a far reaching and complex problem. Every sector needs to play its part in responding to the climate emergency – government, businesses and individuals. Government commits to ensuring that all decisions about projects and investments are taken in consideration of the climate emergency and pledges not to proceed with any activity that is not in keeping with efforts to tackle this crisis.

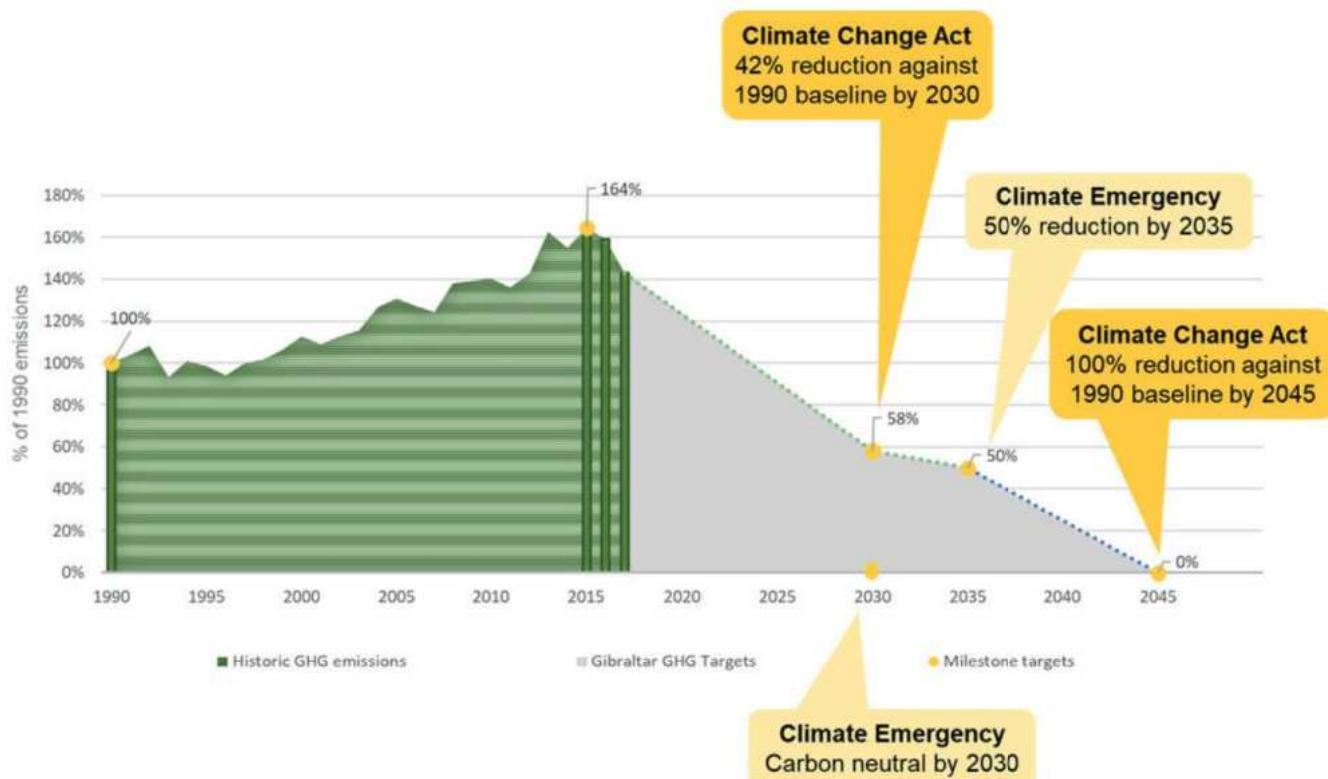


Figure 11. Gibraltar's emissions and targets in context

## Climate Change Act 2019

In 2019, Government introduced Gibraltar's first Climate Change Bill. It was passed unanimously by the Gibraltar Parliament in July and the Climate Change Act commenced on the 10th October 2019. Representing a firm commitment to tackle climate change, the overriding objective of the Act is to protect the climate for present and future generations, and to assist in the taking of preventative and remedial measures against climate change. The Act sets targets for 2050 and an interim target for 2030, the requirement for a national low carbon transition and mitigation plan by 2021 and an energy efficiency plan. The Act also establishes the possibility of a Climate Action Fund.

### Set Targets



- **100% reduction from 1990 baseline by 2050.**
- **42% reduction from baseline by 2030**
- **50% energy from renewables by 2030.**

## The Net Zero Delivery Body (NZDB)

The NZDB was established in July 2022 as part of Government's efforts to deliver on its climate change commitments. The Climate Change Strategy is an ambitious programme in terms of scope and targets and it acknowledges that delivering on it will require co-operation and co-ordination across Government, as well as with businesses and individuals.

The objective of the delivery body will be to increase the likelihood of success of the plan by allocating responsibility for its implementation to a body which can advocate and drive its delivery. The benefits include:

- Greater success of the Climate Change Strategy overall
- Better advocating for and monitoring of progress
- Clear public accountability for delivery
- Ability to join-up government departments, agencies and authorities as well as other stakeholders at all levels
- Creation of a coordinated public engagement campaign.

The NZDB is chaired by the Deputy Chief Minister and includes the Minister for the Environment and Transport as well as senior government officials. It is supported by a Secretariat hosted by the Department of the Environment and Climate Change and is responsible for creating specific working groups to deliver on key policies within given timeframes.

## Combating Climate Change

Responding to climate change will require a two-pronged approach.

1. Reducing emissions and stabilizing levels of greenhouse gases in the atmosphere (mitigation);
2. Adapting to changes as a result of climate change (adaptation).

All possible action to mitigate climate change will be taken as well as adapting to reduce its inevitable impacts. We will do this by continuing to cut greenhouse gas emissions from power generation, buildings and transport, as set out in the 2021 Climate Change Strategy, and by making sure that all policies, programmes and investment decisions take into account the possible effects of climate change this century.

Climate change mitigation will focus on:

1. The transition to cleaner fuels for energy production
2. Decarbonising the transport sector and encouraging more sustainable mobility
3. Nature based solutions
4. Designing and building more sustainably.

## Boosting Renewable Energy

Increasing our renewable energy generation and transitioning away from fossil fuels is a key element of our environmental ambitions both in respect of climate change and reducing air pollution. The Climate Change Strategy includes ambitious targets in respect of renewable energy generation – 20% by 2025, 50% by 2030 and 70% by 2045. In order to reach these targets a concerted drive to deploy tested solar technology will be undertaken. In 2018 the Government issued a Solar Framework Agreement which allowed for swifter allocation of sites to approved contractors for the development of rooftop solar PV projects in return for Power Purchase Agreements. That Agreement has now ended and Government continues to explore options for further solar PV rollout.



Figure 12. Solar panel array at New Harbours

Government also introduced a Feed In Agreement via the Gibraltar Electricity Authority (GEA) which will encourage greater uptake of RE technology by individuals and small businesses.

Government will engage with larger businesses and corporations to encourage them to introduce renewable energy into their own operations as part of their corporate social and environmental responsibilities. Stricter requirements have been introduced via the Building Regulations and through the introduction of a Nearly Zero Energy Buildings Standard to ensure that new developments minimize their energy needs and meet as much of their own energy demand as possible from onsite renewables.

Government will also actively investigate the possibilities for offshore wind to increase renewable power generation and provide an alternative and complementary resource to solar.

All of these measures will require an electricity network that is resilient and reliable and Government will continue to strengthen the existing network to ensure that it is able to respond intelligently to fluctuating renewables input and changing energy demand.

Government will continue to explore the possibility of introducing other innovative marine renewable technologies as and when these become commercially viable. In the meantime it will conduct the appropriate studies to determine the level of natural resource available in our seas.

Government will also continue to actively explore the possibility of connecting to the Moroccan electricity network via a cable across the Straits. This would provide much greater resilience to the local network.

## Energy Efficiency

Energy efficiency can bring significant economic, social and environmental benefits as well as relieving pressure on energy demand and supply.

Energy efficiency measures can fall into two categories, technical and behavioural. A technical energy efficiency measure involves physically altering some aspect of the building or equipment to get more out the energy used, for example, installing double glazed windows or buying a more energy efficient washing machine. These changes are largely being driven by EU and international standards and regulations.

Adopting behavioural energy efficiency practices involves consumers changing their habitual behaviour to use less energy, for instance, by turning down the temperature setting on their washing machine, turning off lights when not in use, only boiling enough water for the cups of coffee needed, etc. Government will strive to make improvements in both categories and in particular will roll out a Public Engagement Strategy to help people understand the consequences of their choices, both in terms of environmental impact but also in how they can result in benefits to the individual and the community.

We will continue to improve the energy efficiency of the building stock through improvements in building standards as set out in Chapter 2. Government will also engage directly with high-energy users to devise sector specific energy efficiency plans and programmes.

## Carbon Literacy

Meeting our climate change commitments will require deep-seated transitions in our economy, institutions, governance processes and critically, people's behaviour. The changes required will directly impact on people's lives and involve significant trade-offs that touch on public values and can be contentious. Public engagement and understanding is therefore a critical component in building a public mandate for climate action.

Carbon literacy is defined as "an awareness of the carbon costs and impacts of everyday activities and the ability and motivation to reduce emissions, on an individual, community and organisational basis." (The Carbon Literacy Project, online).

The Government has been working with the Carbon Literacy Project to develop carbon literacy training courses for the public sector and for the education sector specifically. These courses will be rolled out beginning in the first quarter of 2024. Further sector specific training may be developed depending on demand.

Government will also work to increase public awareness of the action that it is taking on climate change and how it relates to their lives as well as increasing citizen participation in shaping policies that are fair and inclusive. This could include the use of citizen's assemblies as well as better access to information online.

## Sustainable Diets

Modern food production contributes significantly to environmental degradation; with considerable greenhouse gas emissions, land and water use. A sustainable diet can have positive effects for the planet, health and society. The consumption of meat is particularly impacting on the environment and efforts will focus on raising awareness of the benefits of plant based diets as well as supporting the efforts of food establishments to increase their vegan offerings.

A healthier diet will also help combat rising obesity levels and diseases such as cancer and heart disease. Numerous restaurants have been encouraged to offer more vegan, vegetarian and non-meat alternatives and pamphlets have been created raising awareness of the impacts of food production and ways in which we can make a difference.

The goal is to continue with this message and promote meat-free days; this is to be encouraged in schools and hospitals also. The aim is not solely to reduce meat consumption but other environmental impacts of food production such as packaging and single-use plastic cutlery and promoting more sustainable alternatives, such as edible cutlery, re-usable cups, biodegradable packaging, etc., accompanied by the rapid phasing out of unsustainable and environmentally damaging products, such as plastic straws and cutlery.

Government, through Public Health Gibraltar will develop guidance on how to make more sustainable food choices, including information on the health benefits of reducing meat consumption and help on how to understand various food labelling initiatives.

This guide will also be adopted by the public sector in respect of its procurement of food for events, and in institutions such as schools, hospitals and care homes.

Government will also look into ways of directly encouraging a move towards plant-based diets.

## Local food production

Gibraltar has limited land capacity and therefore the ability to produce our own food has also been limited. Advancements in new techniques such as hydroponics and vertical farming offer potential solutions for crop growth even in small areas and Government will explore the possibility of developing these solutions for Gibraltar, together with the private sector.

## Climate Adaptation & Resilience

Cities face particular challenges when it comes to climate change – 75% of the population in Europe live in urban areas and this is where the effects of climate change will be most evident in everyday life. Urban settings can exacerbate climate change impacts – artificial surfaces and buildings create unique microclimates; impervious roads and pavements can generate or worsen flooding; high levels of artificial surfaces can store heat and raise temperatures within city centres as compared to surrounding areas.

A climate risk and vulnerability assessment was conducted for Gibraltar in 2022 which concluded that the following sectors are likely to be impacted by climate change: energy, transport, the built environment, food & agriculture, public health and tourism.

The full report can be found online [here](#).

Our adaptation and resilience measures will include:

- Greening our city by committing to plant a minimum number of trees each year.
- Creating green walkways over roads and pathways to protect from the elements.
- Increasing green infrastructure such as green roofs, city parks and green walks.
- Introducing water fountains for drinking and cooling.
- Integrating water into the landscape to enhance visual, social, cultural and ecological values.
- Tackling flash flooding events due to increased heavy precipitation events.
- Investing in sea walls/ defences and revetments to protect infrastructure from projected sea level rise.
- Exploring novel food growing opportunities

# Summary

Climate change will be tackled via three principle strands:

- the decarbonisation of the energy sector by boosting renewable energy generation capacity, principally via the roll out of rooftop solar PV but also exploring viable marine renewable options and connecting to the Moroccan grid;
- the decarbonisation of the building stock through energy efficiency measures and the introduction of net zero energy building standards;
- the decarbonisation of the transport sector via a move towards vehicle fleet electrification as well as strategies to encourage modal shift to more sustainable transport forms such as walking, cycling and public transport.

Further details on all these measures can be found in the [2021 Climate Change Strategy](#).

Energy efficiency will continue to form a key cornerstone of carbon reduction efforts and direct engagement with high energy users should yield significant improvements in this respect.

Government will also focus on horizontal measures such as encouraging more plant based diets and on nature based solutions such as increasing planted areas and reintroducing effective carbon sinks such as seagrasses.

## Short Term

- Set up the Climate Action Fund.
- Produce 20% of electricity from renewables.
- Provide information to the public on the Feed In Agreement.
- Increase grant provision for electric vehicles and phase out internal combustion engine vehicles.
- Ban importation of used vehicles more than 5 years old and petrol and diesel mopeds.
- Legislate for the provision of electric vehicle charging facilities.
- Create legal requirement for a minimum amount of renewable energy to be produced onsite.
- Smart meter roll out to all new households.
- 25% modal shift from cars and motorbikes to walking/cycling.
- Introduction of Net Zero Energy Buildings requirements.

## Medium Term

- 50% of electricity from renewables.
- 50% modal shift from cars and motorbikes to walking/cycling.
- Roll out of smart meters to existing households.
- Increase the creation of green spaces, including vertical spaces such as vertical forests, living walls and city trees.
- Establish cable link to Morocco.
- Establish seagrass meadows in BGTW.
- Engage with high energy users to formulate sector specific plans.
- Consider technologies for local food production.

## Long Term

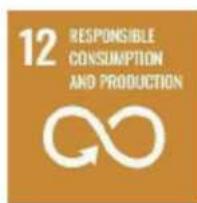
- 70% of electricity from renewables.
- 70% modal shift from cars and motorbikes to walking/cycling.
- Roll out of smart meters to commercial premises.
- Rates relief for any commercial building introducing solar energy generation that achieves a reduction of 20% or more of ongoing power requirements.
- Shift away from a fuel based economy.
- Become carbon neutral.

# 4. Reducing Pollution & Waste

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# 4. Reducing Pollution & Waste



## Air Quality

**G**ibraltar continues to face significant challenges in improving air quality due to its small size and the high concentration of activity within a limited area. It is also subjected to transfrontier air pollution which is at least partly outside of Government's control.

Poor air quality, particularly within urban areas, is harmful to health; especially, but not exclusively, for people with pre-existing health conditions such as heart disease, lung conditions and asthma. The young and the elderly will also be more susceptible to health impacts.

Health can be affected both by short-term, high-pollution episodes and by long-term exposure to lower levels of pollution. Air pollution can also damage the wider environment, causing the acidification of soils and water, damaging plant and animal life and damaging the fabric of buildings and monuments. Government therefore has a responsibility to its citizens to tackle the leading causes of air pollution in Gibraltar.



There have been improvements in measured concentrations of pollutants since the programme's inception. Notably, concentrations of nitrogen dioxide (NO<sub>2</sub>) and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) dropped significantly following the closure of the power generating stations in the south district and the move the natural gas as a fuel in the north. The effects of lockdown during 2020/2021 also had a notable impact, with levels now having bounced back to a certain degree although still lower than 2019 levels.

The graphs below illustrate these effects and demonstrate that the measures taken to tackle pollution from energy generation in particular have been successful although challenges remain in other areas, particularly traffic and shipping.

## NO<sub>2</sub> Annual Mean

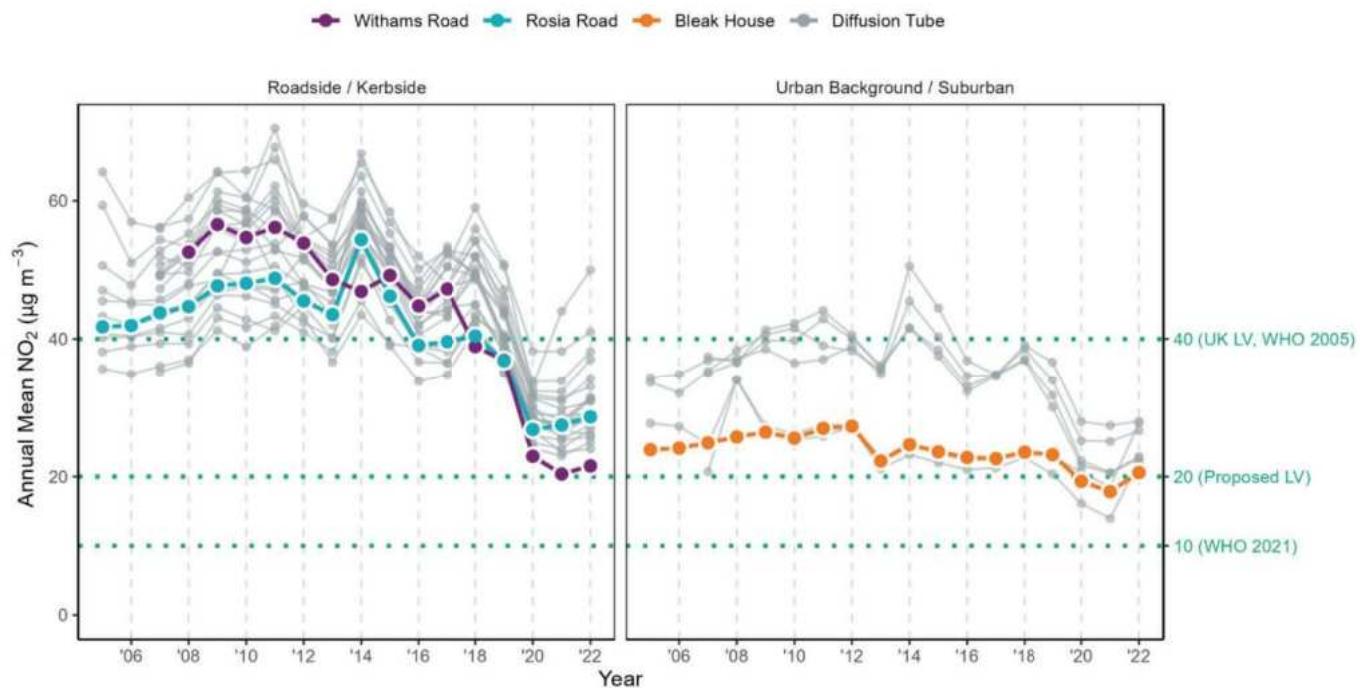


Figure 13. NO<sub>2</sub> annual mean across monitoring stations

## PM<sub>2.5</sub> Annual mean

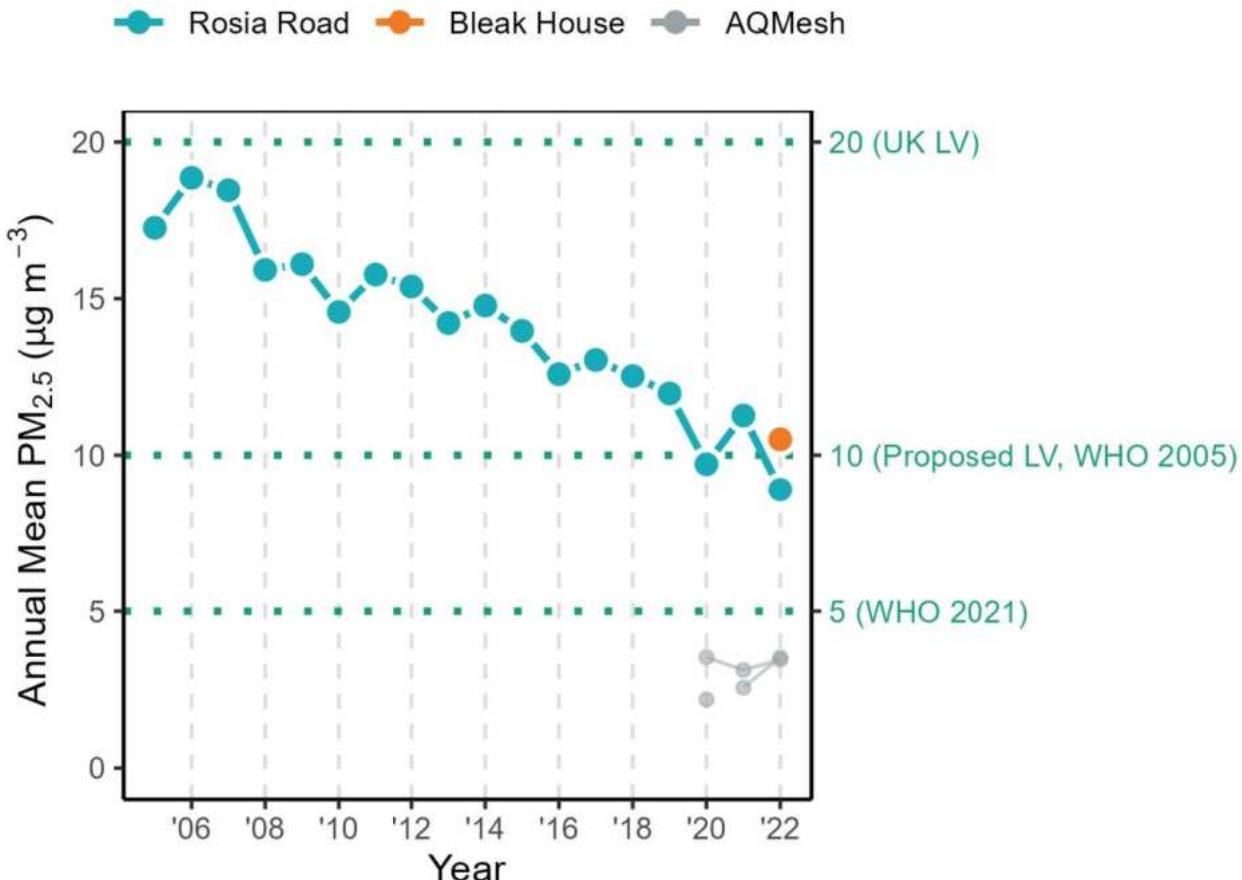


Figure 14. PM<sub>2.5</sub> annual mean across monitoring stations

## PM<sub>10</sub> Annual mean

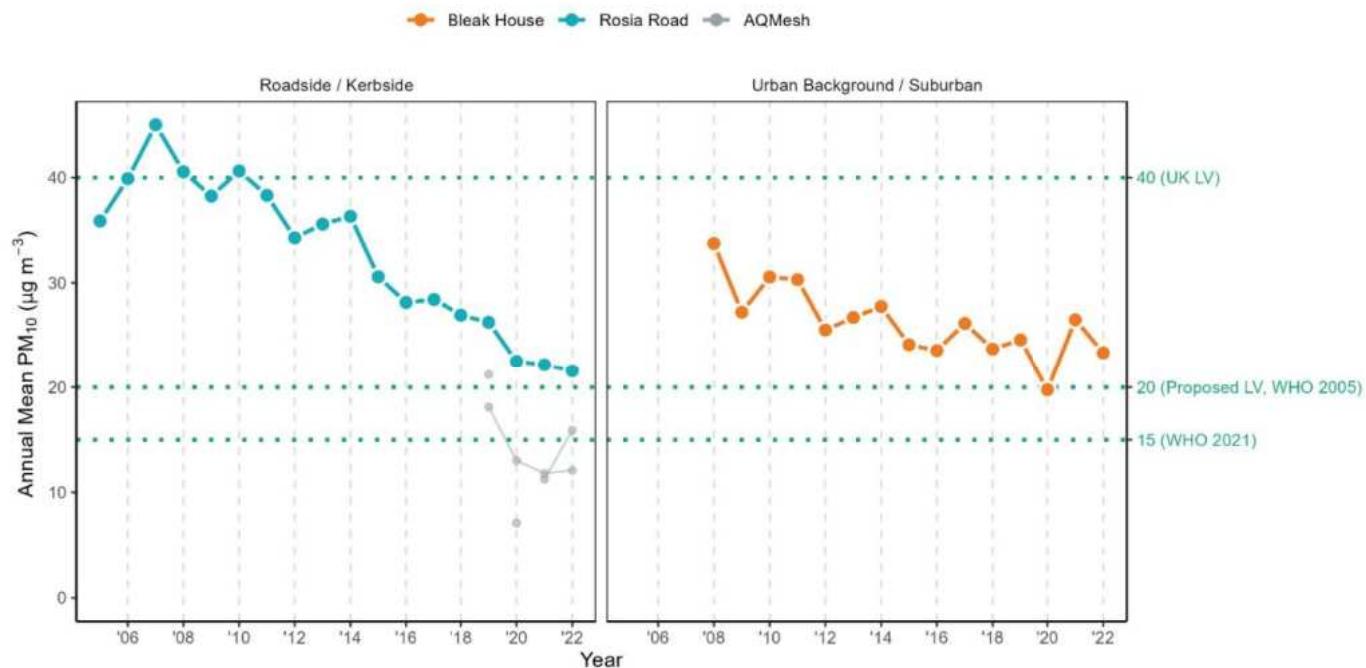


Figure 15. PM<sub>10</sub> annual mean across monitoring stations

These have historically been the problematic pollutants for Gibraltar, with all others having been consistently within target levels.

Pollutant	Averaging time	2005 AQGs	2011 AQG level
PM <sub>2.5</sub> , µg/m <sup>3</sup>	Annual	10	5
	24-hour <sup>a</sup>	25	15
PM <sub>10</sub> , µg/m <sup>3</sup>	Annual	20	15
	24-hour <sup>a</sup>	50	45
O <sub>3</sub> , µg/m <sup>3</sup>	Peak season <sup>b</sup>	-	60
	8 hour <sup>a</sup>	100	100
NO <sub>2</sub> , µg/m <sup>3</sup>	Annual	40	10
	24-hour <sup>a</sup>	-	25
SO <sub>2</sub> , µg/m <sup>3</sup>	24-hour <sup>a</sup>	20	40
CO, mg/m <sup>3</sup>	24-hour <sup>a</sup>	-	4

Figure 16. WHO air quality guidelines

The new proposed health guidelines from the WHO will be challenging to achieve but reflect the fact that there is no threshold below which it is safe to breathe these pollutants. Gibraltar will strive to reach these by focusing on reducing pollution from road and shipping traffic as well as from construction and, to a lesser extent, power generation.

## Transport

Road traffic is a significant problem in Gibraltar. The active travel strategy will help to encourage people out of their vehicles and onto more sustainable travel modes, however, car use will still continue to be high in the short term. The shift to low or no emission vehicles has already begun and will be further underpinned by the roll out of an extensive charging network, as set out in the 2024 **EV Charging Infrastructure Strategy**, better incentives for those purchasing full electric vehicles and the introduction of low emission zones in the city centre.

Government will also seek to provide pavements where there are currently none and to make walking and cycling routes through Gibraltar safer and more attractive. There is a recognition that road space in Gibraltar is limited and therefore increases in road allocation to pedestrians and cyclists will result in less road space being available for cars, however, the benefits to both health and the environment are undeniable.

Transitioning to a low carbon transport system will make Gibraltar a truly accessible city for all transport users.

Some of the most heavily polluting vehicles on our roads are Heavy Goods Vehicles (HGVs) used in construction, for the transport of goods and removal of waste. In order to tackle pollution from these vehicles Government will require all newly registered HGVs to meet Euro 6 emission standards as from 2024. In order to tackle existing HGVs that use Gibraltar's road, it will introduce a tax for these to discourage their use and implement the Polluter Pays Principle.

Emissions from shipping are also a cause for concern. Recent changes to the Public Health Act introduced a penalty for ships emitting black smoke, however, these are difficult to enforce in practice. The legislation will be further revised to give the Environmental Agency and the Port Authority greater powers in this respect.

The Port Authority and the GEA are working to introduce shoreside power at the North Mole. This will allow visiting ships and even cruise liners to switch off their onboard generators whilst they are berthed in Gibraltar. Our aim is to ensure that all large berthed vessels should use such power.

## Maritime Emissions



Figure 16. Bunkering operation in Gibraltar waters

International shipping is a key part of the global economy and almost 90% of worldwide trade is transacted via ocean going vessels. For Gibraltar emissions from international shipping and bunkering, which are scope 3 emissions and therefore fall outside of the manageable inventory, account for over 80% of total emissions. As such the decarbonisation at a global scale is of critical interest to Gibraltar's long term carbon reduction ambitions.

The International Maritime Organisation (IMO) is the UN agency with responsibility for the safety and security of shipping and the prevention of marine and atmospheric pollution by ships (imo.org)

In 2023, the IMO published its revised GHG Strategy which sets out three key ambitions:

- A reduction in the carbon intensity of international shipping by at least 40% by 2030 compared to 2008;
- Uptake of zero or near-zero GHG emission technologies, fuels and/or energy sources to represent at least 5%, striving for 10% of the energy used by 2030;
- GHG emissions from international shipping to reach net zero by or around 2050.

The strategy also sets out indicative checkpoints for 2030 and 2040:

- To reduce the total annual GHG emissions from international shipping by at least 20%, striving for 30%, by 2030;
- To reduce the total annual GHG emissions from international shipping by at least 70%, striving for 80%, by 2040

All shipping operators will be required to comply with these requirements and therefore the Gibraltar Port Authority will need to be ready to respond to the changing needs and demands of the industry.

## Construction

The construction industry is one of the largest users of global resources and contributors to pollution. It therefore has a responsibility to work sustainably to meet the demands of our expanding population as well as supporting the environment in the long-term. This will require the industry to reduce pollution and waste by using cleaner materials, better design, more efficient production methods and recycling or reusing building materials.

Government will set targets for the reduction of waste from construction.

It will also work with industry to develop a Net Zero Standard for buildings that takes into consideration the embodied energy of the building as well as the operational energy over its lifetime.

Government will also review the Dust Control Regulations and accompanying Guidance Document to tighten the requirements around construction, particularly for projects in densely populated areas where residents will be most affected. The regulations will also seek to give the Environmental Agency greater powers to enforce the standards and fine offenders.

Government will work with the private sector to support a Considerate Contractors Scheme and encourage its adoption by only working with contractors that abide by it.

## Cross-cutting measures

It will also establish an Air Quality Commission. The importance of civic engagement is crucial in addressing air pollution. The Air Quality Commission will help to pull together key stakeholders, and the public, in a common endeavour to discover the facts about air pollution as it affects Gibraltar. It will create a forum for agreeing and sharing concerns and for proposing solutions. By operating transparently, it will help build public trust in the evidence, and the collective actions taken as a result. The Commission will not be a forum for holding politicians to account, but rather a mechanism of engaging on collective actions in which Government is a key, but not the sole player.

Gibraltar also plans to continue to expand and improve its climate monitoring programme with a view to providing climate data which are more robust and suitable for academic research, as well as to allow short-term health forecasting based on the weather.

## Short Term

- Provision of shore side power at the Gibraltar Port.
- Requirement for all grounded aircraft to use ground source electricity.
- Introduction of a Low Emissions Zone in Main Street.
- End the sale of new conventional petrol & diesel vehicles.
- Increase grant provision for electric plug in vehicles.
- Continue the creation of segregated bicycle lanes.
- Implement a Park & Ride Scheme for visitors.
- Provide preferential parking for EVs in the city centre.
- Introduce a grant for the installation of home EV charging points.
- Introduce tax weighted to vehicle carbon emissions.
- Government to purchase only electric (minimum hybrid) vehicles.
- Taxis and PSVs to transition to electric.
- Introduce waste reduction targets for construction industry.
- Tighten Dust Control regulations.
- Creation of an Air Quality Commission.
- No smoking and no idling outside schools.
- Expand & improve climate monitoring programme
- Introduce Considerate Contractor Scheme

## Medium Term

- Increasing the distance of bunkering operations from bathing areas.
- Smoking ban in children's parks
- Introduction of a Clean Air Bill.
- Introduce point of use tax for HGVs that do not comply with Euro 6 standards.
- Implementation of fast charging point network across Gibraltar.
- Introduction of carbon tax for households with three or more registered vehicles.
- Development of Net Zero Building Standard.
- Active ventilation to be introduced in the Dudley Ward and Keightley Way Tunnels.
- Improve legislation to control emissions from ships.
- Introduction of scrappage scheme for old cars.
- Continuing to explore the feasibility of electric, hybrid, hydrogen fuel cell, or other low emission buses and the phasing out of aging buses.
- Gradually remove on street parking (to be replaced with multi storeys if need be) in the city centre to be replaced with pavements, trees and shrubs and/or cycle lanes.
- Explore options for the establishment of a Ride to Work Scheme.
- Allowing only zero emission cars and vans to circulate in Low and Zero Emissions Zones by 2030.
- Promoting shared electric mobility.

## Long Term

- Requirement for vapour recovery technology to be applied on all fuelling transactions from shipping as well as land based activities.
- Shift away from a fuel based economy.
- Only electric vehicles newly registered.
- Guaranteed parking space for every fully electric public service vehicle.
- 75% of all cars and LCVs in Gibraltar to be fully electric.
- Shipping to transition to clean fuels in line with IMO 2023 GHG strategy.

# Waste Management

Waste is a growing problem, caused by resource inefficiency as well as unsustainable production and consumption patterns. Inappropriate waste management can affect both human health and the environment, via emissions to air, soil and water. It also represents a significant loss of resources. Government's overall objective continues to be the reduction of waste wherever possible, followed by reuse and recycling, as per the principles of the waste hierarchy and the circular economy (Figures 17 & 18).



Figure 17. The waste hierarchy

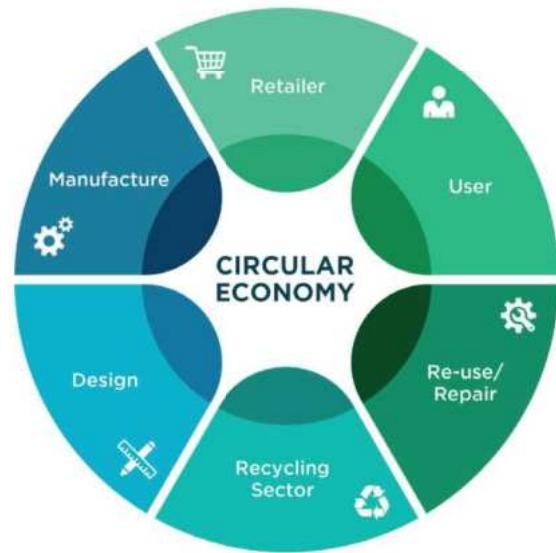


Figure 18. The circular economy

## Waste to Zero

COP28 saw the launch of the Waste to Zero initiative, a global initiative for waste decarbonisation. This project aims to transition from waste to circular resource management. This will be particularly challenging for Gibraltar given our size and scale, however, Government has endorsed and signed up to the initiative; this will provide us with access to the latest information and research to support our own decarbonisation journey.

## Waste Management Strategy

In recent years, the amount of waste produced in Gibraltar has been increasing, due largely to increases in population size. Managing waste costs the Government and the taxpayer millions of pounds each year and can cause damage to our environment if not carried out properly. The easiest way to eradicate waste and pollution is to prevent it in the first place. Consumerism has reached an all-time high alongside the excessive production of short-lived and disposable items. We are already seeing the devastating impacts of our 'throw-away' society with the creation of ocean garbage patches and the harm plastic pollution is causing our marine life around the world, including Gibraltar.

As a result of our planning for a potential no-deal Brexit, Government set up a temporary waste contingency facility which would serve to shred, bale and store our waste for short periods of time as needed. Moving forward, the Government will aim to have a Waste Management Facility (WMF) constructed and operational by no later than 2026. This facility will help segregate our mixed municipal waste to improve Gibraltar's existing recycling performance and crucially, it will also serve to improve our resilience in the event that trans frontier shipments of waste are affected by external EU policy changes.

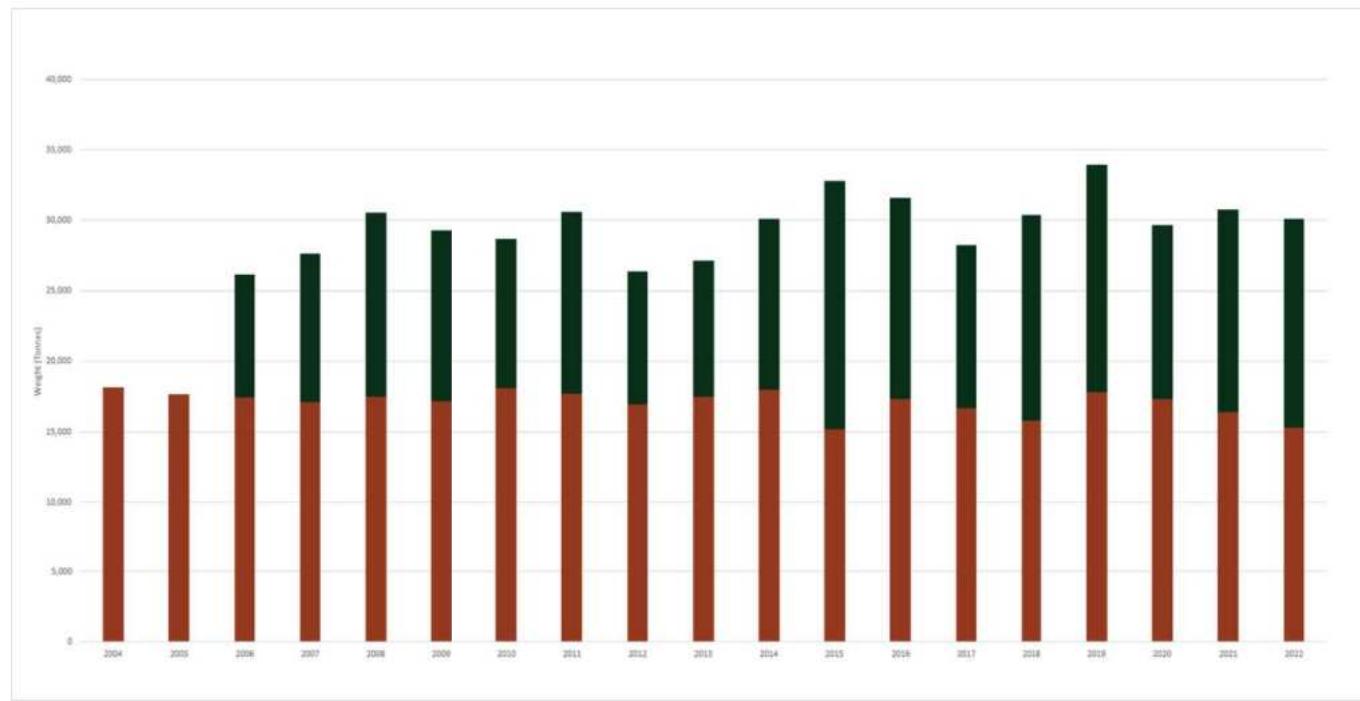


Figure 19. Municipal solid waste (red) and bulky items (black) 2004-2022.

## Recycling

Recycling at source, i.e. at home and at work, is a key element of any waste reduction drive. Gibraltar's waste management has advanced in recent years with recycling collection points now available for paper and cardboard, plastics and cans, glass, batteries, electronic equipment and cooking oil. A dedicated site for the disposal of larger items for recycling has been created at both the Civic Amenities Site for households and the Eco Park for commercial entities but more needs to be done in order to improve our recycling performance.

Government is committed to continue the promotion of a dedicated waste reduction and recycling campaign and the expansion of recycling bin facilities, with a view to achieving a 55% recycling rate by 2026 and zero avoidable waste by 2050. To a large extent, this will be met by the construction and commissioning of a WMF. Achieving these targets will, in parallel, require strong incentives and a regulatory framework from Government as well as strong action from the community at large. It will involve the introduction of recycling incentives and commencing the legislation to make recycling a requirement for all commercial entities. We will also introduce small recycling bins in pedestrian areas

and public buildings, to encourage recycling 'on the go', and deposit return schemes. We also aim to improve the quality of plastics recycling by expanding and modernizing our sorting and recycling capacity.

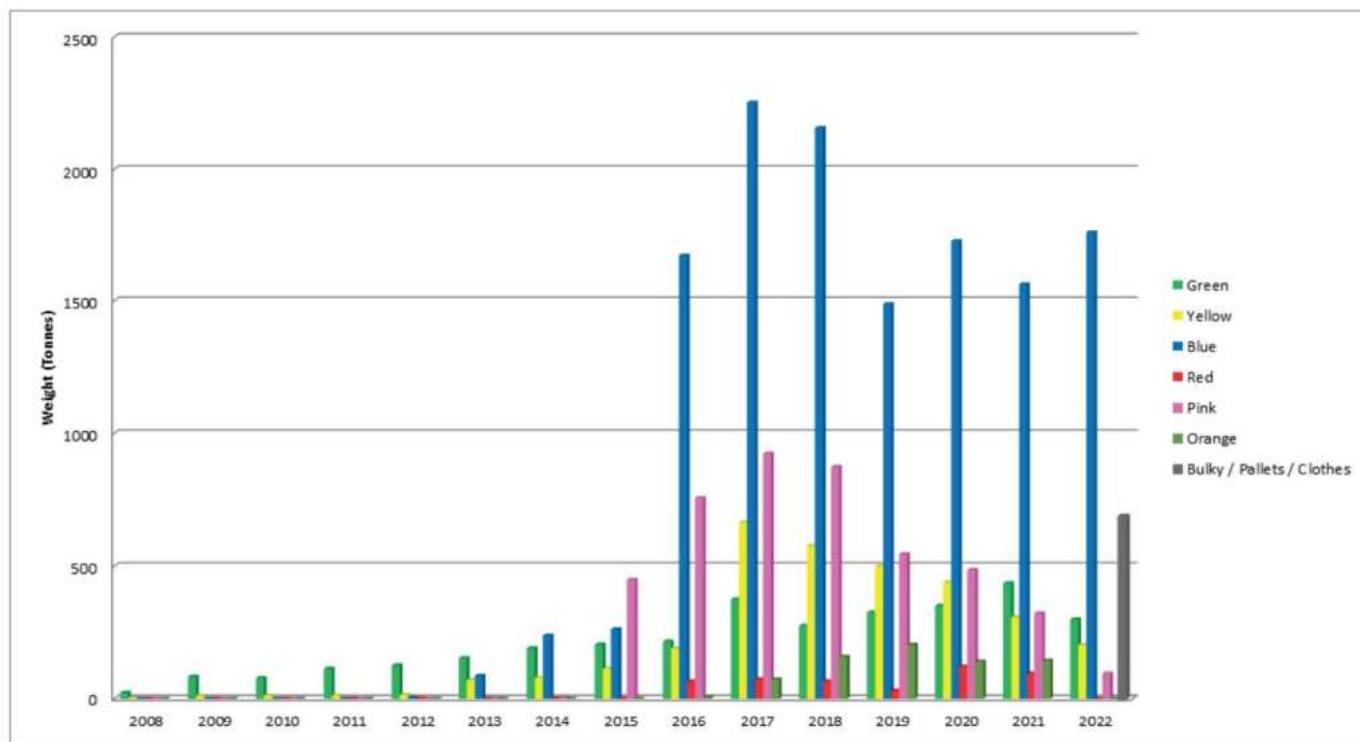


Figure 20. Recyclate collected in Gibraltar for the period 2008-2022.

Figure 20 indicates a downward trend in the amount of recycling being collected in Gibraltar since 2017. The proper sorting and segregation of waste at source is critical to successful recycling and recovery of materials and will become even more important as the EU and indeed the rest of the world, tighten the rules relating to imports of waste from third countries.

Government is aware of persistent myths that surround the kerbside recycling programme in Gibraltar – the belief that waste from different bins is mixed upon collection and that therefore efforts on the part of the individual are wasted is categorically untrue. The DESCCH will continue to embark on a range of awareness drives to debunk this allegation and rebuild confidence in the system.

## Reducing food waste

Government will introduce legislation that bans the destruction of unsold food waste fit for human consumption and introduces an obligation for large supermarkets to establish partnerships with charitable organisations for food donation. It will establish an anti-food waste hierarchy by encouraging food prevention in the first instance, followed by donation to charities. Where such donation is not possible, unsold food will have to be composted. It will also introduce an obligation for specific actors to display their commitment on food waste.

# Littering

Littering reflects a lack of respect for the local environment. Tackling it can only be done in partnership between the Government, the public, businesses and volunteers. Government's aim is to reduce, with a view to eradicating, all single use plastics, litter and micro-plastic pollution and to create a culture where it is completely unacceptable to drop litter.

## Reducing litter & littering

Our aim is to clean up Gibraltar, reduce litter and dissuade littering behavior through better education, enforcement and improved bin-infrastructure; including the design, number and location of public bins. Our strategy will be to apply best practice in education, enforcement and infrastructure to deliver a substantial reduction in litter and littering behavior. We will send a clear and consistent anti-litter message, improve enforcement against offenders and support active clean ups around Gibraltar.

Government will make a compelling case for businesses of all kinds to invest in anti-litter activity exploring voluntary and regulatory measures that aim to increase recycling and reduce litter and work with stakeholders to look at innovative 'nudge' techniques' to tackle littering behaviour.

## Measures already implemented

- Banning of plastic bags and plastic cutlery.
- Banning sale of plastic bottles in the Upper Rock Nature Reserve.
- Encouraging use of reusable bags.
- Ban introduced on polystyrene disposable items in 2019.
- Stopping release of balloons on National Day.
- Ban of products containing microbeads.
- Increase of plastic bag charge from 5p to 10p.
- Providing free beach ashtrays.
- Marine litter surveys.
- Provision of recycling bins at all the beaches and city centre streets.
- Awareness raising on the harmful impacts of marine litter.
- Introduction of sea bins.



## Measures already implemented

- Number of litter bins has been consistently increased.
- Number of recycling bins has been increased.
- Introduction of litter wardens.
- Installation of timelapse cameras in key locations.
- Planning condition in building applications for the provision of recycling bins by private tenants.
- Provision of recycling bins and extra bins at major public events, such as music festivals.
- Introduction of DNA testing to tackle dog fouling.



Figure 21. Clean Up the World Day organized by the Environmental Safety Group

## Fly-tipping

Waste crimes can have a long-term impact on the natural environment and we aim to stop the illegal dumping of waste. Fly-tipping and poorly managed waste sites can lead to issues with fumes, dust, vermin and insect infestations. In order to reduce incidents of fly-tipping, waste facilities will be improved and a combination of additional CCTV and mobile time-lapse cameras will be deployed in hotspots around Gibraltar. Environment officers monitor areas during routine pro-active patrols in an effort to catch offenders as well as informing members of the public of the correct places in which to dispose of their waste. Frequent circulars and other means of informing the public will be used in areas where waste fly-tipping is occurring to inform residents of where to correctly dispose of their waste, as well as informing them of the potential repercussions of illegal dumping.

# Environmental Nuisances

## Dog Fouling

Dog mess is an emotive issue and one of the most unacceptable and offensive types of litter on our streets. Dog fouling – whether loose or bagged – is offensive, disgusting and a potential health hazard. It is a widespread problem in Gibraltar, largely created by a small number of thoughtless individuals.

Government has been conducting anti dog-fouling campaigns for a number of years now. The Environmental Agency as well as the Environment Protection Officers from the Department of the Environment conduct regular targeted “dog patrols”. During these patrols persons are stopped and the registration of their dog(s) confirmed. Fixed penalty notices are issued if the dog has not been registered or does not hold a valid licence.

The DNA testing programme allows identification of the dogs when they have been properly registered and microchipped. Samples collected by the Environmental Agency and fixed penalty notices issued to the offenders. Checks on whether dogs have been correctly registered are also regularly carried out. These patrols will continue.

The pervasive issue of dog urine is also being tackled with dog owners now being required to carry a bottle with water and detergent to clean up after their pets.

Moving forward, the number of dog licensing and dog DNA faeces checks will be increased substantially with additional officers tasked with these duties. An on-call number available to the general public will be introduced where members of the public can report dog fouling offences at all times.

In parallel, both the DESCCH and the Environmental Agency will expand on their environmental education programme in schools and beyond to raise awareness about the potential health impacts of dog fouling as well as the enforcement options in place.

The Government remains committed to the creation of dog parks to provide a safe area for dogs and their owners to enjoy and it is hoped that this holistic approach will result in short-term improvements.

## Noise & Vibration

Our aim is to prevent and reduce environmental noise where necessary and particularly where exposure levels may result in harmful effects on human health, and to conserve environmental noise quality in areas where this is already good.

Gibraltar has no statutory noise limit values. Government has, however, on recommendation from the Noise Core Steering Group, adopted 70dB(Lden) as an indicator to identify priority areas.

Priority areas will be subjected to a review of measures to, for instance, reduce road traffic noise. Government will require all new major roads to undergo a noise impact assessment as part of an EIA (Environmental Impact Assessment) to include possible mitigation measures such as the use of noise barriers and landscaping.

Government will legislate to ensure that noise from all activity, including industrial and entertainment, is kept to a reasonable level while not curtailing either unreasonably.



## Odour, dust & smoke

Our goal is to reduce the amount of dust and smoke in Gibraltar, as well as to tackle odour issues. We will achieve this by enforcing stricter controls to mitigate dust at construction sites (see sections on green construction and pollution). We will also employ the use of road sweepers which can deal with sand and dust more efficiently, without releasing particulate matter into atmosphere.

EA district officers are tasked with inspecting construction sites on a weekly basis, with individual files opened for large developments. Dust control is also incorporated as part of the Building Application process.

## Short Term

- Increase fixed penalties for littering and related offences.
- Increase the number of CCTV and roving time lapse cameras.
- Supporting clean up days.
- Produce new guidance on 'bin infrastructure' i.e. the design, number and location of public litter & recycling bins.
- Develop & deliver a recurring anti littering campaign.
- Raise awareness of fines for littering & fly tipping.
- Introduce new regulations to help enforcement officers tackle littering from vehicles.
- Create more dog parks.
- Reducing food waste.

## Medium Term

- Employing more litter wardens.
- Create an anti littering culture through education.
- Work closely with stakeholders to explore techniques to tackle littering.
- Inspire & engage local areas to take action against littering.
- Increase dog DNA patrols & surveillance.

## Long Term

- Work with relevant industries to tackle certain types of problematic litter, such as fast food packaging, glass and smoking related litter.
- Achieve zero disposable waste.
- Reduce carbon footprint of waste to zero by 2050.

## Summary

Pollution and waste have a significant impact on people's health & quality of life. Efforts to reduce air pollution will focus primarily on the transport sector – moving towards electric vehicles but also, critically, getting people out of their private vehicles altogether and walking, cycling and using public transport. This will result in greater improvements to public health and well-being as lower pollution levels are accompanied by increased levels of activity and engagement with others in the community. Government will seek to facilitate this transition through a mix of incentives and penalties in order to generate the biggest changes in the shortest amount of time.

In respect of waste, efforts will focus on greater education and awareness in order to create the cultural changes necessary to eliminate this long standing problem in Gibraltar. Again, measures will be both incentivizing – such as deposit return schemes and the provision of better facilities; and punitive – more regulations, increased fines and greater enforcement. The Environmental Agency will continue to work to reduce other environmental pollutants and nuisances such as noise, dog fouling and bad smells.

## Short Term

- Provision of shore side power at the Gibraltar Port.
- Requirement for all grounded aircraft to use ground source electricity.
- Introduction of a Low Emissions Zone in Main Street.
- Creation of an Air Quality Commission.
- No smoking and no idling outside schools.
- Expand & improve climate monitoring programme.
- End the sale of new conventional petrol & diesel vehicles.
- Increase grant provision for electric plug in vehicles.
- Implement a Park & Ride Scheme for visitors.
- Provide preferential parking for EVs in the city centre.
- Introduce a grant for the installation of home EV charging points.
- Introduce cycling incentives.
- Introduce tax weighted to vehicle carbon emissions.
- Government to purchase only electric (minimum hybrid) vehicles.
- Implementation of fast charging point network across Gibraltar.
- Taxis and PSVs to transition to electric.

## Medium Term

- Increasing the distance of bunkering operations from bathing areas.
- Smoking ban in children's parks.
- Introduction of a Clean Air Bill.
- Introduce point of use tax for HGVs that do not comply with Euro 6 standards.
- Implementation of fast charging point network across Gibraltar.
- Introduction of carbon tax for households with three or more registered vehicles.
- Development of Net Zero Building Standard.
- Active ventilation to be introduced in the Dudley Ward and Keightley Way Tunnels.
- Improve legislation to control emissions from ships.
- Introduction of scrappage scheme for old cars.
- Continuing to explore the feasibility of electric, hybrid, hydrogen fuel cell, or other low emission buses and the phasing out of aging buses.
- Gradually remove on street parking (to be replaced with multi storeys if need be) in the city centre to be replaced with pavements and/or cycle lanes.
- Explore options for the establishment of a Ride to Work Scheme.
- Allowing only zero emission cars and vans to circulate in Low and Zero Emissions Zones by 2030.

## Long Term

- Achieve zero avoidable waste.
- Work with relevant industries to tackle certain types of problematic litter, such as fast food packaging, glass and smoking related litter.
- Requirement for vapour recovery technology to be applied on all fuelling transactions from shipping as well as land based activities.
- Transition away from a fuel based economy.
- Only electric vehicles newly registered.
- Guaranteed parking space for every fully electric public service vehicle.
- 75% of all cars and LCVs in Gibraltar to be fully electric.

## Short Term (cont)

- Introduce waste reduction targets for construction industry.
- Tighten Dust Control regulations.
- Expand & improve climate monitoring programme.
- Introduce Considerate Contractor Scheme.
- Increase fixed penalties for littering and related offences.
- Increase the number of CCTV and roving time lapse cameras.
- Supporting clean up days.
- Produce new guidance on 'bin frastrucure' i.e. the design, number and location of public litter & recycling bins.
- Develop & deliver a recurring anti littering campaign.
- Raise awareness of fines for littering & fly tipping.

## Medium Term (cont)

- Promoting shared electric mobility.
- Construct a Materials Sorting Facility to maximise separation of waste and increase amount of recyclate recovered.
- Provide more litter wardens Work closely with stakeholders to explore techniques to tackle littering.
- Explore voluntary & regulatory measures that aim to increase recycling and reduce litter.
- Help create an anti littering culture through education.
- Create new dog parks.

## Long Term

# 5. Developing the Green Economy

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# 5. Developing the Green Economy



**A** green economy is defined as low carbon, resource efficient and socially inclusive (UNEP), supporting the triple bottom line (figure 22). It is one in which growth in income and employment are driven by public and private investment into economic activities, infrastructure and assets that allow reduced carbon emissions and pollution, enhanced energy and resource efficiency and prevent the loss of biodiversity and ecosystem services.



Figure. 22 The Triple Bottom Line

There is a growing appreciation of the social and environmental costs of our current economic model and the urgent need for change. Green investments need to be enabled and supported through targeted public expenditure, policy reforms and changes in taxation and regulation. This will create new economic opportunities, green jobs and increased access to sustainable services; which will in turn contribute to improving air quality, enhance our resilience to climate change and help maintain ecosystem services.

Government aims to lead in Gibraltar's transition to a low carbon, green economy and encourage businesses to follow suit. It will strengthen market demand for green products and services by providing long-term stable incentives; supported by a well-designed regulatory framework and demand-side policies.

## Sustainable Finance

Gibraltar already has a thriving finance centre but the re-allocation of tens of trillions of dollars towards green investment, as estimated by the International Energy Agency, offers a substantial commercial opportunity for the Gibraltar finance sector that has yet to be fully embraced.

Government welcomes the strides made by several players in the private sector who have demonstrated a strong commitment to sustainability and to finding better ways of working. From the bunkering industry to the accounting and finance sector, Gibraltar is well placed to respond to the changing regulatory landscape.

Government will develop a Sustainable Finance Strategy that seeks to deliver innovative products for the Gibraltar market such as sustainability accreditation, voluntary donations to climate action and a green instrument trading scheme. This will be supported by connections with industry associations such as the Finance Centres 4 Sustainability and training opportunities.

Government also recognises that consideration of the financial risks and opportunities of climate change is a financial and strategic imperative for all good business. The Strategy will therefore also introduce a framework for climate related financial reporting, based on the recommendations of the Task Force on Climate-related Financial Disclosures.

This work will serve to reposition Gibraltar as the destination of choice for those companies and industries seeking to enhance their own Environmental Social and Governance (ESG) performance.

### **Greening the market**

By providing incentives for resource productivity, sustainable renewable energy and conservation and ecological restoration, Government will help to drive the green market. This could take the shape of tax and subsidy reforms to reflect environmental costs and benefits, such as for example the planned taxes on more polluting vehicles and on additional cars per household. Incentives such as rates reduction for those demonstrating energy efficiency measures and tax allowances for the installation of solar systems and electric vehicle charging points are also important.

By providing long term targets for decarbonised and renewable energy, and a clear policy framework through the Climate Change Strategy, Government can provide certainty for investors looking to move into the renewable energy market.

Government will also work with the banking sector to explore possibilities for mobilizing private investment into clean technologies and infrastructure projects.

## Green Procurement

The procurement process and government spending generally are important tools in changing unsustainable consumption and production patterns. The public sector spends millions every year across departments, agencies and authorities. By introducing stronger environmental sustainability criteria for the purchase of public products and services, Government will increase the demand for environmentally friendly goods and services, thus expanding the market for these. Our policy is to create a culture of environmental awareness across the public sector through the introduction of sustainable procurement practices. This will be delivered by the strict enforcement of green procurement standards at a departmental level. The Office of the Chief Secretary will nominate an officer of an appropriately senior grade in every department to filter procurement requests before these are sent to the procurement office to ensure that the product or service being sought does not breach the Government's commitments under this Plan or the commitments entered into as a result of declaring the Climate Emergency. Each tender request must be accompanied by a signed statement from the nominated officer confirming that this is the case.

Public investment in sustainable renewable infrastructure and energy efficiency through renewables deployment, smart grids and energy efficient buildings as well as sustainable public transport will boost the economy and send a clear signal about Government's intentions.

## Green Leadership in the Community

Green leadership helps create sustainable, growth-orientated practices that contribute to long-term security and development for the entire community. Bold leadership from politicians, business and civil society is required to promote new, positive narratives about sustainability and the environment, emphasizing our dependence on nature and its links with economic security as well as our responsibility to future generations. It requires the creation of policies, systems, technologies and infrastructure that promote sustainable lifestyles and make it easier to make environmentally sound choices - smart meters, more efficient bus networks, more recycling services. Government action will therefore enable and be enabled by complementary action by citizens, businesses and civil society organisations.

### The Civil Service

Much of the existing legislation, for example on energy efficiency and energy performance of buildings, calls on the public sector to lead by example. The Civil Service is critical in delivering an ambitious programme for change. In order to do so credibly and effectively, it must embody the principles of sustainability that we are asking of the rest of society. As such, each department will nominate an environmental leader to assist in the delivery of Government's environmental objectives, within the context of their everyday work.

In addition the Department of the Environment, Sustainability, Climate Change and Heritage will assist the Civil Service in its work to build a more powerful and ambitious environmental movement across sectors.

## **The Business Community**

Business has a vital role to play in driving forward the green agenda. Government will continue to engage constructively with the business community, including the Gibraltar Chamber of Commerce and Federation of Small Businesses to overcome any challenges and fulfill the many opportunities that exist in developing a green economy. Government will ensure that online tools and support are appropriately signposted so that businesses are more easily able to understand the impacts of their business on the environment, and the impacts to their business from environmental changes. This will enable them to develop climate resilient business strategies.

## **Non-Governmental Organisations (NGOs)**

NGOs are instrumental in driving change. They can create and maintain pressure on governments to respond to environmental challenges and to deliver on promises and they can use their own, often voluntary resources, to influence public opinion and effect change. Government will continue to work closely with NGOs such as The Gibraltar Ornithological & Natural History Society (GONHS), the Environmental Safety Group (ESG) and the Nautilus Project, to ensure that commitments made in this Plan are fulfilled and that our environmental ambitions do not remain static but grow in response to changing circumstances. The newly created Gibraltar Sustainable Buildings Group will also provide critical advice and support to Government in its development of new policies for buildings and development.

## Short Term

- Nomination of Public Sector environment leaders.
- Developing a Sustainable Finance Strategy.
- Tightening up Government Green Procurement Guidelines to give appropriate consideration to climate change.
- Providing signposting and support for business to develop climate resilient business strategies.

## Medium Term

- Position Gibraltar as destination of choice for improved ESG.
- Improving the regulatory framework for green start up firms and new business models.
- Introduce climate related financial disclosures
- Set up a green finance task force to provide recommendations for the delivery of public and private investment required to meet environmental commitments.

## Long Term

- Transitioning away from a fuel based economy.

## Summary

Government will develop a comprehensive Sustainable Finance Strategy that seeks to capitalise on Gibraltar's strong finance sector credentials as well as the growing international movement towards green finance. It will also promote Gibraltar's green economy by helping to green the market through the provision of positive incentives and the removal of negative subsidies; greening government spending and decision making and providing strong and clear leadership on the environment and sustainability, promoting policies that support sustainable choices across society.

# 6. Ensuring Healthy Ecosystems

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# 6. Ensuring Healthy Ecosystems



**H**ealthy ecosystems clean our water, purify our air, maintain our soil, regulate the climate, recycle nutrients and provide us with food. They provide raw materials and resources for medicines and other purposes. They are at the foundation of all civilisation and sustain our economies.

“

*“In this world a species can only thrive when everything else around it thrives too”*

**David Attenborough, 2020**

Ecosystem degradation, human encroachment in ecosystems, loss of natural habitats and biodiversity are real threats to human health, wellbeing and prosperity. The benefits of restoring natural resources vastly outweigh the costs, and the cost of inaction is even higher.

Government has a duty to protect, and where necessary restore the structure and functioning of natural ecosystems, and stop and reverse the loss of biodiversity in our terrestrial and marine habitats. Providing the greatest opportunities for wildlife to flourish will also serve to promote the wider economic and social benefits that healthy habitats offer.

## Government aims:

**To protect & restore Gibraltar's biodiversity, both on land and at sea.**

**To increase green spaces & enhance habitats in the urban environment.**

**To raise awareness of the importance of biodiversity & foster a sense of responsibility towards our planet.**

The Environmental Governance Act sets two long term targets in respect of biodiversity, a land based target and a marine target.

The land habitat target requires that natural land habitats shall comprise at least 43% of Gibraltar's overall land mass by 31st December 2050.

The marine habitat target requires that natural marine habitats shall comprise at least 5.7km<sup>2</sup> of British Gibraltar Territorial Waters by 31st Dec 2050.

In addition to these, the Act also sets out a species abundance target for 2032 which requires that the overall species abundance index on 31st December 2030 shows that we have halted the decline in the abundance of species.

## Terrestrial Ecosystems & Biodiversity

### The Gibraltar Nature Reserve

The Gibraltar Nature Reserve, which includes the initial Upper Rock component designated in 1991, was last extended in 2019. Since 2013, an additional 2.44km<sup>2</sup> forms part of the Reserve. The total amount of terrestrial protected area under the Nature Protection Act 1991 now equates to approximately 37% of Gibraltar's total land area. This figure already exceeds the 30% protected area target by 2030 agreed in late 2022 as part of the Convention on Biological Diversity's (CBD) Kunming- Montreal Global Biodiversity Framework. Gibraltar is a signatory of the CBD under the United Kingdom.

Part of the Gibraltar Nature Reserve, namely the Upper Rock, Windmill Hill Flats and the Great Eastside Sand Slope was previously listed as both a Special Area of Conservation (SAC) and a Special Protection Area (SPA) under the EU Habitats and Wild Birds Directives respectively. This European or regional level of protection still exists given that the UK extended the Bern Convention on the Conservation of European Wildlife and Natural Habitats to Gibraltar. In doing so, our

terrestrial and marine SPAs and SACs were designated as European Emerald Sites. This is one of the highest levels of regional protection that can be afforded to a nature reserve.

Government is committed to ensuring that the status of all European and Gibraltar protected habitats and species achieve or maintain favourable conservation status allowing for natural change in line with the conservation objectives of the Gibraltar Nature Reserve Management Plan. This management plan will be updated at least every 4 years in order to adapt to emerging conservation issues affecting the range of habitats found in the reserve from caves and subterranean freshwater pools to inaccessible cliffs and garigue. New technologies will be embraced to meet this challenge.

Government will continue to support research by NGOs, such as the bird ringing programme run by GONHS, and academic institutions including the University of Gibraltar

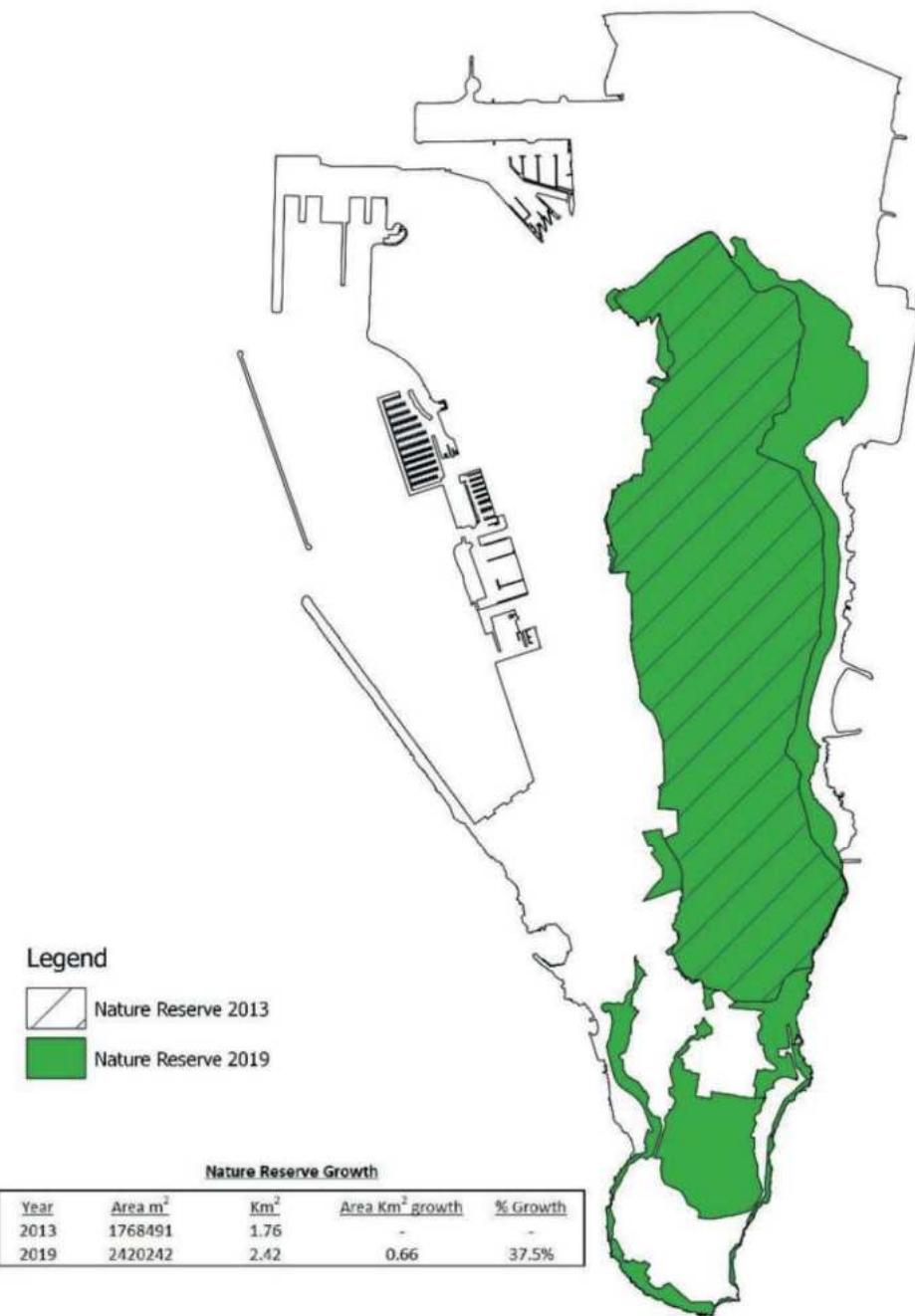


Figure 23. Recent growth of terrestrial protected area extent in Gibraltar.

Numerous conservation measures are already well established in the management of the Gibraltar Nature Reserve and these will all be expanded in the short-term by providing both more human and economic resources. Such measures include but are not limited to:

- Annual clearing of roadside vegetation and dense maquis in selected areas to minimize the risk of fire and increase biodiversity;
- Path maintenance;
- Yellow-legged Gull control programme;
- Alien and invasive species control programme;
- Maintenance and expansion of firebreaks;
- Habitats and species surveillance programme

Additional short-term measures implemented will also focus on improving the aesthetics of the nature reserve. Typical measures include increasing environmental information and awareness, increasing security and litter removal as well as restoring heritage assets. New pond habitats will also be created in suitable locations to increase the variety and quality of local habitats. In doing so, we will strive to improve the status of important species groups such as insects, birds, bats and plants.

## Barbary Macaques

Gibraltar's most well known and iconic species is the Barbary Macaque (*Macaca sylvanus*). Little is known about their origin, although they were possibly introduced to Gibraltar by the British. The story of how Winston Churchill intervened to save the macaques during the second world war, when their numbers had reduced considerably, is a well known chapter of British military folklore. The macaques are just as emblematic today as they were back then and perhaps more importantly, they are one of Gibraltar's major visitor attractions.

Although there has been a marked improved in the facilities and care provided to Gibraltar's Barbary Macaques, there is still room for improvement. We are therefore committed to reviewing existing management measures which will be elaborated in a revised Macaque Action Plan. This will be produced in close consultation with international experts and local non-governmental organisations including the Gibraltar Ornithological and Natural History Society and Monkey Talk Gibraltar.



## International organisations

The DESCCH, a member of IUCN the World Conservation Union, will continue to seek and foster participation and membership of international organisations.

Gibraltar over the past decade has made huge steps on improving the protection, restoration of the natural environment. Government will redouble its work on incorporating its protected areas into the **Intercontinental Biosphere Reserve of the Mediterranean**, taking its place alongside protected areas in Andalucia and Morocco.

It will also seek membership for the Gibraltar National Park of the **Global Alliance of National Parks**.

## Rewilding and species reintroductions

Rewilding is a progressive approach to nature conservation. It is based on trying to restore lost biodiversity to enable the natural repair of damaged ecosystems and degraded landscapes. Wildlife species previously established in Gibraltar have declined or disappeared – foxes, rabbits, partridges and lizards are just some examples of this. The Government has already begun a programme of species reintroduction, which we are committed to continue as we work to restore our natural environment.

### Wild Rabbit Re-Population Programme

Gibraltar's Wild Rabbit *Oryctolagus cuniculus algirus* population dropped to low numbers in the last few decades predominantly due to the prevalence of the Myxomatosis virus. In 2015, the DESCCH initiated a repopulation programme and released rabbits in Windmill Hill, the Upper Rock firebreaks and near Bruce's Farm. The Rabbits were sourced from an authorised breeder in Andalucia who also provides specimens to the Junta de Andalucia for their own repopulation programme. Before release, all animals are vaccinated against common diseases by the Gibraltar Veterinary Clinic. This programme continues in earnest with numerous breeding facilities setup in the Nature Reserve including a network of artificial rabbit warrens.



## **Barbary Partridge Re-population Programme**

As part of the Government's commitment to safeguard the population of the Barbary partridges in Gibraltar, the Department successfully imported over 270 birds from a specialised breeding facility in North Morocco in 2014. Scientists from the Department of the Environment worked closely with the Moroccan authorities following a series of meetings held in Rabat by Minister for the Environment, Prof. John Cortes, to facilitate their exportation.



Figure 24. Barbary Partridge at Tovey Cottage

Since then, the imported birds allowed for the successful re-population of the Barbary partridge in Gibraltar. A comprehensive surveillance monitoring programme spearheaded by the Department of the Environment and the GONHS monitors the programme's effectiveness. Purpose-built breeding and release facilities were constructed by the Gibraltar Nature Reserve Management Team and these facilities continue to be operational to date with additional improvements and new release sites programmed from 2024 onwards.

## **Red Fox Re-establishment**

Red foxes (*Vulpes vulpes*) have been progressively re-established in the Gibraltar Nature Reserve following their local extinction in the late 1970s/early 1980s. It is likely some have crossed naturally into Gibraltar across the isthmus, while reintroduced foxes have been vaccinated against common diseases by the Gibraltar Veterinary Clinic. Some animals have been fitted with a GPS / VHF collar and their movements monitored in combination with a network of discrete wildlife cameras installed throughout the Gibraltar Nature Reserve. These re-introductions, along with others planned in the coming years, can help increase Gibraltar's biodiversity and crucially, they help to restore the ecological balance that has been affected as a result of both natural and human-induced pressures.



Figure 25. Red fox foraging in the Gibraltar Nature Reserve - East side. Photo credit: Nicholas Ferry

## **Bonelli's Eagle**

In 2023, the GONHS rehabilitation team successfully bred and released two young Bonelli's Eagles from a secret location on the Upper Rock.

The Bonelli's Eagle is a medium sized eagle which nested in Gibraltar until the middle of the 20th Century, possibly being lost due to disturbance during World War II.

A captive pair of Bonelli's Eagle reared two young at the Bird of Prey Centre this spring. The young birds were transferred to the release site, a facility constructed by the Upper Rock Team, and their release was carefully monitored.

The plan is to repeat this process every year, with the hope that once the eagles have matured, they will return to the Rock and once again nest here in the wild as they did for centuries in the past.

### Other species re-introduction programmes and habitat restoration

The DESCCH, in consultation with the GONHS, and the Nature Conservancy Council will expand on an ambitious and improved rewilding programme in the next 5 years. Notable species that will form part of the enhanced rewilding programme include, but are not limited to Lesser Kestrel *Falco naumanni* (recently extinct as a nesting bird), Little Owl *Athene noctua* and the Ocellated Lizard (*Timon lepidus*). Reintroduction of the latter is currently the subject of a study led by the University of Gibraltar and funded by UK Darwin Funds.

Other species under consideration include the Andalucian Roe Deer (*Capreolus capreolus garganta*), Black wheatear (*Oenanthe locura*), Osprey (*Pandion haliaetus*), Eleonora's falcon (*Falco eleonorae*), White-tailed Sea Eagle (*Haliaeetus albicilla*) and the Spiny-footed lizard (*Acanthodactylus erythrurus*).



The programme to artificially propagate and re-populate the endemic Gibraltar Campion (*Silene tomentosa*) will be expanded with a new propagation facility created at Tovey Cottage Field Centre in addition to the Gibraltar Botanic Gardens. Other regionally important species will also be propagated and planted as part of a wider and ambitious habitat restoration programme within and outside the Gibraltar Nature Reserve.

### Education & Awareness

Education and awareness are critical elements in the fight to protect nature. People don't care about what they don't know or understand so creating connections with nature and helping people to understand its importance in their lives is a crucial first step in changing behaviours.

## **Tovey Cottage & Bruce's Farm Field Centres**

The DESCCH will continue to expand the capabilities of the highly popular Tovey Cottage Field Centre. Resources will also be allocated to improve the Bruce's Farm Field Centre and convert it into a modern facility capable of accommodating local and international researchers.



Figure 26. Tovey Cottage Field Centre

## **Gibraltar National Park and Trails**

Government is committed to realizing the full potential of the recently created Gibraltar National Park. The publication of the Gibraltar National Trails legislation is yet another step towards this and sets out to encourage walking and protect rights of way into the future.

The National Trails cover many of the popular routes for walkers and both well-known and less well-known paths within the Nature Reserve. The trails establish walking routes in and around Gibraltar. They include established walks such as Mediterranean Steps and Martin's Path on the Upper Rock. Less well known may be the coastal areas of Blackstrap Cove and Europa Advance Road on the east side as well as Devil's Tooth Path in the South District. These trails, amongst others, will be improved and where relevant opened to the general public in the short-term. This will help to encourage more people to connect with nature.

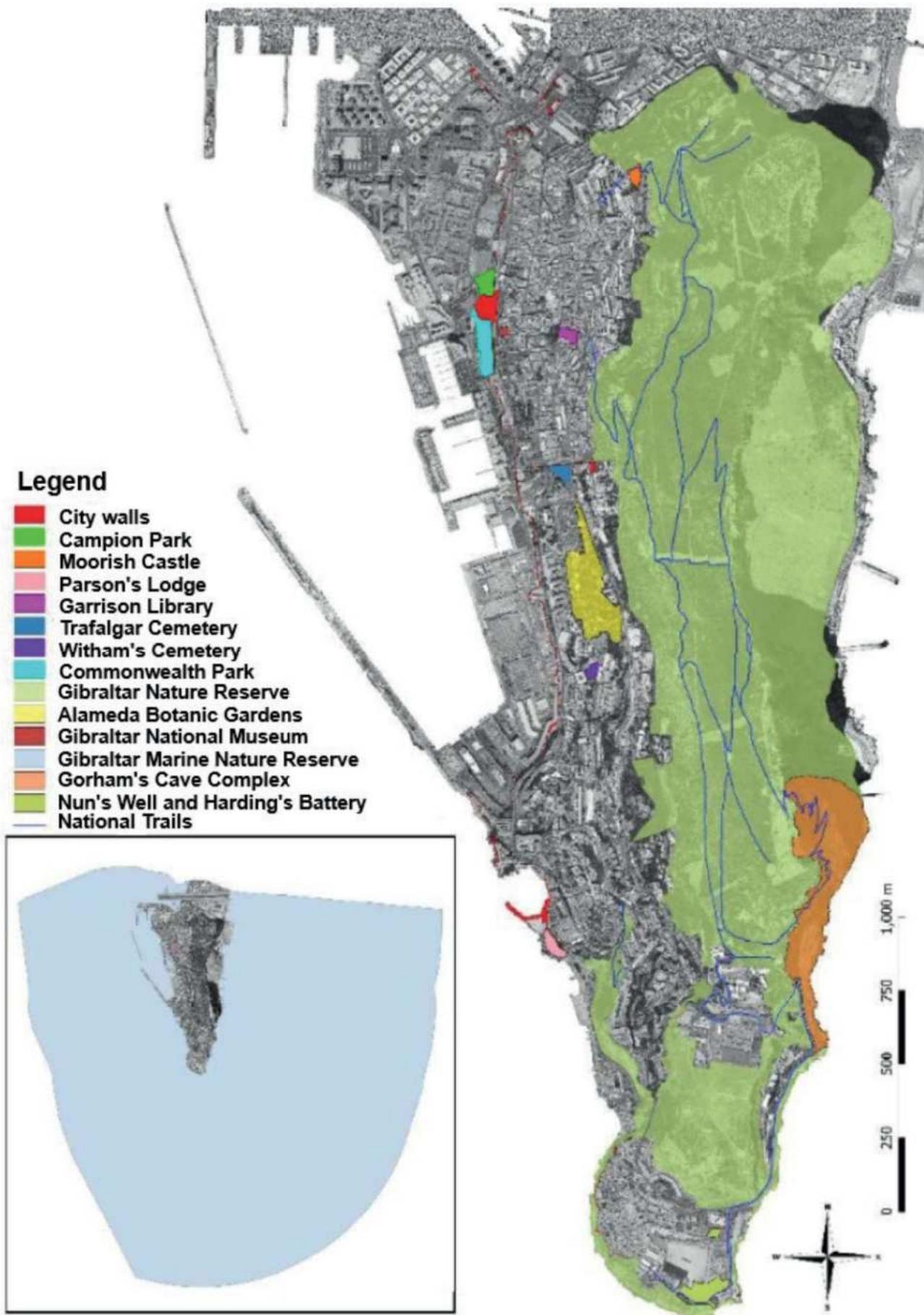


Figure 27. Gibraltar National Park

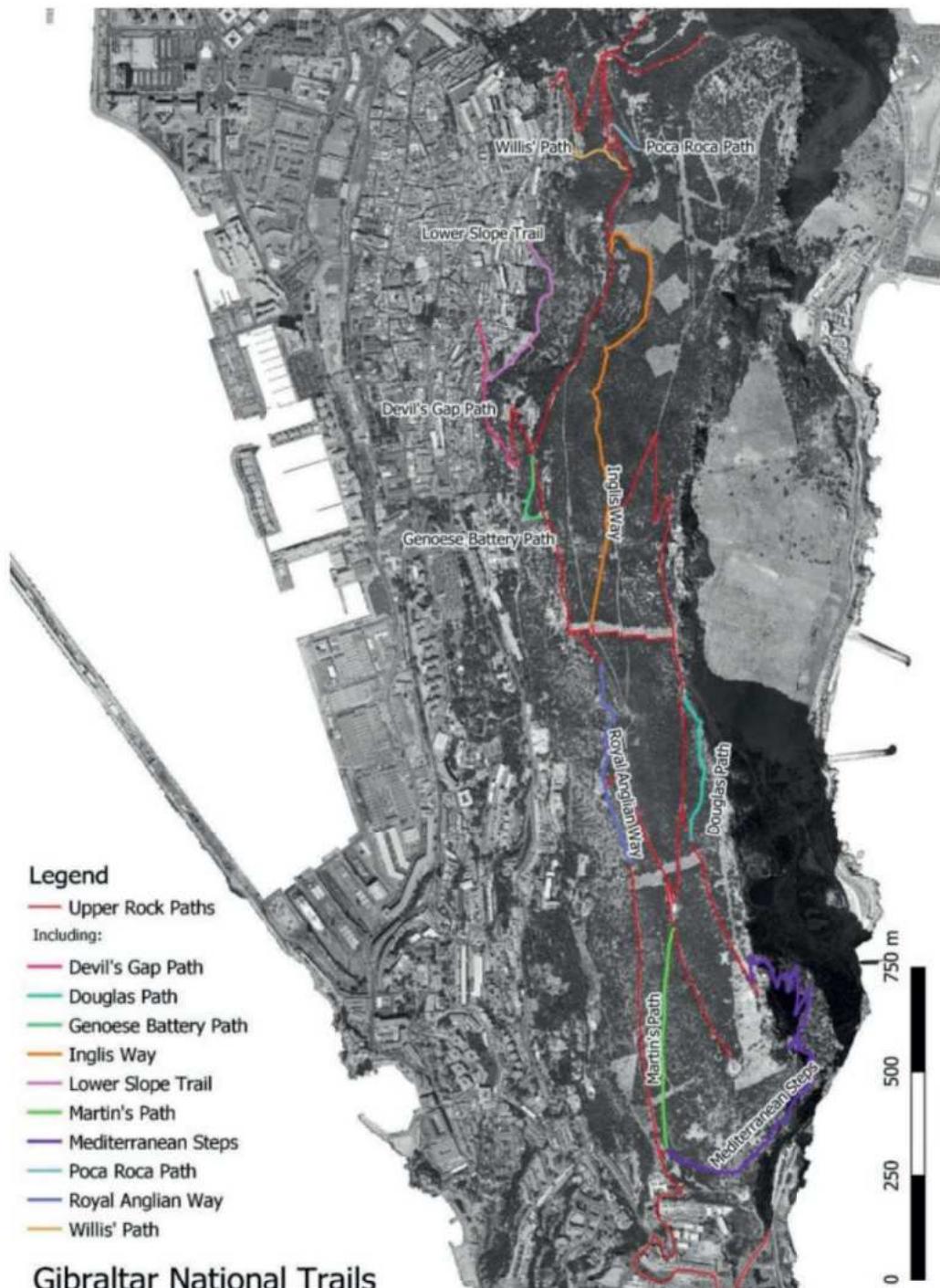


Figure 28. Gibraltar National Trails

### Wildlife Cameras: Bringing nature to your doorstep

Many people enjoy watching wildlife via webcams which often show powerful and fascinating moments in the natural world. Scientific studies continue to show that access to nature, even via a screen, can reduce stress and improve well-being. The DESCCH will expand its network of wildlife cameras on land and at sea to provide these windows into the natural world for the public to enjoy.

# Marine ecosystems & biodiversity

Our seas are an integral part of our history, economy and way of life. Oceans supply nearly half of the oxygen we breathe, absorb over a quarter of the carbon dioxide we produce, play a vital role in the water cycle and climate system as well as being critical for biodiversity and ecosystem services.

Gibraltar's Southern Waters were designated as a dual Special Area of Conservation (SAC) and Special Protected Area (SPA) when the UK and Gibraltar were part of the European Union. The Southern Waters of Gibraltar still retain their European level of protection and are now designated as an Emerald Site under the Bern Convention. The Southern Waters therefore continue to be recognized as an important marine area due to its rich diversity in species and habitats. Sea cliffs and caves, reefs and sandy marine habitats, all form part of the marine ecosystem found along the southern shores of Gibraltar which are also located on an important migration route for seabirds.

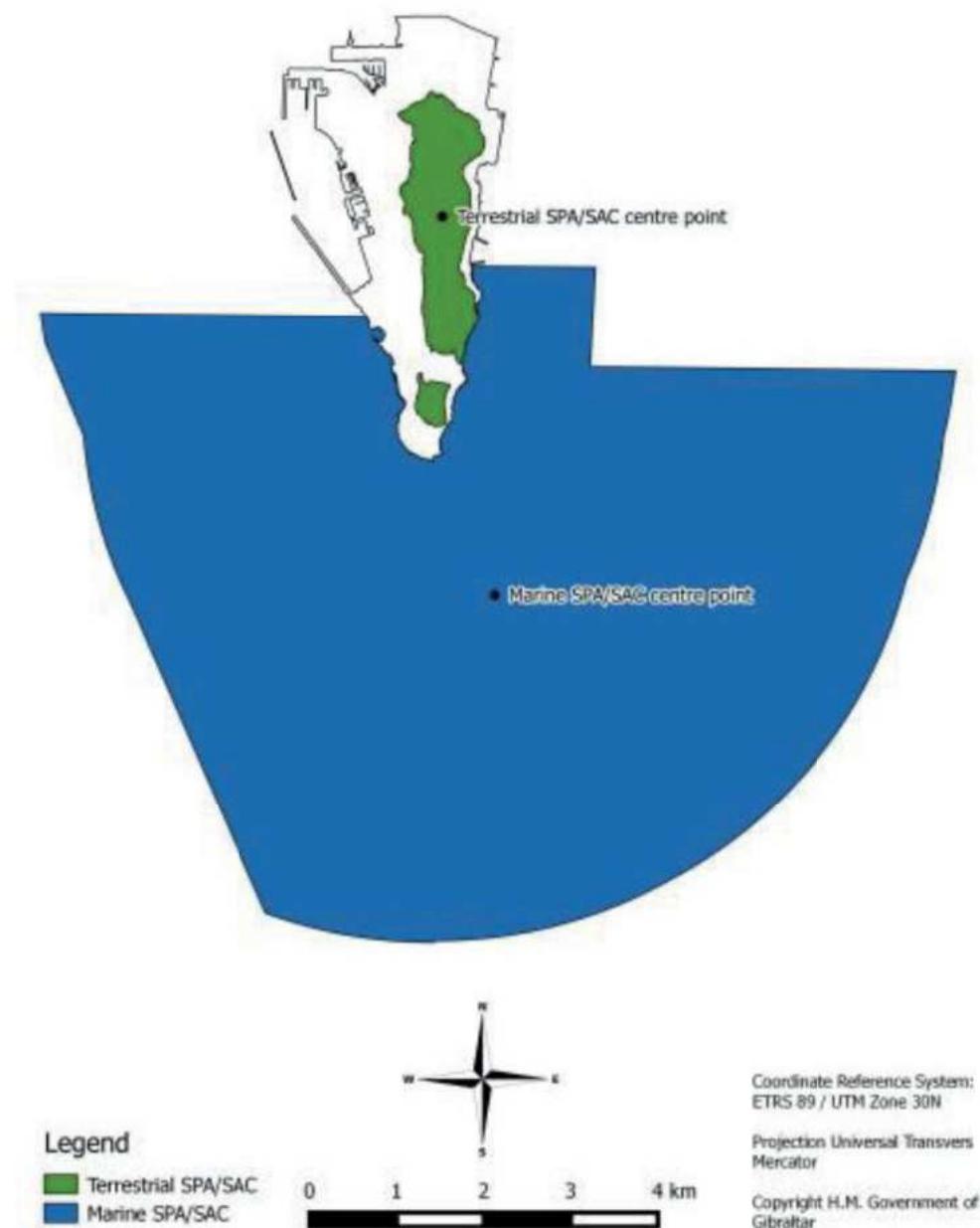


Figure 29. Gibraltar's Southern Waters SAC/SPA

## Measures already implemented

- Introduction of fishing licences.
- Introduction of a cetacean protocol.
- Species re introduction programmes
- Creation of wildlife monitoring programmes.
- Installation of nest boxes across Gibraltar for various species.
- Restoration of Upper Rock
- Nature trails.
- Publication of a Planning for Biodiversity, Urban Wildlife Conservation Guide.
- Restoration of the Europa Foreshore.
- Creation of a statutory
- Fishing Working Group.
- Signing up to the Clean Seas Campaign in 2018.
- Beach information signs & recycling facilities at all beaches.
- Creation of no anchoring zones.
- Designation of Marine Conservation Zones, including micro marine reserves.
- Designation of No Fishing Zones.
- Sea grass planting trials.
- Fishing restrictions, e.g. Octopus temporary fishing ban.
- Introduction of a Blue Fin Tuna Management System.
- Marine awareness campaign.

Specific conservation objectives have previously been set for reefs and submerged or partially submerged caves, as well as for species such as the bottlenose dolphin and loggerhead turtles, under the Southern Waters of Gibraltar SAC/SPA Conservation objectives and the [Gibraltar Marine Reserve Management Plan](#). These conservation objectives will be extended to other species and habitats within and outside the Southern Waters and these objectives will be reviewed every 4 years in line with the Gibraltar Marine Reserve Management Plan.

## Marine Conservation Zones

All of Gibraltar's territorial waters are protected as they form part of the Marine Nature Area set up under the [Nature Protection Act 1991](#).

Gibraltar has already established a number of Marine Conservation Zones (MCZs) within and outside the Southern Waters. Within some of these MCZs, no fishing zones or strictly protected areas have been created. These serve to reduce pressures on sensitive species and help increase the recovery of fish stocks when coupled with increased enforcement. As part of the ongoing review of the Gibraltar Marine Reserve Management Plan, additional no-take zones will be created.

The CBD is proposing that at least 30% of the world's land and seas should be protected in the next decade to prevent the destruction of the planet's biodiversity. Gibraltar has already exceeded this target at sea considering that over 60% of Gibraltar's territorial waters are protected. The next step is therefore to introduce stricter conditions for human activities within the Marine Protected Area. We will commit to designate at least 30% of British Gibraltar Territorial Waters (BGTW) as a highly protected and strictly enforced no-take zone.

## Monitoring and research

A revised **Marine Monitoring Programme** for BGTW was published in 2021 in keeping with the requirements of the Marine Strategy Framework Directive. The Monitoring Programme allows for the ongoing assessment of the environmental status of BGTW. It focuses on a wide range of strategies and programmes to monitor the following descriptors:

- Biodiversity [Descriptors 1 (biological diversity), 3 (fish and shellfish), 4 (food webs) and 6 (seafloor integrity)], subdivided into the following:
  - Species (seabirds, marine mammals, marine reptiles, fish and shellfish);
  - Habitats (pelagic and benthic habitats);
  - Ecosystems.
- Non-indigenous species (NIS) (Descriptor 2);
- Eutrophication (Descriptor 5);
- Hydrographical conditions (Descriptor 7);
- Contaminants (Descriptor 8 (Contaminants) and 9 (Contaminants in fish and other seafood for human consumption));
- Litter (Descriptor 10);
- Underwater Noise (Descriptor 11).

Increased resources and funding will be provided to ensure that the abovementioned Descriptors, amongst other research areas of interest, will be adequately monitored and assessed. The Monitoring Programme will be reviewed every four years and updated accordingly especially in keeping with any requirements under the Barcelona Convention for the Protection of the Mediterranean Sea and Protocols therein.

## Marine species reintroduction and habitat restoration programme

A number of important species were known to previously exist in BGTW. These included Oysters and Seagrass; the latter species are a tremendously important source of food, oxygen and habitat as well as an excellent carbon sink.

Seagrasses were known to be present particularly in the northern section of the Bay of Gibraltar. Their presence diminished over the years and this likely happened due to the impact of human pressures such as water pollution and coastal development. With regards Oysters, local census records show that 'Oystercatchers' were listed as an active trade during the 1800s and proof of their presence is also evident in old walls built in Gibraltar, which contain oyster shells. Although some small-scale attempts have been made since 2014 to reintroduce these species in BGTW, a much larger and longer-term programme will be implemented with the assistance of leading research

institutions and NGOs. The programme will have much wider objectives to restore marine habitats showing signs of degradation. Efforts will also focus on 'greening the grey' in order to improve the biodiversity gain of existing artificial coastal structures found in our coastline.

## Artificial Reefs

In 1975, the precursor of the Helping Hand Trust initiated Gibraltar's Artificial Reef Programme, later continued by GONHS. To date, over 30 vessels have been intentionally sunk for the creation of artificial reefs which have been strategically placed around our coastline. The most recent of these was the Sun Swale, a decommissioned tugboat of approximately 30m in length, which was sunk in 2015. The Government is committed to continue with the Artificial Reef Programme using suitable vessel or materials.

## Marine litter

Latest estimates indicate that globally around 12 million tonnes of plastics enter the sea each year. Government is committed to tackling marine pollution by pursuing a holistic approach that prioritises reducing our reliance on plastics, encourages recycling and promotes practices that prevent harmful materials entering the sea in the first place. Improved waste management on land, such as the construction of a modern Waste Management Facility, will also help prevent waste reaching the sea. To this end, we will introduce additional measures which include but are not limited to:

- Increased cleaning frequency of our coastal areas;
- Examining policy options and implementing practical measures to reduce the unintentional release of litter, including plastic and micro-plastics, into the marine environment;
- Increased enforcement in relation to single-use plastic items and other sources of marine litter.

## Commercial Fishing

Commercial fishing including fishing with any type of net, rakes and pots, as well as other methods set out in the Nature Protection Act, are prohibited within all of Gibraltar's waters. This has been the case since 1991, in order to promote the restoration of marine life and increase biodiversity. While there are infractions of these laws by vessels from outside Gibraltar, there has been an increase in the occurrence and number of species that rely on marine life, such as Great Cormorants, Little Egrets, Grey Herons and Otters, while the small resident population of Mediterranean Shags has increased.

We will continue to protect marine life in this way and work towards the acceptance of our marine protection laws in a regional context.

## Bluefin tuna & ICCAT

Both the Marine Protection Regulations 2014 and the Tuna Preservation Regulations 2014 form the backbone of Gibraltar's regulatory framework to protect Bluefin tuna in BGTW. Moving forward, we will continue to improve on the existing regulations in place for Bluefin tuna and extend this to other relevant tuna species found in BGTW. We will also reiterate our strong desire to continue co-operating and engaging with the International Commission for the Conservation of Atlantic Tunas (ICCAT) with the aim extending ICCAT to Gibraltar.

## Wastewater Treatment Plant

The development of a new sewage treatment, which is expected to begin construction by 2026, will result in raw sewage no longer being released directly into the marine environment. Progress has been complex because of the need to develop a technology using bacteria that are able to survive in the salt water used to flush Gibraltar's toilets and cope with changes in salinity following rainfall. The plant will be located at the Brewery Crusher site near Europa Point. The design of the facility will be sensitively done and will blend into the environment of the surrounding area. This will be a significant milestone in reducing marine pollution and harm to marine life.

## Coastal Water Protection

We will work to ensure Good Environmental Status is achieved and maintained throughout Gibraltar's Coastal waters. Good Environmental Status is a combination of good chemical and ecological status. This will be achieved by:

- Controlling and licensing any necessary discharges into the marine environment;
- Controlling and licensing any necessary abstractions from the marine environment;
- Progressively minimizing and preventing the contamination of the marine environment from urban sources such as combined sewer and storm overflows;
- Ensuring that all those who have a role to play take action to improve water quality, by for example, improving surface water drainage and land management infrastructure, maintenance of sewage systems to a high standard, etc;
- Controlling all marine activities to ensure these do not harm the marine environment (for instance monitoring, prevention and contingencies for bunkering operations through the Gibraltar Port Authority).

Gibraltar will work to improve its oil spill response, learning from our experience in recent years. In the long term, the shipping industry will move towards cleaner and greener fuels which will reduce the incidence of such accidents.

## Groundwater protection

Our goal is to ensure that Good Environmental Status is also achieved in Gibraltar's groundwater aquifers. Good Environmental Status is a combination of quantitative and qualitative (chemical) status as outlined in Gibraltar's River Basin Management Plans published in line with the EU's Water Framework Directive. This will be achieved by:

- Continued sampling of groundwater from Gibraltar's two aquifers;
- Controlling and licensing of any required groundwater abstractions;
- Limiting groundwater abstractions;
- Ensuring there is no deterioration in groundwater quality as a result of urban development.

## Gibraltar's Bathing Waters

The public must be confident that the water they are bathing in is clean. Our aim is to safeguard and further improve water quality in bathing areas across Gibraltar. This will be achieved by:

- Continued sampling of water in all bathing areas above established requirement under the EU;
- Continuing the development of forecasting and warning systems so that bathers are warned of possible short-term pollution problems;
- Construction of a waste treatment plant to ensure no sewage is discharged into the marine environment;
- Prevention and minimisation of waste and litter entering the marine environment through beaches and other coastal areas;
- Working towards all of Gibraltar's beaches attaining Blue Flag Status.

Identified Bathing Water	2019	2020	2021	2022	2023
<b>Eastern Beach</b>	Excellent	Excellent	Excellent	<b>2022</b>	<b>2023</b>
<b>Catalan Bay</b>	Excellent	Excellent	Excellent	Excellent	Excellent
<b>Sandy Bay</b>	Excellent	Excellent	Excellent	Excellent	Excellent
<b>Little Bay</b>	Excellent	Excellent	Excellent	Excellent	Excellent
<b>Camp Bay</b>	Excellent	Excellent	Excellent	Excellent	Excellent
<b>Western Beach</b>	Sufficient	Good	Good	Excellent	Excellent

Figure 30. Chart showing Gibraltar beaches bathing water classification from 2019 to 2022

## Short Term

- Update and publish revised Nature Protection Act to ensure compliance with Bern Convention.
- Continued implementation of existing Management Plans.
- Promotion of the Gibraltar National Park
- Monitoring of existing reintroduction programmes with further intervention if necessary.
- Further development of Citizen Science projects.
- Promoting beach clean up activities.
- Building on our micro beads ban by exploring whether we can ban other problematic materials.
- Creation of further artificial reefs.
- Wastewater Treatment Plant.

## Medium Term

- Improve monitoring and surveillance programmes through the use of remote sensors and autonomous vehicles.
- Create new habitats and restore degraded habitats to support and help wildlife thrive.
- Consider reintroduction of Black Wheatear and other former resident species.
- Increase the number and area of green roofs and green walls.

## Long Term

- Consider introduction of Roe Deer.
- Work towards inclusion of Gibraltar protected areas in the Intercontinental Biosphere Reserve.
- Extension of Barcelona Convention to Gibraltar.
- Create wildlife nurseries.
- Increase the extent of protected terrestrial and marine areas, including the designation of micro protected area networks.

## Summary

Government will focus on restoring and protecting the natural biodiversity on our land and in our waters through conservation measures, rewilding and restoration programmes and ongoing surveillance and monitoring. The Berne Convention on the Conservation of European Wildlife and Natural Habitats and the Convention on Biodiversity will initially form the backbone of Gibraltar's work in this respect and we will also endeavor to extend the application of other relevant regional Multi-lateral Environmental Agreements (MEAs) such as the Barcelona Convention for the Protection of the Mediterranean Sea and subsequent Protocols therein, while monitoring changes in EU environmental legislation to ensure that Gibraltar does not fall behind the EU in environmental governance.

The Barcelona Convention provides a high-level legal framework for the protection of the Mediterranean. Although Gibraltar is not yet formally a signatory of the Barcelona Convention, Government will step up measures to ensure that Gibraltar becomes a Contracting Party, through the UK. Notwithstanding, efforts are being made to increase involvement, cooperation and alignment with policies and methodologies identified at a regional level. The extension of the Barcelona Convention to BGTW will further assist in harmonising monitoring and assessment methods employed as part of the Monitoring Programme for BGTW moving forward.

Existing marine programmes will be expanded and new measures introduced, working with citizens, NGOs and the University to develop a deeper understanding of our natural world and how we can best protect it. On land, efforts will focus on rewilding and restoration projects within and outside the Gibraltar Nature Reserve as well as ongoing management of invasive species and measures to control human interference with nature. Key measures in the marine environment will be the construction of a wastewater treatment plant, the expansion of Gibraltar's strictly protected network of no-take zones, increased enforcement and an ambitious marine restoration programme.

# Implementing the Strategy

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# Implementing the Strategy

The 25 Year Plan is an ambitious one and will require commitment and determination from all players for it to succeed.

We will:



## Consultation

Our goal is for this plan to resonate with everyone - the public, charities and businesses - and to work closely with stakeholders to identify how they can contribute to the goals set out herein. Government will continue to engage with the private sector through the Gibraltar Chamber of Commerce, the Federation of Small Businesses and other groups to advance sustainable practices and to support and encourage businesses to become green.

Government will support and be informed by research carried out by NGOs, the University of Gibraltar and other Universities. Government will also continue to engage with NGOs in advocacy on environmental matters as this has been, and will continue to be, instrumental in securing lasting change.

Transparency and accountability are key features of successful reform and will be built in to our environmental plan.

## Interim targets and progress accountability

We will report on progress annually to ensure that our actions continue to target the right improvements and make a real difference. A new monitoring and evaluation framework will be developed to enable effective measurements of progress towards the Plan's aims. This will include annual progress checks, periodic comprehensive assessments, policy evaluations, international comparisons and ongoing publication of data and statistics.

Government proposes to measure both actions that it takes (performance measures) and long term progress towards its goals (outcome or performance indicators). This is intended to enable it to check progress biennially within a longer term context, looking across all the goals of the 25 Year Plan.

An objective measure of how well we are performing is a critical part of the plan's implementation. The key performance indicators will be regularly reviewed and expanded in keeping with the principle of continuous improvement and whilst not every goal or target is easily quantifiable e.g. goals that relate to greater awareness or behavioural change, the indicators will provide a reference point for overall progress.

## Updating and adapting the Plan

The 25 Year Plan is a live document which will be formally reviewed every 5 years. The Plan will be adopted by all Government Departments, Agencies and Authorities and Government contractors will be strongly encouraged to do so too. The Department of the Environment, Sustainability, Heritage and Climate Change (DESHCC) will act as "owner" of the Plan on behalf of Government and will lead with its adoption and implementation as necessary. The Plan, however, is wide ranging in its aims and objectives and will require close co-operation across Government to ensure effective implementation. As such a 25 Year Plan Working Group will be set up with representatives from all key departments (particularly those involved with measuring and providing relevant metrics).

As with any plan, there is always room for improvement and modification and Government welcomes initiatives from all sectors which aid in enhancing and protecting our environment.

## Ensuring independent oversight and accountability

Government will consider setting up an independent Environmental Audit Committee. Subject to consultation, the new body would specifically be responsible for:

- providing independent scrutiny and advice on existing and future environmental law and policy;
- responding to complaints about government's delivery of environmental law; and
- holding government to account publicly over its delivery of environmental law and exercising enforcement powers where necessary.

Gibraltar's existing mechanisms of judicial review and parliamentary scrutiny are not yet ready to plug the gaps left by the removal of EU law. Crucially, we need to ensure future governments will be held to account for the protection of the environment after exit.

An independent body to "tend" environmental governance, with members from outside Gibraltar, with recognised international environmental standing, could begin to replicate the diffusion of authority and resourcing lost with the exit from the European Union. A common (again imperfect) way of enhancing the independence of ombudsman-type bodies is to make them responsible to Parliament.

Crucially, it would need to report publicly – and to Parliament – on the Government's own planning and reporting on environmental compliance, with the necessary powers for it to be effective.

We must also ensure that developing environmental standards and policy after Brexit remains a priority. With accountability in mind, new environmental rules will be assessed against a clear set of statutory criteria. Those criteria should include at least: the involvement of a diverse range of interests, from industry to environmental groups, in the creation of new standards; consideration of the latest scientific evidence and of international and EU standards; the incorporation of environmental principles such as the precautionary principle; and clear reporting on how new standards and policies are being developed and implemented. There are countries that guarantee commitment to the future health of the Environment by having this enshrined in their Constitution. Government will at the earliest possible moment request that HM Government amend the Gibraltar Constitution Order, which is enshrined in a UK Act of Parliament, to include such a provision.

## Environmental Audit Committee

HMGoG will consult on the creation of a new, independent statutory body that will hold Government to account for upholding environmental standards in Gibraltar; and to consult on the scope and content of new policies to ensure environmental principles underpin policy making.

## Environment fund

As with any plan, Government recognises that carrying out the actions and programmes within it has financial implications. All Government departments should identify measures within the plan which are relevant to them and estimate the associated costs with implementing these. These costs should then be included in their annual budget estimates. In addition to this, however, the first task of the Working Group will be to identify the costs associated with those measures to be taken in the first 5 years and a dedicated budget will be allocated to their implementation and delivery. This budget will be reviewed annually.

Furthermore, Government will set up a Green Finance Taskforce in order to explore ways of mobilising more private capital into sustainable projects in technology and infrastructure.

## Environmental Data Repository (EDR)

Government will be responsible for the creation of an Environmental Data Repository (EDR), as part of its Environmental Governance Framework and environmental accountability. This data, which will encompass statistics on air quality, water quality and other environmental indicators will be published yearly.

# Introduction

The 25 Year Plan commits HM Government of Gibraltar to a series of goals and targets: both long and short term, with a view to protecting and enhancing our environment.



Our policies will focus on the 6 environmental themes and encompass all areas of environmental management, from ensuring clean air and water and a thriving natural environment, to creating a smart and sustainable city.



Measuring progress against these requires the development of a monitoring and evaluation framework with key performance indicators (KPIs) that can provide an objective measure of how well we are performing. The indicators will be regularly reviewed and expanded in keeping with the principle of continuous improvement.

Not every goal or target is easily quantifiable e.g. goals that relate to greater awareness or behavioural change, however, the key performance indicators will provide a reference point for overall progress in the context of our wider goals and objectives.

# Environmental Governance

	Establish a Select Committee on the Environment & Climate Change.
	Provide recycling facilities at all new schools and improve facilities at existing schools.
	Manage school grounds in accordance with the principles of ecologically sustainable development.
	Ensure that all new schools are fitted with the latest technologies to enhance their environmental performance and reduce energy consumption.
	Empower students and staff to decrease their energy consumption by providing access to school energy bills.
	Ensure that new school plans maximise the use of passive design techniques to minimize energy use, such as natural ventilation and daylighting.
	Encourage the allocation of green spaces in schools for gardening groups or other project based learning activities.
	Ensure that all new schools are equipped with drinking water fountains.
	All teachers to undertake carbon literacy training as part of their inset programme.
	Continue to work and co-operate with the UK Overseas Territories on environmental matters.
Green	Establish an Environment Tribunal.
	Create a range of environmental resources and educational materials that can be loaned or used across schools to support environmental education.
	Include Climate Change as part of the curriculum.
Green	Establish activities and classroom projects that touch upon environmental issues across all topics of the school curriculum.
	Coordinate environmental events, days and projects that complement learning in the curriculum and involve students and staff.
	Provide teachers with opportunities to attend lectures & workshops that enhance knowledge on environmental issues & broaden teaching skills for the delivery of these.
Blue	Establish a working partnership with Morocco.
	Identify opportunities to increase students' understanding of contemporary environmental issues such as climate change and species extinction.
	Coordinate field trips with schools to cultivate their understanding of local issues and their effect on a global scale.
Blue	Introduce students to environment-related career opportunities and support students as they pursue those pathways.

# Health & Sustainable Cities

	Create new parks in the North and South districts.
	Produce and publish a new Gibraltar Development Plan.
	Establish legal mechanism for the inclusion of Biodiversity Net Gain (BNG) and develop a BNG tool.
	Define Net Zero Energy Buildings and associated guidelines.
	Introduce BREEAM requirements for new development.
	Create legal requirement for all new builds to maximise roof space for BNG.
	Increase tree planting in urban areas.
	Create legal requirement for minimum amount of renewable energy to be produced onsite.
	Create legal requirement for all new development to provide a minimum of 10% of footprint as a green area or 25% of façade as green wall.
	Smart meter roll out to all new households.
	Active participation in mental health awareness days
	Raise awareness of the health benefits of connecting with nature.
	Access to green space to be considered a core part of care planning and care assessment.
	Creation of new parks along Queensway.
	Walk the Wall Project.
	Ensure that projects on MOD land are subject to planning process.
	All new builds to have hot water air source heat pumps.
	Roll out of smart meters to existing households.
	Provision of financial assistance for energy efficient renovation in the private sector.
	Require whole lifecycle assessment of existing buildings before determining whether they can be demolished.
	Designing for mental well being to be a core consideration in architectural design and town planning.
	Increase the creation of green spaces, including vertical spaces such as vertical forests, living walls and city trees.
	Develop a directory of "green" intervention options for GPs.
	Work with healthcare professionals to introduce activities/programmes that improve well-being through being outdoors.
	Retrospectively, where possible, green up existing large concrete structures to reduce temperature, absorb carbon and create a greener environment overall.

	Roll out of smart meters to commercial premises.
	Rates relief for any commercial building introducing solar energy generation that achieves a reduction of 20% or more of ongoing power requirements.
	Explore novel methods of encouraging wildlife such as recycled floating parks.

# Combating Climate Change

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	Create a Climate Change Advisory Committee.
	Produce 20% of electricity from renewables.
	Provide information to the public on the Feed In Agreement.
	Increase grant provision for electric vehicles and phase out ICE.
	Ban importation of used vehicles more than 5 years old and all petrol and diesel mopeds.
	Legislate for the provision of more EV charging facilities.
	Create legal requirement for minimum amount of renewable energy to be produced onsite.
	Smart meter roll out to all new households.
	25% modal shift from cars and motorbikes to walking/cycling.
	Introduction of Net Zero Energy Building requirements
	50% of electricity from renewables.
	50% modal shift from cars and motorbikes to walking/cycling.
	Roll out of smart meters to existing households.
	Increase the creation of green spaces, including vertical spaces such as vertical forests, living walls and city trees.
	Establish cable link to Morocco.
	Establish seagrass meadows.
	Engage with high energy users to formulate sector specific plans.
	70% of electricity from renewables.
	70% modal shift from cars and motorbikes to walking/cycling.
	Roll out of smart meters to commercial premises.
	Rates relief for any commercial building introducing solar energy generation that achieves a reduction of 20% or more of ongoing power requirements.
	Shift away from a fuel based economy.
	Become carbon neutral.

# Reducing Pollution & Waste

	Provision of shore-side power at the Gibraltar Port and the Extension Jetty.
	Requirement for all grounded aircraft to use ground source electricity.
	Reduction of emissions from traffic.
	Introduction of Low Emissions Zone in Main Street.
	Creation of an Air Quality Commission.
	No smoking & no idling outside schools.
	Expand and improve climate monitoring programme.
	End the sale of new conventional petrol & diesel vehicles.
	Increase grant provision for electric and plug in vehicles.
	Implement a Park & Ride Scheme for visitors.
	Provide preferential parking for EVs in the city centre.
	Introduce a grant for the installation of home EV charging points.
	Introduce cycling incentives to improve the bike share scheme.
	Introduce tax weighted to vehicle carbon emissions.
	Ban the importation of used passenger cars and LCVs over 5 years old.
	Government to purchase only electric (minimum hybrid) vehicles.
	Implementation of fast charging point network across Gibraltar.
	Taxis and PSVs to transition to electric.
	Introduce new regulations to help enforcement officers tackling littering from vehicles.
	Establish a deposit and return scheme.
	Legislate to make recycling a requirement for commercial entities.
	Introduce smaller recycling bins in pedestrian areas for recycling "on the go".
	Ban single use cutlery, cotton buds, straws and stirrers.
	Achieve 50% recycling rate.
	Ban use of bottled water across Government.
	Conduct regular recycling and anti-littering campaigns.
	Increase fixed penalties for littering and related offences
	Produce new guidance on 'bin-frastructure' (i.e. the design, number and location of public litter and recycling bins.)

	Continue to target litter hot spots
	Help create an anti-littering culture through education
	Set up a reporting hotline for fly tipping and waste dumping.
	Reducing food waste
	Increasing the distance of bunkering operations from bathing areas.
	Smoking ban in children's parks.
	Introduction of Clean Air Bill.
	Air quality tests when public building is complete and before sign off.
	Testing once building is occupied.
	Introduce segregated bicycle lanes.
	Introduction of carbon tax for households with 2 or more registered vehicles.
	No fully fuelled petrol vehicles allowed to register.
	Taxis fully switch to electric.
	Introduction of scrappage scheme for old cars.
	Continue to explore the feasibility of electric, hybrid, hydrogen fuel cell or other low emission buses and the phasing out of aging diesel buses.
	Gradually remove on -street parking (to be replaced with multi-storeys if need be) in the city centre to be replaced with pavements and/or cycle lanes.
	Construct a Materials Sorting Facility to maximise separation of waste and increase amount of recyclate recovered.
	Employ more litter wardens.
	Work with relevant industries to tackle specific types of problematic litter, such as fast food packaging, glass and smoking related litter.
	Explore voluntary and regulatory measures that aim to increase recycling and reduce litter.
	Create new dog parks.
	Requirement for recovery technology to be applied on all fuelling transactions from shipping as well as land based activities.
	Shift away from fuel based economy.
	Only electric vehicles newly registered.
	Guaranteed parking space for every fully electric PSV.
	75% of all cars and LCVs in Gibraltar to be fully electric.
	Develop sustainable travel plans with local businesses and schools to enable people to understand how their own travel patters can contribute towards achieving a more sustainable, cleaner and attractive environment.
	Work with relevant industries to tackle certain types of problematic litter, such as fast food packaging, glass and smoking related litter
	Achieve zero avoidable waste.

# Developing the Green Economy

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	Nominate Public Sector environment leaders
	Set up the Green Gibraltar Partnership
	Develop international credibility for Gibraltar as a jurisdiction in environmental trading of tokens.
	Development of Green Grants
	Improve the regulatory framework for green start-up firms and new business models.
	Set up green finance taskforce to provide recommendations for the delivery of public and private investment required to meet environmental commitments.
	Move away from a fuel-based economy.

# Ensuring Health Ecosystems

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	Update and publish revised Nature Protection Act to ensure compliance with Berne Convention.
	Continued implementation of existing Management Plans.
	Creation of Gibraltar National Park.
	Monitoring of existing reintroduction programmes with further intervention if necessary.
	Further development of Citizen Science projects.
	Promoting beach clean up activities.
	Building on our micro-beads ban by exploring whether we can ban other problematic materials.
	Creation of further artificial reefs
	Wastewater Treatment Plant.
	Create an interpretation centre at Tovey Cottage.
	Improve monitoring and surveillance programmes through the use of remote sensors and autonomous vehicles.
	Create new habitats and restore degraded habitats to support and help wildlife thrive.

	Consider reintroduction of Black Wheatear (?).
	Publish the Gibraltar Biodiversity Encyclopedia.
	Increase the number and area of green roofs and green walls.
	Consider reintroduction of Roe Deer.
	Extension of Barcelona Convention to Gibraltar.
	Create wildlife nurseries.
	Increase the extent of protected terrestrial and marine areas, including the designation of micro-protected area networks.



## Department of the Environment, Sustainability, Climate Change and Heritage

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HM Government of Gibraltar



# 25 YEAR PLAN



Department of the Environment,  
Sustainability, Climate Change  
and Heritage

HM Government of Gibraltar