VICTORIA UNIVERSITY SUSTAINABILITY GUIDE

TE WHARE WĀNANGA O TE ŪPOKO O TE IKA A MĀUI
VICTORIA
UNIVERSITY OF WELLINGTON

CONTENTS

Any mention of companies or businesses is independent, and has not been requested.

All measures have been taken to provide accurate and up-to-date information. If you see any mistakes, please let us know, along with any suggestions that you have to andrew.wilks@vuw.ac.nz

INTRODUCTION

Whakataka te hau ki te uru
Whakataka te hau ki te tonga
Kia makinakina ki uta
Kia mataratara ki tai
Kia hi ake ana atākura
He tio, he huka, he hauhu
Tihei mauri ora!

E ngā mana, e ngā iwi, e ngā reo, tēnā rā koutou katoa
He mihi atu ki te maunga e tū nei, ko Ahumairangi, rātou ko ngā awa e rere noa atu ai ki te Whanganui-a-Tara.
Huri noa ki ngā haukāinga o te rohe nei, tēnei te mihi ki a koutou ngā kaitiaki o tēnei whenua.
Nō reira, tēnā rā tātou katoa.

As students and staff of this university, we have the ability and opportunity to build on Victoria's commitment to sustainability and make our university a leader, both locally and globally, in working to replenish the environment and strengthen the community.

This guide has been created to assist staff and students contribute to making Victoria a sustainable institution. It aims to explain sustainability issues and enable you to make Victoria more sustainable.

WHY TAKE ACTION?

The cumulative effect of all the actions outlined in this guide will greatly reduce Victoria's environmental footprint. Furthermore, by making Victoria a leader in sustainability, we can encourage and inspire other individuals and institutions to similarly reduce their negative effects on the environment.

GETTING GOING

There is a lot of information in this guide, with each section standing alone as an outline of best practice in addressing each issue. A good way of starting to engage with these issues is by following the simple 2 week plan to greening your office, on page 24, Remember these actions are just some of the ways we can take action — I encourage you to adapt them to suit you and think creatively of other ways to address these issues.

Pat Walsh
Vice Chancellor

WHAT ARE WE DOING ALREADY?

Victoria has already taken significant steps towards sustainability. Many of the sustainability initiatives are being driven either by the Victoria Environment Committee and Environment Manager or Gecko, the student environment group on campus, supported by the Victoria University Students' Association (VUWSA). Below are some of their success stories.

- Recycling scheme: The Victoria recycling system ensures that 38% of Victoria's waste is recycled.
- Energy use reductions: Energy savings from efficiency projects led by Facilities Management in 2008 are estimated to save Victoria $140,000 a year.
- Environmentally sustainable design principles have been introduced into new build and refurbishment projects.
- Carbon neutrality: In June 2008, the School of Architecture and Design announced that it has been certified carbon neutral, thanks to the project co-ordination of Maibritt Pedersen Zari, anAssistant Lecturer at the School.
- Double-sided printing has been set as the default option on all staff and student MFD printers, greatly reducing paper use.
- In 2008 the position of Environment Manager, currently held by Andrew Wilks, was made permanent. Since 2006 there has also been an Environment Officer position at VUWSA, who among other things runs an environment week every year to promote sustainability issues and activities.
- The Environmental Champions scheme has been set up to encourage and support staff who want to act to make their behaviour, and Victoria as a whole, more sustainable. To participate, contact Andrew Wilks: andrew.wilks@vuw.ac.nz or 04 463 9988.
- In 2008, Gecko produced the Urban Living Guide, a sustainable living guide for young people, funded by VUWSA and the Wellington City Council. Gecko has also run several successful clothes swaps and campaigned for recycling on campus.
- Vegetable Garden: VUWSA and Gecko have recently, with support from Facilities Management, begun a trial vegetable garden. The produce from the garden will go to the student food bank and in the long-term the garden may be a place for campus compost to be collected and used.
- Teaching For Sustainability conference: In November 2007, a TFS conference was run through Victoria in a sustainable manner, including carbon off-setting the conference.

WHAT ARE OTHERS DOING?

Below are some examples of the inspiring sustainability measures being implemented by universities and tertiary institutions in Aotearoa and around the world.

- Canterbury University runs an eco-my-flat scheme and an organic garden.
- Otago Polytechnic provides bikes for staff and has a staff unwanted goods exchange system.
- Monash University in Australia has set up a Sustainability Institute. It also runs a carpooling scheme, has a sustainable procurement guide and is committed to being carbon neutral by 2011.
- Australian National University runs an internal loan scheme for departments to implement sustainability initiatives, runs an organic garden and is undertaking a campus biodiversity study.
- University of Manchester Students' Union, UK, has installed a 30,000 litre rainwater tank to gather rainwater from the roof, which is reused for cleaning purposes and toilet water. It also installed a system that uses latent heat from below ground surface to under floor heat the changing rooms.
- Middlebury College, Vermont, USA, has three full-time staff working on environmental initiatives. It runs its own recycling centre and promotes the use of sustainable building materials and practices. It also runs an organic garden and composting system and uses bio-diesel in its campus vehicles. It is working towards a target to reduce its greenhouse gas emissions to 8% below 1990 levels by 2012.
- The University of St Andrews in Scotland has installed an on-campus composting facility and system, and runs a campus-wide furniture exchange. It is a certified Fairtrade campus and its residential buildings benefit from high levels of thermal insulation and a rainwater recovery system.

MULTI-INSTITUTION SCHEMES

- The Talloires Declaration has been signed by 329 college and university leaders around the world. It is a declaration that institutions of higher learning will be world leaders in developing, creating, supporting and maintaining sustainability.
- The American College and University Presidents' climate commitment scheme now has 603 members who have signed a commitment to making their institutions carbon neutral.

THE ISSUES

There are many complex sustainability issues facing society, and most of these issues are interconnected in some way. For example, climate change affects biodiversity and resource use is linked to Fairtrade. This page gives an overview of some of the most important issues.

SUSTAINABILITY

Sustainability has been used to mean many different things. Despite this, the central concept of sustainability — living in ways that do not impede future generations to have a standard of living equal to or better than us — remains a useful way of describing what we should all be aiming for and so is used throughout this guide. Looked at more broadly, it also means living in ways that do not impede the ability of other species to survive.

CLIMATE CHANGE

Since 1750, human activity has caused carbon dioxide levels in the atmosphere to exceed by far the natural range over the last 650,000 years.[1] These increased levels of carbon dioxide trap more heat in the atmosphere which is disrupting the stability of the climate system. The impacts of this are already being felt in the form of more frequent and extreme weather events; threatened agricultural production; rising sea levels and the endangered survival of many species.

Fossil fuel use, landfill and agriculture, as well as other activities, release greenhouse gases (GHGs) into the atmosphere, while deforestation and increased ocean temperatures (among other factors) reduce the Earth's ability to absorb GHGs.

It is calculated that the safe level of carbon dioxide (the human produced greenhouse gas most affecting the climate)[2], in the atmosphere is 350 parts per million (ppm), but current levels are already at 387 ppm, and this is increasing at the rate of 2ppm a year.[3]

Therefore, we need to immediately adjust our behaviour to produce fewer emissions, such as reducing our reliance on oil and through activities such as reforestation, thus enabling the Earth to absorb more.

For more on climate change see:

- www.350.org
- www.ipcc.ch (the website of the intergovernmental panel on climate change)
- www.realclimate.org

There are also many websites where you can calculate your CO2 footprint, such as

- www.carbonzero.co.nz.

RESOURCE USE

In Aotearoa New Zealand, and throughout the world, resources are being consumed at a rate and quantity that the Earth cannot continue to supply. There must be better management and use of renewable resources (such as trees and fresh water)

and less use of non-renewable resources (such as oil and minerals).

- One way to learn about how many resources you use is by completing the quiz at www.myfootprint.org

BIODIVERSITY

Biodiversity is the variation of life forms within an ecosystem, the largest of these ecosystems being the entire Earth. The current rate of extinction of these life forms is estimated by experts to be between 1000 and 10,000 times higher than the expected natural extinction rate.[4]

Biodiversity loss is of deep concern because every species within an ecosystem fulfills important roles, such as water cycling and plant pollination, and the loss of any species negatively affects the functioning of the whole ecosystem, in ways that all too often we learn of only after the species is endangered or extinct. The primary threat to biodiversity is habitat loss, as well as climate change and over-exploitation by humans.[5] We need to begin living in a way that does not threaten the survival of plants or animals or impede their ability to fulfill their roles in their ecosystems.

For more information see:

- www.panda.org/biodiversity

SOCIAL SUSTAINABILITY

Social sustainability is effectively the human side of sustainability, as opposed to the physical environmental side. It means acting in a way that does not impede the ability of other people to fulfill their needs and potential, or for future generations to do so, and for decision making to be done in an inclusive manner.

In an Aotearoa New Zealand context, it also means awareness and respect that this is a bicultural and multicultural nation. An important aspect of this is Pakeha and Māori ensuring that they understand and uphold our founding document, Te Tiriti o Waitangi (The Treaty of Waitangi), including the difference in meaning between the Māori and English versions.

For more on Te Tiriti:

- *An introduction for Pakeha to the Treaty of Waitangi*, edited by Helen Yensen, Kevin Hague and Tim McCreanor.
- *The story of a treaty* by Claudia Orange.
- www.nzhistory.net.nz
- www.waitangi-tribunal.govt.nz/treaty/

COMMUTING

46% of Victoria staff and 13% of Victoria students commute as the driver or passenger of a car. Commuting by car, as sole occupant, produces about three times as many carbon dioxide emissions as public transport, motorcycle or scooter travel.

Below is information to help car drivers find another commuting option, thereby saving money and the planet, as encouraged by the Vic Commute Travel Plan.

CAR-POOLING

Car-pooling is a great way to reduce the number of cars commuting to campus, as many staff and students commute from the same suburbs.

The website www.letscarpool.govt.nz has been set up to help potential carpoolers find other carpoolers in the region. Victoria will also be providing designated spaces for carpooling.

PUBLIC TRANSPORT

There is a good bus service to all the Victoria campuses, with improvements, such as better coordination of bus timetables with lecture times, being made all the time. The journey planner on www.metlink.org.nz is a useful tool to find out which bus route is best for you.

Free bus travel is available for staff and students who need to be at more than one campus during the day. Tickets for this can be sourced from department administrators for staff, and VUWSA for students.

CYCLING

At the Mechanical Tempest Bike Workshop, you can build, fix or buy a bike. Tools, parts and help are provided. The workshop is open at 128 Abel Smith St, Te Aro every Wednesday and Thursday 2-5pm. Contact 04 389 4710 for details.

WALKING

Walking is a great option for getting to campus, eliminating traffic jams and parking hassle from your commute. There are great pedestrian route maps on www.livingstreets.org.nz/wellington.html and also a map specifically of pedestrian routes and shortcuts to Victoria campuses, soon to be available around campus.

SHOWERS ON CAMPUS

Walking and cycling to university can be sweaty work. Below are the locations of showers on campus.

- Kelburn: EA level 2 and 6, LB basement, HU level 3 (staff only), MY level 1, RC
- Pipitea: RH basement gym, RH level 12 (staff only) GB ground floor
- Karori: Marae, THK, MA, MGYM
- Te Aro: VS basement and level 1

TRAVEL

A core part of research and teaching is being able to share knowledge, hence the many events attended by Victoria staff. However, this travel has significant environmental impacts. At an annual cost of $4.6 million, the 35 million kilometres of Victoria air travel produces 3,830 tonnes of carbon emissions — 12% of Victoria's total emissions. What is more, these statistics represent a 9% rise in kilometers travelled compared to 2007 — Victoria needs to find ways to significantly lower this amount of travel in order to lessen its carbon emissions. Here are some ideas to help you do this:

- Consider how necessary conference or event attendance is and/or set an annual limit of events to be attended or kilometers to be flown.
- Carbon offset the travel. The University does not currently offset travel, but you could personally offset your own trips. To give an indication of the cost of this, to offset a return trip from Wellington to London would cost around $270 through www.carbonzero.co.nz. It is not a big cost compared to the overall cost of travel, and will go a long way to mitigating the environmental impacts of the travel. If booking through HRG, they can arrange this for you.
- The use of technology can eliminate the need to travel, domestically or internationally. Victoria offers several audio and video communication technologies. They are great to use, for example: for collaborative research; to record presentations that can be played at seminars instead of presenting at them in person; to watch video coverage of seminars or lectures; and to replace the need to travel to meetings.

Some people perceive that this technology inadequately replaces meeting in person, but the (very helpful) staff that mange this technology have found that users find it very useful and really enjoy using it.

To find out more about this technology and to book, see:
www.vuw.ac.nz/teaching-services

CARBON NEUTRALISING

Carbon neutralising or offsetting involves calculating how much carbon dioxide will be emitted by an action, and then acting to remove the same amount of carbon dioxide from the atmosphere. This is often done by planting the quantity of trees that will absorb this much carbon dioxide in their lifetime, or by investing in renewable

ENERGY

Energy, how to produce it and conserve it, is one of the most critical environmental concerns. Society has a seemingly insatiable demand for energy, which is having significant environmental impacts, including: the emission of greenhouse gases; the flooding of communities and important eco-systems for hydro-electric dams; and the burning of polluting substances such as coal.

While in Aotearoa New Zealand we are fortunate to have so many sources of renewable energy, it is important to reduce energy use because the more energy we demand, the more pressure there is on energy companies to create expensive and often environmentally harmful new electricity-generation plants. Furthermore, energy used in buildings is the biggest source of carbon emissions for Victoria, so lessening energy use will also lessen our carbon footprint.

Even small efficiency gains will yield significant financial savings (particularly as energy prices rise) and environmental benefits. During an energy efficiency push in 2008, electricity use during that period was reduced by 5.4%, and energy savings from efficiency projects in 2008 are estimated at $140,000 a year.

HEATING

- If you have access to the thermostat make sure you set a reasonable temperature — 20°C is warm enough when the heater is on and 23°C is cool enough if you have air conditioning. By setting sensible temperatures the boilers and chillers will use a lot less energy.
- Don't heat the outdoors. Keep exterior doors shut at all times, and put draught-stoppers under draughty doors.
- Dress appropriately for the conditions. Wear warmer clothes in winter, cooler clothes in summer.
- In winter, shut office curtains before leaving for the night to keep heat in for the morning.

LIGHTING

- If there is enough natural light, turn the lights off — daylight is actually a much higher quality light to work by. To communicate that you are in your office when your door is closed and lights off, hang a sign on the door acknowledging that you are there.
- If you are the last person to leave a room, turn the lights off, even if the room will only be empty for a couple of minutes.
- Only turn the lights on in the area in which you are working — there is no need to light up the whole floor if there is no one else there.
- Standard incandescent light bulbs are a thing of the past — if there are any of these

COMPUTER ENERGY USE
Desktop Computer: 60-250 Watts
Desktop on Sleep/Standby: 1-6 Watts
Laptop: 15-45 Watts

in your area put a request in to Facilities Management to have these replaced with energy saving compact fluorescent lamps. FM-ServiceDesk@vuw.ac.nz, extn. 6600.

EQUIPMENT:

- Turn off your computer monitor overnight. Your computer still needs to be on so ITS can install updates but your monitor can be switched off.
- Use the power saving settings on your computer to automatically put your screen to sleep after a few minutes, rather than using a screensaver.
- If appropriate, use laptop computers and ink-jet printers — they consume a lot less energy than desktop computers and laser printers.[6]
- Make sure all the presentation equipment is switched off when leaving a lecture theatre or seminar room.
- If there is a dishwasher in your department, wait until it is full before using it and use the 'economy' cycle if it has one.

WASTE

Victoria currently sends an estimated 496,000 kg of waste to landfill each year, but could reduce this by up to 80% by implementing steps such as these:

REDUCE

Much waste is produced unnecessarily, making reducing waste the most important step in waste minimisation.

- Use refillable ink and toner printer cartridges. Cartridge World can refill most cartridges and have a pick-up and delivery service. www.cartridgeworld.co.nz
- Use rechargeable batteries — they are much cheaper in the long-run and contain fewer toxic heavy metals.
- Only print or photocopy when absolutely necessary and print double-sided using MFDs rather than smaller printers.
- Designate a box for scrap paper and use it for printing all drafts or unofficial documents.
- When giving students resources, distribute them electronically on Blackboard as much as possible to avoid distributing material to students who will not use it.
- Calculate carefully how many copies of student notes are required to avoid printing extra copies which go to waste.
- Allow and encourage students to print assignments double-sided.
- Condense mailing lists so they include only truly interested parties and remove yourself or your office from mailing lists that are sending you material that is not being used.
- When you require a copy of an original document, an alternative is to keep a scanned copy, PDF, rather than to photocopy it. These can be saved on the network drives (M drive) to make them accessible.
- Finance and HRMIS sometimes accept scanned copies of documents (e.g. contracts). Therefore, in some situations you can keep the original copy and send a scanned copy to Finance or HRMIS. This has the advantages that scanning has no cost and the document arrives immediately at its destination.

REUSE

- Coffee Cups: Instead of getting a take-away cup, have coffee in the café in a ceramic cup, or bring a reusable cup.
- If you have unwanted goods, such as furniture, advertise this on a staff noticeboard or in Vic News so that someone else can reuse it instead of throwing it out.
- One person's trash: Try a clothes swap. Choose a time and place, such as lunchtime or someone's house one evening, and get everyone to bring along clothes (or other small items) that they no longer want. Then lay them out and everyone gets to choose something new in exchange for contributing something to the swap.

RECYCLE

Recycling prevents useful resources being wasted, thereby reducing the consumption of raw materials, energy usage and production of greenhouse gas emissions.

- Any type of mobile phone or accessories can be taken to any Vodafone or Telecom outlet for recycling.
- Wellington has annual e-waste recycling days — these are well advertised as they come up, or check www.eday.org.nz for updates.

RECYCLING DOS AND DON'TS:

- Do get an under-desk paper recycling box to collect your day to day waste paper. These are available by contacting FM-ServiceDesk@vuw.ac.nz, extn. 6600.
- Do put paper and light card in the green wheelie bins, with cardboard boxes folded flat and put next to them.
- Do put glass, tins and plastic (only numbers 1 and 2 — look for the number in the recycling logo) in the red wheelie bins
- Do rinse all containers to be recycled
- Don't leave food in your recycling
- Don't put hazardous items, such as sharp objects, batteries or paint, in your recycling,
- Don't put polystyrene, food wrap, foil or tetra Pac containers (such as milk cartons) in the recycling bins.

COMPOSTING

Composting organic waste reduces waste outputs by up to 36%. Also, the less organic waste there is in landfill, the less methane (a potent greenhouse gas) is released.

- At present, Victoria does not have University-wide composting facilities. However, Bokashi is a composting system ideal for offices, as it takes up very little space and is odourless. See www.bokashi.co.nz for more information and distributors.
- Another option is to have a compost container in the staff kitchen that is taken home by people who have compost at home on a rostered basis. This system is working well in several departments around Victoria.

LINKS

- www.zerowaste.co.nz the website of NGO Zerowaste, with lots of waste minimisation tips and information.
- www.storyofstuff.com is a witty and interesting overview of waste.

FOOD

Our daily routines revolve around food, and our need for it drives an enormous industry of agriculture, processing, packaging, transport and businesses. However, many of the ways in which we create and process food have negative effects for the environment and for people. Below is information about some of the most prominent issues around food, and some guidelines for good food purchasing.

FAIRTRADE

Fairtrade is a very real way that consumers in more developed countries can use their purchasing power to support the basic rights of people to have good wages and prices paid for their products. Environmental conditions must also be met for a product to be Fairtrade Certified.

- Fairtrade is now available in supermarkets and through Corporate Express. It could be the policy of your office or department to purchase only Fairtrade tea and coffee (and other products as they become available).
- You can also try to patronise only cafes that serve Fairtrade coffee, or ask it from those who don't.
- Visit www.fairtrade.org.nz and www.tradeaid.org.nz for more information.

PACKAGING

Food is often excessively packaged. Try to choose the least packaged option for the food you are purchasing, and ensure that the packaging is recyclable. Bringing food from home in reusable containers instead of buying it will save a lot of packaging, and money too.

ORGANICS

It is a common misconception that organic farming is simply about producing chemical-free food. However, this is only part of the picture. Basically,

"Organic agriculture is a production system that sustains the health of soils, ecosystems and people." [9]

In other words, organic produce that carries the certification of the labels below has been grown in a way that has more positive effects for humans and the environment than non-organics.

- While organics can be expensive, you can just choose a few products to always buy organic, such as milk or fruit and vegetables. Organic fruit and vegetables (delivered to your doorstep) can be ordered from www.organicconnection.co.nz, www.naturallyorganic.co.nz and other companies.
- Organic food stockists include: Commonsense Organics Shops, The Organic Grocer (15 Kaiwharawhara Road) and the organics section at supermarkets.

FISH

Many fish stocks around the world, including in Aotearoa New Zealand, are in danger of imminent collapse as a result of unsustainable fishing practices. Fish that should not be bought because of their vulnerability or the destructive methods used to catch them include hoki, snapper, some kinds of tuna, orange roughy, shrimp and prawns.

- See the Forest and Bird Best Fish Guide or Greenpeace Red Fish Guide to choose sustainable seafood options.
www.forestandbird.org.nz/files/file/best-fishguide_walletcard.pdf
www.greenpeace.org.nz/redlist/RedFish-Guide.pdf

GOOD NEWS FOR VEGETARIANS

Meat, particularly beef, is energy intensive to produce. One study found that the energy saved by four people choosing a vegetable-based diet for one day, rather than a meat-based one, equals the energy needed to drive the average passenger car over 24 kilometres.[10] Meat-eaters do not have to become vegetarian, but having one or two vegetarian meals a week will reduce these energy demands and save money.

GROW YOUR OWN

While it won't satisfy all your food needs for the week, food can be grown in your office. Around Victoria, staff and students are growing tomatoes, passionfruit, herbs and other veggies very successfully. It's also a nice way to brighten up an office, and having plants around is proven to be good for workers, reducing stress and increasing productivity.[11]

- See www.bestgardening.com

LOCAL FOOD

It is extraordinary how many resources go into transporting our food to us. Therefore, a consumer's impact on the environment can be significantly lessened by purchasing locally grown and processed food.

Look for these labels on products as your independent guarantees:

WATER

Fresh water supply and access is fast becoming one of the most prominent resource issues, and climate change will potentially worsen what is already regarded as a pending global fresh water crisis.

Aotearoa New Zealand is one of the most fortunate countries in the world in terms of fresh water supply and access. However, Wellington's water supply is coming under increasing pressure — Wellington's population is continually growing, and Wellingtonians use 400 litres of water a day, compared to the national average of 160 litres a day.[7] The following tips will help you to conserve water, both at work and at home.

- Dripping taps can waste a lot of water. A leak of one drip per second will waste more than 100 Litres a week.[8] However, they taps are often easily and inexpensively fixed. Report dripping taps to Facilities Management FM-servicedesk@vuw.ac.nz
- Avoid leaving the tap running while brushing teeth or cleaning dishes etc.
- Don't boil a full kettle when you only need a cup of hot water.
- Use the half-flush option on toilets.
- Only run dishwashers or washing machines when full, and choose the eco or water-saving options that many of them have.

Water supply is not the only consideration to take into account with water. The quality of water is also very important. One of the ways in which water quality can be maintained is by ensuring that waste water is also cared for.

- Use detergents, soaps, shampoos and washing powders made from biodegradable products. These are much less polluting to the water system. Look for products such as Ecover, Ecostore, Next Generation and BEE brands.
- Scrape your dishes before you wash them, then use the scraped food for compost instead of washing it down the drain.
- Don't dispose of toxic chemicals or substances such as methylated spirits down the drain.

PUTTING IT IN PERSPECTIVE

The 17.5 billion litres of water used annually by Wellingtonians is roughly equivalent to 50,000 standard 25m swimming pools.

PROCUREMENT

An institution the size of Victoria purchases a huge amount of products. By working with suppliers, Victoria's procurement could become much more sustainable, significantly benefiting the environment, and establishing itself as a sustainable procurement leader for the wider community to emulate.

There are still only a few guidelines as to what environmental information must be provided by a manufacturer or supplier. However, the more customers ask for such information before purchasing, the more it will become available, so it is well worth asking suppliers about the environmental credentials of their products. Below are some guidelines for more sustainable product procurement.

BEFORE BUYING

Is it really necessary to buy the product? Conduct a needs analysis, and remember that the most sustainable option is not to purchase at all:

- Can one be borrowed or found within Victoria?
- Is it possible to hire the product?

www.hireitnow.co.nz
www.hirethings.co.nz

- Can the product be shared in order that fewer need be bought?

BUYING

It is Victoria policy to consider the life cycle environmental impacts for all procurement transactions and to favour environmentally sustainable products. These tips will assist sustainable procurement by guiding you through considering the environmental impacts of a product throughout its 'life'.

1. Production and Purchasing

- Purchase goods, materials and services that comply with recognised environmental standards (see below) or from environmental ranges such as Corporate Express's Earthsaver range.
- Try to source and buy products that are made from recycled products.
- Buy in bulk less frequently, rather than buying a few items frequently, thereby minimising packaging, transport and the environmental effects of these.
- Buy products with the least packaging possible, and/or that have been packed with recyclable or reusable materials.
- Buy locally sourced products to minimise transportation of the product.

2. The Product When in Use

- Buy products that are durable and long-lasting. Even if slightly more expensive at the outset, the products will last longer and save money long term because fewer replacements will need to be purchased in future.

- Buy energy efficient products.
- Consider whether the products will produce a lot of waste when in its use (For example, is it a printer that can use refillable cartridges or will new ones have to be purchased each time?)

3. Disposal of the Product

- Can it be recycled or reused or will it go to landfill?

RECOGNISED ENVIRONMENTAL STANDARDS

- Energy Rating, a standard developed by Australian and Aotearoa New Zealand governments for appliances. www.energyrating.gov.au
- Energy Star, a standard developed by Aotearoa New Zealand's Energy Efficiency and Conservation Authority (EECA) for appliances. www.energystar.govt.nz
- Enviro Choice, a government owned and endorsed label and standard developed for a wide range of products. www.envirochoice.org.nz
- The Forest Stewardship Council is an independent NGO that certifies products that come from forests that are sustainably managed, socially, economically and ecologically. www.fsc.org

UNIVERSITY PROCUREMENT POLICY

The University Procurement Policy and its associated Environmentally Sustainable Procurement Guidelines contain examples of standard environmental clauses for tenders and other documents that can be modified to suit various procurement situations. This policy can be obtained in full by searching *procurement policy* on the Victoria website.

LINKS

- The Sustainable Business Network has produced a good compilation of sustainable businesses and products in the form of its sustainable living guide. Find it on www.sustainable.org.nz under *resources/publication/sustainable living guide*. Also under *about/member directory* you will find all the businesses that have been approved as sustainable businesses by the network.
- Green Pages: a guide to eco-friendly products and services, slightly Auckland focused but with many nationally relevant companies www.greenoffice.org.nz/greenpages.php
- The Total Beauty of Sustainable Products is great little website that gives a wonderfully presented, simple overview of what sustainable products are all about. www.biothinking.com/slidenj.htm

SUSTAINABLE EVENTS

Events, such as conferences, meetings, social events or information evenings, can have significant environmental impacts. Below is a guide to minimising these impacts and holding a sustainable event.

PUBLICITY AND REGISTRATION

- Minimise paper use by distributing promotion and attendance information via email and websites as well as providing online registration.
- Post event information, downloadable versions of programmes, handouts and itineraries on a website for attendees.
- Make delegates aware of the sustainability measures being taken, what the goals for the event are and ask their assistance in meeting them.

VENUE AND ACCOMMODATION

- When choosing a site for your event, ask the venue if they have an environmental management policy in place which includes recycling programmes, energy efficiency, water conservation and environmental purchasing measures. Ask the same from accommodation.

WASTE

- If the event is on-site at Victoria there will be recycling facilities available. If at another venue, ensure that there will be such facilities there.
- Make it easy for people to recycle and compost. Have well-labelled and visible receptacles for recyclables and waste (and compost if this is going to be provided).
- Collect and reuse plastic name tag holders and use recycled paper in them.

ENERGY

- Use heating and air conditioning sparingly. Heating above 20°C is not required and use natural ventilation where possible rather than air conditioning.

FOOD/CATERING

Request that caterers use the following guidelines. For smaller events, you will often be limited to using in-house catering, but it is still worth requesting these guidelines be followed if possible.

- Use locally grown/produced foods, organic foods and Fairtrade coffees, teas, sugar etc.
- Use reusable dishes, cutlery, and glasses/cups. If this is not possible, use biodegradable dishes, cutlery and glassware.
- Use cloth tablecloths and napkins if possible. If not, use ones that are made from recycled paper.
- Provide water in pitchers, rather than plastic bottles. If bottled water is unavoidable, buy water in biodegradable bottles (see Good Water www.goodwater.org.nz or Life Water www.lifeinc.co.nz) or, as a last resort, ensure plastic bottles are recycled.

- Do not use individually wrapped condiments, plastic coffee stirrers, paper doilies or straws.
- Any fish used should not be on the Greenpeace Red Fish Guide or the Forest and Bird Good Fish Guide (see the *Food* section for details)

MATERIALS

- Handouts: consider which materials and resources need to be included in conference packs and which can be provided online as PDFs or links to downloads of literature. Printed material should be printed double-sided and in black and white on recycled paper.
- Avoid sponsors giving out unnecessary promotional material such as pens and carrier bags. If they want to do this, make sure they use reusable organic cotton, jute or recycled bags and environmentally friendly pens (such as www.epenz.co.nz and www.cenz-sustain.co.nz) and recycled or FSC approved paper.
- Give speakers eco-friendly gifts such as native plants or organic wine.

TRAVEL

- To minimise the transport needed by event attendees, choose an event venue that also offers accommodation, or that is easily accessible by foot, bike and public transport. Provide attendees with information about these options, such as a pedestrian maps or public transport timetables. For Wellington these can be sourced from Metlink www.metlink.co.nz or Living Streets Aotearoa www.lsa.org.nz
- Encourage attendees who are coming from the same place to carpool to the event by offering to co-ordinate this.
- Identify local presenters as well as other experts to minimise travel needs and to publicise local initiative and talent.

CARBON OFF-SETTING THE EVENT

To carbon offset the emissions from an event, calculate and offset through Carbonzero www.carbonzero.co.nz. To fund this, it can be made part of the overall event budget, through attendees' fees or by sponsors, or voluntarily by participants.

TEACHING & RESEARCH

As a teaching and research institution, Victoria has a crucial role to play in developing knowledge around sustainability issues and disseminating this knowledge to as many people as possible.

Educating for sustainability involves teaching and research that increases students', teachers' and the community's ability to create a more sustainable society. Such education is applicable to any discipline and can involve teaching students practical skills such as how to develop a campus recycling scheme or using research topics that engage students with issues of sustainability (be this social, cultural, economic or environmental sustainability). It can also take the form of teaching students the skills needed to create a sustainable society, such as co-operation and critical thinking. Below are some suggestions for educating for sustainability.

RESOURCE CHOICE

Many courses involve the use of resources for students to analyse and discuss. These resources can be used to increase student awareness of certain issues. For example, in language classes, articles in foreign languages used for comprehension exercises could be on a topic such as bio-diversity loss and the following discussion focused around the issue, or a mathematical task could be calculating the amount of carbon released by all the cars in New Zealand.

REFLECTION

Reflection can be used to help students to understand that they are part of a wider world and that their actions impact upon other people and the planet. Reflection could take the form of asking students undertaking large research projects what effects their research might have had on the environment or community, e.g. they may have caused a lot of carbon emissions by travelling to do research, or may have used a lot of paper printing off research articles. Or, when students are doing assignments that include proposing solutions or ideas, such as commerce students making business plans, ask them to reflect upon what impact their proposed actions would have upon the environment or the community.

BUILDING PARTNERSHIPS

Finding solutions to sustainability issues requires the ability to negotiate and co-operate. This can be achieved through exercises such as group work. The Victoria University Teaching Development Centre runs a number of courses that provide experience in using a range of techniques to do this. www.utdc.vuw.ac.nz

RESEARCH TOPICS

Many courses also involve research elements. This is a prime opportunity to include an aspect of sustainability in students' research, by assigning research

topics with a sustainability focus, such as giving political science students a research question around the effects of resource depletion on the politics of a certain country.

RESEARCH FOR SUSTAINABILITY

Research can benefit both the researcher and the wider community. Research is a valuable tool and many organisations working for sustainability would greatly benefit from research into issues they are working on. Therefore, if students are unsure of what to research, for a Masters thesis for example, they could contact organisations involved in their area of interest to see if their research could benefit them, and in return have support in their research from these organisations.

LINKS

- Association for the Advancement of Sustainability in Higher Education www.aashe.org
- Australian Research Institute for Sustainability www.aries.mq.edu.au/project.htm
- Educating for Sustainability at Otago Polytechnic www.otagopolytechnic.ac.nz

For information and resources contact Pam Williams, pam.williams@vuw.ac.nz

To serve as inspiration, below are some case studies of education for sustainability being incorporated into teaching and research.

AT VICTORIA

- James Liu's social psychology class analyses peoples' attitudes towards environmental issues, and what can change these attitudes.
- 100-level Environmental studies students research environmental issues facing Victoria and possible solutions for these.

AT OTAGO POLYTECHNIC

- The School of Hospitality has incorporated increased emphasis on teaching students about suppliers of goods and locally sourced goods. They also installed Bokashi bins and improved recycling in the school.
- The School of Arts now teaches students to consider and mitigate what happens to art materials after they have finished using them, and how to source non-toxic materials.

TWO WEEK PLAN FOR A GREEN OFFICE

"The difference between what we do and what we are capable of doing would suffice to solve most of the world's problems." — Mahatma Gandhi

Individual behavior change makes a big difference to putting us on the path to sustainable living and working. The following plan is based upon the information and advice given throughout this book.

DAY 1 Set up a box in your office where people can put paper printed on one side to be reused for printing, note-paper etc.

DAY 2 Turn off your computer screen when not in use, even if just popping out for a few minutes.

DAY 3 Turn lights off in the office when there is sufficient sunlight to work in and make an "I am in my office" sign to hang on your door to let people know you are in your office. Also ensure all light bulbs in your office are energy saving compact fluorescent lamps. If there are any incandescent light bulbs in your area put a request in to Facilities Management on extn. 6600 or FM-ServiceDesk@vuw.ac.nz to have these replaced.

DAY 4 Check taps in the office kitchen or bathroom. Contact Facilities Management extn. 6600 or FM-servicedesk@vuw.ac.nz to fix any leaking ones.

DAY 5 If you teach, instruct students, in class and in the course outline, to hand in assignments printed double-sided, noting for students that this a good thing to do because it conserves resources.

DAYS 6 & 7 Commit to carbon-offsetting your next flight, university-related or otherwise and enjoy the weekend. www.carbonzero.co.nz

DAY 8 If you drive to the University, make today a day to commute by carpool, public transport, bike or on foot, and continue to do this at least one day a week.

DAY 9 Start an office composting system for coffee grounds at least, to be taken home by staff with composting facilities on a roster, or buy a Bokashi bin for the office. www.bokashi.co.nz

DAY 10 Buy Fairtrade. Fairtrade tea and coffee are available through Corporate Express.

DAY 11 Buy planet-friendly, biodegradable office cleaning products such as dishwashing liquid.

DAY 12 Start growing a vegetable or fruit plant in your office, such as a cherry tomato, passionfruit vine or herbs.

DAYS 13 & 14 Calculate your carbon and global footprints: www.carbonzero.co.nz and www.myfootprint.org and sign up to the environment champion scheme which supports staff to act more sustainably and encourages others to do so too. Contact Andrew Wilks andrew.wilks@vuw.ac.nz, 04 463 9988.

GET INVOLVED!

There are many ways that individuals can become more involved in addressing environmental and sustainability issues. This page provides contacts to support such involvement.

42 COLLECTIVE aims to simplify and encourage the shift towards lifestyles that enhance personal wellbeing, maximise resource and energy efficiency and minimise harm to people and the environment. www.42collective.org.nz

BE THE CHANGE supports individuals to mitigate climate change. www.bethechange.org.nz

GECKO the Student Environment Group at Victoria. gecko.vic@gmail.com

ECO-THERAPY gives people the chance to get closer to nature by potting up native seedlings. www.ecotherapy.org.nz

ENVIRONMENT CHAMPIONS supporting Victoria staff to act more sustainably and encourage others to do so too. andrew.wilks@vuw.ac.nz 04 463 9988.

ENVIRONMENT AND CONSERVATION ORGANISATION OF AOTEAROA NEW ZEALAND www.eco.org.nz

INTERSECT young professionals working for sustainability. www.intersect.org.nz

LIVING STREETS AOTEAROA pedestrian and walking advocacy organisation for Aotearoa New Zealand. www.lsa.org.nz

MANAWA KARIOI conservation project in Island Bay. mk.3months.com

NATIVES 4 CLIMATE JUSTICE a network of indigenous peoples and friends of indigenous peoples who come together to raise awareness about climate and justice issues that affect natives, take action and to share in each others' skills. natives4climatejustice@gmail.com

350 Aotearoa New Zealand climate action festival. www.350.org.nz

SUSTAINABILITY TRUST supporting local communities in addressing sustainability issues. www.sustaintrust.org.nz

TRANSITION TOWNS communities in Aotearoa New Zealand responding to the twin challenges of climate change and peak oil. www.transitiontowns.org.nz

WELLINGTON COMMUNITY NETWORK www.wcn.net.nz

VOLUNTEER WELLINGTON www.volunteerwellington.org.nz

ENDNOTES

1. IPCC, 2007: Summary for Policymakers. In: *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Solomon, S. et.al. (eds.). Cambridge University Press, Cambridge.

2. Ibid.

3. *Target Atmospheric CO2: Where Should Humanity Aim?* Hansen, J. et.al. — arxiv.org/ftp/arxiv/papers/0804/0804.1126.pdf

4. cmsdata.iucn.org/downloads/species_extinction_05_2007.pdf

5. cmsdata.iucn.org/downloads/species_extinction_05_2007.pdf

6. michaelbluejay.com/electricity/computers.html, www.greeningthescreen.co.nz

7. www.stuff.co.nz/4773937a6000.html

8. www.fdws.co.uk/home/yh_wateraudit.shtml

9. www.ifoam.org/growing_organic/definitions/doa/index.html

10. www.sightline.org/research/pollution/res_pubs/paper-vs-plastic-the-final-analysis

11. www.hireplants.com/Articles/Psychological+benefits+of+plants.html

CREDITS

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