



Business & Industry Education

A National Review of Environmental Education and its Contribution to Sustainability in Australia - Key Findings

‘Environmental Education has been gaining ground over the past few years within business and industry, as many recognise that industry engagement is critical if Australia is to progress towards a sustainable future.’

■ The Series

This summary of key findings is derived from Volume 4 of a five part series that reviews Environmental Education and its contribution to sustainability in Australia. The research was undertaken by the Australian Research Institute in Education for Sustainability (ARIES) for the Australian Government Department of the Environment and Heritage. The series is titled *‘A National Review of Environmental Education and its Contribution to Sustainability in Australia’* and covers the following areas:

Volume 1: *Frameworks for Sustainability*

Volume 2: *School Education*

Volume 3: *Community Education*

Volume 4: *Business and Industry Education*

Volume 5: *Further and Higher Education*

■ What is Learning for Sustainability?

Learning *for* sustainability (also referred to as ‘education for sustainability’ or ‘education for sustainable development’) provides a new approach for current practice in Environmental Education. This new approach attempts to move beyond education *in* and *about* the environment approaches to focus on equipping learners with the necessary skills to be able to take positive action to address a range of sustainability issues. Learning *for* sustainability motivates, equips and involves both individuals and organisations in reflecting on how they currently act and work. This assists them in making informed decisions and creating ways to work towards a more sustainable world. Learning *for* sustainability aims to go beyond individual behaviour change or single actions often associated with education for the environment. It seeks to implement systemic change within the organisation.

Current Situation

In Australia, industry is under ever increasing pressure to engage with and respond to sustainability issues. However many companies, large and small, are struggling with this new broader business agenda. This may be due to a lack of belief in the business case for sustainability and/or a lack of the knowledge, skills and values required to effect the necessary change.

Numerous state and federal government departments, non-governmental organisations (NGOs), industry associations and private consultancies across Australia are seeking to address this by providing Environmental Education training courses, toolkits and other resources. Companies themselves are also investing in and developing Environmental Education resources for their employees and, increasingly, their external stakeholders.

Vocational Education and Training and government compliance programs offer the most Environmental Education opportunities to industry personnel. Business Schools are beginning to recognise the need to shift towards learning *for* sustainability but often lack the skills, capacity or leadership to action change. In addition, many corporate organisations are also recognising the role of interaction with peers and other informal learning through sustainability networks and social functions.

What is Needed

In practice, Environmental Education approaches tend to disseminate knowledge *about* sustainability. Yet increased awareness and understanding about sustainability issues are only part of the solution, as they in themselves do not necessarily lead to change. Australian companies are currently inundated with information about sustainability, but progress towards more sustainable practice remains slow. This provokes the question of how can business and industry make the leap from information about sustainability to implementing *change for sustainability*?

In order to answer this question companies and those organisations and agencies involved in delivering Environmental Education to them require a clearer understanding of what is best practice. With this knowledge they would be better able to evaluate existing program effectiveness and assess achievement of long-lasting change for sustainability. This knowledge could also be used in the design and delivery of future Environmental Education programs for the sector. Currently there is an inadequate body of knowledge about what effective Environmental Education and learning *for* sustainability approaches look like within the business and industry sector. In this report the principles of learning *for* sustainability are used as a basis to identify the key components of effective Environmental Education critical to achieve change for sustainability within business and industry.



About this Report

This report is the first national review of its type undertaken in Australia and one of few attempts around the world to capture needs and opportunities in this area. It provides a snapshot of the current context and documents the state of play. To assist in constructing a picture of Environmental Education experiences in business and industry education and their contribution to sustainability a number of key themes were identified. In exploring these the report considers the different outcomes industry is seeking from Environmental Education and learning *for* sustainability approaches along with different methods by which it can access this learning. The key themes covered by the report are:

- i) Informal Learning through Peer Networks;
- ii) Education for Product Stewardship
- iii) Educating Stakeholders for Sustainability;
- iv) Resources and Tools for Change;
- v) Beyond Compliance Education;
- vi) Education Relating to Environmental Performance;
- vii) Formal Education and Training for Industry - Contributions from the Vocational Education and Training Sector; and
- viii) Formal Education for Business - Contributions from the University Sector.

What are the Gaps?

Within Australia, Environmental Education in the industry sector tends to focus on the technical knowledge and skills required to perform certain environmental job functions and there are many examples of successful programs of this kind. Typically these programs have a limited scope and do not seek to identify alternatives to current organisational policy and practice towards sustainability. It is rare to find industry education programs that motivate or build the capacity of participants to reorient current practice.

A handful of progressive corporations are showing leadership by educating their own stakeholders *about* and *for* sustainability. These companies are starting to integrate education and training programs into their Corporate Social Responsibility policies and sustainability reporting initiatives. Others are utilising approaches such as Life Cycle Analysis to increase dialogue amongst and between industries and generate organisational change whilst providing further opportunities in learning *for* sustainability and developing partnerships.

■ Progressive Stages in Corporate Sustainability

The various levels of alignment with sustainability can be mapped out as follows:

1. **Compliance** - environmental considerations only of concern if obliged by law.
2. **Performance** - improved environmental management leads to greater resource efficiency and reduced costs.
3. **Stewardship** - extended producer responsibility for product impacts; sustainability perceived in terms of benefit to long-term shareholder prospects and continued license to operate.
4. **Social responsibility** - management seek to establish culture that is committed to meeting stakeholders interests and needs (not just shareholders); profit is the goal, but not at any cost.
5. **Learning organisation** - stakeholders in the business develop capacity to reflect on their roles in achieving sustainability and are actively involved in decision-making and change for sustainability.

■ Sustainable Cotton Project

Patagonia, an international sportswear company, adopted a sustainable supply chain policy with its cotton manufacturers in the 1990s. Their efforts to source organic cotton led to an active approach to building the capacity of their suppliers. In the face of apathy from mainstream agriculture and the cotton industry Patagonia established a productive network of linkages between small local suppliers. Creating collaborative networks in this way facilitated action learning. This initiative later evolved into the Sustainable Cotton Project, which incorporates a farmer environmental training program (called 'BASIC') and a customer awareness-building program (called 'Care What You Wear').

Chouinard Y. and Brown M.S. (1997) 'Going organic: Converting Patagonia's cotton product line', Journal of Industrial Ecology 1(1).

■ Sydney Water Deepens Learning through Participatory Action Research

'ESD Awareness' is an interactive on-line training package providing professional development in sustainability for Sydney Water employees. An evaluation of the program was recently undertaken following a participatory action research (PAR) approach, with the objective of identifying whether change towards sustainability was occurring in the workplace. This process involved the employees as evaluators and engaged them in informing the development of subsequent training initiatives. Approaching program evaluation in this way not only improves programs, but also builds internal capacity for change towards sustainability.

Tilbury, D. and Podger, D. (2004) *Sydney Water Participatory Action Research Evaluation: ESD Awareness Package*. Unpublished report prepared for Sydney Water.

■ 'Corporate Sustainability Project'

The University of Technology, Sydney 'Corporate Sustainability Project' was established within the Faculty of Business. The project aims to generate a cross-disciplinary understanding of how corporations can develop the skills, approaches and tools needed to better integrate environmental and social performance with key business objectives, and how to design and lead the change programs needed to make these shifts.

University of Technology Sydney (2004) *Corporate Sustainability Project*. Available at: <http://www.csp.uts.edu.au/about/index.html>

The compliance and performance promoted by much of the industry Environmental Education in Australia still has an important role to play in assisting changes to sustainability, but will not necessarily lead to deeper lasting change. For such change to occur, companies must define where they want to be and explore alternatives for getting there. This process of envisioning and futures thinking is critical for companies to align themselves with change towards sustainability and helps frame sustainability as an opportunity rather than a risk that needs to be minimised. The majority of the Environmental Education opportunities available to Australian business and industry differ from this approach, providing a one-way dissemination of information from 'experts' to companies instructing them exactly where they should go and how they should get there.

One barrier to deeper change is that companies often struggle to distinguish between environmental performance and the broader notion of sustainability. Those that have made this distinction recognise that sustainability involves profound changes in core thinking, policies and practices. To achieve this, it is argued that, companies need transformational change. Evidence suggests that those organisations that adopt sustainability are accelerating this change by using organisational learning.

A learning organisation is one which is based on the principles of adaptive management and uses these techniques within the workplace. It

promotes exchange of information between employees hence creating a more knowledgeable workforce. This produces a very flexible organisation where people will accept and adapt to new ideas and changes through a shared vision. A learning organisation employs certain principles of learning *for* sustainability, such as envisioning, systems and 'critical' thinking to create an atmosphere of team learning and develop shared visions and systems thinking.

In the end sustainability cannot be achieved without innovation, and innovation is best achieved in a culture that embraces learning. The challenge for Environmental Education, if it is to fully contribute to business and industry sustainability, is to foster this organisational learning as well as providing opportunities for executives and the wider workforce to develop the necessary knowledge and skills.

To strengthen their contribution to sustainability, Environmental Education initiatives need to:

- Provide opportunities to informally educate and engage senior executives in sustainability;
- Educate and train managers and employees across the organisation to develop the necessary skills and knowledge in aspects of sustainability; and most importantly,
- Promote organisational learning in relation to sustainability issues.



Recommendations

The research undertaken by the Australian Research Institute in Education for Sustainability has revealed a number of key needs in the areas of informal learning, product stewardship, educating stakeholders, resources and tools for change, beyond compliance education, environmental performance and opportunities for enhancement in the contributions from the Vocational Education and Training and University Sectors. The following recommendations have been derived from an exploration of these key needs. They identify practical steps at a policy, practice and research level that could strengthen the contribution of Environmental Education towards sustainability within the business and industry sector.

For Government:

1. **Government policy should:**
 - a. Recognise that Environmental Education initiatives focused on compliance, environmental performance and product stewardship need to be more **closely aligned with learning for sustainability**;
 - b. Encourage a shift away from the development of prescriptive tools and resources to ones which **build motivation and capacity** for long-term change;
 - c. Recognise and support the role of **informal learning**;
 - d. Support corporate organisations which seek to **educate stakeholders** on sustainability; and,
 - e. Strengthen recognition of sustainability by formulating a specific **corporate Action Plan** for learning *for* sustainability.
2. Fund a 6-month **mentoring program for government staff** responsible for designing and delivering business education and training initiatives. The program

would consist of a series of one-day workshops, which would bring government staff together and deliver tailored workplace visits that focus on individual/program needs.

For Industry:

3. Provide incentives (such as matching funds and evaluation training) for corporate organisations to **evaluate and learn from their education and training experiences**. This would help them assess the impact of their current programs and consider ways of improving their management and performance concerning sustainability.
4. Enlist professional learning *for* sustainability educators to **mentor managers** from corporate organisations responsible for developing corporate stakeholder education programs.
5. Provide support, in the form of training or other resources, to **facilitators of informal networks** so that they are able to maximise the learning opportunities for participants.

■ Life Cycle Analysis. Learning as a Change Process for Sustainability

The Integrated Sustainability Analysis (ISA) Group at the University of Sydney attempts to bridge the gap between the technical approach typically adopted by Life Cycle Analysis and the need to support corporations engaging in the process of change for sustainability. The ISA Group recognises that achieving corporate sustainability requires not only technology and engineering advances, but also that people's capacities are built for organisational and cultural change. It is for this reason that the ISA Group has adopted a Participatory Action Research approach to its collaborative inquiry into sustainability reporting. It assists the companies who participate to develop their own sustainability indicators, in line with standards such as the Global Reporting Initiative. Action research is closely aligned to learning *for* sustainability and provides an established approach through which collaborative and iterative learning creates change in business practice.

University of Sydney (2004) *Integrated Sustainability Analysis*. Available at: <http://www.isa.org.usyd.edu.au>

■ Government Educating for Product Stewardship

Environment Canada has hosted workshops to provide a multi-stakeholder forum for industry, stewardship boards, government and academics to discuss issues that pertain to product stewardship. The objectives were to share information on policies and initiatives, improve idea-sharing and co-operative approaches and to improve the performance and measurement of existing programs. This is good practice in learning *for* sustainability, encouraging multi-stakeholder involvement in decision-making and collaborative, supportive approaches to program evaluation.

Environment Canada (2001) *Guidance Manual for Establishing, Maintaining and Improving Producer Responsibility Organizations in Canada*. Available at: <http://www.ec.gc.ca/epr/en/resources.cfm>



6. Identify and categorise **existing opportunities for informal learning** *for* sustainability across Australia and make this information available to companies and their employees through a public resource. This resource would also encourage companies to set up internal sustainability networks and to participate in external **networks**.
7. **Identify and categorise** the sustainability **resources and tools** available to business and industry in Australia and make this information publicly available.

For Researchers:

8. Provide incentives for Business Schools to **involve industry stakeholders in Master of Business Administration curriculum development and practice**. This may involve sustainability 'champions' in the delivery of lectures as well as in course planning and reviews and/or work placements with a focus on sustainability.
9. Provide opportunities for cross-institutional collaboration, which would aim to develop a **'leading edge' sustainability course** for business executives and managers.
10. Research and document **case studies of good practice** which

can encourage organisations to invest in building capacity to address sustainability issues at a more systemic level and to collaborate with multiple stakeholders for their resolution.

11. Build relationships between **Vocational Education and Training providers** and selected **industry sustainability leaders** to determine, through sector specific research, **employer needs** for sustainability.
12. Expand previous research into the environmental components of **National Training Packages** to identify social and other aspects of sustainability and therefore provide a more holistic picture of the sustainability education currently available.
13. Research and develop **core competency standards** in learning *for* sustainability as part of generic and employability skills offerings.
14. Involve **professional associations in needs assessment research** to provide incentives which encourage responsibility and ownership of product issues in all parts of industry, not just amongst technical specialists.



15. Fund **evaluation of selected resources** and tools for impact and effectiveness in order to provide valuable lessons for future initiatives.
16. Encourage corporate organisations to engage in **dialogue with stakeholders** to determine their own learning *for* sustainability needs. This can be done by funding sector specific participatory needs assessments, which would involve a number of corporate organisations.
17. Fund action research within Business Schools to **incorporate sustainability into existing courses** and to develop **new core units** with a focus on sustainability.
18. Fund **longitudinal research** which would assess the **employment and careers of business students** educated for sustainability. This will help increase demand and strengthen the case for addressing learning *about* and *for* sustainability within Business Schools.
19. Investigate the **approaches taken to similar issues (like company Occupational Health and Safety)** to determine how government can most effectively foster cultural change for sustainability within organisations.

■ Corporations Partnering with the Formal Education Sector

An increasing number of companies committed to sustainability are actively engaging with the formal education sector. In Australia corporations such as Rio Tinto and Sensis are collaborating with tertiary institutions such as Deakin University and the Royal Melbourne Institute of Technology with the goal of increasing the understanding of sustainability of all involved. This has contributed to the development of centres of excellence for corporate sustainability, such as the 'Global Sustainability Institute' at the Royal Melbourne Institute of Technology, the 'Corporate Citizenship Unit' at Deakin and the 'Corporate Sustainability Project' at the University of Technology Sydney.

Deakin University (2004) *Corporate Citizenship Research Unit*. Available at: http://www.deakin.edu.au/fac_arts/centres/ccr/

Royal Melbourne Institute of Technology (2004) *Global Sustainability Institute*. Available at: <http://www.global.rmit.edu>.

University of Technology Sydney (2004) *Corporate Sustainability Project*. Available at: <http://www.csp.uts.edu.au/about/index.html>

In China, BP has developed an 'Environmental Educators Initiative'. This is an innovative tri-sector partnership between the Worldwide Fund for Nature and the Chinese Ministry of Education. It aims to create change towards sustainability by building capacity across the sectors. In the case of BP this resulted in the corporation itself developing a much more profound knowledge of what is involved in learning *for* sustainability. It resulted in more effective education programs being funded by BP in Chinese schools, as well as triggering reflective workshops for BP staff on how to manage change towards sustainability.

BP (2002) Sustainability Report. Available at: <http://www.bp.com/>

Tilbury, D. Goldstein, W. and Ryan, L. (2003) 'Towards environmental education for sustainable development: The contributions of NGOs in the Asia-Pacific region.' *International Review for Environmental Strategies*. Institute for Global Environmental Strategies. 4 (1): 59-75.

‘Sustainability is not a destination for business organisations to reach, but an ongoing learning process. Educators need to build the capacity of business and industry to address sustainability issues at a more systemic level, and to collaborate with multiple stakeholders for their resolution.’

■ **Disclaimer:**

The views expressed herein are not necessarily the views of the Australian Government, and the Government does not accept responsibility for any information or advice contained herein.

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■ **Full Report:**

This is an executive summary of a research report titled ‘*A National Review of Environmental Education and its Contribution to Sustainability in Australia: Business and Industry Education*’.

The report is available for download in PDF format from www.aries.mq.edu.au and www.deh.gov.au/education or contact the Australian Research Institute in Education for Sustainability to obtain a hard copy.

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