



Climate Change

A Practical Guide for Your Organisation



The scientific evidence is indisputable. Climate change is happening and it is happening quickly, more quickly than originally projected, in fact. Our way of life and how we treat the environment are at the core of global warming.

Rising average sea and surface temperatures have meant unstable weather patterns and changing climate conditions all over the world. In the Caribbean and the Pacific, this has meant more intense hurricanes during the past decade. It has also meant that the Caribbean is warmer than it used to be: countries in the region have more very warm days and fewer very cold nights, compared to before 1950. In the Mediterranean, droughts have become longer and more severe.

Unstable weather patterns and changing climate conditions have more than just environmental impacts; they affect the economy, livelihoods, health and all aspects of our well-being. Warmer waters in the South Atlantic, for example, threaten fish stocks and the local fishing industry. Strong storms decimate agriculture and destroy homes, businesses, roads and other infrastructure along the coast in the cyclone-prone Caribbean and Pacific.

The carbon challenge

We need to take immediate measures to halt global greenhouse gas emissions if we are to avoid climate chaos. Average global temperatures are rising at an unprecedented rate thanks to the build up of greenhouse gases in the atmosphere. The Intergovernmental Panel on Climate Change (IPCC), an assessment team of hundreds of scientists worldwide who have been studying and tracking the climate system since 1988, attributes 90 per cent of current greenhouse gas accumulation to human activity, such as burning fossil fuels to power our way of life and cutting down trees for agriculture and housing (Figure 1).

Carbon dioxide is the single largest contributor to global warming. Since the beginning of the industrial revolution, concentrations of carbon dioxide in the atmosphere have increased nearly 30 per cent and increases in carbon dioxide emissions are responsible for approximately 70

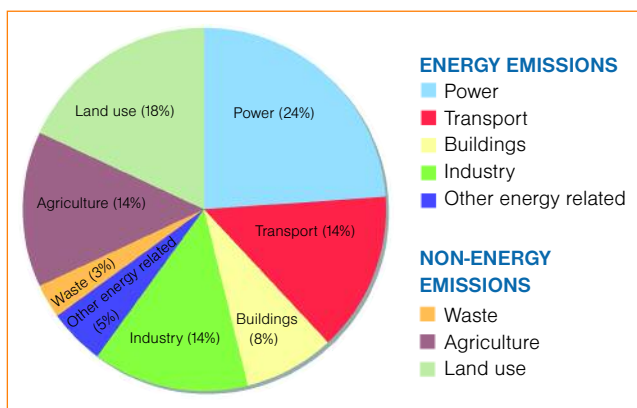


Figure 1. Greenhouse-gas emissions in 2000, by source. *Source: Prepared by Stern Review, from data drawn from World Resources Institute Climate Analysis Indicators Tool (CAIT) on-line database version 3.0.*

per cent of current warming. The answer to the climate challenge lies in drastically reducing carbon dioxide emissions and making a shift to a low carbon economy.

Shifting to a low carbon global economy

According to the IPCC, we have to cut global emissions in half from 1990 levels, with a peak in emissions by 2015, if we are to have a chance of avoiding a greater than 2°C rise in global temperature. A temperature rise beyond 2°C would mean more intense climate extremes and an even greater risk of catastrophe, including widespread drought and crop failure, the spread of tropical diseases to an even greater geographical area and a near-complete loss of coral reefs due to bleaching.¹ Although it is hard to predict with complete accuracy what all of the impacts of an increase of more than 2°C would be, evidence from change to date points to certain and far-reaching disaster the world over.

Even though there is growing agreement about the need to reduce greenhouse gas emissions, especially those

¹Ackerman, F. and E. Stanton. 2006. *Climate Change – the Costs of Inaction* Report to Friends of the Earth England, Wales and Northern Ireland. Global Development and Environment Institute, Tufts University.



Anguilla Harbour is vulnerable to sea level rise due to its low-lying location. *Credit: Anguilla National Trust*

from energy sources, emissions are still increasing globally. What we do over the next 10 to 20 years will have a huge effect on the climate in the second half of this century and on into the next.² Ultimately, the choice is ours. We can act now to reduce emissions, particularly those from energy sources, or devote ever-increasing amounts of time and resources to coping with the effects of warming on the economy, the environment and our lifestyles.

An opportunity for UK Overseas Territories

It may seem that addressing the underlying causes of the climate challenge is too big an issue for UK Overseas Territories to do anything about. After all, in global terms, our territories are not huge producers of greenhouse gases and many of our businesses do not make a large direct contribution to energy emissions. However, such is the global nature of warming and its causes that the solution to the problem lies in collective action by governments, businesses and citizens all over the world. Regardless of scale, every contribution to finding a solution to this problem will make a difference.

Shifting to a low-carbon economy is an opportunity for our territories and our businesses. Reducing energy sources of greenhouse gases helps to address the global problem at the local level. It also has the added benefit of reducing fossil fuel dependency, decreasing dependency on imports and lowering our countries' oil bill.

There are benefits for individual organisations as well. The most obvious is how increased energy efficiency can

translate into savings for your company. Even though your organisation may not be a significant emitter of greenhouse gases, many of your day-to-day business or production activities translate into energy use that contributes to climate change. These activities include electricity, heating, cooling, machinery, office equipment, chemicals, wastes of all kinds, and transport. Each of these activities presents an opportunity to increase efficiency and save money.

There is also a growing market for low carbon products and services. As consciousness about climate change grows, consumers are making choices that they perceive to be good for the environment. One report estimated that by 2050, markets for low carbon energy products could be worth US\$500bn per year.³ The bio-fuels market is set to triple by 2015 and clean technology is already the fastest growing sector for venture capital investments.

What your organisation can do

1. Optimise energy use and improve efficiency

Businesses in UK Overseas Territories are not likely to face a cap on their emissions any time soon, but the savings that come from increased energy efficiency and from replacing fossil fuels with alternative sources of energy will make a difference to their bottom line in the medium- to long-term.

- Conduct an energy audit.** If you are going to improve your energy efficiency, it is important to have a baseline of the types and amounts of energy your equipment and facilities use as well as to identify sources of direct and indirect greenhouse gas emissions. Examine the impact of energy use on your organisation's bottom

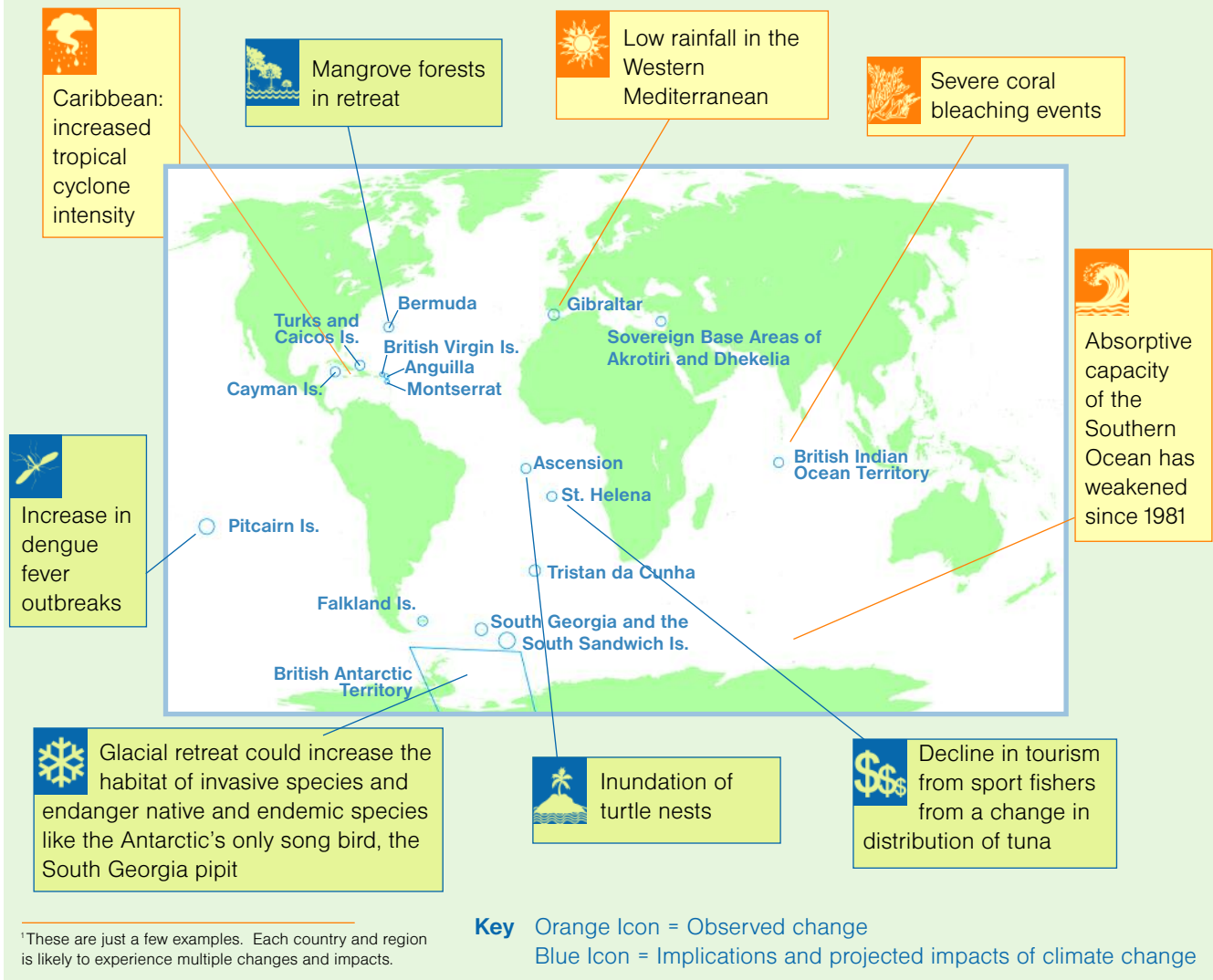


Coral killed by warming sea temperatures in the BIOT. *Credit: Charles Sheppard*

² Stern, N. 2007. *The Economics of Climate Change: The Stern Review*. United Kingdom: Cambridge University Press.

³ Stern, N. 2007. Op Cit.

Selected global warming changes and impacts in UK Overseas Territories¹



line and assess the business value of improving energy efficiency. For example, there may be benefits to be gained from being able to promote your organisation as a 'climate friendly' or energy efficient company. You can find information about conducting energy audits on line, for example at <http://www.energydepot.com/EpcorCom/> or <http://www.environment.gov.au/settlements/challenge/members/energyaudittools.html>

- **Use alternative sources of energy, such as solar or wind technologies.** For some companies, it will be feasible to invest in alternative energy sources and, although the initial outlay may be high, this will translate into savings in the medium- to long-term. Smaller companies may be less able to make this kind of investment, but you can contact your energy provider to see if they offer energy generated from clean-air sources.

- **Increase energy efficiency in the areas of lighting, heating and cooling.** Not all measures to improve energy efficiency need be costly. You can take simple low-cost steps like replacing incandescent light bulbs with energy efficient models, using occupancy sensors in rooms that are often vacant, and encouraging employees to turn off lights and power down computers and other standby equipment (for example, fax machines, printers and copy machines) when not in use. Ensure that buildings are well insulated and there are no air leaks. Avoid overheating or cooling buildings: increasing the air conditioner temperatures by even 1 or 2°C can reduce cooling bills. Keep heating or cooling equipment in good condition.



A large reforestation scheme is underway in Millennium Forest, St. Helena. Credit: St. Helena National Trust

- **Ensure energy efficiency of equipment and equipment with efficiency.** Equipment that runs efficiently and reliably saves time, energy and money. If you are installing new equipment or replacing equipment that is at the end of its life cycle, opt for energy efficient models. A range of energy efficient equipment and technology is branded with the Energy Star label, which identifies products that are top in their class in energy efficiency and make smaller contributions to greenhouse gas emissions. Although newer, energy efficient technologies may be more expensive than older technologies, the savings in the long run are often greater than the difference between the purchase price of the efficient and less efficient models.

However, investment in new technologies is not the only way to increase energy efficiency. Proper maintenance and regular servicing of existing equipment is a simple and cost-effective way of improving energy efficiency.

2. Source energy efficient materials.

Ensure that the products and producers in your supply chain comply with low carbon standards. Through your own demand, you can influence the business practices of others.

3. Participate in a carbon offset programme.

You can also help reduce emissions by purchasing carbon offsets or making it possible for your clients to do so through your company. Carbon offsetting enables individuals and businesses to reduce the carbon dioxide emissions for which they are responsible by reducing or displacing the carbon dioxide in another place, say by financing a reforestation or renewable energy project.

For companies in the tourism industry, whose clients are required to travel long distances by air, for example, this is a viable means of reducing an indirect climate impact of their business.

4. Practice good environmental habits.

Recycling and reducing waste are good environmental practices that have positive spin-offs for carbon dioxide emissions because they reduce energy demand further down the supply chain and ultimately reduce your carbon footprint.

5. Educate your shareholders, employees and customers.

Any effort to reduce your climate impact will require the buy-in and support of your shareholders and employees. In the case of the former, it is important for them to appreciate a possible need for a reduction in short-term profits in the interest of an even healthier bottom line in the future. Your employees will need to carry out any energy saving measures that you decide to implement in your organisation. To do this, they will need to understand the long- and short-term costs and benefits of action or inaction.

This series was produced by the Caribbean Natural Resources Institute (CANARI) for the Joint Nature Conservation Committee (JNCC) with funding from the Overseas Territories Environment Programme (OTEP), and published with assistance from the Commonwealth Foundation. Thanks are due to the many persons in the UKOTs who provided inputs and advice.

Documents in this JNCC series:

Climate Change in the UK Overseas Territories : An Overview of the Science, Policy and You - A look at climate science and policy and how global warming affects UK Overseas Territories.

Climate Change in the UK Overseas Territories : A Brief Overview of the Science, Policy and You - Executive summary of the document above.

Climate Change: An Overview for Politicians and Senior Decision Makers - Key issues for policy and decision makers to take into account in climate-proofing national policies and programmes.

Climate Change: A Practical Guide for Your Organisation - How businesses can reduce their carbon footprint.

Climate change in the UK Overseas Territories (DVDs): Part 1: Impacts and Part 2: Adaptation and mitigation - Short videos on climate science and policy and how global warming affects UK Overseas Territories.

Climate Change: A Practical Guide for You - Simple things individuals can do to reduce their climate impact.

Guidance for Biodiversity Conservation and Management in a Changing Climate in the UK Overseas Territories - Practical guidance for the practitioners who must plan and manage biodiversity in the face of climate change.



Copies available on the internet at <http://www.jncc.gov.uk/page-4362>



Paper copies can be requested from:

Joint Nature Conservation Committee (JNCC)
 Monkstone House, City Road
 Peterborough PE1 1JY, United Kingdom
 Tel: +44 (0) 1733 562626; Fax: +44 (0) 1733 555948
 Email: communications@jncc.gov.uk

Masthead Photo credits: Falklands Conservation • Department of Environment, Cayman Islands • Steve Freeman, AM-Sciences • Charles Sheppard • Department of Environment, Cayman Islands Government • Pete Bucktrout, British Antarctic Survey