Aligning your Teaching with the Principles of Sustainability

Author: Géraldine Plas, National Centre for Sustainability at Swinburne University
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Introduction

This document is an extract of the Conservation and Land Management Support Guide, produced as part of a 2003 Reframing the Future project, which developed advice for an effective implementation of the Conservation and Land Management Training Package (CLM TP).

This extract seeks to provide meaningful advice to education professionals on the alignment of their teaching with the principles of sustainability. It is divided into five parts

1. A definition for sustainability;
2. A list and description of sustainability elements particularly relevant to the CLM TP and suggestions on how the contents of the CLM TP can be taught in a more sustainable manner;
3. General advice and practice tips on how to teach more sustainably;
4. Sustainability checklists for teachers, students and managers; and
5. References

While section 2 is very specific to the CLM TP, sections 1, 3, 4 and 5 are of a more general nature. Readers of this Guide are invited to share them with their colleagues throughout the organisation.

Last, readers should note that this guide is a work in progress. Any comments and suggestions are welcome and should be provided to the Chairperson of the Victorian Natural Resource Management Providers’ Network or the National Centre for Sustainability.

<table>
<thead>
<tr>
<th>The National Centre for Sustainability at Swinburne University</th>
<th>The Victorian Natural Resource Management Providers’ Network</th>
</tr>
</thead>
</table>
| Manager
Linda Condon
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1. Sustainability – a definition

The terms “sustainability” and “sustainable development” have been defined in a number of ways, often depending on contextual elements such as geographical location, economic conditions, social context, anthropo- or eco-centric vision, personal interest, corporate interest, education or age.

As, an example of this diversity,

- The United Nations define “sustainable development” as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”; and

- Australia’s National Strategy for Ecologically Sustainable Development defines Ecologically Sustainable Development (ESD) as “using, conserving and enhancing the community’s resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased”.

“Sustainability” often is broken down into the areas of ecological, social and economic sustainability. These three goals might appear difficult to concurrently achieve. The deliverers of the CLM training package involved in the writing of this Guide, however recognise their ability to contribute to them.

They define their contribution to sustainability, as teachers and coordinators, through nine guidelines:

<table>
<thead>
<tr>
<th>Sustainability guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Maintain biodiversity;</td>
</tr>
<tr>
<td>2. Use and manage resources wisely;</td>
</tr>
<tr>
<td>3. “Walk the walk”, as an individual, a professional and a training organisation;</td>
</tr>
<tr>
<td>4. Develop strong community links;</td>
</tr>
<tr>
<td>5. Foster communication among individuals and groups;</td>
</tr>
<tr>
<td>6. Respect others;</td>
</tr>
<tr>
<td>7. Ensure health and safety for all;</td>
</tr>
<tr>
<td>8. Promote good corporate governance; and</td>
</tr>
<tr>
<td>9. Seek for equilibrium and quality of life.</td>
</tr>
</tbody>
</table>

Table 1: Sustainability guidelines
2. Sustainability elements particularly relevant to the CLM TP

The group of teachers involved in the writing of this Guide recognised the opportunity to address the conservation of natural resources, as well as social and economic development in the topics they teach.

They established a list of sustainability elements particularly relevant to the CLM TP, which are presented below in three tables:

- Table 1 addresses environmental sustainability issues;
- Table 2 addresses social sustainability issues; and
- Table 3 addresses economic sustainability issues.

Each table identifies and describes specific issues in its first and second columns. It then provides, in its last column, issue-specific examples of how CLM TP teachers, students and professionals can contribute to sustainability through their expertise. General advice, valid for each issue is presented below:

<table>
<thead>
<tr>
<th>Aligning CLM TP teaching with the sustainability – The essentials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discuss sustainability issue in class</td>
</tr>
<tr>
<td>Encourage students to understand the concepts and take them into industry/employment with them</td>
</tr>
<tr>
<td>Highlight current best practice</td>
</tr>
<tr>
<td>Implement best practices in your office/teaching environment</td>
</tr>
</tbody>
</table>

Table 2: Aligning CLM TP teaching with the sustainability – the essentials

These tables are a work in progress to be updated in an on-going fashion.
### Environmental issues

#### Greenhouse gas emissions and climate change

- Greenhouse gases in the atmosphere (among which carbon dioxide, methane, and nitrous oxide) trap the sun heat and maintain the Earth's surface temperature at a level necessary to support life.
- Since the early 1800s, human activities (e.g., burning of fossil fuels and land clearing) have significantly increased the amount of greenhouse gases in the atmosphere.
- As a consequence, the Earth temperature is increasing, leading to climate change. This is called the enhanced greenhouse effect. The effects of climate change include heat waves, rising water levels, increase in water temperature, change in distribution limits for species or communities and loss of rare species.
- Australia has one of the highest rates per capita and contributes some 1.5% of global greenhouse gas emissions.

**What can I do as a CLM TP deliverer?**

- Consider the need for transport and alternative methods to road transport, e.g., walking, cycling, public transport, selecting local suppliers
- Promote fleets with fewer, smaller and more efficient vehicles
- Test alternative fuels, e.g., Compressed Natural Gas (CNG), Liquefied Petroleum Gas (LPG), bio-fuels...

#### Freshwater resources

- Freshwater is a finite and scarce resource, which cannot be substituted and is essential for life.
- Australians live on one of the driest inhabited continents and nonetheless have the highest water consumption per inhabitant on the planet. This imbalance between water supply and consumption endangers the country’s ability to maintain its economic performance, quality of life, tourism or rural communities.
- The consequences of unsustainable management of water resources include salinity, unhealthy rivers and endangering of fish species.

**What can I do as a CLM TP deliverer?**

- Involve catchment management authority
- Engage into action learning projects
- Develop long term studies of rivers/catchment areas
- Support government initiatives e.g., water conservations and restrictions
- Discuss issues of reclaimed water and water rights
- Encourage the planting of species which do not require a lot of water and proper watering techniques
<table>
<thead>
<tr>
<th>Environmental issues</th>
<th>Description</th>
<th>What can I do as a CLM TP deliverer?</th>
</tr>
</thead>
</table>
| Biodiversity         | Biodiversity is the variety of all living things; the different plants, animals and microorganisms, the genetic information they contain and the ecosystems they form. Australia has about one million of the world’s 13.6 million species of plants, animals and micro-organisms on earth. This is more than twice the number of species in Europe and North America combined. No living organism can live in isolation: the decrease of biodiversity (species and habitat) threatens the whole equilibrium of the planet, besides raising ethical, economic, aesthetical and cultural issues. Between 1788 and 1998, Australia has lost 20 species of mammals, 20 species of birds and 68 species of plants. | • Monitor and survey biodiversity during field trips  
• Identify endangered species and actions for their protection  
• Encourage students to prepare reports on biodiversity issues and endangered species  
• Question traditional practices and consider alternatives  
• Use integrated pest management instead of chemicals  
• Encourage students to develop a class-herbarium, instead of individual ones |
<p>| Landcare             | ‘Landcare’ refers to a movement or network of people in Australia who are committed to the more sustainable management and use of natural resources. Landcare involves the establishment of partnerships between government, community organisations, businesses and others in the fields of eg salinity, soil degradation, animal pests, weeds, vegetation loss, streambank erosion, poor water quality, coastal degradation and urban land degradation. CoastCare, BushCare or Waterwatch are “sub-programs” of Landcare. | • Address land management issues eg feral animals, weeds, erosion, water quality with adjacent landholders and on own TAFE properties |</p>
<table>
<thead>
<tr>
<th>Environmental issues</th>
<th>Description</th>
<th>What can I do as a CLM TP deliverer?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reducing waste and material flows</td>
<td>There are different types of waste including municipal, commercial, industrial and prescribed waste. After recycling, Australian solid waste is buried in landfills. Landfills limit the use of a whole land area and its surrounding. If not properly managed, waste can pollute (e.g., littering of land and water, leakage from landfills, uptake of heavy metals and toxins in the food chain, wildlife choking on waste) and generate financial loss. The amount of waste produced can be limited by avoiding, reducing, reusing and recycling. In some instances, energy can be recovered from rubbish, prior to their treatment, containment and final disposal. Eco-efficiency is a management strategy of doing more with less, through increased product or service value, optimised resource use; and reduced environmental impact. Applied in a growing number of businesses, eco-efficiency decreases the amount of waste generated in production processes.</td>
<td>▪ Create / expose situations involving management of resources ▪ Assess the resource requirements for a given process and identify ways to decrease resources used and waste produced</td>
</tr>
<tr>
<td>Environmental issues</td>
<td>Description</td>
<td>What can I do as a CLM TP deliverer?</td>
</tr>
<tr>
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</tr>
</tbody>
</table>
| Chemicals            | There are thousands of dangerous man-made chemicals, often created to “meet the needs” of human beings. These can be found in pesticides, detergents, paints, personal care products, flame retardants or plastic products. Once spread, chemicals may be difficult to contain: they are in household dust, some accumulate in the food chain and are found in organisms very remote from their point of emission such as bears in the polar regions. Damaging properties of chemicals are linked to their persistence, toxicity and bioaccumulativity. Some chemicals have immediate (eg skin allergy, asthma, irritation) and other long lasting consequences (eg cancer, genetic disabilities). When dealing with suspected dangerous chemicals, one should identify them, their consequences and seek alternative solutions to their use. | ▪ Use integrated, biological and mechanical pest management  
▪ Plant disease and pest-resistant species  
▪ Use compost and mulch to improve soil health and reduce the needs for pesticides and fertilisers.  
▪ Use natural fertilizers such as bonemeal or compost.  
▪ Relate the use of chemicals to OHS  
▪ Train students to use proper disposal techniques for chemicals and other contaminating substances, eg when washing and maintaining vehicles |
| Wise use / management of resources - renewables | The survival of human beings, as well as other living organisms and landscape features depends on a range of resources including fresh water, air quality, forests, soil, land, ozone layer or energy. For the past two centuries, human beings have consumed or impacted on natural resources at a rate which does not ensure their renewal. By conserving and managing wisely resources which cannot be renewed (eg coal, gas, oil, native forests, fresh water, soils) and using renewable resources as an alternative (eg sustainably managed forests, energy in the form of wind, hydro, solar, biomass, ocean or geothermal power), human beings can ensure that their needs are met while not endangering the ability of future generations and other organisms to meet their own needs. | ▪ When addressing a resource use, consider the ability of future generations to meet their need with the same resource  
▪ Promote the use of renewable resources in projects and the office, eg solar or wind energy, recycled paper, timber originating from sustainable forestries |
Environmental issues

<table>
<thead>
<tr>
<th>Description</th>
<th>What can I do as a CLM TP deliverer?</th>
</tr>
</thead>
</table>
| Ozone depletion | The ozone layer is located in the stratosphere (high above the Earth) and blocks most of the sun’s harmful ultra-violet radiation. It is being depleted by man-used CFCs (chlorinated fluorocarbons) which chemically break down the ozone. As a result, we are not as well protected from damaging ultra-violet radiation from the sun, which increases the incidence of skin cancers and genetic damage. In order to protect the ozone layer, CFCs are currently being phased out through the Montreal Protocol to which Australia is a signatory.  
*The greenhouse effect and ozone depletion are two different problems occurring at different levels in the atmosphere.* |  - Older fridges, air-conditioners or car air-conditioners may contain ozone-depleting substances, train students to disposed off these substances properly before old cars, air-conditioners or fridges are sent to landfill. |
| Understanding the local, regional, national and international impacts of the CLM activities | The impacts of the above-described environmental issues primarily affect different geographical areas:  
   - Greenhouse gases emitted in Australia affect the global content of greenhouse gases and may result in the flooding of part of the Netherlands: It is a global problem.  
   - Water pumped from the Murray river in Victoria decreases the river flow and may affect the drinking water supply of Adelaide: It is a regional problem  
   - The introduction of feral species on an island will endanger the survival of native species: this is a local problem.  
It is important to understand the dimension of environmental impacts in order to address them at the proper level with proper actions. |  - Address the local, regional, national and international environmental impacts of CLM related activities with your students and propose alternatives to reduce these impacts. |

Table 3: Addressing environmental sustainability issues in the CLM TP
<table>
<thead>
<tr>
<th>Social issues</th>
<th>Description</th>
<th>What can I do as a CLM TP deliverer?</th>
</tr>
</thead>
</table>
| An engaged and responsible community | Engaged and responsible communities are involved in decision-making processes at the local, state, national and international levels, thus ensuring that decisions made consider their priorities. Their value system takes into account the well-being of the whole community, as opposed to the individual benefit. Indicators for engaged and responsible communities include:  
- Fulfilment of his or her duties as a citizen by each community member eg voting, participating in consultation processes or becoming part of (local) government  
- Trust in fellow citizens and residents, as well as decision-makers  
- Access to information and education  
- Caring for the less advantaged, eg low income families, elderly, migrants, people with a disability, indigenous people | • Teach students to engage the community in relevant decision-making  
• Highlight ways in which individuals can utilise their consumer and citizen power at a grass roots level and undertake ethical decisions |
| Communication and cooperation among individuals and groups | Citizens, including students, teachers, industries or management can only be involved in decision-making processes if information is properly communicated to them. Cooperation reinforces their ability to achieve the changes they wish for their country or community through the availability of more time, resources and expertise. Good communication and cooperation strategies include:  
- Consultation in decision-making  
- No exclusion of groups and individuals  
- The inclusion of individuals are part of a social network, be it within their family, neighbourhood or workplace | • Integrate the development of partnerships and building of relationships, as part your teaching  
• Encourage group work among students  
• Involve community, council, industries and other stakeholders in student’s project work |
<table>
<thead>
<tr>
<th>Social issues</th>
<th>Description</th>
<th>What can I do as a CLM TP deliverer?</th>
</tr>
</thead>
</table>
| Health, safety and well-being | The World Health Organisation defines health as "a state of complete physical, mental and social well-being and not merely the absence of disease. Healthy communities have increased energy levels, greater resilience to crisis and change, and an increased capacity to progress. Indicators for healthy and safe communities include:  
- Low level of crime  
- Prevention and adequate treatment of illnesses  
- Freedom of opinion and speech  
- Respect of privacy  
- Individual self-esteem | - Raise Occupational Health and Safety Issues in educational and professional activities  
- Consider the health impact of products used by CLM professionals eg fuel or chemicals |
| Social equality  
Multiculturalism and respect for difference | Inequalities exist in many forms, and if not addressed, may lead to eg poverty, unbalanced social structures or lack of community, personal & cultural development. Inequalities can be based on:  
- Gender, race, culture, religion, age, sexuality or distribution of power.  
- Lack of access to basic human services, meaningful employment and adequate income for everyone including males, females, migrants, people with a disability.  
- A generational gap, when eg our current consumption of natural resources will prevent future generations to meet their own needs.  
- The non-allocation of a meaningful social role in society for every citizen and resident.  
- Geographical location, with eg gaps between urban suburbs or urban and regional Australia.  
Any activity undertaken should seek to:  
- Bridge and not increase inequalities; and  
- Take advantage of the wealth of knowledge and creativity offered by multiculturalism and differences. | - Indicate the relevance of social equality issues in your teaching  
- Develop student’s interpersonal skills  
- Make a particular effort to engage international students or students with a disability in class activities and group work  
- When designing projects and infrastructure, allow for the access of people with limited mobility  
- Consider the impact of activities undertaken on various environments eg urban vs suburban, people with disabilities, children, migrants or the elderly  
- Encourage students to work with fellow students from different backgrounds |
Since white settlement, Indigenous people in Australia are particularly disadvantaged in every area of basic human need such as employment, education, housing, health, and material well-being. Reconciliation between Indigenous and non-Indigenous people is one of the most significant issues facing Australia. It encompasses issues of:

- Self determination
- Land rights
- Reparation for the forcible removal of children
- Economic independence
- Respect for culture and identity

### Understanding the social impacts of the CLM activities

Most activities are likely to have a social impact affecting either individuals and their well-being or groups within society. Responsible staff, students, and professionals involved in Conservation and Land Management should consider and address the social impacts of the decisions they make.

<table>
<thead>
<tr>
<th>Social issues</th>
<th>Description</th>
<th>What can I do as a CLM TP deliverer?</th>
</tr>
</thead>
</table>
| Recognition of Indigenous people | Since white settlement, Indigenous people in Australia are particularly disadvantaged in every area of basic human need eg employment, education, housing, health and material well-being. Reconciliation between Indigenous and non-Indigenous people is one of the most significant issue facing Australia. It encompasses issues of:  
  - Self determination  
  - Land rights  
  - Reparation for the forcible removal of children  
  - Economic independence  
  - Respect for culture and identity | Indicate places of cultural significance and the proper way to address them during field work  
  - Engage the indigenous community in decision-making  
  - Develop meaningful communication methods for the indigenous community |
| Understanding the social impacts of the CLM activities | Most activities are likely to have a social impact affecting either individuals and their well-being or groups within society. Responsible staff, students and professionals involved in Conservation and Land Management should consider and address the social impacts of the decisions they make. | Consider and address the social impacts of the decisions made and activities undertaken |

Table 4: Addressing social sustainability issues in the CLM TP

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1 Source: A Just and Responsible Australia
### Economic & corporate governance issues

<table>
<thead>
<tr>
<th>Description</th>
<th>What can I do as a CLM TP deliverer?</th>
</tr>
</thead>
</table>
| **Working environment where all employees can reach satisfaction and well-being** | Balancing professional, personal, physical, spiritual, material or family demands proves challenging. A good working environment eases the professional pressure, creates freedom to concentrate on personal development and family issues, while satisfied employees work more efficiently for better business gains. Elements of a good working environment include:  
  - Access to information  
  - No discrimination, harassment or bullying  
  - Work time and place flexibility  
  - Respect of privacy and beliefs  
  - Manageable workloads  
  - Reasonable salaries in line with qualifications and tasks  
  - Openness of management  
  - 360 evaluation processes  
  - Professional development and opportunities to grow  
  - Diversity at the workplace  
  - Acknowledgement of good work and promotion |  
  - Mention the economic and social advantages of employee satisfaction to your students  
  - Encourage students to work co-operatively in groups  
  - Train students in good staff management practices  
  - Provide students with the opportunity to evaluate their studying environment, be it class- or work-based  
  - Assess the satisfaction of your students |
| **Good corporate governance** | Good corporate governance is essential to the economic sustainability of a business and adds value to its social, environmental and thus economic bottom line. Characteristics of good corporate governance include:  
  - Transparency in decision-making  
  - Disclosure of relevant financial and operational information  
  - Protection of the rights and prerogatives of all shareholders and stakeholders  
  - Independent decision-making. |  
  - Mention the economic and social advantages of good corporate governance to your students  
  - Train students good corporate governance practices  
  - Involve students in decision-making, where relevant |
Ethical business practices are an asset to companies which have medium-to-long term horizons and for which employee, client and community satisfaction counts. Ethical businesses:

- Are transparent, honest, consistent and open.
- Respect legislation and privacy.
- Apply the precautionary principle, in financial, social and environmental issues.
- Are accountable for the positive and negative consequences of their activities, worldwide and along the supply chain.
- Fight corruption.
- Do not take advantage of (under-skilled) employees.
- Invest part of the benefits into the community.
- Are fair with clients, employees and competitors.

Triple Bottom Line refers to the accountability of any activity to not only a financial, but also to an environmental and a social bottom line. It implies that environmental, social and financial aspects be considered when developing strategies, designing action plans, undertaking projects and activities, reporting on achievements and reviewing programs.

<table>
<thead>
<tr>
<th>Economic &amp; corporate governance issues</th>
<th>Description</th>
<th>What can I do as a CLM TP deliverer?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethical business practices</td>
<td>Ethical business practices are an asset to companies which have medium-to-long term horizons and for which employee, client and community satisfaction counts. Ethical businesses:</td>
<td>▪ Mention the economic and social advantages of ethical business practices to your students</td>
</tr>
<tr>
<td></td>
<td>- Are transparent, honest, consistent and open.</td>
<td>▪ Train students in ethical business management practices</td>
</tr>
<tr>
<td></td>
<td>- Respect legislation and privacy.</td>
<td>▪ Be transparent on the way decisions affecting students are made</td>
</tr>
<tr>
<td></td>
<td>- Apply the precautionary principle, in financial, social and environmental issues.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Are accountable for the positive and negative consequences of their activities, worldwide and along the supply chain.</td>
<td></td>
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<tr>
<td></td>
<td>- Fight corruption.</td>
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</tr>
<tr>
<td></td>
<td>- Do not take advantage of (under-skilled) employees.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Invest part of the benefits into the community.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Are fair with clients, employees and competitors.</td>
<td></td>
</tr>
</tbody>
</table>

Table 5: Addressing economic sustainability issues in the CLM TP
3. Teaching in a sustainable way – “Walking the walk”

Any organisation and their employees have the possibility to decrease their environmental footprint, contribute to the community and staff well-being, while remaining economically sustainable. This section provides some simple and practical tips for a sustainable teaching, both on an individual and organisational perspective, in the form of topic tables. Topics addressed are:

<table>
<thead>
<tr>
<th>Environmental sustainability</th>
<th>Social Sustainability</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Transport</td>
<td>• An organisation in touch with the community</td>
</tr>
<tr>
<td>• Paper use</td>
<td>• Happy teachers/staff</td>
</tr>
<tr>
<td>• Energy efficient computers, printers, copy machines</td>
<td>• Happy students</td>
</tr>
<tr>
<td>• Lighting / Energy</td>
<td>• A committed management</td>
</tr>
<tr>
<td>• Waste</td>
<td></td>
</tr>
<tr>
<td>• A green environment</td>
<td></td>
</tr>
<tr>
<td>• Water conservation</td>
<td></td>
</tr>
<tr>
<td>• Use your market power- Buy green and sustainable</td>
<td></td>
</tr>
</tbody>
</table>

Please feel free to enhance these tables with your own ideas and experiences, reproduce and distribute them among staff and students in your organisation.

*Note: a green background represents activities linked with a green office, whereas a blue background represents activities linked with the social component of sustainability.*

<table>
<thead>
<tr>
<th>Transport</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What can I do in the office, as an individual?</strong></td>
</tr>
<tr>
<td>• Where possible, cycle, walk or use public transport to commute between home and work</td>
</tr>
<tr>
<td>• Car-share with colleagues who live in the same area</td>
</tr>
<tr>
<td><strong>What can my employer do, as an organisation?</strong></td>
</tr>
<tr>
<td>• Provide secure bike parking and the possibility to have showers for cyclists</td>
</tr>
<tr>
<td>• Reduce the number of car parking spaces</td>
</tr>
<tr>
<td>• Decrease the size of vehicles in the corporate fleet</td>
</tr>
<tr>
<td>• Decrease the size of the corporate fleet and encourage staff to take public transport</td>
</tr>
<tr>
<td>• Procure efficient and alternative fuel vehicles for the corporate fleet</td>
</tr>
</tbody>
</table>

Table 6: Tips for a sustainable teaching – Transport
<table>
<thead>
<tr>
<th>Paper use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What can I do in the office, as an individual?</strong></td>
</tr>
<tr>
<td>- Use less paper!</td>
</tr>
<tr>
<td>- Do not print out every electronic document</td>
</tr>
<tr>
<td>- Use email – but do not print out every message</td>
</tr>
<tr>
<td>- Assess the necessity of a paper document before making multiple copies</td>
</tr>
<tr>
<td>- Use CD-roms instead of paper resources</td>
</tr>
<tr>
<td>- Circulate class sets instead of printing one document for each student</td>
</tr>
<tr>
<td>- Use PowerPoint presentations, instead of plastic overheads</td>
</tr>
<tr>
<td>- Print two pages on one</td>
</tr>
<tr>
<td>- Use environmentally preferable copy paper, eg recycled and unbleached or chlorine-free bleached paper</td>
</tr>
<tr>
<td>- Store information electronically</td>
</tr>
<tr>
<td>- Use discarded copies for scrap paper, and use scrap paper to print drafts and write informal notes</td>
</tr>
<tr>
<td>- Print or copy on both sides of the paper.</td>
</tr>
<tr>
<td>- Reuse manila envelopes and file folders.</td>
</tr>
<tr>
<td>- Route things around the office or put non-urgent communications on a bulletin board rather than making multiple copies.</td>
</tr>
</tbody>
</table>

| **What can my employer do, as an organisation?** |
| - Negotiate the inclusion of environmentally preferable paper products in the catalogue of the preferred supplier |
| - Develop and communicate a policy favouring the use of less paper |

Table 7: Tips for a sustainable teaching – Paper use
### Energy efficient IT equipment: computers, printers, copy machines, faxes...

<table>
<thead>
<tr>
<th>Tips for a sustainable teaching</th>
<th>What can I do in the office, as an individual?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Adjust your power management settings to put your monitor to sleep if not in use for more than 5 minutes.</td>
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<tr>
<td></td>
<td>• Turn monitor off when out of the office for more than 10 minutes</td>
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<tr>
<td></td>
<td>• Do not use a screen saver function: this does not save energy. Set your screen-saver to “none” or “blank screen”</td>
</tr>
<tr>
<td></td>
<td>• Switch computer, printer and monitors off when leaving the office for the day or for over 30 minutes. Switching off computers more than once a day will have no significant</td>
</tr>
</tbody>
</table>

|                                | What can my employer do, as an organisation? |
|                                | • Train IT support services to set the IT equipment at an optimum energy saving level |
|                                | • Encourage staff to use IT equipment in an energy-efficient manner |
|                                | • Consider computer upgrades before purchasing new machines |

Table 8: Tips for a sustainable teaching – Energy efficient IT equipment
**Lighting / Energy**

**What can I do in the office, as an individual?**

- Turn the lights off when absent for 45 minutes or more. Turning the light off does not shorten the operational life of the light tube. The process of ignition consumes as little power as the tube consumes in 0.09 seconds. Lights off save energy and decreases greenhouse gas emissions.
- Do not leave equipment (eg videos and televisions) on “standby”, where they can use up to 80% of their energy requirements.

**What can my employer do, as an organisation?**

- Purchase a proportion of accredited green power
- Fit compact fluorescent light bulbs
- Use timer controls and daylight or movement sensors to switch off lights automatically.
- Use light-coloured paint inside. Dark wall colours absorb light, increasing the amount of lighting needed.
- Use desk lamps or standard lamps where light is most needed, so less lighting is required in the rest of the room.
- Keep lamps and fittings clean: dirt build-up will reduce light output over time.
- Use daylight instead of artificial lights – but do not overdo it. Large windows and skylights add to summer heat and winter cold.

**Tips for a sustainable teaching**

Table 9: Tips for a sustainable teaching – Lighting / Energy
### Waste

#### What can I do in the office, as an individual?
- Recycle paper, cardboard, drink bottles and cans
- Do not recycle paper unless used on both sides
- If you are really keen, get a compost bin in your staff kitchen for organic matters
- Encourage the use of china cups instead of disposables: Hide the throw-away cups and train people to bring their mugs to meetings!
- Encourage the use and re-use of material instead of plastic/paper bags
- Recycle toner cartridges and use recycled/ remanufactured toner cartridges
- Check the availability of second-hand office furniture within the organisation, before buying new ones
- Dispose off hazardous products (eg batteries, chemicals, oil, antifreeze) according to the guidelines provided by your local council or Environmental Protection Agency

#### What can my employer do, as an organisation?
- Install recycling bins for paper and cardboard, drink bottles and cans throughout the organisation

---

### A green / sustainable environment

#### What can I do in the office, as an individual?
- Voice your interest to work for a sustainable organisation to your management
- Develop mini-projects for a greener and more sustainable office environment at your scale

#### What can my employer do, as an organisation?
- Sustainably manage your landscape in terms of habitat, soil stability, water recycling…
- Apply green design and construction principles to new buildings and retrofit older buildings accordingly
- Officially commit to sustainability, through a policy, vision, statement or action plan and allocate financial and human resources to the implementation of sustainability in your organisation

---

Table 10: Tips for a sustainable teaching – Waste

Table 11: Tips for a sustainable teaching – A sustainable environment
## Water conservation

### What can I do in the office, as an individual?

- Always turn taps off tightly so they do not drip.
- Signal leaks around taps, hoses, or fittings to a person who will get them repaired.
- If the toilets are not low flush or do not have a “low flush insert”, place a weighted plastic bottle filled with water in the tank. This can reduce water usage by about 20%.
- Never flush garbage down the toilet. Household cleaners, paints, solvents, pesticides, and other chemicals can be very harmful to the environment. Disposable nappies, dental floss, plastic tampon holders, etc., can create problems at sewage treatment plants.
- When hand-washing dishes, fruits and vegetables, never run water continuously. Use a partially filled sink and then rinse quickly under the tap.
- Do not use a dish-wisher unless/until you have a full load. Use the short cycle when using a dishwasher.

### What can my employer do, as an organisation?

- Regularly check that your water infrastructure does not leak.
- Promptly repair any leaks in and around taps, hoses and fittings.
- Use aerators and/or water flow-reducer devices on all your taps.
- Installing low-flush toilets, or if not possible low-cost "inserts" for the toilet tank, as an alternative to plastic bottles.
- As appliances or fixtures wear out, replace them with water-saving models.
- Install signs encouraging water conservation in employee and customer bathrooms.
- Install water tanks around the building.
- Water landscapes only when needed (soil moisture can be computer-monitored), at appropriate times (morning or evenings) and make sure that water does not run into the street.
- Use time and quantity controllers on sprinkler systems.
- Minimise the water used in cooling equipment in accordance with manufacturers recommendations. Shut off cooling units when not needed.
- Determine, monitor and review the quantity and purpose of water being used.

<table>
<thead>
<tr>
<th>Tips for a sustainable teaching</th>
<th>Water conservation</th>
</tr>
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<tbody>
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</tbody>
</table>

Table 12: Tips for a sustainable teaching – Water conservation
## Use your market power - Buy green and sustainable

### What can I do in the office, as an individual?
- Avoid purchasing unnecessary items
- Question the environmental and social impacts of the products and services you purchase, during their production, use and end-of-life phases
- Purchase environmentally preferable products with as little packaging as possible
- Purchase locally produced products

### What can my employer do, as an organisation?
- Negotiate the inclusion of environmentally preferable products in the catalogue of the preferred supplier
- Train your contractors in the use of environmentally preferable products

### Quick list of environmentally preferable products purchased in the office or as an organisation
- Energy Star compliant IT equipment
- Duplex copy machines
- Dishwashing and cleaning products – biodegradable and without chlorine, EDTA, NTA, phosphates or sodium hypochlorite.
- Organic\(^2\) and fair-traded\(^3\) food eg milk, coffee, tea, fruits and vegetables
- Recycled and non chlorine bleached paper products (for the office, the bathroom and the kitchen)
- Water based paints
- Mercury-free or rechargeable batteries

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\(^2\) **ORGANIC FOOD** has been grown and processed without the use of synthetic chemicals, pesticides, fertilisers or GMOs.

\(^3\) **FAIR-TRADE** aims to establish an equitable and fair partnership between marketers in developed countries and producers in developing countries.
<table>
<thead>
<tr>
<th>Tips for a sustainable teaching</th>
<th>An organisation in touch with the community</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What can I do in the office, as an individual?</strong></td>
<td></td>
</tr>
<tr>
<td>- Develop in-class projects which benefit the community, eg cooking for aged care facilities, repairing community buildings or pieces of infrastructure, making a piece of art of the community</td>
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<tr>
<td><strong>What can my employer do, as an organisation?</strong></td>
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<tr>
<td>- Provide low cost placement for disadvantaged students</td>
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<tr>
<td>- Allow community groups to use the facilities for meetings</td>
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<td>- Provide your wall for community art</td>
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</table>

Table 14: Tips for a sustainable teaching – A role in the community

<table>
<thead>
<tr>
<th>Tips for a sustainable teaching</th>
<th>Happy teachers / staff</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What can I do in the office, as an individual?</strong></td>
<td></td>
</tr>
<tr>
<td>- Be considerate of your colleagues and kind with them</td>
<td></td>
</tr>
<tr>
<td>- Organise extra-work activities</td>
<td></td>
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<tr>
<td>- Seek to excel in your teaching, managerial and administrative roles</td>
<td></td>
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<tr>
<td>- Give a fair chance and assessment process to each student</td>
<td></td>
</tr>
<tr>
<td><strong>What can my employer do, as an organisation?</strong></td>
<td></td>
</tr>
<tr>
<td>- Provide flexible working hours and work-time arrangements in line with the demands of family life</td>
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<tr>
<td>- Monitor staff satisfaction and act when staff are unsatisfied</td>
<td></td>
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<tr>
<td>- Provide fair evaluation processes from manager to staff and staff to manager</td>
<td></td>
</tr>
<tr>
<td>- Reward excellence, both in a financial and non-financial manner</td>
<td></td>
</tr>
<tr>
<td>- Pay fair wages in line with the position description</td>
<td></td>
</tr>
<tr>
<td>- Monitor over-work and act to decrease it</td>
<td></td>
</tr>
<tr>
<td>- Provide and encourage extra-work activities such as sports, social clubs, functions</td>
<td></td>
</tr>
</tbody>
</table>

Table 15: Tips for a sustainable teaching – Happy teachers / staff
### Happy students

**What can I do as a student?**

- Be considerate of your colleagues and kind with them
- Organise extra-learning activities

**What can my TAFE do, as an organisation?**

- Ensure equitable processes and access to learning
- Offer students support services

### A committed management

**What can I do in the office, as an individual?**

- Monitor the satisfaction of your employees
- Provide professional development opportunities
- Reward excellence
- Where relevant, convey to your management the requests of your staff

**What can my employer do, as an organisation?**

- Set up 360 evaluation processes

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Table 16: Tips for a sustainable teaching – Happy students

Table 17: Tips for a sustainable teaching – A committed management
4. Sustainability checklist for teachers, students and managers

Sustainability checklists for students, teachers and coordinators have been developed by the National Centre for Sustainability and the deliverers of the Conservation and Land Management Training Package (CLM TP) at Swinburne University. All deliverers of the CLM TP and other training packages are recommended to use the checklists available as appendixes.

In a continuous improvement effort, the National Centre for Sustainability would be grateful for any comments and additions to the checklists and other sustainability information in this Implementation Guide. These can be made at NCS@swin.edu.au or 03 9214 5997.
4.1. Sustainability checklist for coordinators and managers

1. General aspects
1.1. I understand the three dimensions of sustainability:
☐ Economic ☐ Environmental ☐ Social

1.2. I can name and define three aspects of: Please name the aspects below

<table>
<thead>
<tr>
<th>Economic sustainability</th>
<th>Environmental sustainability</th>
<th>Social sustainability</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
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<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

1.3. I discuss sustainability issues with:
☐ my staff ☐ my colleagues ☐ my managers

2. Sustainability as a manager / coordinator
2.1. I manage team(s) Please indicate the number of teams

2.2. The following sustainability elements are relevant to my role as a manager / coordinator Please list up to four elements
a. c.
b. d.

2.3. I have identified the following staff as sustainability drivers within the teams I manage Please list the names of the sustainability drivers
a. c.
b. d.

2.4. I encourage and give resources for my teams to teach and work in a sustainable manner. Please list actions taken with each team
a. c.
b. d.

2.4. I address sustainability issues with other managers Please list examples
a. c.
b. d.

3. Walking the walk
At work:
☐ I use recycled paper ☐ I recycle my waste
☐ I limit my use of paper to a minimum ☐ My office and class rooms are fitted with energy saving lamps
☐ I take into account the social and environmental impacts of the products and services I purchase ☐ I optimise the energy saving functions of my computer, printer, copy machine and fax
☐ I purchase organic and fair-traded food and drinks for my coffee breaks ☐ I cycle, walk, car-pool or take public transport to commute between home and work
☐ I involve community groups in my work ☐ Other

If you did not manage to complete the checklist, you may want to improve your sustainability profile. Have a look at sections 2 and 3 for help!
4.2. Sustainability checklist for teachers

1. General aspects
1.1. I understand the three dimensions of sustainability:
☐ Economic ☐ Environmental ☐ Social

1.2. I can name and define three aspects of: Please name the aspects below

<table>
<thead>
<tr>
<th>Economic sustainability</th>
<th>Environmental sustainability</th>
<th>Social sustainability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1.3. I discuss sustainability issues with:
☐ my students ☐ my colleagues ☐ my managers ☐ the admin staff

2. Sustainability in the Unit of competency I teach
2.1. I am currently teaching the Unit of Competency:
Please name the Unit of Competency

2.2. I have discussed the sustainability elements relevant to the contents of this Unit of Competency with
☐ my colleagues ☐ my managers

2.3. The following sustainability elements are relevant to the Unit of Competency I am teaching:
Please list up to four elements
a. 

b. 

c. 

d. 

3. Walking the walk
At work:
☐ I use recycled paper ☐ I recycle my waste
☐ I limit my use of paper to a minimum ☐ My office and class rooms are fitted with energy saving lamps
☐ I take into account the social and environmental impacts of the products and services I purchase ☐ I optimise the energy saving functions of my computer, printer, copy machine and fax
☐ I purchase organic and fair-traded food and drinks for my coffee breaks ☐ I cycle, walk, car-pool or take public transport to commute between home and work
☐ I encourage my students to think about and discuss sustainability ☐ I engage in decision-making on management issues
☐ I involve community groups in my work ☐ Other

If you did not manage to complete the checklist, you may want to improve your sustainability profile. Have a look at sections 2 and 3 for help!
4.3. Sustainability checklist for students

1. General aspects
1.1. I understand the three dimensions of sustainability:
☐ Economic ☐ Environmental ☐ Social

1.2. I can name and define three aspects of: Please name the aspects below

<table>
<thead>
<tr>
<th>Economic sustainability</th>
<th>Environmental sustainability</th>
<th>Social sustainability</th>
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<tbody>
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</tbody>
</table>

1.3. I discuss sustainability issues with:
☐ my fellow students ☐ my teachers

2. Sustainability in the Unit of competency I take
2.1. I am currently taking the Unit of Competency:
Please name the Unit of Competency

2.2. I have discussed the sustainability elements relevant to the contents of this Unit of Competency with
☐ my fellow students ☐ my teachers

2.3. The following sustainability elements are relevant to the Unit of Competency I take: Please list up to four elements
a.        c.        
b.        d.        

3. Walking the walk
When studying:
☐ I use recycled paper ☐ I recycle my waste
☐ I limit my use of paper to a minimum ☐ I switch off lights when I am the last one to leave a room
☐ I, at least, switch off the monitor of the PC when I am finished in the computer lab ☐ I encourage my fellow students to think about & discuss sustainability
☐ I take into account the social and environmental impacts of the products I purchase ☐ I cycle, walk, car-pool or take public transport to commute between home and uni
☐ I engage in decision-making on student-related issues at the university ☐ Other

If you did not manage to complete the checklist, you may want to improve your sustainability profile. Ask your CLM teaching team for help!
5. References

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