



● Accommodation Sector Focus

Sustainability Audit Report for



Shell New Zealand
Sustainability Fund



New Zealand Business Council
for Sustainable Development



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1.0 Introduction

This Accommodation Focus project was designed to provide business owners and staff in the accommodation sector, simple advice and resources to create a more sustainable business and find cost effective solutions to environmental issues.

The areas assessed and reported on are:

- Waste
- Purchasing
- Electricity usage
- Water usage

The project was funded by the Shell Sustainability Fund and was run by CBEC Eco Solutions Whangarei. We are a consultancy company run under the umbrella of the Community Business & Environment Centre, which is a not for profit community enterprise.

Because the project was funded all assistance was free of charge.

Ongoing support for water, purchasing or electricity issues will be provided at cost to the business.

The project was undertaken in three stages:

- Stage 1: Assessment, education & implementation of changes (if so desired by the business)
- Stage 2: Project promotion through information packs
- Stage 3: Project promotion through the Community Recycling Network—a national network of organisations promoting waste minimisation

Public promotion of the project will focus on the successes, not on businesses that do not make significant changes.

1.1 Why the Accommodation Sector?

We chose the accommodation sector to focus on for a number of reasons:

- Because the hospitality sector project last year was such a success
- The prevalence of hotels, motels, backpackers and B and B's in the Northland Area
- The limited waste stream
- The ability to promote the project to the community
- To create a more sustainable accommodation sector in the Northland Region

Studies have shown the public are making the decision to use goods and services that are concerned with not only their bottom line, but the environment also. Creating a more sustainable accommodation industry in the Northland Area will appeal greatly to the eco conscious traveler.

2. Assessments

During the assessment stage of the project the business is assessed in the four areas:

- waste
- water
- electricity
- purchasing

The assessment aims to find solutions for the “low hanging fruit”. These solutions also aim to be environmentally and economically beneficial for the businesses and to be a practical solution for management and staff.

2.1 Waste

Waste is a costly expense for most businesses. Weekly, monthly and annual bills for waste are rising with the current central and local government changes to waste disposal. This year a waste levy has been introduced to New Zealand, which has increased the cost of waste to landfill by \$10 a tonne. Any changes that will divert waste from landfill will save the business money.

What's happening at your place:

- **Organic waste**

Organic waste in a landfill causes the creation of methane gas – a greenhouse gas (GHG). Organic waste needs oxygen to break down in a “healthy” manner and landfills do not have enough oxygen for this to happen.

What's happening at your place:

What we recommend:

2.1 Waste...continued

- **Waste audits**

A waste audit is a simple process that will not only tell you what you are throwing away, but how your business is functioning. For example: if you find a large quantity of paper towels, you may think about exchanging them for cloth hand towels. You may think your recycling system is diverting all recycling from landfill, but find an abundance of plastic and cans in the waste bin. You may then have to rethink your recycling labeling system.

We recommend:

2.2 Water

The Northland Region has issues with water shortages every summer, and while water is currently a minimal cost to most businesses, water conservation is a major issue globally.



There are many small ways you can be wasting water, every drop adds up, not only economically, but environmentally.

What's happening at your place:

What we recommend:

- **Toilet systems.**
The amount of water that flows through can be altered by adding a brick into the cistern of the older style toilet and this will minimize the flow of water helping you save water and money.

2.3 Water...continued



- **Buy appliances with a water conservation rating**

Next time you need to replace an appliance look out for the water rating logo – the more stars the more efficient it is. Since Australia’s water issues have intensified the development of appliances with reduced water usage has progressed dramatically. These appliances are now mainstream and sold all over New Zealand.



- **Ask staff to keep an eye out for leak and water wastage**

Ask staff to check taps and toilets regularly (when cleaning) for any broken seals or running water. If a leaky tap or toilet running constantly is reported, repair immediately.

2.3 Electricity

Electricity bills are a large cost to any business, and the accommodation industry is no different. The following assessment has been made as to where you could save the most money.

What’s happening at your place:

What we recommend:

We recommend:

We recommend the use of a Power Monitor, which range in price from \$120 to \$240 and are available from www.ecoinovations.co.nz, www.centameter.co.nz or www.jaycar.co.nz.

We recommend:

Cylinder wraps on all hot water cylinders and lagging as much of the hot pipes as can be easily accessed could have significant savings.



2.3 Electricity...continued

We recommend:

Making sure the water coming out of the hot taps is no greater than 55 degrees Celsius by adjusting the thermostat correctly.

We recommend:

Checking appliances on a regular basis to ensure they are running efficiently and turning off those that don't need to be on (i.e. vacant rooms).

○ Appliances

With the growing concern for environmental issues and rising living costs energy efficiency is now a common catchphrase.

We recommend:

When the older fridge/chillers need to be replaced, look into appliances that are electricity efficient.

Energy efficient appliances are now commonplace. Look out for this logo → the more stars, the more efficient it is.



We recommend:

Check that the room fridges are running at the most appropriate temperature. The temperature gauge should be set at 4 degrees for a fridge & -18 degrees for a freezer.

We recommend:

Checking the fridge & chiller seals in the rooms and the kitchen are tight & keeping the cool air in. This is best checked on a regular basis to maintain maximum efficiency.

○ Building design

If you are thinking about building or renovating think about sustainable building and how it could help your business be efficient.

The layout of a building in relation to the sun, and the use of features and materials that don't use manufactured energy to operate, are important in keeping your business at the right temperature while saving on energy costs.

Passive design

Passive design is the control of ventilation and temperature without using any products that consume energy or money (such as heaters, dehumidifiers or fires).

Making best use of passive design includes:

- Building orientation – positioning the house to allow maximum sun in the winter and coolness in the summer. This includes deciding which rooms you want to be the sunniest.
- Solar energy – using solar panels for water heating.
- Use of structural elements – for example, wide eaves protect from the sun in summer and provide increased weather protection in winter.
- Placement and glazing of windows – the larger windows should face the sun to capture the warmth, and use glazing and/or shading to stop heat escaping.

2.3 Electricity...continued



- Ventilation – using window joinery that allows ventilation, such as security catches allowing windows to remain partially open, or vents in the joinery.
- Insulation – to reduce heat loss.
- Using concrete mass as a form of heat collection

(
<http://www.consumerbuild.org.nz/publish/materials/materials-passive.php>,
 2007)

○ Insulation and curtains

Keeping your business warm or cool can be a large cost to your business. Insulating during the building process can reduce heating or cooling costs significantly. Invest in quality insulation during building or renovations.

We recommend:

Insulating the ceilings in all buildings will prevent heat escaping in the winter. Equipping all rooms with thermal curtains and checking windows for leaks.



Contact Healthy Homes Tai Tokerau
 for more information on insulation
 0800 738 763



Accor Hotels...an international chain

At a recent seminar in Auckland on sustainable business practices the Director of Procurement for the Accor chain discussed the businesses decision to change all incandescent lighting to Compact Florescent Lighting (CFL's). They found it was cheaper to change all the lights to CFL's at once, than it was to wait until a light blew.

2.4 Purchasing

Green procurement/purchasing or "sustainable procurement" is obtaining goods and services so that your business makes a minimal impact on environment and society. To protect their corporate reputation many businesses are adopting these practices and ensuring their suppliers do not have negative social or environmental practices. It also allows businesses to align themselves with suppliers who have similar ethics and practices, providing a platform for building a closer working relationship.

Research has shown that New Zealand consumers favour businesses that exhibit social and environmental responsibility. If your business buys sustainable goods and services, you can promote this to your customers, which could result in increased sales. (AC Nielsen: "Good is Gold".)

2.4 Purchasing...continued

Other businesses have successfully examined and changed procurement, which means there are proven processes and ways to develop this in your business. (1)

At the very least, thinking about where your goods come from and asking those questions of your suppliers helps progress change.

Ask your suppliers about where the goods came from and how the goods arrived in New Zealand. Goods that arrive by ship are more sustainable than those that were flown in (in regards to transportation). But ...you also have to look at how they were made, and how much non-renewable resources went into their creation and if the company that makes it has a good reputation when it comes to workers rights and pollution. It's not a simple equation but thinking about it and asking your supplier to provide that information will help you to make good choices.

A good rule to follow is...buy local (or as local as possible) & support kiwi made!

What is a sustainable supply chain?

There are numerous definitions of the terms 'Sustainable' and 'Supply Chain'.

"Management of raw materials and services from suppliers to manufacturer/service provider to customer and back with improvement of the social and environmental impacts explicitly considered".

The supply chain considers the interactions between a business and its customers and suppliers. The greatest benefits are derived by extending the focus as far as possible upstream towards the raw materials, downstream towards the consumer and then back again as the product and wastes are recycled. (2)

(1) (<http://www.mfe.govt.nz/issues/sustainable-industry/tools-services/topics.php> 2007)

(2) <http://nzbcscd.org.nz/supplychain/content.asp?id=241>, 2007

Review all products and services that you purchase and advise your suppliers that you will give preference to products that meet social and environmental criteria (e.g. based on distance from origin, biodegradability, efficiency rating, recycled content, ability to be recycled etc) (MfE, Accommodation Sustainability Guide, pg2).

What's happening at your place:

2.4 Purchasing...continued

What we recommend:

- **Support suppliers from the Far North & Whangarei District.**

Supporting local businesses means you are contributing to the local economy – it sounds like commonsense, but do you know who owns' the business you buy from and where they source their goods?

- **Minimise excess packaging**

Asking suppliers to take back excessive cardboard, plastic wrap or packing or ask that they minimise it when/before delivering goods to you.

- **Use Fair Trade Coffee**

Support coffee businesses that buy their beans using fair trade. Ask your supplier about whether they support fair trade practices. Most coffee merchants now offer blends with at least some beans bought with fair trade practices. The more you ask, the quicker the message is sent to your supplier that fair trade is the best choice for everyone.

- **Buy products with recyclable packaging**

Not only will you be reducing the amount of non-renewable resources your business is consuming, but your waste bill will be cheaper also. (For Example: tetra-paks are not recyclable in Northland)

- **Ensure toilet paper and tissues are sustainably sourced**

From July 2009, Tork products that are accredited by Environmental Choice New Zealand (ECNZ) will include the ECNZ eco-label symbol on inner and outer packaging. This labeling will provide customers with a better understanding of our products' environmental credentials so making their own environmental choice will be even easier.

We recommend:

Look into purchasing toilet paper made with recycled materials, visit <http://www.biodegradable.co.nz/Toiletpaperfromrecycledpaper.html>

When buying toilet and facial tissue check for the ECNZ label.



We recommend:

Investigating the products you are supplying and start asking your suppliers questions. Cleaning products, hand soaps and food products can all be sustainable.

Some questions to ask are...

Is it tested on animals?

Does it contain nasty chemicals such as sodium laurel sulphate, sodium laureth sulphate or parabens (such as methylparaben, propylparaben, and ethyl paraben)?

Is it biodegradable?

Does it contain Palm Oil? (Palm Oil is linked to rainforest destruction in Malaysia and Indonesia, which is leading to species extinction, climate change and social injustices).

Could I get it locally?

Is it actually necessary?

2.5 Summary

The notion of “sustainable business” is common, but not yet mainstream. The Accommodation Focus project has found that there is a need for more information and a need for more tools for businesses to become more sustainable.

Hopefully we/you have been able to identify an area that will help you reduce costs and increase sustainability. Also – we hope to have been able to build upon your business skills, and increase your awareness about the options regarding sustainable business practices. Remember you are well known and well favoured in the area, so don't forget to talk about any changes you make. Your customers will appreciate your progress.



If you have any questions, please don't hesitate to contact us.

Regards,

Eco Solutions



For further information or advice, please contact CBEC Eco Solutions Whangarei
Ph: 09 438 8710 email:ecosolutions@cbec.co.nz

3.0 Useful Information

3.1 Greenhouse Gas Emissions (GHG's)

Greenhouse gases in our atmosphere (mainly carbon dioxide, methane and nitrous oxide) act like the outside covering of a greenhouse - trapping warmth from the sun and making life on Earth possible.

However, increasing greenhouse gas emissions from human activity such as transportation, industry, energy production, agriculture and deforestation are causing Earth to heat at a faster rate. Once this global warming affects our weather patterns and climatic conditions, it is referred to as climate change.

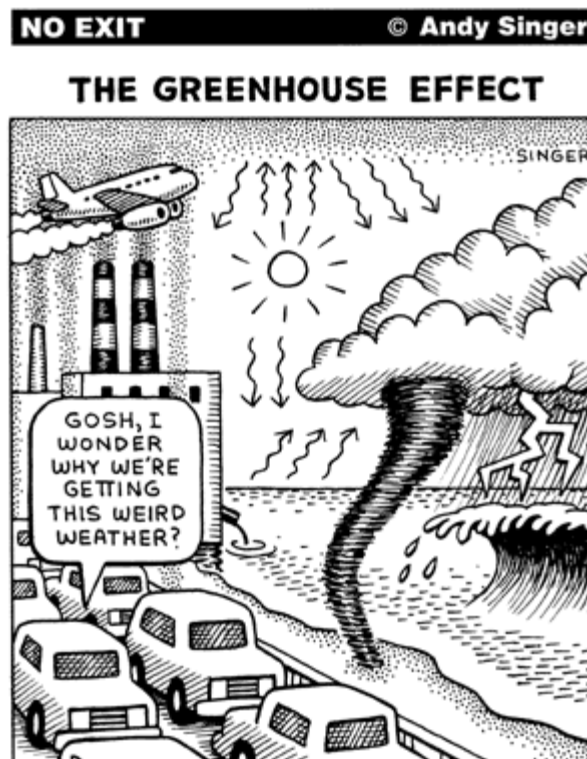
If we do not take action to reduce greenhouse gas emissions and global warming, New Zealand like many other countries will experience further climatic changes such as higher temperatures, increasing sea levels, more frequent extreme climatic events (e.g. droughts and floods) and a change in rainfall patterns.

These climatic changes will potentially impact on our native ecosystems, industries, infrastructure, health, biosecurity and our economy.

If global emissions continue to increase, climate change could be severe and would more than likely get steadily worse.

Calculate your GHG's

The New Zealand Business Council for Sustainable Development has an online calculator to calculate your emissions: go to <http://www.nzbcسد.org.nz/climatechange/content.asp?id=17>



3.1 Your GHG's

Many of our day to day activity contribute GHG's to the atmosphere. It may be in driving your car to work or by buying a product that when it was produced created GHG's, identifying the areas that you can improve will help reduce you GHG's.

- **Carbon Dioxide (CO₂)**

This is the most prevalent GHG. CO₂ occurs naturally but in recent years there has been a marked increase. The rise in CO₂ levels are primarily due to fossil fuel use and land use change.

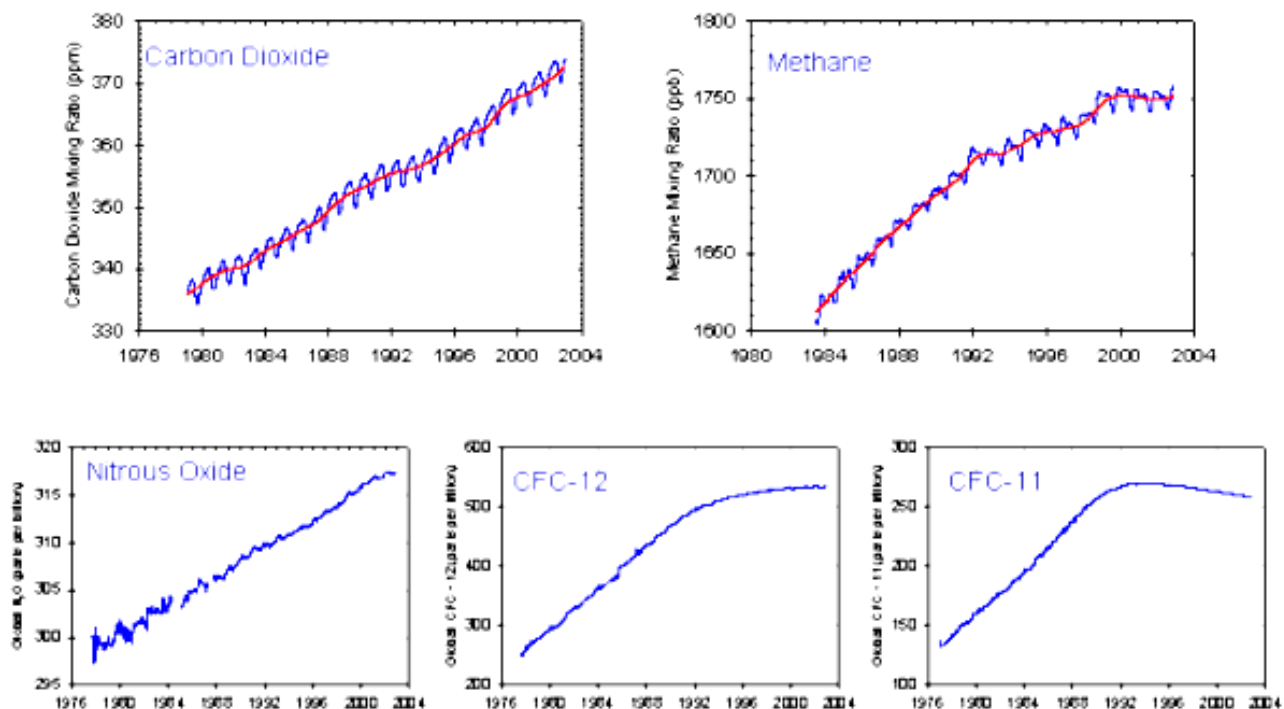
- **Methane (CH₄)**

Methane is a naturally occurring gas, but human activity has increased the amount of CH₄ in the atmosphere. There is less Methane in the atmosphere than Carbon Dioxide, but Methane is 20 times more potent than Carbon Dioxide. Human activities contributing to the Methane gas increase are primarily agriculture and landfills. Organic waste rotting in landfills without sufficient oxygen creates Methane gas in landfills.

- **Nitrous Oxide (N₂O)**

Nitrous Oxide is another naturally occurring gas, with increased levels due to human activity. Although N₂O is less in quantity that CO₂ or CH₄ it is much more potent. Impact wise – N₂O is 296 times more harmful than Carbon Dioxide. The increase is due to agriculture, nitrogen fertilizers, livestock (cows, chickens & pigs), industry (production of nylon) and the burning of fossil fuels.

Global Trends in Major Greenhouse Gases to 1/2003



Global trends in major long-lived greenhouse gases through the year 2002. These five gases account for about 97% of the direct climate forcing by long-lived greenhouse gas increases since 1750. The remaining 3% is contributed by an assortment of 10 minor halogen gases, mainly HCFC-22, CFC-113 and CCl₄.

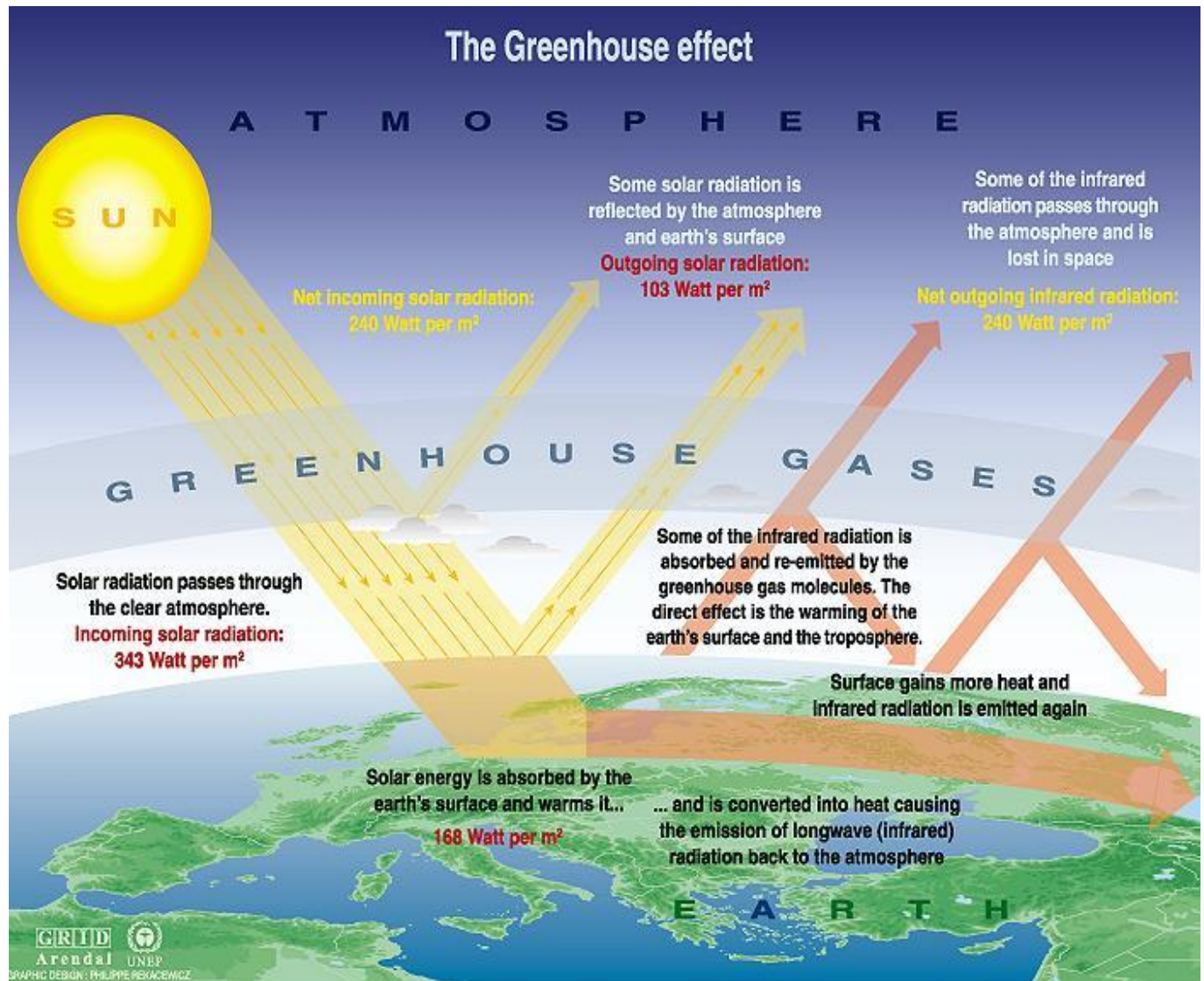
(http://en.wikipedia.org/wiki/Image:Major_greenhouse_gas_trends.png, 2007)

3.2 What is Climate Change (often referred to as the Greenhouse Effect)?



Carbon dioxide and other gases warm the surface of the planet naturally by trapping solar heat in the atmosphere. This is a good thing because it keeps our planet habitable.

However, by burning fossil fuels such as coal, gas and oil and clearing forests we have dramatically increased the amount of carbon dioxide in the Earth's atmosphere and temperatures are rising.



Sources: Okanagan university college in Canada, Department of geography, University of Oxford, school of geography; United States Environmental Protection Agency (EPA), Washington; Climate change 1995, The science of climate change, contribution of working group 1 to the second assessment report of the intergovernmental panel on climate change, UNEP and WMO, Cambridge university press, 1996.

(http://unfccc.int/essential_background/feeling_the_heat/items/3157.php, 2007)

3.2 What is Climate Change? ...continued



The vast majority of scientists agree that global warming is real, it's already happening and that it is the result of our activities and not a natural occurrence. The evidence is overwhelming and undeniable.

We're already seeing changes. Glaciers are melting, plants and animals are being forced from their habitat, and the number of severe storms and droughts is increasing.



The number of Category 4 and 5 hurricanes has almost doubled in the last 30 years.



Malaria has spread to higher altitudes in places like the Colombian Andes, 7,000 feet above sea level.



The flow of ice from glaciers in Greenland has more than doubled over the past decade.



At least 279 species of plants and animals are already responding to global warming, moving closer to the poles.

...If the warming continues, we can expect catastrophic consequences...



Deaths from global warming will double in just 25 years - to 300,000 people a year.



Global sea levels could rise by more than 20 feet with the loss of shelf ice in Greenland and Antarctica, devastating coastal areas worldwide.



Heat waves will be more frequent and more intense.



Droughts and wildfires will occur more often.



The Arctic Ocean could be ice free in summer by 2050.



More than a million species worldwide could be driven to extinction by 2050.

(<http://www.climatecrisis.net/thescience/>, 2007)



3.3 Heating & Cooking

3.4 Natural Gas

Many businesses in the accommodation sector use natural gas for heating and cooking. It is generally considered that using gas for cooking is cheaper than using electricity.

The impact that your gas usage may have on the environment must be weighed against how your electricity is generated. I.e. if your electricity is generated by coal (i.e. Mercury Energy, Genesis, Contact) using natural gas may be a better option, but if your electricity is generated from a renewable and sustainable source such as hydro or wind (Meridian Energy) then using natural gas is a less sustainable option.

What is Natural Gas?

Natural gas is a gaseous fossil fuel consisting primarily of methane but including significant quantities of ethane, butane, propane, carbon dioxide, nitrogen, helium and hydrogen sulfide. It is found in oil fields and natural gas fields, and in coal beds (as coal bed methane).

When methane-rich gases are produced by the anaerobic decay of non-fossil organic material, these are referred to as biogas.

Sources of biogas include swamps, marshes, and landfills as well as sewage sludge and manure by way of anaerobic digesters, in addition to enteric fermentation particularly in cattle.

Natural gas is often informally referred to as simply “gas” especially when compared to other energy sources such as electricity. Before natural gas can be used as a fuel, it must undergo extensive processing to remove almost all materials other than methane.

Natural gas burns cleaner than other fossil fuels, such as oil and coal, and produces less carbon dioxide per unit energy released. For an equivalent amount of heat, burning natural gas produces about 30% less carbon dioxide than burning petroleum and about 45% less than burning coal.

(http://en.wikipedia.org/wiki/Natural_gas, 2007)

Gas Heating

Using patio heaters for indoors or outdoors heating:

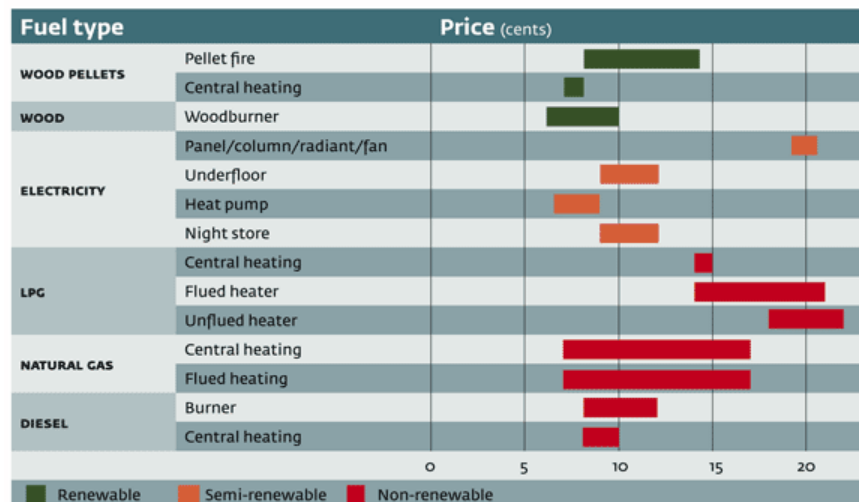
- Consumer (an independent organisation who conducts tests on products and services go to www.consumer.org.nz for more information) found that patio heaters are **inefficient** and **expensive** forms of heating.

3.5 Heating Price Comparison

There are numerous things to consider when choosing (or using) heating systems.

www.consumer.org.nz

– Heating Options, 200



3.6 Coffee



Coffee can be an integral part of a hospitality business. Customers often develop a relationship with a favourite café or restaurant and the businesses choice and style of coffee can be a major reason for the customer's regular support.

Coffee purchasing is well known to have controversial practices. The demand and support for Fair Trade coffee is growing as more and more consumers make a conscious decision to buy coffee that is purchased fairly.

- **We recommend:** asking your coffee merchant about the purchasing practices of their coffee beans and encouraging them to invest in Fair Trade coffee.



Fair-trade provides a more equitable alternative by:

- * paying producers a fair price, and ensuring workers a decent wage
- * paying a premium to be used to invest in projects that benefit local families, the local community and the environment and
- * creating direct and long-term trading relationships between farmers and traders.

3.7 General Information

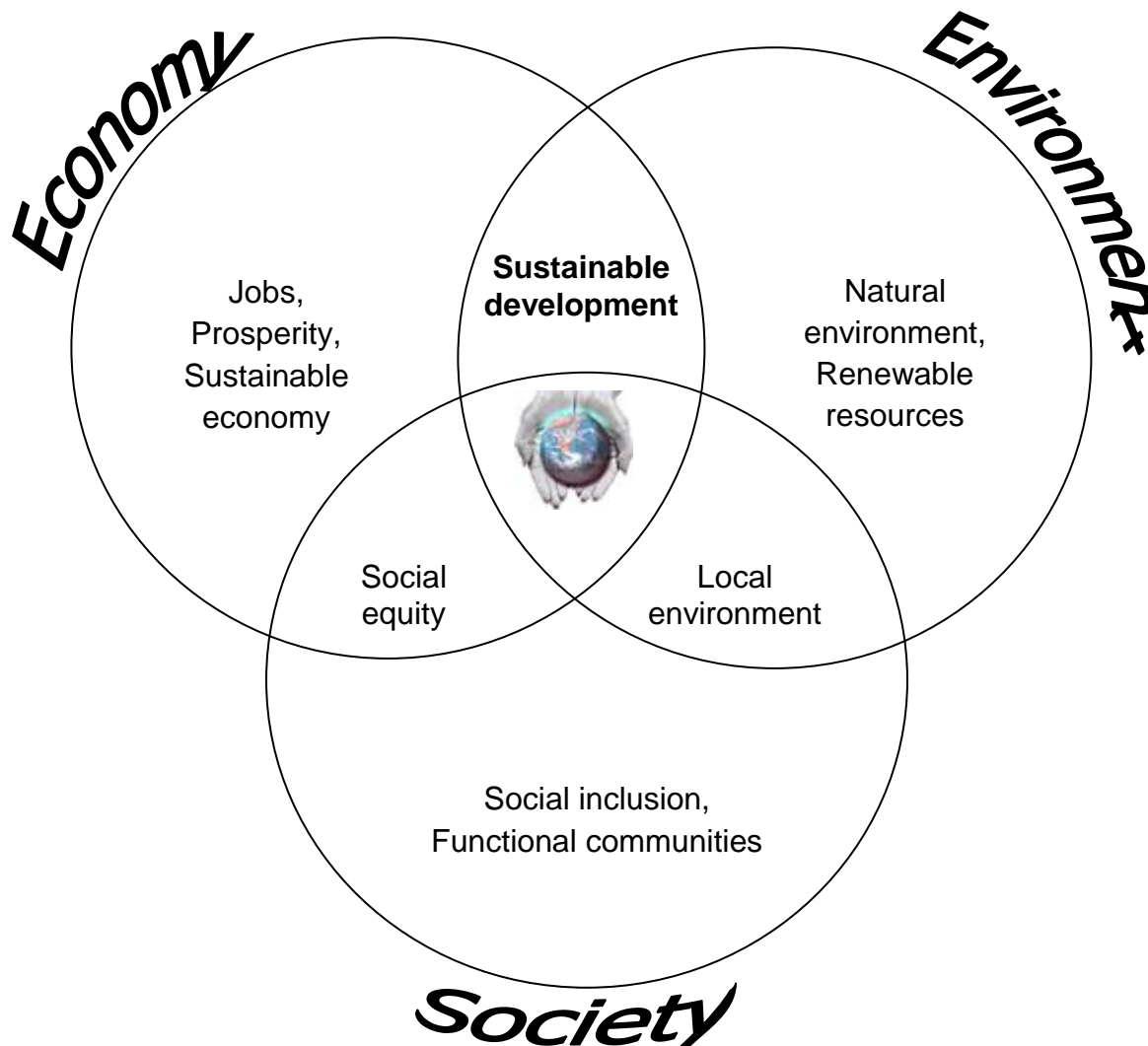


Sustainability: a definition

Sustainability is often perceived as a complex concept to understand and it can be hard for businesses to discover the benefits it offers. In essence, sustainability is about meeting the needs of today, without adversely impacting on the needs of tomorrow. As a term it can be applied across a range of areas, such as the environment, society and the economy.

Sustainability and business

In a business sense, the key messages of sustainability actually tie in with what are generally considered to be 'sound' business practices, such as building efficiency, minimising waste and maximizing resources. It is not a fad and is essential for businesses to adopt in order to be successful in the emerging markets. Sustainable business practices are a new way to direct your business and can be applied across every aspect of your business - from strategy to waste disposal.



3.8 Resources



There are many resources to help you help your business to be more sustainable.

Information sources we recommend:

CBEC Eco Solutions: www.cbec.co.nz

Ministry for the Environment: www.mfe.govt.nz

EECA – Energy Efficiency & Conservation Authority: www.eeca.govt.nz

NZ Business Council for Sustainable Development: www.nzbcSD.org.nz

Landcare Research: www.landcareresearch.co.nz

- [100% pure conjecture](#): A participative game on sustainable futures for New Zealand
- [Enviro-Mark@NZ](#)
Internet-based five-step certification programme that makes appropriate health, safety and environmental management achievable by organisations of all sizes
- [Monitoring environmental performance indicators](#)
Providing strategies to monitor and report on objectives for sustainable building design, using direct performance-based indicators.
- [Sustainability reporting](#)
An advisory service concept that widens the scope of traditional management and reporting to include the social, environmental, and economic performance of an organisation.
- [Tools to assess the sustainability of buildings](#)
This service provides assessment of sustainable buildings (or neighbourhood developments) using commercially developed tools from New Zealand and overseas.