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Becoming a Sustainable Organisation



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Section 2 overview

This section contains step-by-step guidelines for how to become a sustainable organisation – starting with the business case.

As you deal with the issues covered here you're likely to discover opportunities for innovation that could increase your competitiveness in the market. Even if the returns are mid-to-long term, these initiatives are fast becoming imperatives.

2.1 Building the business case for your organisation

Outlines how to develop and present the business case for sustainability initiatives at an organisational level.

Worksheet 2.1A Sustainability business case template

Worksheet 2.1B Which sustainability project? Evaluating the options

2.2 Implementing sustainability throughout your organisation

Describes the commitment required to develop awareness and accelerate behavioural change.

Provides a framework for integrating sustainability into business planning, and a model charter for supporting the organisation-wide activities of a Sustainability Committee.

Suggests initiatives for addressing real or perceived barriers to sustainability.

Provides a simple tool for identifying current capabilities in using sustainability as a catalyst for innovation.

Worksheet 2.2A Implementing sustainability: checklist

Worksheet 2.2B Sample charter for a Sustainability Committee

Worksheet 2.2C Innovation checklist

2.3 Developing a sustainability policy and strategic goals for your organisation

Outlines a step-by-step process for developing your sustainability policy.

2.4 Adapting to climate change

Outlines a step-by-step process for developing your organisation's response to the risks and opportunities posed by climate change, including joining an industry-specific greenhouse gas reduction program such as Greenhouse Challenge Plus or CitySwitch Green Office, and setting up your greenhouse gas inventory.

Worksheet 2.4A Risks relating to climate change

Worksheet 2.4B Opportunities arising from climate change

Building the business case for your organisation

2.1

Context

This section of the Guide deals with developing and presenting the business case for sustainability initiatives at an organisational level. The method suggested follows the approach you would use to develop other business case scenarios: quantify the value of the proposed initiatives and demonstrate their alignment with your organisation's business goals.

While some sustainability initiatives require behavioural change that will deliver value over a longer period of time, others may demonstrate returns in the short term (e.g. operational savings) and these can help to support the case for adopting sustainability initiatives. The environment will become a more prominent cost-related issue as resources become scarcer and the impacts of climate change become more apparent. As Australia moves towards a low-carbon economy, recognising and implementing sustainable practices is becoming an imperative for all businesses, including the property sector and its supply chain.

The way the business case is prepared and presented to senior management is critical. The financial return to the organisation will need to be stated, but this should be placed in context with other benefits relating to a range of business drivers – such as reputation and competitive advantage in the market. (For other drivers see Section 1.1 of this Guide.)

Look at similar processes commonly used by your organisation and keep your case consistent with other requests for investment commitment, in style, language and logic. This will make it easier for senior management to consider the pros and cons.

Key questions

- 1 What are the risks associated with the 'do nothing' option?
- 2 What are our competitors doing?
- 3 What do our internal and external stakeholders expect?
- 4 How can extra value be added?
- 5 Does the initiative clearly align with our corporate commitment and broader business goals?

What's in this section

Developing the business case p2

[Step 1 – Identify your significant impacts](#)

[Step 2 – Identify stakeholders' perceptions and expectations](#)

[Step 3 – Make it relevant](#)

[Step 4 – Identify and evaluate initiatives](#)

[Step 5 – Back it up](#)

[Step 6 – Keep it dynamic and updated](#)

Issues to consider p3

Worksheet 2.1A

[Sustainability business case template](#)

Worksheet 2.1B

[Which sustainability project? Evaluating the options](#)



Sustainability as the pathway

'Long-term sustainability practices are an integral part of Investa's business platform. These practices are measurable, accountable and enduring. Throughout our history we have proved that sustainability can be a pathway to efficiency, innovation and profitability.'

Investa Property Group, www.investa.com.au

Steps: Developing the business case

These steps are a guide only and should be modified as necessary. (Adapted from 'The Sigma Business Case Tool', Sigma Guidelines.) Worksheets 2.1A and 2.1B accompany these steps.

1 Identify your significant impacts

Identify your organisation's significant impacts on the environment, both direct and indirect, and the opportunities and risks they represent. Existing known or obvious impacts may be the best place to start. Make sure your review covers all aspects of your organisation's operations.

2 Identify stakeholders' and market perceptions and expectations

Consult stakeholders (including investors and tenants) about the key environmental attributes they expect from your organisation. Managing these perceptions and expectations is fundamental to reducing actual environmental impacts and will influence the ability to maximise opportunities, minimise risks and effectively promote outcomes.

3 Make it relevant

Link the opportunities and risks identified in Steps 1 and 2 to your organisation's core business. Use the organisation's business plan or strategic objectives to map interactions, influences and impacts on business objectives. Wherever possible, follow the language and structure of the corporate plans so your proposal is easily understood by the intended audience. Make sure the business case is fully aligned to your organisation's core purpose.

4 Identify and evaluate initiatives

Identify organisation-level initiatives based on practical and financial feasibility, attractiveness and ability to implement (see Worksheet 2.1B). Initiatives should focus on the highest risks or most attractive opportunities aligned to organisational goals. Identify the best delivery mechanisms.

5 Back it up

Provide examples, data and supporting information for each opportunity or risk, both from outside and within the organisation. Include direct financial costs and benefits. Consider indirect costs too, where they can be identified. Also identify longer term benefits which might incur a short-term cost.



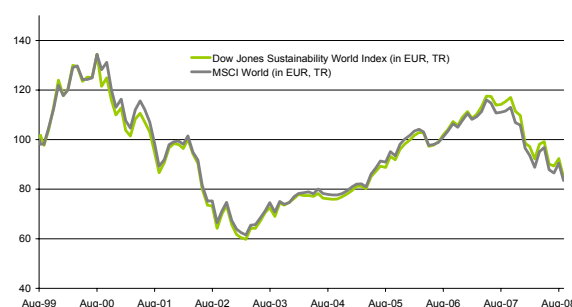
Demonstrating leadership through the stock market

'A number of Australian property companies are using market indexes to promote their sustainability commitment. Colonial First State Global Asset Management uses its listings on the Dow Jones Sustainability (World) Index and the UK's FT4Good to demonstrate value creation for investors. Colonial First State Global Asset Management maintains its listings through continual improvement in the sustainability performance of its buildings and management capabilities.

As an example, the Commonwealth Property Office Fund (CPA), through its submission to The Carbon Disclosure Project (CDP6), was selected for inclusion in the Goldman Sachs JBWere Climate Leadership Index. This recognition demonstrates the Fund's leadership in disclosure to the investment community across a range of investment-relevant climate change issues.

CPA was also recognised as the Leader for the Real Estate Investment Trusts Cluster in the AuSSI SAM Cluster Leaders 2008.'

Colonial First State Global Asset Management, www.cfsgam.com.au



Source: Dow Jones Sustainability Index

6 Keep it dynamic and updated

Make sure the business case is dynamic and develops as organisational priorities change and staff awareness increases. An up-to-date business case will help to communicate and raise awareness of the benefits of environmental improvement and remain relevant to the organisation's objectives. Review the outcomes and provide feedback for the next business case.

Issues to consider

Support your business case with key findings from local and international research that link sustainable development and green buildings to longer term business success factors. Other issues to consider include:

Brand and reputation

Brand value and reputation is the measure that appears to be most positively linked with sustainable property assets. The business case needs to recognise this form of value creation. A number of large Australian property trusts have promoted their sustainability performance and have gained in reputation as a result.

Multiple measures

The business case is strongest when multiple measures of business success are considered. Organisations are adopting a more holistic view of business success, considering both financial results and underlying financial drivers such as ability to attract ethical or responsible investors or tenants who value more sustainable buildings.

Business strategy

The business case is strongest when organisations incorporate sustainability performance into mainstream business strategy. Business case analysis should lead, rather than follow, a decision to improve an organisation's sustainability.

Sensitivity testing

The business case is likely to strengthen in coming years, based on current trends. Consequently, any business case analysis for improving property sustainability should be flexible, with results tested for sensitivity to various plausible scenarios.



Stockland's approach to becoming a sustainable organisation

Stockland has a company-wide commitment to act as a responsible corporate citizen encompassing responsibilities to its employees, communities, the market place and the environment:

'To deliver long term sustainable value to our security holders, corporate responsibility and sustainability principles are being integrated into all parts of our organisation. We understand that the value assigned Stockland by the market goes beyond conventional financial measures.'

Matthew Quinn, Managing Director Stockland, 2006 CR&S Report



Anticipating the market

'Investa was among the first property companies to recognise the impact that growing awareness of climate change and other environmental issues would have on the commercial office leasing market. Our performance in reducing energy consumption in response to the threat of climate change has become a genuine point of difference which tenants value. We are expecting similar changes to occur across our industry, including in volume housing.'

Investa Property Group, Sustainability Report 2007, www.investa.com.au

Work in progress

Current research is continuing to fuel the debate. There has been a lot of research into the benefits of better indoor environment quality (IEQ) and indoor air quality (IAQ) and the effect on occupant wellbeing, productivity and satisfaction. Use external evidence to supplement (but not drive) your own in-depth analysis.

Further information

- Australian SAM Sustainability Index, www.aussi.net.au
- *Green Value, Green Buildings, Growing Assets*, Royal Institution of Chartered Surveyors, UK 2005, www.rics.org/greenvalue
- *Building Refurbishment – Repositioning your Asset for Success*, Jones Lang Lasalle, 2005
- *The Dollars and Sense of Green Buildings*, Green Building Council of Australia, 2006, www.gbca.org.au
- The SIGMA Guidelines, www.projectsigma.co.uk/
- Global Environmental Management Initiative, www.gemi.org
- *Valuing Green, How Green Buildings affect Property Values and getting the Valuation Method Right*. The Green Building Council of Australia 2008
- 'Carbon management of real estate – a guidance note', Royal Institution of Chartered Surveyors 2008
- 'Financing and valuing sustainable property: we need to talk', Royal Institution of Chartered Surveyors 2007
- 'Commercial Property and Climate Change', Total Environment Centre Report 2007, www.tec.com.au
- 'Existing Buildings the Greenest Buildings', C Roussac, Property Australia v2.1 no.4 December 2006/January 2007, Property Council of Australia
- *The Costs and Financial Benefits of Green Buildings*, G Kats, 2003

Worksheets

Review and use these Word documents:

- 2.1A Sustainability business case template
- 2.1B Which sustainability project? Evaluating the options.



Responsible Investment and the Responsible Investment Certification Program

'The Responsible Investment Association Australasia (RIAA) is the peak industry body for professionals working in responsible investment in Australia and New Zealand. Almost every financial adviser, fund manager and consultant working in responsible investment is a member of RIAA together with many other professionals who work towards similar goals.

In September 2005, RIAA launched the world's first Responsible Investment Certification Program designed to assist investors to locate the products and services which best suit their financial needs and values.

RIAA's Certification Symbol is best described as a navigational tool which promotes informed choice and provides standardised information to allow consumers to compare and contrast the many responsible investment products and services now available in Australia and New Zealand.

Enlightened Self-Interest – Solutions for Responsible Investors

Launched in October 2007 by RIAA, the ESI slide show is an extensively researched presentation that uses photojournalism, testimonials from some of the world's largest pension fund trustees, cartoons, moving graphs and images and is accompanied by a detailed script.'

For more information see www.responsibleinvestment.org



CERTIFIED BY RIAA

Worksheet 2.1A

Sustainability business case template

This is an example only – adapt this worksheet to suit your organisation’s requirements.

Opportunity name	<p>A simple statement describing the opportunity, for example:</p> <p>Develop a sustainability strategy</p> <p>Engage internal stakeholders, including staff, and external stakeholders on sustainability issues</p>
Brief description	<p>Describe the scope of the opportunity, what the current situation is and what business outcomes are likely (financial and non-financial).</p>
Relevant value drivers	<p>What are the business drivers that influence the opportunity?</p> <p>Examples include benefits to the organisation such as improved reputation, improved marketability, engaged staff, reduced waste disposal costs, reduced workplace emissions, healthier indoor environment, increased operational efficiency, reduced transport costs, corporate and social responsibility, carbon reduction, value maintenance and improvement, etc.</p>
Success indicators	<p>How will success be measured?</p> <p>Examples include market perception of leadership, ability to attract ethical investors, operational cost savings, resource efficiency, improved building ratings, shorter letting up periods, etc.</p>
Alignment with our goals and policies	<p>How does the initiative demonstrate alignment with organisation values, business goals and other policies or strategies?</p>
Research and analysis	<p>What additional research or analysis will have to be done to ensure benefits can be realised?</p> <p>Examples include market research, life-cycle analysis, building services study, valuation advice, etc.</p>

Suggested participants: internal stakeholders	Which service groups within the organisation will need to be involved? Examples include procurement, legal, operations, OH&S, environment, fund managers, property managers, etc.
External stakeholders	Will we need to engage with any organisations outside the company? Examples include managing agents, tenants, contractors, suppliers, local government, etc.
Potential actions	What specific actions will need to be done to further scope, evaluate or act on the opportunity?
Preliminary timeline	What are the time milestones?
Cost-benefit analysis	What is the cost of implementation? What are the financial benefits? What unquantifiable benefits are likely? What is the return on investment?

Source: Adapted from 'Forging New Links – Enhancing Supply Chain through Environmental Excellence', Global Environment Management Initiative 2004

Worksheet 2.1B

Which sustainability project? Evaluating the options

Use the following as a guide to evaluate the various options for sustainability projects.
This is an example only – adapt this worksheet to suit your organisation's requirements.

	Name of opportunity or project:
Feasibility	Are there significant obstacles or risks that could threaten the success of the initiative or opportunity?(list them)
	How straightforward would executing the project be, in terms of internal and external collaboration requirements?
	Can the project be delivered as part of a planned asset upgrade?
	What are the resources needs, both financial and human? Do we have the capacity to support the project?
	Would there be a financial return or payback on the project?
Attractiveness	Is the project well-aligned with the current strategic priorities of the organisation?

	Name of opportunity or project:
	Will this project be received enthusiastically by our customers and suppliers and other key external stakeholders?
	Are we likely to realise a significant improvement in the proposed indicators of value? Consider financial and reputation value.
Competency	Do we have the right set of project management and environmental skills and competencies in-house?
	Can we acquire the needed competencies externally? How easily? What expertise is needed? What are the selection criteria?

Source: Adapted from 'Forging New Links – Enhancing Supply Chain through Environmental Excellence'
Global Environment Management Initiative 2004

Implementing sustainability throughout your organisation

2.2

Context

Different organisations embark on integrating sustainability in different fashions – there is no prescriptive off-the-shelf model for implementing sustainability within an organisation. Some take an incremental approach, making sure early wins are consolidated before undertaking more radical changes. Others find that a step-up change is effective, especially when other major changes are taking place such as a re-branding or a change in location. A common success factor for either approach is a strong commitment to change coming from the top of the organisation and the articulation of a clear direction for the organisation to head in.

Your organisation needs a clear vision of its ultimate sustainability objective in order to direct and allocate resources effectively. Having a vision will also enable you to identify multiple pathways and choose appropriate actions to achieve your sustainability goals. Your vision needs to include longer term thinking, underpinned by the short-term gains identified in your mission statement.

Once your organisation decides to adopt sustainability as part of its core business it will soon be apparent that this is a shared responsibility. The task will involve taking a range of stakeholders on the journey with you, including staff, suppliers, customers and investors.

Integrating with existing systems

A systematic approach to sustainability has many elements in common with an efficient management or quality assurance system. For efficiency, credibility and ease of application, the objectives, procedures, evaluation methods and reporting tools for sustainability should be integrated into existing business systems, including those for asset management and project management.

The integration model in the following figure shows the basic steps in any performance management system. Policy is set by the executive then operating procedures are standardised and integrated into business activities. Outcomes are assessed and benchmarked for incremental improvement, and corporate direction and policy is periodically re-evaluated to check that opportunities and risks are being adequately addressed.

What's in this section

Implementing sustainability p2

Step 1 – Gain commitment and establish responsibilities

Step 2 – Develop a sustainability policy

Step 3 – Engage staff

Step 4 – Identify risks and opportunities

Step 5 – Develop a sustainability action plan

Step 6 – Implement the plan

Step 7 – Monitor stakeholders' expectations

Step 8 – Evaluate and report the achievements

Tips for implementation p7

Worksheet 2.2A

Implementing sustainability: checklist

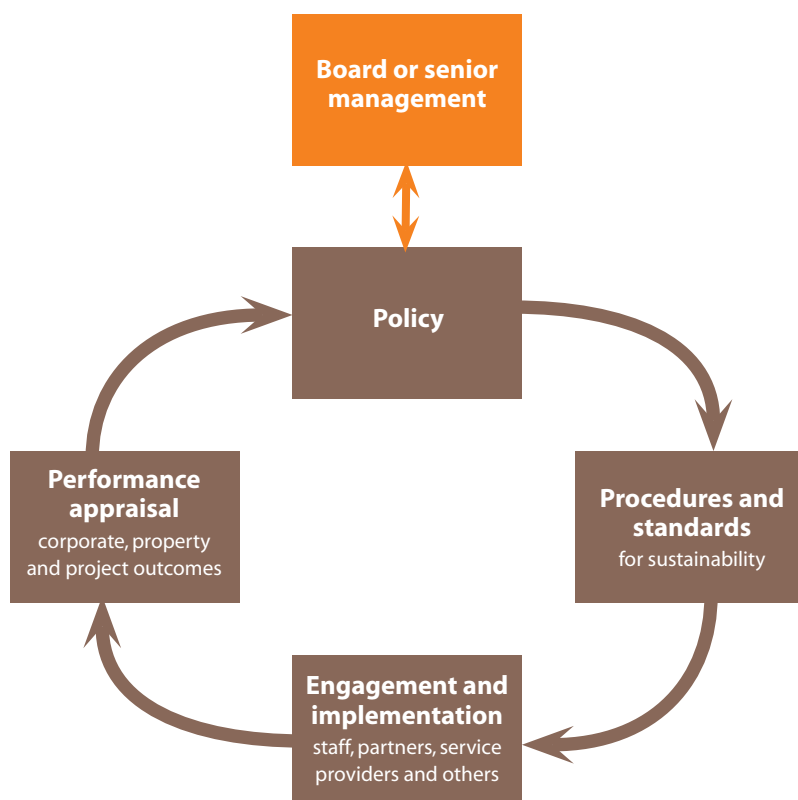
Worksheet 2.2B

Sample charter for a Sustainability Committee

Worksheet 2.3C

Innovation checklist

Sustainability integration model



Steps: Implementing sustainability

The following steps to implementing sustainability can be integrated into normal business planning and evaluation processes. These steps are also summarised in Worksheet 2.2A.

1 Gain commitment and establish responsibilities

Implementation has the greatest chance of success if it is clearly endorsed at senior management level. This is necessary to demonstrate commitment and support the business case, but line management responsibilities and accountability is essential for day-to-day implementation.

To demonstrate their company-wide commitment to sustainability some organisations have established specific Board committees and appointed executive-level managers with a mandate to drive corporate responsibility and sustainability. However, endorsement and acceptance needs to come from all business lines.

Specific responsibilities need to be allocated to an individual or several individuals or champions. Some of the Australian property organisations who have taken up this challenge have a dedicated Sustainability Manager (or similar role) and others appoint their environmental or risk advocate to take on a wider role.



Developing a sustainability road map

'Initially established in 2002, Colonial First State Global Asset Management (then Colonial First State Property) began a process to identify and implement a 'road map' that would enable the business to achieve improved environmental and social performance.

With the assistance of specialised sustainability consultants, Colonial First State Global Asset Management undertook the following process:

- 1 Conducting an initial situation analysis, to better understand the level of awareness and attitudes to sustainability within the organisation. This included one-on-one and group interviews across all levels of the organisation.
- 2 Identifying key gaps in knowledge and processes that could impede behavioural change and integration of sustainability into project delivery.
- 3 Developing a definition of sustainability that relates to the aims and values of the organisation, and internally promoting the concept of sustainability.
- 4 Developing a sustainability policy and strategy to guide future actions, including road maps and houseviews for various funds.
- 5 Developing a Sustainability Manual to foster consistency and focus across both in-house activity and work provided by key service providers such as managing agents and design teams.'

Colonial First State Global Asset Management,
www.cfsgam.com.au

A Sustainability Manager should not shoulder responsibility for all activities that have an impact on the environment, workforce or the community. Their primary role should involve facilitation and behavioural change. In some organisations it may be feasible to create a dedicated position within each property trust or department. In either case their role would involve sponsoring projects, giving technical advice and carrying out monitoring and reporting.

Remember that while it is important to have clear accountabilities, everyone is responsible for adopting and implementing sustainability within your organisation.

Set up structures to maintain the commitment

Identify the best methods for coordinating and maintaining sustainability initiatives. This may be through direct responsibility and accountability by business unit managers, the fund manager or managing agents. You may decide to convene a corporate-wide Sustainability Committee to ensure momentum and commitment is maintained. Its role would be to coordinate implementation of an action plan, monitor progress and report to senior management. See Worksheet 2.2B: 'Sample charter for a Sustainability Committee'.

Alternatively, in smaller organisations, consider building onto an existing entity such as a risk or health and safety management forum, to benefit from their experience and acceptance within the organisation. Some sustainability initiatives may be able to piggy-back onto health and safety or risk initiatives but be careful as different skill sets may be required in each role.

2 Develop a sustainability policy

Identify and articulate your organisation's sustainability vision and goals. Refer to the business case. Develop and promote a sustainability policy aligned with business objectives and goals. Ensure the policy sets direction and allows business units to develop specific actions and performance targets which are integrated into their business and operational plans. Get executive level sign off to ensure credibility and accountability. Section 2.3 of this Guide outlines how to develop a sustainability policy for your organisation.

3 Engage staff

People are the essential factor in improving the sustainability of an organisation. Sustainable operations will happen when staff and contractors at all levels understand and engage in the challenging process of moving to more sustainable business practices. Seek input from staff at all levels of your organisation to guide this process and create ownership of the move to becoming more sustainable.

Characteristics of the ideal Sustainability Manager

- Motivation and 'passion' for sustainability.
- Broad expertise in sustainability, and technically proficient in some areas, but not necessarily a technical expert in building management or development.
- Involvement or close association with industry sustainability bodies to track new initiatives in sustainability.
- Excellent communications skills and an ability to relate to and show empathy with all levels of the organisation.
- Excellent written communications skills to support strategic development and business case arguments.
- Capacity to interpret and express, in the organisation's language, the external drivers and influences shaping the property sustainability agenda.
- Capacity to bring together skills and advice for those that need it.
- Willingness to engage with internal and external stakeholders to initiate or promote initiatives and reinforce company policies and requirements.

Can your organisation afford not to create such a role when there is such a high level of interest and activity in regard to sustainability in the commercial property sector?

Consult with staff regularly to find out:

- attitudes to sustainability-driven change
- levels of willingness and ability to adopt new or altered procedures
- levels of awareness of organisational direction.

4

Identify risks and opportunities

Awareness and policy alone is not an assurance of success. Investing in environmental improvement as well as employee behavioural change requires that the business case – that formed the basis for your organisation's adoption of sustainability in the first place – is kept up to date. (Section 2.1 of this Guide outlines how to build the business case.)

It is important to recognise the different ways of valuing the benefits. Not all initiatives will solely and directly result in operational cost savings or increased business revenue. Some will result in raised staff skills, capabilities, motivation and morale. Others will result in improved credentials in the marketplace and a distinct competitive advantage.

Identify risks to business goals

Review existing key performance areas the organisation uses to deliver its vision and goals. Do they cover environmental and social issues? If not, undertake a simple risk identification process to identify the relationship between stakeholder expectations on environmental and social sustainability and current capacity to meet those expectations. This will help to identify how sustainability can contribute to:

- mitigating key risks to the business
- capitalising on potential business growth opportunities.

Identify and analyse opportunities

Identify where value can be added through, for example, lower operating costs, increased capital value or tenant attraction and retention.

Work out which areas to tackle first in order to score some success as soon as possible, e.g. introducing energy or water efficiency initiatives in poorly performing properties (the 'easy wins'). This will help you win further support for developing a comprehensive sustainability strategy by proving the business case. Consider whether you should pursue your objectives across an individual portfolio or across all the organisation's activities.

Elicit help from a cross-section within the organisation to undertake this process and make sure all risks, levels of awareness, cultural barriers and key influences are identified.



Stockland's strategy

'We recognise that the concepts of corporate responsibility and sustainability are closely linked. Corporate responsibility means doing the right thing by our stakeholders and the environment. Sustainability is what our business achieves as a result.'

To deliver long-term sustainable value to our security holders, corporate responsibility and sustainability principles are being integrated into all parts of our organisation. We understand that the value assigned to Stockland by the market goes beyond conventional financial measures.

For us, sustainability means more than good environmental stewardship. We take a wider view of sustainability. Our approach embraces our responsibilities to our employees, to our communities, to the marketplace and to the environment.

Our approach is underpinned by a company-wide commitment to act as a responsible corporate citizen and to conduct our business ethically and in accordance with best practice corporate governance principles.

Our culture is based on accountability and a willingness to consider what we should do rather than what we must do, balancing competing interests and priorities in day-to-day business.

To achieve our corporate responsibility and sustainability aims we have identified four themes:

- Maintaining ethical and responsible **marketplace** practices.
- Respecting and engaging with **our people**.
- Taking care of the **environment** in which we operate.
- Strengthening our place within the **community**.

Stockland, www.stockland.com.au

5 Develop a sustainability action plan

Develop a simple action plan that:

- outlines the initiatives you plan to implement, addressing the risks and opportunities you have identified
- sets objectives and targets
- establishes key performance indicators for each objective
- outlines how compliance with the policy will be demonstrated
- allocates responsibility and sets milestones and completion timeframes
- establishes an evaluation framework to measure progress and ensure knowledge is shared and acted upon.

The plan needs to reflect the structure of the organisation and its components e.g. property trusts, management companies related to property entities, etc.

Establish a baseline for current performance

Collect data on your organisation's current performance and establish baseline data from which to measure future improvements.

Benchmark the planned initiatives

Benchmark the proposed sustainability initiatives against those in similar organisations (e.g. domestic competitors, within-sector companies, etc.). Use this information to help determine which areas your organisation will focus on.

Benchmarking may help you to identify aspects of your operations that could help to differentiate your organisation from its competitors, or draw the attention of special customer groups such as ethical investment funds.

6 Implement the plan

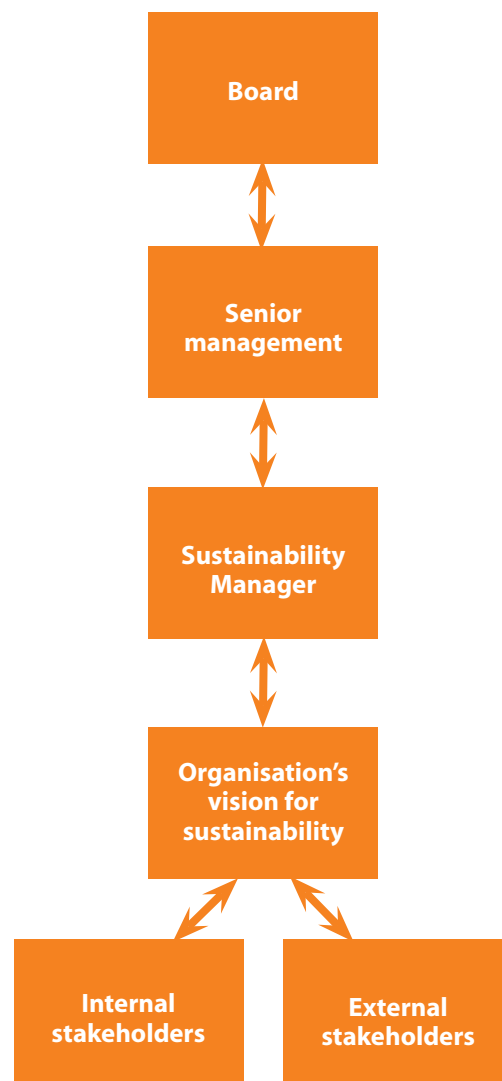
Focus on changing behaviour

Promote behavioural change within your organisation and within its key external service providers. This will support the evolution of your organisation's culture so it views sustainability as business as usual. Reinforce and reward positive behaviour. Behavioural change can be facilitated by incorporating sustainability and environmental performance into key performance indicators (KPIs). Ensure each level of your organisation contributes to developing specific actions and KPIs relevant to their business objectives.

Conduct pilot projects

Implement and evaluate pilot projects, using both financial and non-financial key performance indicators.

Typical chain of command



Consider working in collaboration with other organisations or your supply chain partners to fund and deliver pilot projects.

Communicate intentions and progressive outcomes throughout your organisation. Identify and reward champions. Analyse successes and failures.

Expand the program

Seek management commitment to expand the program to areas where the greatest benefits (value creation) are possible. This may include implementing initiatives proven in the pilot projects across other business divisions, portfolios or funds. Identify and allocate appropriate resources. Consult both internal and external stakeholders to identify the next phase of initiatives. Make sure that any property or operational objectives within the expanded sustainability program are clearly in alignment with your organisation's strategic business objectives.

Develop and adapt tools

Identify needs, develop or adapt tools and review and align procedures that will help you to extend sustainability initiatives throughout all parts of your organisation. Build onto existing tools and procedures wherever practical, e.g. risk and OH&S frameworks. Make sure the tools are simple, easy to use, informative, flexible enough to accommodate varying needs across different business units, and that they add value to the activities of the business units. Ensure your tools are able to be separated when your sustainability program gains momentum.

7 Monitor stakeholders' expectations

Keep in touch with the expectations of your internal and external stakeholders. Use external parties to influence your organisation's performance. Seek regular opportunities to consult with key external stakeholders (investors, regulators, industry bodies, etc.) about their expectations and perceptions of sustainability performance and outcomes. This could be done using existing shareholder information questionnaires, focussed discussion groups or industry conferences and seminars.

8 Evaluate and report the achievements

Evaluate the program to identify strengths and weaknesses. Report and reward achievements, including progress against objectives, key challenges and targets. Present trend performance and clearly illustrate the benefits to your organisation, the environment and the communities involved.

Your tool kit

The tools may include some of the checklists and templates included in this Guide, adapted to suit the activities and culture of your organisation.

Key tools could include measures to:

- assess property sustainability as part of asset management
- integrate and track sustainability objectives in development or refurbishment projects
- collate and report sustainability performance and outcomes to senior management.

Establish a path for continuous improvement

Being a truly sustainable organisation requires a commitment to continual improvement. Advances in technology, shifts in the market, and changes in behaviour and community expectations make for a dynamic and exciting journey.

As part of the evaluation process ensure that the program is regularly reviewed to check effectiveness, relevance and the need for updating. Initially this could be every six months and then annually.

Tips for implementation**Know the key players**

Identify and analyse the potential views of key internal stakeholders and decision makers. Make sure the sustainability business case addresses their concerns and potential arguments. Make sure you thoroughly understand the structure of your organisation and the real or perceived barriers that key players may present for discussion.

Start with small pilot projects

Some organisations can make radical shifts in their direction. For others this would translate to dislocation, resistance and backsliding. Everyone benefits from a more gradual approach – especially the sceptics. Small pilot projects give people a chance to refine their skills, discover what works and what backfires, identify problems and cope with them, and – above all – learn that the new approach is survivable after all.

Promote the ‘easy wins’

Identify some of the quick wins and use these as examples in a cost-benefit analysis of implementing an environmental sustainability strategy. For example, water and energy efficiency initiatives are usually easily identified and costed.

Retain knowledge

Have in place a system to collect and retain business, property, portfolio and general sustainability knowledge, as well as basic utility usage data. The system needs to be readily accessible and updated. If necessary centralise this database so its use can be easily coordinated.

Use full cost accounting

When evaluating the financial costs and benefits of environmental sustainability remember to identify, quantify and allocate the direct and indirect environmental costs of ongoing company operations. Remember to reinforce the non-financial benefits, such as reputation and staff satisfaction. See Section 3.1 for further information about full cost accounting.

Describe the change as a change

If you tell your employees and colleagues that the new strategy or policy is just a continuation of the old strategy or policy, you can't be surprised when they continue old behaviours ... 'they didn't really mean the last three environmental policies – why should I think they mean this one?'

Send signals that say you mean it

People who function well within complex organisations are adept at distinguishing the instructions they are supposed to take seriously from the instructions to they can take less seriously. Ensure the signals and directives are clear and make people accountable. These could become key performance indicators (KPIs) to be used in performance assessments.

Match rewards and incentives to the new goals

Ultimately, people do what benefits them, not what benefits the organisation. Make sure the rationale for sustainability actions clearly demonstrates the pay-off, for people and for the organisation.

Don't blindside anyone

Like external critics of your organisation, internal critics of sustainability need to be engaged in the dialogue. Blindsiding senior management is especially risky because top management can shut you down.

Assess the internal communication climate

How can you level with a local environmental group when you are reluctant to level with your own top management? Either the external successes will set a standard that undermines the old internal norms or, more likely, the internal norms will set a limit on what anyone is willing to try externally.

Pay attention to your own scepticism

Like individuals, organisations change in stages, not at once. Policies change before practices, and practices change before attitudes. When an organisation is in flux, it is easy to find inconsistencies: policies that are not borne out in practice, practices that are belied by attitudes. Small wins in attitudinal change will deliver incremental change over time.

Engage your supply chain

Make sure your supply chain – both contractors and product suppliers – understands your aspirations and responsibilities in regard to becoming a sustainable organisation. Contractors and suppliers are an integral component of many aspects of sustainability.

Promote sustainable practices and seek opportunities to work in collaboration with key supply chain members (e.g. cleaners, managing agents, design teams, etc.) on sustainability initiatives that provide value to all organisations involved. See Section 5 of this Guide for more information about working with your supply chain.

Develop the capacity to innovate

Sustainability presents both an innovation challenge (how can we innovate?) and opportunity (how quickly can we apply it?). Innovation can be approached incrementally or radically:

- Incremental innovation is driven by 'market-pull' factors which can require non-technical activity such as improving the supply chain, developing awareness, introducing performance contracts or consulting industry experts, etc.
- Radical innovation tends to be driven by 'technology-push' factors such as new construction processes or diagnostic systems for buildings. (Brite Innovation Project 2004–2007.)

Both approaches deliver results. Organisations need to ensure they have the right organisational skills, in addition to access to technical skills, to successfully manage the innovation process. Worksheet 2.2C provides a simple checklist to help your organisation assess and improve its ability to innovate.

Further information

- The SIGMA Project Implementation Toolkit, www.projectsigma.co.uk/Toolkit/
- BRITE Project, Innovation Case Studies, www.brite.crcci.info
- Cooperative Research Centre for Construction Innovation, www.construction-innovation.info

Worksheets

Review and use these Word documents:

- 2.2A Implementing sustainability: checklist
- 2.2B Sample charter for a Sustainability Committee
- 2.3C Innovation checklist

Worksheet 2.2A

Implementing sustainability: checklist

Steps (summarised from Section 2.2)		✓
1	Senior management has confirmed its commitment, and responsibility for sustainability has been assigned to an individual or team. The management structure is in place.	
	A Sustainability Committee (or similar) has been established to coordinate implementation, monitor progress and report to senior management – and in doing so maintain the momentum and commitment.	
2	The organisation's sustainability vision and goals have been identified and articulated.	
	A sustainability policy – aligned with business objectives and goals – has been developed and promoted.	
3	Staff, consultants and contractors have been consulted and are engaged with the process.	
4	The business case has been reviewed and will be kept up to date.	
	Risks to business goals have been identified.	
	Opportunities have been identified. The areas to tackle first have been determined, so as to achieve easy wins and increase support for sustainability.	
5	A simple sustainability action plan has been developed – outlining actions to enact the policy across relevant business areas.	
	Sustainability initiatives have been benchmarked against those of similar organisations (e.g. domestic competitors, within-sector companies).	
	Performance data has been collated to establish a baseline.	
6	Behavioural change is being promoted and the organisation's culture is evolving towards sustainability. Positive behaviour is reinforced and rewarded.	
	Each level of the organisation has contributed to developing specific actions and KPIs relevant to their activities and aligned with the organisation's goals.	
	Pilot projects have been implemented, measured and evaluated. Progress and outcomes have been communicated throughout the organisation. Successes and failures have been analysed. Collaboration with other organisations and supply chain partners has been considered.	
	Management has made a commitment to expand the program and provide appropriate resources. Internal and external stakeholders have been consulted to identify the next phase of initiatives.	
	Tools and procedures have been developed (aligned with existing practices) to help extend sustainability initiatives throughout the organisation.	
7	Internal and external stakeholders are being consulted about their requirements and expectations.	
8	Achievements are reported, including progress against objectives, challenges and targets.	
	The path for continuous improvement has been established.	

Worksheet 2.2B

Sample charter for a Sustainability Committee

This is an example only – adapt this charter to suit your organisation's requirements.

Date of this charter:

The Committee's purpose

In response to the emerging importance of sustainability within the commercial property industry, the Sustainability Committee's purpose is to provide a structured advisory forum to deal with the issues and opportunities relating to sustainability.

The Committee will look at how sustainability is relevant to this organisation and what its potential impacts may be—knowledge that will enable us to work out what types of strategies and initiatives we will need to implement in order to remain competitive.

The Sustainability Committee's charter is to evaluate, develop, promote, implement and monitor sustainability principles and practices through the organisation which will deliver value to our investors, tenants and clients, while:

- using resources in an efficient manner
- anticipating and managing risks and opportunities across all levels of business
- meeting stakeholders' expectations in regard to economic, social and environmental performance.

The Committee's function

- Review the emergence of sustainability within the commercial property industry and identify trends which may have an impact on the organisation's long-term viability.
- Examine current standards and procedures that encompass corporate sustainability and measure these against organisation policy and industry best practice.
- Where shortfalls exist between current and best practice, evaluate the case for adopting best practice within relevant business units.
- Look for opportunities to better promote the organisation's policies and progress with implementing sustainability to the property market.
- Provide advice to business unit managers to help them build business cases so they can acquire the resources and expertise to implement sustainability initiatives.
- Report to senior management (and provide information they need to report to the executive) on recommendations for implementing additional sustainability initiatives within the organisation.
- Where appropriate, set up and coordinate a team of volunteers to champion workplace sustainability awareness and activities (e.g. waste recycling, energy management and procurement).
- Consult with the personnel who are responsible for implementing and managing the organisation's sustainability policy.

Membership and responsibilities

- The Committee will be made up of no less than [XX] nominated personnel from various business units so that it is representative of the whole organisation.
- Committee membership will be reviewed annually.
- The role of the Committee Chair is to run the meetings and make sure they proceed within the allocated time and in accordance with the agenda. The Chair will also be responsible for reporting and making recommendations to senior management.
- The role of Committee Secretary is to prepare the meeting agenda, arrange times and venues for meetings and recording and distribute minutes.

Committee's authority—an advisory body

- The Committee has the power to make submissions and recommendations to senior management (and the executive) on matters of sustainability, including directions, actions, initiatives, policies and measures.
- The Committee has the power to request and obtain information (and the analysis of that information, including necessary research) from other business units.
- The Committee does *not* have the power to direct expenditure, commission or wind-up specific sustainability initiatives or adopt particular directions etc., unless specifically empowered to do so by senior management or the executive. Therefore the Committee is first and foremost an advisory body.

Non-committee members

Guests may attend meetings by invitation of a Committee member if this is approved by the Chair. Guests will remain neutral and observe correct protocols during Committee meetings.

Frequency of meetings and quorum

The Committee will meet at six weekly intervals in accordance with arranged times, or as otherwise directed by the Committee Chair. A minimum of [XX] representatives from the Committee will constitute a valid meeting of the Committee. If a Committee member is unable to attend a meeting, they must nominate a 'stand in' to attend on their behalf.

Agenda

The agenda for Committee meetings will address the following issues:

- minutes from previous meeting
- status of action items from previous meeting
- status of sustainability initiatives
- general business.

The agenda will be distributed no less than three business days before the meeting.

Source: Colonial First State Global Asset Management 2004

Worksheet 2.2C

Innovation checklist

The following checklist may help you to pinpoint

- where your organisation is now, and
- where it wants to be in the future

with regard to developing capabilities and opportunities to innovate through sustainability.

	I haven't thought about it	I am thinking of doing something	Yes	Yes, and we are constantly improving	Yes, we represent best practice
	Level 1	Level 2	Level 3	Level 4	Level 5
Do you have strong relationships with industry participants who are recognised for their sustainability achievements? (e.g. clients, builders, suppliers, designers, academics, PCA etc.)					
Are you willing and able to partner with investors, tenants or service providers to achieve longer term outcomes?					
Do you actively monitor national and international best practice in commercial property sustainability?					
Do you actively monitor advances in related industries that might be applicable to your business? (e.g. residential property, ethical investment, construction and building etc.)					
Do you have a formal system for transferring project learning into your continuous business processes? (e.g. sustainability management plan, knowledge transfer program etc.)					
Do you view problems and failures as opportunities for learning and growth?					
When you make changes, do you measure how well the changes have worked? (feedback on outcomes)					
Are staff rewarded for maintaining networks with other industry participants with complementary skills?					
Are staff encouraged to share ideas, particularly between portfolios or projects?					

	I haven't thought about it	I am thinking of doing something	Yes	Yes, and we are constantly improving	Yes, we represent best practice
	Level 1	Level 2	Level 3	Level 4	Level 5
Do you have a strategy to keep the loyalty of key experts and achievers within your organisation?					
As your organisation and its business environment changes, are you bringing in the necessary new skills and competencies?					

Evaluating your response

When evaluating your response, consider the following:

Level 1: Is it in our business interests to ignore these activities?

Level 2: Am I putting in the effort or resources needed to support these activities?

Level 3: Which of these activities should I make even better?

Level 4: How can I identify the strengths on which to build and improve even more?

Level 5: How can I capture and share these successes?

Source: This was closely modelled on checklists appearing in 'Innovate Now' by Dr Karen Manley, BRITE Project, Cooperative Research Centre for Construction Innovation (www.brite.crcci.info). Rating system devised by Construction Excellence (www.constructionexcellence.org.uk)

Developing a sustainability policy and strategic goals for your organisation

2.3

Context

This section provides a simple framework for developing and implementing a sustainability policy within a commercial property business. A range of environmental, social and economic considerations combined define true sustainability.

Your sustainability policy will establish an overall direction and set parameters for action. It will define and standardise the concept and set the overarching goal for the level of environmental, social and economic sustainability performance against which subsequent actions will be judged. In the context of this Guide, social sustainability includes workplace performance and community engagement and support.

The process outlined below can be adapted to suit the practices your organisation uses to establish commitment, track implementation and review relevance and alignment with corporate goals; that is, to establish your mission in order to facilitate your vision.

When preparing your sustainability policy you need to consider the expectations of both internal and external stakeholders. While most policies are designed to drive cultural and behavioural change within organisations, they can also be useful tools for demonstrating an organisation's commitment to its external stakeholders.

Because it will have a whole-of-business application, both environmental and social aspects of your sustainability policy need to be developed and implemented with reference to the other policies that influence business decisions, in particular risk management policy, OH&S policy, procurement and ethics policies.

What's in this section

Developing and implementing your policy p2

Step 1 – Get commitment from senior management

Step 2 – Get organised

Step 3 – Define the scope and engage others

Step 4 – Draft the policy

Step 5 – Consult, review and finalise the policy

Step 6 – Get approval from the top

Step 7 – Communicate the policy

Reviewing your policy p5

Further information p6

Steps: Developing and implementing your policy

These steps have been adapted from the Eco-Management and Audit Scheme (EMAS) Toolkit for SMEs (see Further information, p6).

1 Get commitment from senior management

Ensure senior management has given clear authorisation to proceed. Management will need to allocate time and resources and should also set a basic timeframe.

Confirm who will sign the policy. Ideally this should be the CEO, Managing Director or Chairperson. This is better than endorsement solely by senior line managers because it will enable widespread support for the policy across your organisation.

2 Get organised

Assemble a small team – including key people from a cross-section of the organisation – who will promote the policy internally and provide support, advice and peer review. Nominate a leader who will be responsible for drafting the policy and shepherding it through to full endorsement.

Prepare a timeline which allows for preparing the draft, gathering input from employees, presenting and discussing it with senior management, finalising the policy and communicating it to all employees.

Review the organisation's existing policy statements. There may be aspects of environmental commitment in other policies or vision or mission statements, or even values statements. The sustainability policy could be a stand-alone document or could be integrated with health, safety, quality management or other policies.

Review the environmental and social sustainability policies of other organisations in the property industry or leaders in other industries. See how others use their policies to reflect their organisation's risk profile and culture. Policies have a unique fit within their organisation. Access training courses such as the one offered by the Total Environment Centre's Green Capital initiative (www.greencapital.org.au). Participants gain the tools required to foster a culture of sustainability in their organisation.

Sustainability Advantage

Sustainability Advantage is a business support service from the Department of Environment and Climate Change NSW (DECC). It is designed to help businesses understand sustainability, successfully manage their operations to achieve better environmental outcomes and add business value.

Sustainability Advantage participants have the option to undertake a Vision, Commitment and Planning module. With the support of DECC and their contractors, management participates in workshops which allow them to:

- understand sustainability and the environmental impacts of the organisation's value chain
- draft a vision and long-term goals for sustainability
- draft strategic actions, key performance indicators, budgets and reporting mechanisms
- explore how to integrate sustainability plans into current business plans.



For more information please contact Business Partnerships on (02) 8837 6000 or sustainbus@environment.nsw.gov.au

3 Define the scope and engage others

Identify and prioritise your organisation's potential environmental and social impacts through a risk assessment process. Look for opportunities or outcomes that could support a higher level of environmental and social performance.

Confirm, through a consultative session with senior management, the key goals the organisation wishes to achieve with respect to managing the priority risks and capitalising on potential opportunities.

Consider where the organisation wants to be in relation to environmental and social performance in the next one, two or five years and whether it wants to be seen as a leader among its peers or a competent follower (both have advantages). Include the sustainability impacts of both the services the organisation provides its customers and clients and of the organisation itself.

Review opportunities to set milestones and targets against key performance indicators. Targets can be qualitative or quantitative and should pass the SMART test. (S-specific, M-measurable, A-achievable, R-repeatable, T-time-defined.) In particular, consider the organisation's capacity to monitor and collect data against some quantitative targets such as resource use efficiency. Although a statement of intent to comply with regulatory requirements is necessary, limiting intentions to this may restrict the organisation from achieving outcomes that some stakeholders may expect.

Solicit key internal stakeholders' views regarding potential aspirations, goals and implementation issues. This will help to foster participation and ownership. Consider three basic questions:

- Why are we committed to the environment?
- What are we trying to achieve?
- What can we actually do to reduce adverse social or community impacts?

Consider asking a select group of external stakeholders about their expectations of the level of environmental and social performance the organisation should be achieving or aiming towards. These stakeholders could include valued customers, investment analysts and key groups from the community in which the organisation operates.

If possible, find out your competitors' environmental and social commitments so you know what you may be being compared to.

Targets should be:

S Specific ✓

M Measurable ✓

A Achievable ✓

R Repeatable ✓

T Time-defined ✓

4

Draft the policy

Prepare the first draft of your sustainability policy. Try and limit it to one page. Good practice suggests your policy needs to include:

- your organisation's desired environmental, social and community goals and objectives within the context of its vision, core values and guiding principles
- a commitment to continual improvement and to preventing or minimising adverse environmental and social impacts
- a commitment to complying with relevant environmental and workplace legislation and regulations, and with other requirements the organisation subscribes to
- adequate reference to or recognition of the nature and scale of the environmental and social impacts of the organisation's activities, products or services
- a framework for setting and reviewing environmental and social objectives and targets; where practical and desirable, targets or milestones should be achieved over a specific period
- a commitment to raising awareness and training employees
- a commitment and framework for engaging with stakeholders including employees and key external stakeholders
- a commitment to regularly monitor and report performance to internal and external stakeholders.

Review the draft sustainability policy against commitments and statements in other organisational policies and confirm there is no conflict or potential for confusion. Policies need to support each other and demonstrate their alignment with the organisation's values and broader business objectives.

5

Consult, review and finalise the policy

The draft should be presented and discussed at the highest levels of management. If managers accept the idea of continual improvement this can avoid problems later on. Consider a select review by line managers and other employees. Use existing forums and communication channels wherever practical.

6

Get approval from the top

Make sure the final policy is signed and dated by the most senior person in the organisation. This is also a good time to confirm which individual or management level is responsible



Establishing a sustainability policy at Colonial First State Global Asset Management

'Colonial First State Global Asset Management (CFSGAM, then Colonial First State Property) developed a sustainability strategy to help map its progressive implementation of sustainability practices. One of the first deliverables promoted to staff was a sustainability policy which complemented existing environment, OH&S and risk policies.

A draft was prepared with internal and external assistance and circulated among senior management before being adopted by the Chief Executive. The policy defines sustainability in the context of CFSGAM's business. Its commitment includes:

- taking a longer term approach to investing intellectual capital into integrating and managing sustainability
- setting specific objectives and targets
- fostering a culture of sustainability awareness
- seeking to optimise returns on sustainability investments
- identifying and promoting the long-term benefits of sustainability.

The initial sustainability policy was established in 2003 and is reviewed and updated regularly. Monitoring and reporting progress against the policy is also ongoing and provides a critical opportunity for the business to understand the success of implementation.'

Colonial First State Global Asset Management

for reviewing the effectiveness of the policy and reporting back to senior management.

7

Communicate the policy

All employees need to know about the policy and understand their responsibilities in complying with it. The Chief Executive Officer or Managing Director should initially communicate the policy and reaffirm commitment to it. Make sure all those who contributed to the policy are sent a copy, and include an appreciation of their involvement. Use regular forums, the staff intranet and notice boards to present the policy.

Where required, communicate the policy to key suppliers if their environmental performance needs to reflect your organisation's aspirations and commitments. Expect commitment from them and develop a process to measure whether they are able to meet your sustainability criteria.

Ideally the policy should be accessible to the public and other external stakeholders, usually via the organisation's website. Part of the commitment to improvement involves recognising and accepting transparency, both internally and externally. Consider including the policy in communications with key stakeholders e.g. in the annual report.

Reviewing your policy

Identify a process – ideally within an existing audit or management review system, or through an Environmental Management System or similar – for regular reviews of the policy's effectiveness, relevance and need for updating. This could be conducted in conjunction with any other strategic review or planning exercise the organisation undertakes on an annual basis.

The review needs to check that commitments contained within the policy, and its implementation within the organisation, remain consistent and supportive of the organisation's business goals and strategic direction.

Consider the following questions:

- Are employees at all levels aware of the policy and do they understand its basic intent?
- Do employees know how to access the policy? Is the policy serving as a guide for employees?
- Is the policy working at the day-to-day operational level?
- Is the policy working outside the organisation? (with suppliers, contractors and customers etc.)

- Are the policy's goals still perceived as credible, relevant and supportive of the organisation's business goals?
- Has the policy been followed up by actions and initiatives in key business areas?
- Can we demonstrate achievements linked to implementation of the policy – in the short, medium and longer term?
- Does any aspect of the policy need to be changed?

Make sure the policy is promoted at regular opportunities, and that awareness of the policy is included as part of the annual performance reviews of key staff. Recognise and reward internal and external sustainability champions.

Further information

- 'Guide for Writing an Environmental Policy', Department of the Environment and Water Resources, www.environment.gov.au/settlements/government/ems/publications/pubs/policy.pdf
- 'Developing a Sustainability Strategy: A ten-point guide for small to medium sized businesses', National Centre for Sustainability, Swinburne University of Technology, http://tool.ncsustainability.com.au/assets/sustainability_strategy.pdf
- 'Sustainability Action Plan', National Centre for Sustainability, Swinburne University of Technology, http://tool.ncsustainability.com.au/assets/action_plan_template.doc
- 'ISO 14000 essentials', international standards for environmental management systems, www.iso.org/iso/en/prods-services/otherpubs/iso14000/index.html
- Global Reporting Initiative (GRI), www.globalreporting.org
- 'Environmental Policy Checklist', International Network for Environmental Management (INEM), <http://www.inem.org/default.asp?Menu=154>
- 'EMAS Toolkit for small organisations', Eco-Management and Audit Scheme (EMAS), <http://ec.europa.eu/environment/emas/toolkit/>
- The SIGMA Project, www.projectsigma.co.uk/

Adapting to climate change

2.4

Context

Adapting to climate change is fast becoming an imperative for the property industry as governments define Australia's low-emissions future in response to global warming. Commissioned by state and Federal governments, the *Garnaut Climate Change Review* aims to raise public and industry awareness about the need to reduce carbon emissions as we move towards a carbon pollution reduction scheme (CPRS). See www.garnautreview.org.au

The National Greenhouse and Energy Reporting Scheme (NGERS) began in July 2008, in accordance with the *National Greenhouse and Energy Reporting Act 2007*. The scheme requires major power producers and consumers to record their emissions. Over the next three years, the emissions threshold for mandatory carbon accounting will reduce, requiring many major property institutions to report their energy consumption. The Australian Government's White Paper on emissions trading was released in December 2008, although the introduction of mandatory obligations under the Carbon Pollution Reduction Scheme has been deferred until 1 July 2011 (see www.climatechange.gov.au/emissionstrading/index.html).

In Section 1.3 climate change and global warming are defined and potential impacts on the built environment are identified. Predictions by the Intergovernmental Panel on Climate Change (IPCC) include:

- more fire and storm damage
- more coastal inundation due to sea level rise and storm surges
- implications for property values and insurance in risky areas.

The table on page 2 is a summary of adaptation options from the Australian Greenhouse Office's *Assessment of the Need to Adapt Buildings for the Unavoidable Consequences of Climate Change*, August 2007. Management and adaptation to the physical effects of global warming on the built environment must be embraced in conjunction with management and adaptation to a changed economic environment, that is, dealing with economic impact in a carbon-constrained economy.

What's in this section

Climate change adaptation options p2

Adapting to climate change p3

Step 1 Gain commitment and establish responsibilities

Step 2 Choose a greenhouse gas reduction program

Step 3 Prepare your greenhouse gas inventory

Step 4 Identify climate change risks and opportunities

Step 5 Set performance targets

Step 6 Develop your climate change action plan

Step 7 Engage tenants, contractors and the supply chain

Step 8 Collect data and monitor performance

Step 9 Review performance annually

Further information p12

Worksheet 2.4A

Risks relating to climate change

Worksheet 2.4B

Opportunities arising from climate change

Climate change adaptation options

Climate change impact	Residential buildings	Commercial buildings	Health and lifestyle needs
<p>Increased average temperatures, more extremely high temperatures, fewer extremely low temperatures</p> <p><i>Most of Australia (all 13 sites), less warming in some coastal areas (e.g. Gold Coast, Perth) and Tasmania (Hobart), greater warming north-west (Darwin)</i></p>	<p>Passive solar design:</p> <ul style="list-style-type: none"> Control solar gain Provide adequate ventilation Provide adequate insulation Add thermal mass 	<p>Passive solar design:</p> <ul style="list-style-type: none"> Decrease lighting and equipment loads Upgrade air conditioning system (passive solar design may eliminate need for any mechanised cooling system) Use reflective glazing and external shading Increase insulation and add thermal mass Use passive ventilation methods Use automated building controls 	<p>Passive solar design:</p> <ul style="list-style-type: none"> Minimise use of air conditioning systems Use passive ventilation methods
<p>More summer rain in north and east, more autumn rain inland, less rain in spring and winter</p> <p><i>Most of Australia, but southern areas have less rain in all seasons, and Hobart has increased winter rain</i></p>	<ul style="list-style-type: none"> Collect and use rainwater Reduce water demand Reuse water on-site Control stormwater 	<ul style="list-style-type: none"> Decrease potable water consumption (both internally and externally) Install water submeters Minimise use of potable-water-based cooling systems 	<ul style="list-style-type: none"> Install on-site water storage Build more indoor sports facilities
<p>More-intense cyclones, wind speeds and storms</p> <p><i>Wind speeds, extreme rainfall events and intense local storms generally increasing over the whole continent, potentially most marked in the north-east (all 13 sites, possibly more so in Darwin, Cairns and Brisbane)</i></p>	<ul style="list-style-type: none"> Upgrade fasteners in roof structures and in sub-floor Improve weathertightness and drainage detailing 	<ul style="list-style-type: none"> Design for increased wind loadings 	<ul style="list-style-type: none"> Improve building moisture management methods
<p>Flooding</p> <p><i>Greater chance of flooding in areas where increased rainfall and storms events likely; potentially all sites affected with possibly more risk in Cairns, Brisbane, and the Gold Coast</i></p>	<ul style="list-style-type: none"> Avoid flood-prone areas Increase minimum floor levels Use water-resistant construction materials Install vulnerable services as high as possible 	<ul style="list-style-type: none"> Improve land-use and site management Use water-resistant construction materials Use higher placement for vital equipment and supplies 	<ul style="list-style-type: none"> Prevent sewerage, soil and mud contamination
<p>Hail events</p> <p><i>Decreased frequency of hail events in Melbourne; increased frequency of hail events in Sydney</i></p>	<ul style="list-style-type: none"> Use impact-resistant roofing materials Designing more appropriate window protection 	<ul style="list-style-type: none"> Protect externally fitted services and fixtures 	<ul style="list-style-type: none"> Keep roofs well maintained
<p>Bushfires</p> <p><i>Increases in bushfire frequency and intensity across all of Australia</i></p>	<ul style="list-style-type: none"> Use fire-resistant building materials Install domestic sprinkler systems in high risk zones 	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Increase use of other forms of natural shading where vegetation is removed due to fire risk

How will your organisation manage the risks and opportunities related to climate change?

The scope of organisational change required is much broader than looking at how to improve energy efficiency throughout your properties. Carbon output is made through the embodied energy in building materials, transport and the supply chain as well as direct emissions. For instance, the materials you recommend or approve in new buildings, tenancy fitouts or retrofits involve varying degrees of energy and transport in their manufacture, transport and installation. The Australian Sustainable Built Environment Council (ASBEC) estimates the building sector is responsible for 23% of Australia's total greenhouse gas (GHG) emissions. Your organisation's response to this will need to involve substantial re-thinking, innovation and adaptation, supported by change management and education programs.

The challenge is, how can your organisation thrive in a carbon-constrained economy? Climate change impacts may take many different forms, from increased energy and fuel costs through to the physical impacts of temperature extremes (will your building HVAC system cope?) and more frequent severe storm events.

Opportunities may also present themselves. ASBEC estimates that through energy efficiency measures alone the property sector can cut its GHG emissions in the order of 30–35%. All greenhouse gases other than carbon dioxide are measured as CO_{2-e} (CO₂ equivalent) either in kilograms or tonnes. Helping tenancies reduce their carbon footprint may form a pivotal role in providing property services in the future. The issue of owner–tenant split incentives is addressed in Total Environment Centre Issues Paper No. 5 to the Garnaut Review (see www.tec.org.au).

Steps: Adapting to climate change

The following steps will help you determine:

- how to gather the information your organisation will need to manage climate change
- how to determine the top priority actions for adapting to climate change.

These steps are adapted from *The Greenhouse Gas Protocol*, Revised Version, World Business Council for Sustainable Development and World Resources Institute (see www.ghgprotocol.org).

Sustainability Advantage

Sustainability Advantage is a business support service from the Department of Environment and Climate Change NSW (DECC). It is designed to help businesses understand sustainability, successfully manage their operations to achieve better environmental outcomes and add business value.

Sustainability Advantage participants have the option to undertake a Climate Change module. With the support of DECC and their contractors, participants first develop their GHG inventory – a quantified list of GHG emissions and sources. Depending on their priorities, they may focus on areas that include:

- minimising GHG footprint
- climate change risk management
- realising business opportunities from climate change.

For more information please contact Business Partnerships on (02) 8837 6000 or sustainbus@environment.nsw.gov.au



1 Gain commitment and establish responsibilities

Senior management may be committed to making your organisation more sustainable and reducing its greenhouse footprint. However, you may need to gain commitment from other parts of your organisation. Some managers may be actively involved with implementing good environmental practices for reasons such as reducing compliance costs and improving operational efficiency, but may need support to gain a deeper awareness of the possible impacts of climate change on your business. Help your management team understand:

- what management issues your organisation needs to address in relation to climate change
- the benefits to be gained from implementing a climate change management strategy
- the risks of inaction.

2 Choose a greenhouse gas reduction program

Greenhouse Challenge Plus enables Australian companies to form working partnerships with the Australian Government and offers technical tools to help them improve their energy efficiency, thereby reducing their GHG emissions. For example, the *National Greenhouse Accounts (NGA) Factors workbook* (See www.climatechange.gov.au/workbook/index.html) is designed to help with calculating GHG emissions and estimating greenhouse sinks using appropriate methods and emission factors. Data can be entered and reports generated using the Online System for Comprehensive Activity Reporting (OSCAR) application. Staff tools are also available, offering ways to change workplace habits by educating and motivating staff (www.environment.gov.au/settlements/challenge/members/stafftools.html).

CitySwitch Green Office (previously the 3CBDs Greenhouse Initiative) is a national tenant energy management program run in partnership between the cities of Sydney, North Sydney, Parramatta, Willoughby, Adelaide, Brisbane, Melbourne and Perth, and the Department of Environment and Climate Change NSW and Sustainability Victoria. Signatories commit to achieving and maintaining an accredited 4 stars or higher NABERS Energy tenancy rating (www.cityswitch.net.au). NABERS Energy measures and rates a tenancy's actual yearly greenhouse gas emissions using 12 months of energy bills. You can use the NABERS rating to compare your office's environmental impact to your peers (see www.nabers.com.au).

Greenhouse gas accounting and reporting standard

Developed by the World Business Council for Sustainable Development, the *Greenhouse Gas Protocol Corporate Standard* is an internationally recognised accounting and reporting standard. It covers carbon dioxide (CO₂) and the five other greenhouse gases included in the Kyoto Protocol: methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF₆). These five are measured as CO₂ equivalents (CO_{2-e}) in kilograms or tonnes. The Standard was designed:

- to help organisations prepare a GHG inventory that represents a true and fair account of their emissions, through standardised approaches and principles
- to simplify and reduce the costs of compiling a GHG inventory
- to provide information that can be used to build strategies to manage and reduce GHG emissions, and
- to increase consistency and transparency in GHG accounting and reporting.

The Standard builds on experience and knowledge drawn from businesses, NGOs, governments and accounting associations. It has been road-tested by over 30 companies in nine countries. The vision behind the Standard is to harmonise GHG accounting and reporting standards internationally so that different trading schemes and other climate-related initiatives adopt consistent approaches to GHG accounting. The Standard recommends that 'a well designed inventory will help organisations to:

- manage GHG risks and identify reduction opportunities, and
- participate in mandatory programs and GHG markets.'

Further, GHG inventories can support public reporting and participation in voluntary GHG programs, and help to gain recognition for early voluntary action.

www.ghgprotocol.org

The Total Environment Centre is collaborating with the commercial property sector in offering the **Existing Buildings Project** aimed at combating climate change. A series of workshops has been designed to build understanding and commitment and the program aims to quantify emissions data, recognise improvements and acknowledge ratings in accordance with NABERS Energy (see www.tec.org.au/index.php?option=com_content&task=view&id=673&Itemid=334).

EPA Victoria has a comprehensive **Carbon Management Principles Resources** website which lists Australian and international best practice guides and tools (www.epa.vic.gov.au/climate-change/carbon-management/resources.asp).

For some companies it will be a sufficiently large first step to embark upon the type of change outlined here in Step 2, where workshops and software have been designed to guide you through the process. However, as the carbon reduction landscape becomes more sophisticated in response to the introduction of emissions trading, mandatory reporting and increasingly urgent environmental targets, Steps 3 to 6 reveal the level of detail required to compete in a marketplace of increasingly environmentally aware tenants and investors.

3 Prepare your greenhouse gas inventory

Compile baseline data for your GHG emissions inventory. Your organisation will need this information to determine risks and identify opportunities for reducing its GHG emissions.

Determining a GHG inventory baseline, and carbon footprint, is an accounting process and it involves identifying your emission sources and managing the quality of your data.

The following traditional accounting fairness principles should be the basis for any GHG reporting:

- relevance – select an inventory boundary that reflects the substance and economic reality of the business relationship and is not merely its legal form
- completeness – account for all relevant emissions
- consistency – so that ongoing reporting can be undertaken on a yearly basis
- transparency – so that internal and external reviewers can determine whether your reporting is credible
- accuracy – data should be sufficiently precise and organisations should actively work towards reducing uncertainties in the data.

Building in your reporting requirements

Make sure any reporting requirements from your GHG reduction program are built into your GHG inventory (see Step 3). Also check whether you have the correct information for mandatory reporting if required.

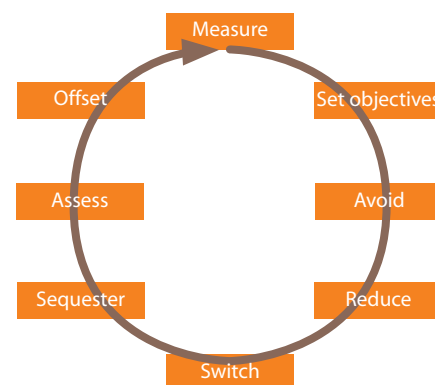
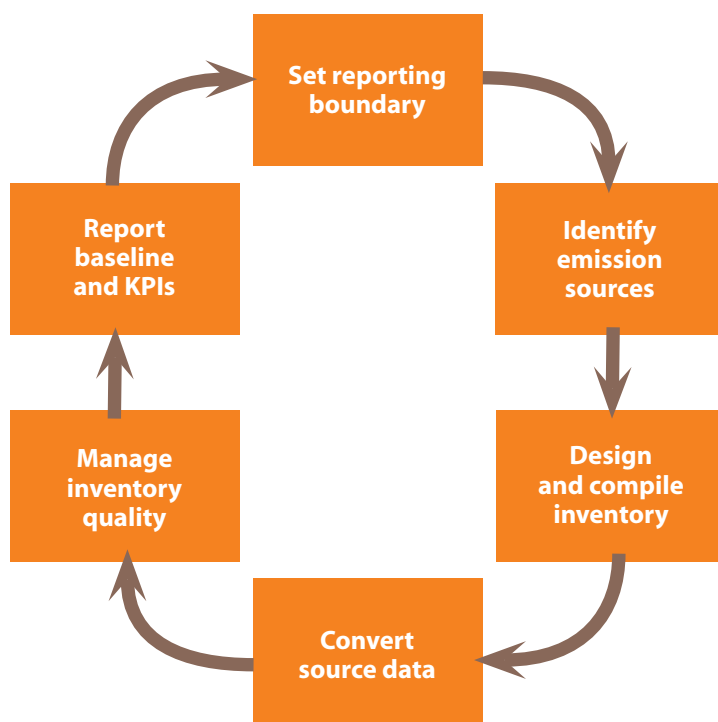


Diagram adapted from EPA Victoria Carbon Management Principles Resources

Determining your greenhouse gas baseline



3A Set the reporting boundary

Set the boundary for your organisation's GHG reporting by determining the extent of operations it owns or controls.

There are two main approaches for this:

- the equity share approach – where you account for GHG emissions from operations according to your share of equity in the operation (e.g. listed property trust), or
- the control approach – where you account for 100% of the GHG from operations over which you have control.

The control approach can be further categorised into:

- financial control – ability to directly control financial and operating policies and you retain most of the benefits and carry the risk of the operation (e.g. building owner)
- operational control – if you have full authority to introduce and implement operational policies and procedures (e.g. managing agent overseeing daily operations).

3B Identify your emission sources

To help delineate emissions from different organisations and to avoid double counting, three scopes are carefully defined for GHG reporting purposes:

Setting your boundary

Setting your boundary really depends on your company structure and it is important to remember the principles of relevance, completeness, consistency and transparency. If you are unsure, allow for flexibility when setting up your inventory so you can review your reporting options to make a final determination.

Difficult questions about your reporting boundary

- How do I deal with complex company structures and shared ownership?
- How do I account for and report outsourced and leased operations?

For more information on difficult boundary questions such as these, see *The Greenhouse Gas Protocol*, Revised Version, World Business Council for Sustainable Development and World Resources Institute, www.ghgprotocol.org or www.wbcsd.org

Property sector emission sources

- **Scope 1** – Direct GHG emissions, for example natural gas (HVAC), refrigerant leaks (HVAC), petrol and diesel (vehicles)
- **Scope 2** – Indirect GHG emissions from purchased electricity consumed by the organisation e.g. electricity used for lighting, HVAC, lifts, escalators and other sources
- **Scope 3** – Other indirect GHG emissions, for example, methane (emissions from waste sent to landfill), petrol and diesel (contracted cars, taxis).

Examples of property sector emission sources

Scope	Definition	Examples
Scope 1: Direct GHG emissions	Fuel you burn	petrol, natural gas, LPG
Scope 2: Indirect GHG emissions from purchased electricity	Fuel others burn for you	electricity, process emissions
Scope 3: Other indirect GHG emissions	Emissions from services you use and products you produce	waste disposal, raw materials, air travel, contractors' emissions

3C Design and compile your inventory

Design your inventory so you can aggregate or disaggregate your data for various organisational and operational boundaries. Aim to minimise the reporting burden, reduce the risk of errors that might occur while compiling data, and take advantage of any relevant data already collected and reported. You may already be gathering some of this data for other reporting requirements, e.g. the GHG reduction programs discussed here in Step 2 and in Section 3.5 'Managing energy'.

Identify data sources and gather data from your multiple facilities or business functions. The following table outlines example data sources for typical property sector GHG emission sources.

Typical data sources for property sector GHG emissions

Emission source	High level data		More detailed data	
	Data source	Likely responsible party	Data source	Likely responsible party
Scope 1 emissions – Direct emissions				
Gas	Bills	Accounts	Energy meters	Property managers
Vehicle mileage (vehicles owned by organisation)	Expense claims	Accounts	Fleet management performance indicators	Fleet managers
Refrigerants	Refrigerant capacity	Property managers	–	–
Scope 2 emissions – Indirect emissions (purchased electricity for own use)				
Electricity	Bills	Accounts	Energy meters	Property managers
Scope 3 emissions – Indirect emissions (for advanced GHG inventories)				
Waste	Estimates of waste quantities	Property managers	Measurement of waste quantities and consistencies	Property managers
Flights	Travel agent	Travel Agent	–	–
	Expense claims	Accounts		
Vehicle mileage (vehicles contracted by organisation)	Expense claims	Accounts	Fleet management performance indicators	Fleet managers
Taxi mileage	Expense claims	Accounts	–	–
Embodied energy of equipment and supplies	Estimation	GHG protocol tool or subject expert	Specific life cycle assessment details	Suppliers

3D Convert source data into tonnes of GHG emitted

Convert your source data (e.g. kWh of electricity, tonnes of waste, liquid fuels) into GHG emissions from source. This involves multiplying your source data by an emission factor to get kilograms or tonnes of CO_{2-e}.

Emission factors can be sourced from *National Greenhouse Accounts (NGA) Factors* published by the Australian Government Department of Climate Change (see www.greenhouse.gov.au/workbook/index.html). Other specific sources or emissions not covered in *NGA Factors* may require detailed life cycle assessment to identify the GHG impacts.

You will need to update the emission factors on a yearly basis because GHG emitted changes every year – particularly the mix of electricity generation sources (e.g. % of renewable or type of coal used). Refer to *NGA Factors* for the latest emission factors.

The Greenhouse Challenge Plus program provides a range of tools including an emissions calculator (an excel spreadsheet) to help you complete your GHG emissions inventory. Check whether the latest emissions are included. See www.environment.gov.au/settlements/challenge/members/emissions.html

3E Manage your inventory quality

Managing your inventory is critical to make sure your GHG reporting is robust and will stand up to external scrutiny. You may wish to set up an Inventory Quality Team, including formally assigning accountabilities to ensure that quality data is collected.

- Check against your original boundary to ensure you have set the correct boundary for your GHG reporting.
- Make sure you have included all material indirect emissions.
- Identify data gaps and make a commitment to eliminating them to improve the robustness of your reporting.

3F Report your baseline and KPIs

Choose a base year – the earliest relevant point in time for which you have reliable data. Keep in mind a number of changes can trigger the need for recalculating a base year including significant acquisitions, divestments, structural changes, changes in methodology or improvements in data accuracy.

Which indirect emissions should I report?

Determining which Scope 3 indirect emissions to report can be an iterative process. You need to identify the range of indirect emissions then decide which ones contribute to your carbon footprint. For example, do you account for the GHG emissions from your tenants? You may wish to improve the robustness of your reporting over time as it may not be possible to access all the data in your first attempt. If this is the case, keep your stakeholders informed of your commitment to improve your reporting.

4 Identify climate change risks and opportunities

Climate change and the follow-on changes to the business environment present both future risks and opportunities.

- Identify the risks related to climate change impacts and GHG emissions regulation.
- Give priority to risks that require further attention, and
- Put in place the structures and procedures to ensure these higher priority risks are effectively managed.

Worksheet 2.4A provides some brainstorming prompts for identifying risks. For more information on identifying risk, see *Climate Change Impacts & Risk Management, A Guide for Business and Government*, Australian Greenhouse Office 2006.

Identify the opportunities with the highest potential for your organisation. For each opportunity, consider the:

- potential for business growth
- strategic fit with your organisation's mission.

Use Worksheet 2.4B to help get you started on identifying these opportunities.

5 Set performance targets

Once you have developed a robust GHG inventory the next vital step is to set firm improvement targets with milestones for action. Greenhouse gas reduction targets should relate to your organisation's sustainability goals and should be practical and achievable at a stretch. You may wish to articulate your GHG commitments and targets in your organisation's sustainability policy (See Section 2.3: 'Developing a sustainability policy for your organisation').

Set specific targets for GHG intensive areas and link your GHG targets to your organisation's energy targets (see Section 3.5: 'Managing energy').

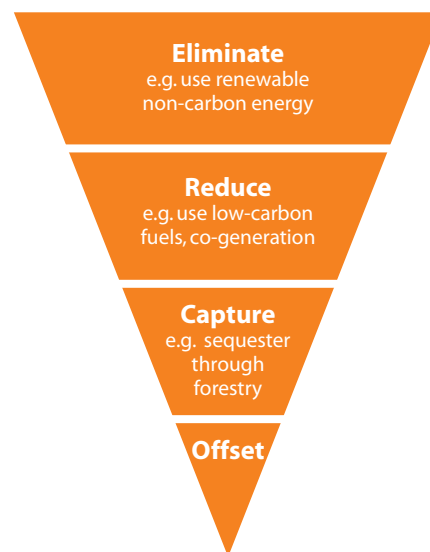
When setting targets ask the following questions:

- How do your targets compare with your peers in the market?
- Have you informed your stakeholders of the targets? Do the targets meet the stakeholders' current and future expectations?
- Can you verify progress in relation to the targets?

Allocate responsibility for achieving the targets. Where applicable, integrate the targets and minimum standards into service or performance contracts with relevant service providers and staff performance agreements (see Step 7).

GHG management hierarchy

The GHG management hierarchy ranks management options for reducing your organisation's GHG footprint from the most to the least effective. The most effective GHG management plans strive to maximise GHG elimination and reduction, followed by capturing GHG and, finally, considering the use of offsets (e.g. carbon credits).



Make sure your targets are not numbers hidden in a report. Make them part of 'business as usual' operations. Promote targets to key stakeholders and ensure they understand the process you have committed to and the intended benefits.

6 Develop your climate change action plan

Develop an action plan for reducing and managing your organisation's contribution and exposure to climate change. The plan should identify responsibilities and timeframes for action. A vital first action might be improving the robustness of your GHG inventory. Prioritise your actions to minimise risks and maximise opportunities.

Assessing options for reducing your GHG footprint

Management option	How to assess the scope and applicability for your organisation	Additional benefits
Eliminate	Business case for purchasing or generating renewable energy, such as GreenPower, photovoltaics, roof-top wind turbines	Purchasing GreenPower can increase a building's NABERS Energy star rating
Reduce	Technical reports including energy audits, energy efficiency opportunity assessments Business case for costs and benefits of implementing energy efficiency Management plans for implementing energy efficiency opportunities Technical reports assessing options for fuel switching to low-carbon energy sources such as biofuels and gas co-generation for building heating and cooling Business case assessing fuel switching options	May also be useful for your energy action plan, identifying energy efficiency opportunities generally or participating in programs such as CitySwitch Green Office (previously the 3CBDs Greenhouse Initiative) or Greenhouse Challenge Plus
Capture	No obvious significant opportunities for the property sector	N/A
Offset	Report on available carbon offsets including the costs, quality, market perception and risks Business case for costs and benefits of using offsets	Can be reported in Greenhouse Challenge Plus reports

7 Engage tenants, contractors and the supply chain

Your tenants may have already starting asking for your help in understanding their carbon footprint – i.e. the impact of their activities on the environment, particularly with regard to climate change and the amount of greenhouse gases produced. A number of online calculators are available to estimate individual ecological (carbon or GHG) footprints and measurements are made in units of carbon dioxide

or CO₂ equivalents (CO_{2-e}). This is a good first step towards behavioural change.

EPA Victoria's website has an easily accessible greenhouse calculator to establish the ecological or carbon footprint for homes (see www.epa.vic.gov.au/GreenhouseCalculator/calculator/default.asp).

Introducing your tenants and supply chain to a GHG reduction program such as Greenhouse Challenge Plus is an effective way for them to assess and manage their carbon emissions. (See Step 2.) Regularly engage with your tenants to support them in reducing their GHG emissions and keep them up-to-date on the performance improvements you are working on.

Encourage your office tenants to join CitySwitch Green Office (previously the 3CBDs Greenhouse Initiative); see www.cityswitch.net.au and Step 2.

Work with your contractors and suppliers to look for low-carbon-intensive products and services. This may require long-term strategic partnerships so that both parties can share the benefits. However, tenants and building owners should scope their environmental and emission reduction requirements carefully during the tender process to avoid considering contractors and suppliers who are unable to meet pricing criteria. Look for opportunities to reduce transport impacts by optimising logistics and distribution operations.

8 Collect data and monitor performance

Build GHG emission management into regular base building reporting. Ensure monthly reporting tracks performance against your targets, and investigate variations or unusual events. You could use Worksheet 3.4C: 'Monthly property sustainability report' or adapt this and integrate it into your existing monthly reports.

At team meetings discuss monthly performance and the measures taken to maintain or adjust building services so they make the best contribution to meeting your GHG reduction targets.

9 Review performance annually

Knowledge about climate change is developing rapidly, therefore an effective climate change management system is a dynamic system which is constantly being reviewed and revised. The system needs to be able to identify future trends and adapt to meet these requirements.

Encourage your tenants to:

- reduce their GHG emissions through energy saving measures such as turning computers and lights off, using energy efficient equipment and retrofitting their lighting; see Section 3.5: 'Managing energy' for more information.
- use public transport and consider active transport options like walking or cycling to work to reduce their emissions; help tenants by providing secure bike storage and showers
- optimise goods delivery (e.g. stationery in offices or clothing deliveries in retail centres) and other services they procure to reduce transport impacts. Also ask suppliers to minimise or take back and reuse packaging. Source packaging that uses recycled materials. (For more about the Supply Chain, see Section 5: 'Sustainability and the Supply Chain'.)
- reduce paper use, minimise waste generation and maximise recycling (see Section 3.7: 'Managing waste and recycling')
- reduce air travel by using teleconferencing or encouraging rail travel instead,
- purchase energy from renewable sources such as accredited GreenPower; investigate purchasing GreenPower on behalf of your tenants.

An annual management review and subsequent updating of your climate change management system is essential. In addition, you may also need to conduct management reviews whenever a decision is made to change operations or procedures that will affect the climate change impact of an activity or facility.

Your annual review might include looking at:

- climate change management policy (or reference to this in your sustainability and risk management policies)
- climate change management issues and performance, and the progress of climate change management programs
- developments, achievements and new challenges within individual departments
- key stakeholders changing expectations, including your tenants and investors
- tenants performance in adapting to climate change
- contractors' and suppliers' performance
- internal or external audit results
- changes in your business activities, services provided or product offerings
- advances in science and technology
- changes in legislation, regulations, codes of practice, etc.
- *National Greenhouse Accounts (NGA) Factors*, Australian Government Department of Climate Change, www.greenhouse.gov.au/workbook/index.html
- National Greenhouse Accounts (NGA) Factors emissions calculator, www.environment.gov.au/settlements/challenge/members/emissions.html
- Australian Government Department of Resources, Energy and Tourism, *Energy Efficiency Opportunities Act 2006* (amended March 2007), www.energyefficiencyopportunities.gov.au
- EPA Victoria Carbon Management Principles, www.epa.vic.gov.au/climate-change/carbon-management/resources.asp
- Garnaut Climate Change Review, www.garnautreview.org.au
- Greenhouse Challenge Plus, Australian Government Department of the Environment, Water, Heritage and the Arts, www.environment.gov.au/settlements/challenge
- Greenhouse Gas Protocol, Revised Version, World Business Council for Sustainable Development and World Resources Institute, www.ghgprotocol.org or link from www.epa.vic.gov.au/climate-change/carbon-management/resources.asp if direct access not permitted; see also www.wbcsd.org
- *Climate Change 2007: Impacts, Adaptation and Vulnerability*. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, M L Parry, O F Canziani, J P Palutikof, P J van der Linden and C E Hanson (Eds), Cambridge University Press, Cambridge, UK, www.ipcc.ch
- National Greenhouse Gas Inventories Programme IPCC (Intergovernmental Panel on Climate Change), www.ipcc-nggip.iges.or.jp/
- Total Environment Centre Existing Buildings Project, www.tec.org.au/index.php?option=com_content&task=view&id=673&Itemid=334
- NABERS Energy, www.nabers.com.au
- NABERS rating calculator (commercial), www.nabers.com.au

Further information

- Department of Environment and Climate Change NSW, Sustainability Advantage program, www.environment.nsw.gov.au/sustainbus/sustainabilityadvantage.htm
- Carbon Pollution Reduction Scheme, www.climatechange.gov.au/emissionstrading/index.html
- Australian Built Environment Council (ASBEC), www.asbec.asn.au
- CitySwitch Green Office, www.cityswitch.net.au
- *Adaptation Options from the Australian Greenhouse Office's Assessment of the Need to Adapt Buildings for the Unavoidable Consequences of Climate Change*, Australian Government Department of Climate Change, August 2007

Worksheets

Review and use these Word documents:

- 2.4A Risks relating to climate change
- 2.4B Opportunities arising from climate change

Worksheet 2.4A

Risks relating to climate change

This is an example only – adapt this worksheet to suit your organisation's requirements.

Brainstorming prompts for identifying risks to the property sector

<i>Type of risk</i>	<i>Examples of risk treatment</i>
Spread risk	
Physical	Consider weather exposure in building portfolio selection. Increased insurance coverage.
Structural and technological	
Physical	Prepare buildings for changing weather patterns and extreme events. Consider increased energy demand and future trends in building upgrades.
Competitive	Consider using preparedness for changing weather patterns, extreme events and increased energy demand as a selling point to existing and potential customers.
Avoidance	
Regulatory	Minimise exposure to the financial impact of new greenhouse gas regulations by reducing your organisation's greenhouse gas emission footprint.
Litigation	Develop a robust Environmental Management System to ensure compliance with all relevant regulations.
Competitive	Develop new opportunities from changes in risk.
Reputation	Consider developing a vision to move towards best practice in climate change management.
Research	
Physical	Be aware of new technology developments.
Regulatory	Be aware of new regulatory trends and drivers.
Litigation	Be aware of new precedents for litigation.
Competitive	Be aware of new products and services being offered in the market place.
Reputation	Be aware of consumer backlash against the organisation or any products and services.
Performance	Review how other funds' assets are performing, pay attention to those with ESD initiatives against those without.
Future	Form a view on how property may look in 2 years, 5 years, 10 years.
Education, behavioural	
Physical	Educate and inform management and staff about climate change risks and adaptation measures.
Regulatory	Educate and inform management and staff about regulatory compliance.
Litigation	Educate and inform management and staff about litigation risks.
Competitive	Engage management and staff to suggest and develop opportunities for new products and services.
Reputation	Consider a partnership with a non-government organisation to validate your organisation's climate change management efforts in the eyes of consumers.

Adapted from the *Carbon Disclosure Project Report 2006* Australia and New Zealand, www.cdproject.net/download.asp?file=CDP4_Australia_Report.pdf

Ranking of risks

Rank the risks according to both their probability and severity:

	Low probability	High probability
High severity	High risks (List risks here)	Extreme risks (List risks here)
Low severity	Low risks (List risks here)	Medium risks (List risks here)

Further reading

- *Managing Investments in a Changing Climate*, IIGCC 2006
(Institutional Investors Group on Climate Change),
www.iigcc.org/docs/PDF/ManagingInvestmentsChangingClimateIIGCCconferencereport.pdf
- *The Business Case for Early Action*, April 2006, Australian Business Roundtable on Climate Change, www.businessroundtable.com.au/pdf/F078-RT-WS.pdf
- *Climate change: beyond whether*, UBS Research Focus, January 2007,
www.ubs.com/1/e/media_overview/media_emea/search1/search10?newsId=113220
- *A climate for change – A trustee’s guide to understanding and addressing climate risk*, Carbon Trust and the Institutional Investor Group on Climate Change,
www.carbontrust.co.uk/publications/publicationdetail.htm?productid=CTC509

Worksheet 2.4B

Opportunities arising from climate change

This is an example only – adapt this worksheet to suit your organisation’s requirements.

Brainstorming session triggers and prompts

Opportunities	Examples	Size of opportunity for your organisation (low, medium, high)	Suitability to your organisation (low, medium, high)
New products			
Markets for more efficient version of products	<ul style="list-style-type: none"> Buildings ranking at high levels of environmental ratings e.g. NABERS Energy, Water, Waste and IE; Green Star Some government agencies and large corporations already requiring minimum NABERS Energy, Water and Waste ratings. 		
Markets for more efficient version of services	<ul style="list-style-type: none"> Property management with superior capabilities in managing high efficiency buildings to their optimum performance. 		
Markets for products using alternative energy sources	<ul style="list-style-type: none"> Buildings incorporating renewable energy such as solar panels, photovoltaic glazing on windows, wind power, co-generation systems, etc. Facilitating GreenPower purchase for tenants 		
Development and marketing of emission reduction technologies or processes Development of products and services that help mitigate climate change-related risks	<ul style="list-style-type: none"> Upgrading buildings to high energy efficiency standards Upgrading buildings to minimise tenants' and building's waste Facilitating tenants' energy efficiency initiatives and greenhouse gas emission reductions Capacity building with landlords, tenants, contractors and supply chain. 		
Trading opportunities			
Involvement in emission trading schemes	<ul style="list-style-type: none"> Creating carbon credits from energy efficiency activities Join a greenhouse gas reduction program 		
Government support			
Access government funds	<ul style="list-style-type: none"> Climate Change Fund (NSW) 		
Marketing and branding opportunities			
Marketing and branding opportunities associated with a position on climate change and the performance of products and services	<ul style="list-style-type: none"> Ranking on Dow Jones Sustainability Index Australia's SAM sustainability index Sustainability awards Environmental reporting 		

Opportunities	Examples	Size of opportunity for your organisation (low, medium, high)	Suitability to your organisation (low, medium, high)
Improve community relations and public opinion			
Improved community relations and public opinion Engagement with policy development to avoid hostile regulatory environments	<ul style="list-style-type: none"> • Improve relationships with non-government organisations and communities • Contribute experience to policy development 		