

WHAT IS MITIGATION?

Greenhouse gases such as carbon dioxide, methane and nitrous oxide are atmospheric gases that trap heat radiated from the Earth causing human-induced climate change.

In the context of climate change, mitigation is an effort to reduce the levels of greenhouse gases in the atmosphere, either by limiting the sources such as through switching to renewable energy such as solar or hydro power, or by enhancing the sinks such as through planting more trees.

Carbon sinks are a natural or artificial reservoir that takes up and stores carbon. Forests, oceans and soils are natural sinks, while landfills are artificial sinks.

DID YOU KNOW?

LOCAL, CLEAN AND SELF-SUFFICIENT ENERGY IN TOKELAU

Tokelau, which consists of three tropical coral atolls, a combined land area of 10km² and has a population of approximately 1,400, is a leader in renewable energy with solar photovoltaics (PV) now providing 90% of the atolls' electricity needs. Tokelau won the 2014 Renewable Energy Award of New Zealand's Energy Efficiency and Conservation Authority.



WHY CLIMATE CHANGE MITIGATION IS IMPORTANT

Reducing Greenhouse Gases (GHG's) through mitigation actions will lessen the impact of climate change on the Pacific islands and other Small Island Developing States (SIDS). Unless GHGs are reduced, climate change impacts will continue to worsen.

While Pacific islands make a very minor contribution to global greenhouse gas emissions, higher levels of GHG's and climate change will impact island nations the most. To avoid dangerous climate change it is important that all countries around the world, work together to reduce global GHG's.

According to the [IPCC Fifth Assessment Report \(AR5\)](#), land and ocean surface temperatures have increased globally by nearly 1°C since 1901, mainly as a result of anthropogenic activities¹.

This warming has led to changes including alterations in cloud patterns, snow cover, rainfall, wind patterns, ocean currents, and the distribution of plant and animal species.

While a change of only one degree may sound like a very small change, this level of change is already having a marked impact upon the global climate systems. If global temperatures were to rise to up to 2°C, many coral reef ecosystems and climate sensitive species could be permanently lost². Just as the human body cannot cope with a sustained temperature rise of over two degrees, nor can many of our natural ecosystems.

Efforts are being made to revise the global temperature goal through the United Nations Framework Convention on Climate Change (UNFCCC) which includes looking at the Small Islands Developing States preferred goal of limiting temperature change to 1.5°C instead.

MITIGATION ACTIONS AT HOME

Efficient energy use, also known as energy efficiency, reduces the amount of energy needed to provide goods and services. Being energy efficient not only helps reduce greenhouse gas emissions but there may also be a financial savings to the user. Different ways that you can be more energy efficient include having an insulated home to use less heating and cooling energy to maintain a comfortable temperature, installing energy efficient light bulbs or through purchasing energy efficient home appliances with special energy ratings.

Reduce your carbon footprint, the amount of greenhouse gas emitted by a person or a population over a certain period of time. This is often encouraged as living 'green', empowering people to change their lifestyles. Different ways you can reduce your carbon footprint is by carpooling, or riding your bicycle or walking to work, using rechargeable batteries instead of buying new batteries each time they are needed, or try buying local produce as much as possible as transport burns fuel.

¹ Working Group 1 Report, IPCC Fifth Assessment report: Climate Change 2013 (AR5) The Physical Science Basis.

² IPCC, AR4, Climate Change 2007, Working Group II, Ch 19: p792.

MITIGATION ACTIONS AT THE INTERNATIONAL LEVEL

The capacity for a country to mitigate climate change depends on socio-economic and environmental circumstances. These include the availability of renewable resources such as a steady supply of water, wind, sunlight or bioenergy, and the availability of information and technology.

Mitigation actions could be economy-wide to reduce national emissions by a certain percentage, or cover several sectors, such as energy supply and demand, transport, buildings, industry, agriculture, forestry and waste management.

Incentives for mitigation action include:

NATIONALLY APPROPRIATE MITIGATION ACTIONS

Nationally Appropriate Mitigation Action refers to a set of policies and actions that countries undertake as part of a commitment to reduce greenhouse gas emissions recognising that different countries may take different actions based on what they can do. NAMA's emphasise the need for financial assistance from developed countries to developing countries to help reduce emissions.

A prototype for an online Registry that holds a database of all NAMAs seeking international support was agreed to in December, 2012 at the 18th Conference of the Parties to the United Nations Framework Convention on Climate Change.

The Cook Islands submitted NAMA's in 2013 which sought support to achieve 100% of its electricity from renewable sources by 2020. The proposal includes an action plan to generate 50% of its energy production from renewables by 2015, phasing out its current diesel generator-dominated system. The Cook Islands NAMA was incorporated in the Prototype Registry.



REFLECTIONS ON POSSIBLE NEWS ITEMS

Your country, your community: Does your country have any mitigation actions currently listed in the [UNFCCC NAMA registry](#) and how are these linked to those in your community?

Renewable energy, your community: What renewable energy activities are carried out in your country and how successful are they? What impact have they made on the lives of people in these communities?

Mitigation Actions in the community: Are there any schools, businesses or even community groups that find ways to be more energy efficient or reduce their carbon footprint? If so, find out more about them, what they are doing and why.

Visit the [Pacific Islands Greenhouse Gas Abatement through Renewable Energy Project page on the SPREP website](#) to find out more about mitigation and projects happening in the Pacific islands. The [Pacific Climate Change Portal](#) has a special section on Mitigation and the [Pacific Climate Change Science website](#) also has vast information on climate science in the Pacific.



Australian Government

