



St Helena  
GOVERNMENT

**DRAFT:**

# A Climate Change Policy for St Helena

Our Island. Our Environment. Our Responsibility.

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# |Foreword

(To be written by the Chairperson, Environment and Natural Resources Committee)

Draft

# |Introduction

St Helena is distinctive for its unique and isolated position in the South Atlantic. It has many characteristic environmental features but a limited supply of natural resources, leaving it more vulnerable to climate change than larger countries. St Helena Government (SHG) acknowledge the need to create a climate change policy with a view to planning for short, medium and long term environmental changes that are likely to impact on the quality of Saints lives if left unmanaged.

The key driver for anticipated external environmental alteration is climate change. Globally it continues to be a major scientific issue and challenge for national governments. The latest review of the evidence by the Intergovernmental Panel on Climate Change (its fifth assessment report issued in 2013), holds some hope for reducing greenhouse gas emissions and promoting resilience in light of increasing impacts and risks to major sectors and vulnerable populations. The world's climate changed during the 20th century. Global average surface temperature increased by about 0.6°C; snow cover and ice extent decreased; the temperature and acidity of oceans changed; and sea levels around the world increased between 10 cm and 20 cm. Seasonal patterns, including rainfall, have also changed the world over. The 1990s were the hottest decade and 1998 the warmest year on record, since temperature recording began some 150 years ago. And, while it is true that there have been natural and cyclical variations in the Earth's climate in the past, it is also true that the current rate of change is faster than anything the planet has experienced before.

There is an increased global appetite for action on climate change, which provides an opportunity for St Helena, as a small and isolated nation, to show global leadership in planting climate action at the heart of economic development on the Island.

Import dependence adds a significant carbon footprint to a number of sectors in St Helena whilst also draining much needed financial resources from the island. Overreliance on the import of fossil fuels, food and construction materials are areas in particular that impact both on the island's climate footprint and contribute to significant outflows of revenue. St Helena can become a test-bed for up-scaling new climate-impact-limiting economic development that can inspire action in larger nations across the globe.



#### Marine Conservation – Whale Shark

Whilst the challenges are huge, the opportunity for significant progress due to the small size of the Island, are also significant. Other islands such as the Marshall Islands, Samso, Isle of Wight and Gotland are already showing significant leadership in this area.

Environmental resources could be globally prized as a tourist offering, but they are also essential as they are integral to the functioning of the island and the health and well-being of its people.

*St Helena is in a position to take a leading role in a growing global movement of islands and cities demonstrating that they, on a small scale, are capable of achieving what national governments on a larger scale are unable to.*

*Example: The endemic plants that form the green heartland is at the centre of our surface water catchment and essential for retaining rainfall, soil and ensuring the slopes are stabilised. Without the endemic green heartland we would not be able to guarantee secure drinking water supplies to meet demand, there would be an increase in soil erosion and rock fall and agricultural production would be affected.*



Tree Fern thickets at the Peaks

Several reports have been written about climate change in the UK Overseas Territories, including St Helena, (see Appendix 1) and all support the need for an effective Climate Change Policy in the territories and St Helena. Effective management of the environment is a National Goal under the **Sustainable Development Plan** (see Appendix 2).

The **National Environmental Management Plan (NEMP)** has been created to implement this National Goal. The Climate Change Policy delivers NEMP target 14.1 (*create a climate change policy*) and NEMP Objective F: *minimise the impact of climate change through effective mitigation and adaptation including through increased generation of energy from renewable sources*.

There are currently no direct legislative links for a Climate Change Policy within St Helena Ordinances.



# Aims and Objectives of the Climate Change Policy

The Climate Change Policy aims to reduce the quantity of greenhouse gas emissions created on Island by making better use of natural resources, reducing the risks from weather-related hazards, ensuring that the protection and enhancement of the Island's natural and cultural heritage is at the heart of economic development, in order to maintain a good quality of life for residents now and in the future. The policy identifies Climate Change as an opportunity to develop the ecology, infrastructure and economy of St Helena, and also an opportunity to strengthen the branding of the sustainable island.

The Policy **objectives are to:**

1. Embed a sustainability approach as the driver for economic development.
2. Establish coordination and leadership for effective decision making and action at all levels to ensure the Climate Change Policy is mainstreamed throughout the Island.
3. Identify and prioritise current and future risks to St Helena from weather related hazards through consultation and regular environmental monitoring using evidence generated from Objective 4.
4. Identify and prioritise measures to minimise GHG emissions. GHG emissions will be maintained at 2010 levels or less.
5. Deliver Climate Change Action Plans for Key sectors of island life (infrastructure and the built environment, energy, tourism, marine and terrestrial ecosystems, food security, water resources, and human health).
6. Raise general awareness and gain commitment to monitor, manage and adapt to the challenges of climate change for the benefit of the people of St Helena; develop environmental data sets and monitoring programmes for the physical and chemical environment of St Helena including climate and greenhouse gas emissions, to act as the basis for evidence-based management of hazards.

## Key Targets

To become 100% self-sufficient on the national grid, through renewable energy by 1st April 2022 (*SHG Energy Strategy, 2016*).

Energy use per capita maintained at 2015 levels or better.

Water use per capita maintained at 2015 levels or better.



# |Actions

The Climate Change Policy establishes processes for evaluating actions and implementing the strategic aims and objectives. The policy contains four pillars, each with key actions.

## **Pillar 1; Raise awareness and leadership to achieve low carbon, climate-resilient development.**

- 1) SHG recognises that climate change is a hazard to its residents, economy and way of life and actively commits to reduce impacts through mitigation and adaptation actions.
- 2) Raise awareness and gain commitment to monitor, manage and adapt to the challenges of climate change for the benefit of the people of St Helena.
- 3) Establish strategic leadership for effective decision making and action from the highest political level and throughout the Island.
- 4) Facilitate an open dialogue with stakeholders and the people of St Helena in the process of establishing priorities in Climate Change Action Plans.
- 5) Raise public awareness of quality of life issues arising from climate change.
- 6) Promote, support and provide technical advice on how to reduce weather-related hazards.

## **Pillar 2; Identify risks and opportunities from weather-related hazards and build resilience into major infrastructure.**

- 1) SHG will seek to reduce the risks and capitalize on the opportunities of weather related hazards in the short, medium and long term using a scientific approach. This will be contained within the framework of the Climate Change Action Plans allowing prioritization of risks. SHG will integrate Action Plans, where appropriate, into Island wide regulatory and decision-making processes including planning and land development control.
- 2) SHG will seek to manage and control its consumption of natural resources and thus reduce potential future impacts of climate change and build resilience.

## **Pillar 3; Reduce greenhouse gas emissions.**

- 1) St Helena will seek to reduce its emissions of greenhouses gases from a 2010 baseline, based on targets established in the Climate Change Action Plan.
- 2) SHG will review its operations with a view to reducing its GHG emissions for financial and environmental benefit.
- 3) SHG will promote, support and provide technical assistance for reduction of GHG emissions to private, public and community bodies.

## **Pillar 4; Develop a sound evidence base and Climate Change Action Plans.**

- 1) SHG will develop information systems and assessments to support Action Plans.
- 2) SHG will develop methods to assess the carbon impact of any new processes, infrastructure, services or products we intend to introduce, and implement them in the decision making and procurement process. Assessment methods will estimate emissions in the baseline year, set a reduction target for subsequent years, and identify priority actions.
- 3) Action Plans will identify options and assess priorities taking into account resulting impacts of the actions on economic, social and environmental factors, including where appropriate emergency planning or operational risk considerations. These will generate SMART targets which are specific, measurable, assignable, realistic, and time defined.

# |Appendix 1 - Climate Change Reports

- *Brown, N. 2008. Climate Change in the UK Overseas Territories: An overview of the science, policy and you. Peterborough, UK: Joint Nature Conservation Committee.*
- *IMC Worldwide Ltd. 2012. Addressing Climate Change by promoting low carbon-climate resilient development in UK Overseas Territories. East Kilbride, UK: DFID.*
- *IMC Worldwide Ltd. 2014. Climate Change Factsheet: Climate data and requirements for St Helena. St Helena: Environment and Natural Resources Directorate.*
- *Wade, Steven et al. 2015. Assessing climate change and its likely impact on selected UK Overseas Territories: Inception report. UK: Met Office.*

## Appendix 2 - Sustainable Development Plan objectives impacted by environmental changes

SO	Objective	Potential impacts of environmental change
4.2	An improved public transport system that supports social and economic development	Controls the rise in greenhouse gas emissions (GHG) by providing a viable alternative to car ownership and/or fuel source.
5.1	Increasing the share of renewable energy generation	Reduced greenhouse gas emissions and better resilience as a result of reduced reliance on costly imported fossil fuels.
5.3	Predicted growth in demand for water met	Requires there to be sufficient water available to meet the demand, partly met by improved climate change resilient infrastructure, and partly through maintaining habitats that generate sufficient rainfall and provide natural water storage.
6.1	Current and future housing needs are adequately addressed.	By considering the environmental resilience of housing stock under changing conditions accommodation will remain healthy and efficient to run into the future as well as addressing in part the need to support those in need (SO 6.4)
8.1	Safeguarding the terrestrial & marine environment for current and future generations.	These are central issues to our tourist offering as well as to the integral functioning of the island with links to economic and social sustainability.
8.2	Environment mainstreamed across government & the private sector.	Method of delivering SO 8.1 with associated environmental, economic and social benefits.

# |Appendix 3 - Implementing the Policy

Climate Change Action Plans will be developed and this work will be led by The Environmental Management Division (EMD) of SHG with input from CPPU, the Emergency Planning team and other Directorates and stakeholders as appropriate.

Baseline data for the Climate Change Policy will comprise two elements; the first being an empirical review of reports of environmentally triggered events supported by targeted interviews, the second being the creation of a national environmental GIS database. The baseline data sets will be used to identify potential and existing climate change impacts for each sector of island life and used to inform the development of action plans for objective 6 above.

The baseline data review and database will include relevant physical and chemical parameters including:

- Surface water;
- Groundwater;
- Coastal water;
- GHG Emissions data;
- Soils;
- Air quality;
- Meteorological conditions;

This database will comprise historical data from an archive desk study and from monitoring programmes. EMD will collect this baseline data. GHG assessment is a separate assessment. As a country we have a United Nations obligation to support its millennium goal and report figures that enable the calculation of carbon dioxide emissions per capita per annum.

Action plans under objective 6 are likely to have three tiers of action:

1. **Monitor** – to establish sufficient data to make informed decisions or to establish whether sufficient change has been recorded to determine further action is required;
2. **Mitigate** – to take measures to prevent further change or damage; and
3. **Adapt** – Adjustment of policy and operations to accommodate the changing environment. Typically early adaptation is more cost effective.

The Action Plan's SMART targets will be based on priority and resources available.

The preferred option is for assessments to be carried out in-house to reduce resource costs and develop capacity within SHG. However if this work is considered a priority it may be necessary to employ external consultants to develop this work in a shorter time frame but with obvious cost implications.





Staff from EMD performing environmental monitoring at Horse Point Landfill Site

# Policy Definitions

## **Adaptation**

Adjustment in natural or human systems to a new or changing environment. Adaptation to climate change refers to adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities. Various types of adaptation can be distinguished, including anticipatory and reactive adaptation, private and public adaptation, and autonomous and planned adaptation.

## **Capacity building**

In the context of climate change, capacity building is the process of developing the technical skills and institutional capability in developing countries and economies in transition to enable them to address effectively the causes and results of climate change.

## **Climate**

Climate in a narrow sense is usually defined as the “average weather” or more rigorously as the statistical description in terms of the mean and variability of relevant quantities over a period of time ranging from months to thousands or millions of years. The classical period is 30 years, as defined by the World Meteorological Organization (WMO). These relevant quantities are most often surface variables such as temperature, precipitation, and wind. Climate in a wider sense is the state, including a statistical description, of the climate system.

## **Climate Change**

Climate change refers to a statistically significant variation in either the mean state of the climate or in its variability, persisting for an extended period (typically decades or longer). Climate change may be due to natural internal processes or external forcing's, or to persistent anthropogenic changes in the composition of the atmosphere or in land use. Note that the United Nations Framework Convention on Climate Change (UNFCCC), in its Article 1, defines “climate change” as: “*a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.*” The UNFCCC thus makes a distinction between “climate change” attributable to human activities altering the atmospheric composition, and “climate variability” attributable to natural causes. See also climate variability.

## **Climate Variability**

Generally refers to natural changes in weather patterns, such as precipitation patterns.

## **Emissions**

In the climate change context, emissions refer to the release of greenhouse gases and/or their precursors and aerosols into the atmosphere over a specified area and period of time.

## **Greenhouse Gas (GHG)**

Greenhouse gases are the atmospheric gases responsible for causing global warming and climate change, both natural and anthropogenic. They absorb and emit radiation at specific wavelengths within the spectrum of infrared radiation emitted by the Earth's surface, the atmosphere, and clouds. This property causes the greenhouse effect. Water vapor (H<sub>2</sub>O), carbon dioxide (CO<sub>2</sub>), nitrous oxide (N<sub>2</sub>O) and methane (CH<sub>4</sub>) are the primary greenhouse gases in the Earth's atmosphere. There are a number of entirely human-made greenhouse gases in the atmosphere, such as sulfur hexafluoride (SF<sub>6</sub>), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs).

**Hazard: see Risk**

### **(Climate / Weather-Related) Impacts**

Consequences of climate change on natural and human systems. Depending on the consideration of adaptation, one can distinguish between potential impacts and residual impacts. Potential impacts: All impacts that may occur given a projected change in climate, without considering adaptation. Residual impacts: The impacts of climate change that would occur after adaptation.

### **Mitigation**

Mitigation refers to efforts to reduce/prevent emission of greenhouse gases (GHGs) or to enhance their removal from the atmosphere by sinks. (UNFCCC 2009)

### **Risk / Hazard**

A **Hazard** is a POTENTIAL source of harm or adverse effect on people or the environment. A **Risk** is the LIKELIHOOD that a person or the environment may be harmed or suffers adverse effect if exposed to a hazard. The terms Hazard and Risk are often used interchangeably but this simple example explains the difference between the two.

### **Renewables**

Energy sources that are, within a short time frame relative to the Earth's natural cycles, sustainable, and include non-carbon technologies such as solar energy, hydropower, and wind, as well as carbon-neutral technologies such as biomass.

### **Resilience**

Ecosystem resilience is the capacity of an ecosystem to tolerate disturbance without collapsing into a qualitatively different state that is controlled by a different set of processes. A resilient ecosystem can withstand shocks and rebuild itself when necessary. Resilience in social systems has the added capacity of humans to anticipate and plan for the future. Humans are part of the natural world. We depend on ecological systems for our survival and we continuously impact the ecosystems in which we live from the local to global scale. Resilience is a property of these linked social-ecological systems. "Resilience" as applied to ecosystems, or to integrated systems of people and the natural environment, has three defining characteristics:

- The amount of change the system can undergo and still retain the same controls on function and structure.
- The degree to which the system is capable of self-organization.
- The ability to build and increase the capacity for learning and adaptation.

### **Sustainable Development**

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

### **Vulnerability**

The degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate variation to which a system is exposed, its sensitivity, and its adaptive capacity.



## |Distribution and further information

This Policy will be issued to all SHG Directorates and made available, along with annexes and supporting documents, online on the SHG website. Copies will be made available upon request from EMD.

Draft