



Initiating the United Nations Decade of Education  
for Sustainable Development in Australia

## **Report of a National Symposium**

Melbourne 7 July 2005



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## Preface

January 1 2005 marked the beginning of the United Nations Decade of Education for Sustainable Development (DESD) – an exciting opportunity to intensify efforts to ensure that all people around the world, young and old, come to understand the wisdom of living and working more sustainably.

Having a DESD reminds us that sustainable development is not so much a technical concept but an educational one – not so much the end goal of a government policy but a process of learning how to think in terms of ‘forever’. This means that Education for Sustainable Development (ESD) involves learning how to make decisions that balance and integrate the long term future of the economy, the natural environment and the well-being of all communities, near and far, now and in the future.

Such an approach involves a vision of education that seeks to help people better understand the world in which they live, and to face the future with hope and confidence, knowing that they can play a role in addressing the complex and interdependent problems that threaten our future such as poverty, wasteful consumption, environmental degradation, urban decay, population growth, gender inequality, health, conflict and the violation of human rights.

The goal of the DESD is to have this vision of education integrated into education plans at all levels and all sectors of education.

Despite progress in this direction in many areas in Australia, many issues and challenges remain. While progress has been significant, it has been uneven. No one education system in Australia displays all the possible dimensions of ESD and no government has integrated education into all aspects of its sustainable development plans.

Thus, the significant challenge for us in the Decade in Australia is to formalise ESD as a goal and framework for all education policies, programmes and practices.

At the policy level, this will involve:

- integrating ESD into national, state and local economic, environment and social policies

- addressing issues of intra-government coordination for ESD across Ministries of Education and Ministries of Environment, Natural Resources, Agriculture, etc.

At the programme level, this will involve:

- developing and implementing policies, guidelines and strategic plans on ESD more widely
- emphasising ESD in non-formal education as well as in formal education
- strengthening institutional capacity building and professional development processes for improved planning and implementation of ESD
- increasing monitoring, evaluation and reporting of ESD initiatives and their outcomes and impacts.

At the level of education practice, this will involve:

- knowledgeable, caring and committed teachers who embrace an ethic of sustainability and make it an all pervasive part of their teaching – just as we have come to do with the ethics underlying multicultural, anti-racist and gender-sensitive education
- regular access to and participation in professional development
- use of a wide range of learner-centred teaching strategies appropriate to developing the “heart” (values) and the “hands” (action) of life as well as the “head” (cognitive learning).

Ways in which these reforms can be achieved across the Decade in Australia were the focus of the National Symposium on the Decade, which is the focus of this booklet. The Australian National Commission for UNESCO will take this report as a basis for working with all Australian governments and ESD partners to widen understanding of the goals of the Decade and generate plans for a wide range of exciting partnerships and projects in the next ten years.

Professor Ken Wiltshire  
Chair, Australian National Commission  
For UNESCO



## 1. Introduction

This booklet is the result of a National Symposium and consultation process with over seventy organisations around Australia interested in the United Nations Decade of Education for Sustainable Development (DESD). As such it represents advice from the Australian community to their Government on how they would like to the DESD planned, developed and implemented over the next ten years.

The organisations involved call upon the Australian Government and the Australian National Commission for UNESCO to carefully consider their advice and recommendations on a National Framework for the DESD and to use it, and further consultation, as a basis for developing a National Strategic Plan for the Decade.

The DESD (2005-2014) is gathering pace across the world, the Asia-Pacific region and in Australia. Speaking at the international launch of the Decade in New York on 1 March 2005, UNESCO Director General Koichiro Matsuura said:

*The ultimate goal of the Decade is that education for sustainable development must be more than just a slogan. It must be a concrete reality for all of us - individuals, organisation, governments - in all our daily decisions and actions, so as to promise a sustainable planet and a safer world to our children, our grandchildren and their descendants. The principles of sustainable development must find themselves in children's schooling, higher education, non-formal education and community-based learning activities. This means that **education will have to change** so that it addresses the social, economic, cultural and environmental problems that we face in the 21st century.*

Mr Matsuura also attended the regional launch of the Decade in Nagoya, Japan, on 26 June. UNESCO Bangkok has established an ESD Unit to look after the Decade in the Asia-Pacific region. By strengthening regional ESD networks and programmes the ESD Unit aims to help new and existing stakeholders plan and coordinate their ESD.

Two key publications from the ESD Unit are *A Situational Analysis of ESD in the Asia-Pacific*

*Region and the Working Paper: Asia-Pacific Regional Strategy for ESD.*<sup>1</sup>

With the support of the Australian Government Department of Environment and Heritage, the Australian National Commission for UNESCO hosted a National Symposium on the Decade on 7 July 2005 in Melbourne. The Symposium was attended by representatives of over seventy national organisations representing industry groups, industry training councils, NGOs, trade unions, professional associations, local government, state/territory governments and agencies, and further and higher education. This booklet is the report of the Symposium.

Keynote presenters included Professor Ken Wiltshire, Chair of the Australian National Commission, Mr Peter Woods, Assistant Secretary, Knowledge Management and Education, Department of the Environment and Heritage, Mr Derek Elias, the UNESCO Asia-Pacific Focal Point for the Decade, and Dr Barry Law, of the DESD Committee in New Zealand.

Fifteen diverse case studies were presented at the Symposium to showcase the range of initiatives already underway for the DESD. The case studies were selected to reflect the broad and diverse opportunities for ESD across Australian society. Many of these case studies are presented in Chapter 4. The report also contains an overview of the nature, scope and key concepts of education for sustainable development (Chapter 2), an overview of the National Symposium and the collaborative process that was used to generate this report (Chapter 3). Chapter 5 is a draft Australian National Framework for the DESD that was prepared by participants at the Symposium. It is currently being considered by the Australian Government and the Australian National Commission for UNESCO. Meanwhile, several state and local governments are developing ten-year strategies in education for sustainable development and grassroots action to build a wide and diverse range of DESD activities is continuing and growing.

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<sup>1</sup> These may be downloaded at <http://www.unescobkk.org/index.php?id=976>



## 2. What is Education for Sustainable Development?

The concept of sustainable development continues to evolve. In pursuing education for sustainable development, therefore, there must be some clarity in what sustainable development means and what it is aiming at. This plan presents three key areas of sustainable development – society, environment and economy with culture as an underlying dimension.

- **Society:** an understanding of social institutions and their role in change and development, as well as the democratic and participatory systems which give opportunity for the expression of opinion, the selection of governments, the forging of consensus and the resolution of differences.
- **Environment:** an awareness of the resources and fragility of the physical environment and the affects on it of human activity and decisions, with a commitment to factoring environmental concerns into social and economic policy development.
- **Economy:** a sensitivity to the limits and potential of economic growth and their impact on society and on the environment, with a commitment to assess personal and societal levels of consumption out of concern for the environment and for social justice.

The values, diversity, knowledge, languages and worldviews associated with culture predetermine the way issues of education for sustainable development are dealt with in specific national contexts. In this sense, culture is a way of being, relating, behaving, believing and acting which people live out in their lives and which is in a constant process of change and exchange with other cultures.

ESD is fundamentally about *values*, with respect at the centre: respect for others, including those of present and future generations, for difference and diversity, for the environment, for the resources of the planet we inhabit. Education enables us to understand ourselves and others and our links with the wider natural and social environment, and this understanding serves as a durable basis for building respect. Along with a sense of justice, responsibility, exploration and dialogue, ESD aims to move us to adopting behaviours and practices which enable all to live a full life without being deprived of basics.

ESD mirrors the concern for education of high quality, demonstrating characteristics such as:

- *Interdisciplinary and holistic:* learning for sustainable development embedded in the whole curriculum, not as a separate subject;
- *Values-driven:* sharing the values and principles underpinning sustainable development;
- *Critical thinking and problem solving:* leading to confidence in addressing the dilemmas and challenges of sustainable development;
- *Multi-method:* word, art, drama, debate, experience, ... different pedagogies which model the processes;
- *Participatory decision-making:* learners participate in decisions on how they are to learn;
- *Locally relevant:* addressing local as well as global issues, and using the language(s) which learners most commonly use.

ESD will be shaped by a range of perspectives from all fields of human development and including all the acute challenges, which the world faces. ESD cannot afford to ignore their implications for a more just and more sustainable process of change. The plan notes the important perspectives provided by: human rights, peace and human security, gender equality, cultural diversity and intercultural understanding, health, HIV/AIDS, governance, natural resources, climate change, rural transformation, sustainable urbanisation, disaster prevention and mitigation, poverty reduction, corporate responsibility and accountability, and the market economy.

ESD is for everyone, at whatever stage of life they find themselves. It takes place therefore within a perspective of lifelong learning, engaging all possible spaces of learning, formal, non-formal and informal, from early childhood to adult life. ESD calls for a re-orientation of educational approaches – curriculum and content, pedagogy and examinations. Spaces for learning include non-formal learning, community-based organisations and local civil society, the workplace, formal education, technical and vocational training, teacher training, higher education educational inspectorates, policy-making bodies, and beyond.

**Source:** Draft International Implementation Scheme for the Decade of Education for Sustainable Development (UNESCO 2004).



### 3. The National Symposium

A situational analysis of education for sustainable development in Australia was prepared as part of the process of developing the Asia-Pacific Regional Strategy.<sup>2</sup> This report highlighted national and state/territory policies, action plans and programmes that support education for sustainable development in Australia. At the national level, for example, these include a National Action Plan (to guide government institutions), a National Environmental Education Council (to provide cross-sectional advice), a National Environmental Education Network (to coordinate national and state/territory government programmes and activities), a national Sustainable Schools Initiative, and support for an Australian Research Institute on Education for Sustainability. The situational analysis also reported on the wide range of education for sustainable development programmes being conducted by schools, vocational education institutes, universities, community groups and NGOs the media and in business and industry throughout the country.

However, several factors have the potential to limit the coordination, expansion and impact of such institutes during the DESD in Australia. These include: the diversified structure of the Australian education system (across formal and non-formal sections; primary, secondary and tertiary levels; public; independent and catholic systems, etc.) and the division of responsibilities for education and sustainable development across multiple portfolios and level of government/local, state/territory, national). It is also necessary to reach beyond the very important concern of ecologically sustainable development to also ensure the education for sustainable development also encompasses a concern for cultural sustainability, economic vitality and social equity and well-being so that all pillars of sustainable development are into education at all levels and in all sectors.

#### **Initiating the DESD in Australia**

To address the opportunities and challenges identified in the situational analysis, the Australian Government nominated the

Department of Environment and Heritage as the lead agency for the DESD in Australia. The Knowledge Management and Education Branch of the Department consulted with stakeholder groups through its National Environmental Education Council and the National Environmental Education Network throughout 2004. It also announced a series of special grants to a diverse range of groups to facilitate innovative education for sustainable development projects.

It also accepted an invitation from the Australian National Commission for UNESCO to co-host a National Symposium to:

- raise awareness of the decade in Australia among different sectors including business and industry, NGOs, education systems, universities and TAFE colleges, youth organisations, local government, and the wide range of relevant government departments and agencies
- explore potential partnerships and collaborative activities to promote the DESD.

The symposium was attended by invited representatives of our seventy national organisations. These included: industry groups, industry training councils, NGOs, trade unions, local government, state/territory governments and agencies, and further and higher education. See Appendix 1.

A range of case studies – drawn from examples in all these sectors – was presented to showcase the range of initiatives possible during the DESD.

A second part of the Symposium involved a series of workshops at which participants discussed the need for, and possible structure and contents of, a National Framework for the DESD in Australia.

Reports from workshop groups were synthesized and then circulated by e-mail for discussion in local groups and the committees of the organisations at the Symposium. The responses from such consultations were then used to revise the draft Framework. The recommended National Framework is presented in Chapter 5 of this report.

<sup>2</sup> <http://www.unescobkk.org/index.php?id=993>



## 4. Case Studies of the DESD in Australia

### I. GRACE – The Great Australian Cycle Expedition

*Kate Leeming, Great Australian Cycle Expedition (GRACE)*

The Great Australian Cycle Expedition was a 25000km unsupported bicycle exploration of Australia promoting awareness for the importance of ESD. The 9½ month journey included 7000km of off-road cycling on remote and isolated tracks including the Cape York Peninsula Telegraph Road, the Gulf Track, the Tanami Track, the Gunbarrel Highway and the first successful crossing of the Canning Stock Route by a woman.

The comprehensive route also encompassed places representing specific sustainability issues such as following the course of the Murray River, looking at dryland salinity in the Western Australian wheatbelt and visiting Landcare award winners. The route is representative of the overall approach needed to achieve sustainable goals – taking short cuts is not enough.

Timing was crucial to cover northern Australia and the central deserts in the Dry season – about 3000km per month.

The ride began on 10 May, 2004. It took nine months to organise, beginning with developing the concept, writing and coordinating the website and educational activities, securing a team to help where possible and to join me for various sections of the expedition, finding sponsors, organising publicity, equipment, logistics, keeping fit and working full time.

UNESCO selected the expedition as a 'demonstration activity' for the DESD providing support in the form of both financial sponsorship and promoting the project on their website. There were 25 sponsors in total.

#### **Cycling unsupported: A model for sustainability**

In order to complete the expedition successfully and on time, I/we had to approach our job at a sustainable level for 9½ months. This included every aspect of our progress – cycling workload (intensity, frequency and duration) on an hourly,

daily, weekly and monthly basis (also paying attention to safety), finding and carrying enough water and food, rest, maintenance of equipment and a positive mental approach.

The pinnacle of the challenge was the Canning Stock Route (four deserts, 1800km, 1000 sand dunes, 40 degrees in the shade). I divided the task into smaller targets to achieve the whole. I equate the struggle to the effort required to reach satisfactory sustainable goals.

Cycling has minimal impact on the environment. Even our aluminium frames are, in theory, totally recyclable.

As a positive, optimistic action, the project shares similar attributes required to protect our future. On the road we all had to respect each other, learning to give and take. Respect is vital for sustainable development.

Cycling is a great leveller which breaks down communication barriers and has an impact on those who are exposed to the expedition ("Where have you come from?" "How many kilometres do you do each day?" "How many punctures have you had?" "Why?").

This usually results in different forms of cooperation and acts of kindness – the offer of drinks, food, accommodation and advice.

#### **Getting the message across**

**Schools:** Schools were visited where possible although this was not easy to squeeze into such a demanding schedule (130km/day). I also participated in some School of the Air classes.

Overall, school visits were difficult to coordinate nationally so efforts were most concentrated in WA and Victoria where I received some organisational assistance.

**Website:** I stayed in a variety of situations – on stations, in country towns and mining communities and was able to report first-hand experiences on my website.

**Publicity:** I worked with local, state and national media particularly during the second half of the expedition (35 newspapers, local, state and national radio, TV – Totally Wild, GWN and Channel 9 News).



## **II. The Victorian State Strategy for Living Sustainably**

*Steve Malcolm, Department of Sustainability and Environment, Victoria*

The vision of Victoria's Learning to Live Sustainably (LLS) Strategy is that all Victorians will have the abilities and commitment needed to play their part in creating lifestyles and workstyles that are sustainable and fulfilling. The strategy has a 10-year timeframe and set directions and best practice for Victoria's programme for education and behaviour change. A comprehensive action programme will put the strategy into practice across state and local government, education and training, industry and communities over the next decade, linked to the DESD. The LLS action programme includes the following features:

- Sensitive state-level leadership and facilitation for sustainability education and behaviour change (E&BC) professionals and programme managers to encourage:
  - partnerships and bridge-building for collaborative, coordinated, integrated approaches and greater awareness of mutual benefits
  - a shared vision, sense of partnership and teamwork
  - consistent commitment to and understanding of best practice and the LLS strategy objectives and processes
  - effective application of the state strategy at local and sectoral levels.
- Regular, independent, expert evaluation and public reporting on implementation relative to best practice fundamentals and key success factors identified in the strategy.
- A package of support for E&BC professionals and programme managers that includes:
  - professional development and expert advice (including evaluation methods)
  - facilitated access to established best practice delivery systems and enhancement of these systems in consultation with users

- facilitated access to existing exemplary projects and establishment of new exemplars where gaps exist
- a series of support documents to meet specific needs that announce and map out strategic initiatives and provide detailed guidance for implementation of the programme.

Certain groupings or 'sectors' of society are particularly well suited as a focus for high quality, large scale E&BC programmes for sustainability. Many state E&BC programmes on particular environment issues already tend to work through these types of sectors, but with little coordination. The LLS action programme includes a range of consolidation programmes targeted to these groupings.

The package of inter-related programmes involves a strong multiplier effect between sectors, with each programme connecting directly with and reinforcing the impact of the others. Each consolidation programme is designed and delivered according to the particular circumstances of that sector. These include, but are not limited to, the following:

- a schools/families/local communities programme
- a local councils and regional agencies programme
- a workplaces/businesses/vocational learning programme
- a community organisations programme
- a professions/higher education programme
- a households/neighbourhoods programme
- a farming/rural communities programme.



### III. The Natural Edge Project

*Nick Palousis, The Natural Edge Project*

UNESCO and Engineers Australia, through the Environmental Engineering College and the Environmental Engineering Society, have partnered with The Natural Edge Project (TNEP) to develop a series of engineering education modules to complement the publication *The Natural Advantage of Nations* (Hargroves and Smith 2005), as part of the TNEP Engineering Sustainable Solutions Programme (ESSP).

Called the Critical Literacies Portfolio (CLP), the project will follow on from the existing Introductory Module developed with the support of the Engineers Australia Environmental Engineering College, to develop Level 1 and Level 2 and in so doing complete the portfolio. The portfolio will deliver material suitable for first year undergraduate engineering students and professional engineers with limited knowledge of the engineering topics addressed. The material introduces the significant concepts related to sustainability, current efforts and future directions in engineering practice for sustainable development.<sup>3</sup>

#### Structure of modules forming the ESSP–CLP

The ESSP–CLP is made up of seven modules, each containing six units. Each unit is intended to be delivered in a 45-minute session, and each module is then structured to enable delivery of the six units in a full day workshop. The portfolio will be supported online with best practice case studies through the TNEP website. The portfolio has the following six core thematic strands:

1. Profitable greenhouse solutions
2. Greening of industry
3. Greening the built environment
4. Sustainable urban transport
5. Water: nature's gold
6. Zero waste: value loops.

The introductory level provides baseline content for the portfolio, introducing the first principles of sustainable engineering both in a general context and covering the six thematic areas highlighted above.

The Introductory Module contains three general units:

- Unit 1: a new perspective
- Unit 2: learning the language
- Unit 3: preparing to 'walk the talk'.

There are also three thematic units with each thematic unit divided into two topics to cover the six thematic areas.

A trial implementation of the Introductory Module was recently completed with 14 universities and TAFE institutions nationally. This received extremely positive feedback, with most planning to implement the material within existing university courses in 2005/2006.

Level 1 deals with the role of engineers in sustainability and engineering for poverty eradication. Level 2 expands the six thematic areas to tackle resource productivity improvement, green engineering and chemistry, whole systems engineering design, and design inspired by nature.

A key advantage of the programme portfolio is flexibility; the units can be delivered in a number of ways. For example, once Module 1.1 is delivered, either a topic-based course can be delivered in Level 2 (for example two units on Greening the Built Environment and two units on Sustainable Urban Transport), or a whole module (such as Design Inspired by Nature) can be delivered that cuts across all six topics. Alternatively, a different track from each stream can be selected to tailor the material to an audience's knowledge base.

<sup>3</sup> The CLEP and *The Natural Advantage of Nations* recently won a 2005 Banksia Award, the nation's most prestigious environmental accolade ([www.naturaledgeproject.net/2005BanksiaAwards.aspx](http://www.naturaledgeproject.net/2005BanksiaAwards.aspx))



#### **IV. QESSI – A State Sustainable Schools Initiative**

*Cameron McKenzie, Education Queensland*

The Australian Sustainable Schools Initiative (ASSI) has been developed by the Australian Government in cooperation with state and territory education and environment agencies. It involves a holistic approach with measurable environmental, financial, educational and social outcomes. The ASSI is currently being implemented in most states and territories, building on the pilots run in New South Wales and Victoria over the last two years.

The initiative is action-based and involves the whole school community in the sustainable management of the school by addressing a range of issues including energy and water consumption, waste, biodiversity, landscape design, products and material use, as well as providing the opportunity to achieve curriculum requirements in the key learning areas. For example conducting an environmental audit of the school addresses Mathematics and English outcomes.

The ASSI can also provide teachers with much needed access to professional development in environmental education, delivered through supporting agencies and environmental education centres. The programme does not replace other environmental education initiatives in schools, rather it links to and complements existing programme such as Energy Smart Schools, WasteWise, Waterwatch, Waterwise, Landcare and the Reef Guardian Schools Programme. The common elements of the ASSI are set out below:

- seeks to develop a school culture committed to the principles of Ecological Sustainable Development (ESD)
- seeks to go beyond awareness raising to action learning and integration with school curricula
- encourages the involvement of the whole school
- encourages the involvement of a school's local community and encourages a shift in the broader community towards more sustainable practices and processes

- seeks to develop relationships with other areas that impact on the organisation and management of a school
- is founded on a sound basis of theory and practice in schools and school systems, quality teaching and learning, and environmental education for sustainability
- encourages schools to achieve measurable social, environmental, educational and financial outcomes.

The mission of the Queensland Environmentally Sustainable Schools Initiative (QESSI) is to establish a network of environmentally sustainable schools that demonstrate curricula connections and environmental action based on ecological sustainable development principles.

The QESSI Strategic Action Plan outlines the direction for QESSI for 2005-07. There are eight goals within this plan to address the creation of an environmentally sustainable school:

1. encouraging schools to be a total learning organisation for a sustainable future
2. promoting a dynamic curriculum process and extra-curricula activities
3. empowering ourselves and others to make the necessary changes
4. encouraging and supporting skilled, committed and aware staff
5. creating school facilities that demonstrate and support sustainability
6. implementing sustainable management systems in schools
7. improving school resource management including water, waste, energy, transport and school grounds
8. encouraging schools and local communities to be strongly linked.

QESSI is not another programme or product in a market place that is already saturated with resources that focus on environmental education for a sustainable future for schools. What QESSI is aiming to do is build the capacity of existing service providers to achieve their goals. Collectively we can achieve the vision of all schools in Queensland demonstrating environmentally sustainable practice.



## V. TAFE and the DESD

Andrew Rickard, National Centre for Sustainability, University of Swinburne

The principal provider of skills and knowledge for the Australian workforce is the Vocational Education and Training sector (VET). Within the VET system Registered Training Organisations (RTOs) are responsible for the delivery of nationally accredited training packages which were delivered to some 1.72 million people in 2003. RTOs consist of both Technical and Further Education (TAFE) and private providers.

There exist numerous opportunities for the VET sector and industry training providers to participate within the DESD.

### Advocacy and visioning

- Revisioning of VET to step outside the 'productivism', of the economic paradigm of growth without consideration of ecological limits
- Promote a 'learning culture' that encourages and educates industries to 'be productive and competitive, and to care for the well being of [their] people' (UNESCO 1999)

### Guidelines for planning and implementation

- Guideline Standards for Sustainability – a framework within VET to take up and deliver ESD
- Units of competency for stormwater, energy efficiency, waste, biodiversity

### Networking and partnerships

- Institutional leadership within Australia and internationally is building
- Government and education institutions, eg Swinburne University and Kangan Batman TAFE are developing 'sustainability covenants'

## Capacity building and training programme

- Employability skills and graduate attributes include:
  - collecting, analysing and organising information
  - communicating ideas and information
  - planning and organising activities
  - working with others and in teams
  - using mathematical ideas and techniques
  - solving problems
  - using technology
  - cultural understanding
  - self management
  - learning to learn

where is sustainability?

## Knowledge and skills for sustainability

On 3 May 2005 the National Training Quality Council officially 'noted' Guideline Competency Standards for Environmental Sustainability. The standards are to assist industry in 'rethinking' resource use and to improve environmental performance. The standards include concepts such as lifecycle thinking, eco-efficiency and design, purchasing strategies, product stewardship and ecological footprinting as potential tools to achieve positive environmental outcomes.

The introduction of the standards is a critical step in establishing a framework to assist training at the vocational level. Their implementation and practice in industry will be a significant contribution in building knowledge and skills for a sustainable Australia. The standards are available on the National Training Information Service website [www.ntis.gov.au].

**Source:** UNESCO (1999) Final Report, *Second International Conference on TVET*, UNESCO, Paris, p54.



## VI. Architecture and the DESD

*Peter Graham, Environment and Sustainability Research Group, University of New South Wales*

Buckminster-Fuller once proposed that education for what we might now call sustainability should be made a priority for the next ten years so that architecture graduates are competent 'world planners' capable of designing an equitable and peaceful world:

*...I propose that the architectural departments of all universities around the world be encouraged by the UIA to invest the next ten years in a continuing problem of how to make the total world's resources serve 100% of humanity through competent design. (Conrad 1964, p179)*

The years since 1962 have not seen architecture as an exemplar of sustainable development. For example, creating and running our buildings consumes about 40% of all material resources on earth, and 30–40% of all energy. Research from the UK indicates that 30% of all new buildings cause their occupants to become unwell – an illness perversely referred to as 'sick-building syndrome'.

Clearly there is a need for people skilled in building and built-environment design to be educated and engaged in sustainable development. However, despite his best intentions 'Bucky' was wrong about the kind of education architects need to contribute to an equitable world – he assumed unsustainable development to be a design problem – its not, it's an attitude problem. So it is wonderful that the DESD has arrived to provide support for educators interested in changing the *mind* an architect designs with. Rather than designing for ideal futures, perhaps architects should begin by improving our awareness of the present. Being able to identify and eliminate *unsustainability* should therefore be one of the core competencies of professional practice, a graduate attribute, and a central conviction for education. Architectural education for sustainable development would begin with students and teachers alike, challenged to try to design out *unsustainability* from their own lives.

The conversation about how to do this while prospering and being happy then becomes a process of sustainable development.

The DESD will raise the profile of these issues and could therefore be useful to:

- help staff develop their awareness of sustainability and unsustainability and support their actions to live and work to achieve an equitable ecological footprint<sup>4</sup>
- contribute material and activities to the Royal Australian Institute of Architects' Continuous Professional Development programme
- seek opportunities to facilitate learning sustainability by trying to improve the campus and buildings that we teach and learn in so that they at least do no harm
- encourage learning sustainability through critical analysis and improvement of teaching and studio work practices so that they eventually become examples of sustainable practice
- reinforce student and staff historical and theoretical understanding of relationships between human use of land and resources and architects' response to environmental and cultural context
- continually foster student and staff awareness of and sensitivity to natural systems and forces (ecological literacy) as a basis for design and technical education
- foster and demonstrate lifecycle thinking and a deep commitment to understanding how buildings work, interact with their environment, how they change, and what they are made from (eg building ecology)
- use the goal of designing regenerative systems as a framework for design thinking, always challenging students to meet design briefs in ways which consume no more resources than can be regenerated, protect and enhance diversity, eliminate waste and encourage learning and innovation.

**Source:** Conrad, U. ed. (1964) *Programme and Manifestoes on 20th Century Architecture*, MIT Press: MA.

<sup>4</sup> Calculate your 'ecological footprint' at [www.myfootprint.org/](http://www.myfootprint.org/). For all humans on earth to enjoy a typical Australian lifestyle we'd need at least another two earth's worth of resources.



## VII. The Sustainable Living Challenge

*Ben Roche, Sustainable Living Project, University of New South Wales*

The Sustainable Living Challenge is a national programme that recognises and supports teachers, students and their school communities in researching, designing and taking action towards making sustainable living a reality. The programme is an evolution of the Sustainable Living Competition that started with a pilot of ten NSW schools in 1998. The Sustainable Living Challenge positions sustainability as the ultimate challenge for future decision makers and encourages engagement across a spectrum of multidisciplinary issues relating to sustainable living. It responds to the need to create education for sustainability programme that engage young people, their schools and their households in critical thinking and reflection, in order to question how we have lived over the past century, and how we need to reorient our lives now and in the future in order to be sustainable.

The programme is coordinated by the Sustainable Living Project, a sustainability education outreach unit based in the Faculty of the Built Environment at the University of New South Wales. It is fully funded by the faculty as a component of its community engagement activities. This year, the Faculty of the Built Environment has partnered with the United Nations Environment Programme to launch the Sustainable Living Challenge as a part of its global youth action strategy 'tunza'.<sup>5</sup> The tunza strategy relates strongly to the DESD, as it recognises and prioritises the importance of engaging young people in capacity building to generate the necessary decision making skills to foster sustainable living.

The Sustainable Living Challenge involves teachers as the primary gateway for wider household and community participation. Young people are considered to be the catalysts or drivers of change and they provide access across scales to adult decision makers in households and schools. In essence, the Sustainable Living Challenge operates in a formal education context yet fosters engagement across diverse learning spaces. The programme seeks to stimulate a

lifelong learning process that positions civics and citizenship as key components of sustainable living.

It is this civic dimension that drives the Faculty of the Built Environment in its commitment to community engagement through the programme of the Sustainable Living Project. Increasingly universities are becoming refocused on their role within the wider community and the activities of the DESD provide further impetus for meaningful engagement. Many universities now understand engagement to be an identity-forming process that assists in differentiation through activities that recognise a university's inherent societal responsibility. It is this emerging approach that recognises engagement as a fundamentally educative practice. It is in this context that Universities as 'initiators of activity' have a crucial role to play in the DESD. The Sustainable Living Challenge is considered to be a gateway for wider collaborative opportunities that generate value back to the faculty far beyond traditional notations of outreach. In this sense, the DESD is an effective reference point and 'organising principle' that fosters this approach. Through the Sustainable Living Challenge, and associated programme of the Sustainable Living Project, the faculty has undertaken a learning journey that has helped mould its current approach to community engagement. Subsequently, the faculty now perceives value in a collaborative approach that seeks to build synergies around community oriented research, learning and engagement. In August 2005, the faculty launched a new community engagement unit that formerly establishes this new identity and will 'aim to build capacity for sustainable development through building stronger relationships between the university and the wider community'.

Partnerships are the key to developing lasting outcomes for the DESD and this collaborative approach is vital at all scales. Not only is it relevant in a learning context within and between classrooms, it equally applies among the various scales of education providers. Further, it highlights the role that a university can play in building linkages within the wider community.<sup>6</sup>

<sup>5</sup> 'Tunza' is an East African Kishwahili word that means 'to treat with care and affection'.

<sup>6</sup> See FBEOutThere! [www2.fbe.unsw.edu.au/outreach](http://www2.fbe.unsw.edu.au/outreach)



### **VIII. Teacher In-service Education and the DESD**

*Andre Grant, Sustainable Living Project,  
University of New South Wales*

Education for Sustainable Development (ESD) crosses the boundaries of many disciplines and hence the Key Learning Areas (KLAs) in the Australian formal education system.

'Knowledge Networks', a NSW Environmental Trust funded project from UNSW's Sustainable Living Project (home of the UNEP partnered *Sustainable Living Challenge*), is exploring methods of assisting in-service teachers to integrate ESD into their practice. The project is piloting a model for targeting different KLAs by providing professional development to groups of teachers to write new resources in support of syllabus objectives, environmental education policy and quality teaching. Resources (usually teaching programme and units of work) produced by teachers will be published and available free of charge via an online resource hub which will be available from December 2005.

The project has been developed to respond to the NSW Department of Environment and Conservation's 'Learning for Sustainability, Environmental Education Action Plan' and the NSW Environmental Education Policy for Schools. While focussing on professional development for the teachers involved, the project is producing insights into the processes of curriculum development that are providing valuable inputs into current remodelling of the NSW Sustainable Schools programme.

The main component of this project is the development of a Participatory Engagement Model (PEM) using an action learning or 'learning together, learning away' approach. This will actively assist teachers to reflect on their own practice while exploring the opportunities for them to absorb aspects of education for sustainability into their teaching.

The PEM is being applied to small groups of Science, HSIE and Technology teachers as part

of the pilot but could be applied to all KLAs as well as a range of audiences from departments to schools, to regions and to cross-curricular groups. Excluding funds for teacher release, the PEM under development aims to provide a cost effective process.

#### **Project reflections and outcomes**

- ESD has strong synergies with core aspects of the NSW Quality Teaching model developed by Newcastle University. Further exploration of the linkages could produce valuable results for the Decade and as future pathways for ESD into the formal education sector in general.
- True cross curricular learning is hard to facilitate under the current siloed high school education system and represents a key barrier to 'interdisciplinary and holistic' principles of ESD as laid out in the principles proposed in the Draft Implementation Scheme.
- There is however, much scope for integration of ESD within existing syllabus objectives outcomes and cross curricular content without significant 're-inventing of the wheel'. An embedded subject based culture in teacher education and practice may prove difficult to supersede with an integrated curriculum for sustainability in the short term.
- There exists significant opportunities for ESD to complement other new educational developments in Australia towards a more integrated school curriculum in high schools. (for example, Victorian and Tasmanian Essential Learnings, Queensland New Basics).
- The need to actively assist teachers, as practitioners at the 'coal face' of ESD is paramount to the application of our goals and aspiration for the Decade. Many policies and documents which have complementary aspirations (such as those mentioned in this paper) have been developed to frame Australia's educational aspirations – yet our teachers lack the support to effectively implement these in all but a few locations.



## **IX. Teacher Pre-service Education during the DESD**

*Julie Davis and Jo Ferreira, Queensland University of Technology (QUT)*

In the Faculty of Education at QUT, the DESD has provided new opportunities and impetus to integrate education for sustainability into teacher education. While the number of staff who are specialists in education for sustainability is very small (perhaps just two or three academics out of a fulltime staff of 116), there is a broader group who support the ideals of ESD and incorporate aspects of ESD into their work. Building on this base, the DESD has provided opportunities to:

- profile teaching and research activity in ESD across the faculty
- harness wider support for and collaboration around ESD both within the faculty and between faculties.

The Faculty of Education already has a considerable component of ESD in its teacher education courses. For a number of years there have been core units in Studies of Society and Environment (SOSE) embedded into early childhood, primary and secondary teacher education courses. Recently, these courses were redesigned to provide a stronger focus on critical and transformative curriculum and pedagogical practices, including greater use of Information and Communication Technologies (ICTs) for teaching and learning. Although in their early stages, a number of innovative learning projects using web-based tools for engaging with social and environmental issues have been developed. Thus, it is anticipated that the sustainability components of these new courses will be reinforced by teaching and learning across the whole of these new programme.

For education students, too, there is an elective pathway which provides a specialisation in SOSE and incorporates ESD. At times, staff cross-teach in each others' units, taking either keynote lectures or tutorials. These kinds of collaborations strengthen teaching and learning for sustainability and provide support for staff.

It is in the area of educational research, however, that the DESD has provided the

greatest momentum. In 2004, QUT established a cross-faculty research centre – the Sustainable Living Initiative. To support involvement, the research centre of the Education faculty provided access to a small amount of seeding funding for ESD research activities, as well as supporting endeavours with membership of the Faculty Research Committee. Recently, a draft strategy for advancing research in ESD within the faculty has been developed, profiling existing areas of research and identifying new ones. These include:

- Support for the development of a national research agenda for early childhood education for sustainability
- Liaising with the Qld Environmentally Sustainable Schools Initiative to identify potential research and professional development opportunities
- Collaborating with the Sustainable Living Initiative and a corporate partner to develop education materials related to sustainable housing
- Developing water conservation education materials
- Developing a proposal to advance the concept of a 'green university' by scanning current courses for ESD components and developing professional development programme for QUT staff.

With just a small number of staff involved in ESD at QUT, time and energy constraints are major issues. The 'silos' – within the faculty as well as between faculties – have created barriers that are only just beginning to be dismantled. Nevertheless, DESD has provided impetus for new and exciting opportunities for ESD. There is growing recognition of its importance, with new structures emerging to support further teaching and research in this area. Novel partnerships and collaborations are being developed. Awareness raising and capacity building for ESD is growing in areas of education outside formal schooling. The first six months of the Decade have already engendered some interesting new alliances and collaborative projects. The potential for further ESD activity in teacher education at QUT is very promising.



## **X. The IYPF Sustainable Consumption Project**

*Cameron Neil, International Young Professionals Foundation (IYPF)*

Have you ever thought about why you buy the things you do? About the social, environmental and economic implications of how you choose to travel? Or about the people working to bring you your favourite brand of shoes or your favourite t-shirt?

Many young Australians have thought about these issues at some point. Many of them are also willing to do something positive about issues such as child labour, environmental damage, air and water pollution and fairer trade – if they had access to better information, had the support of friends, family and other community members, and weren't confused by conflicting messages in the media about consuming versus making the world a better place.

*Sustainable consumption: youth as agents of change* is a recent report commissioned by the National Youth Affairs Research Scheme and conducted jointly by Griffith University [[www.gu.edu.au](http://www.gu.edu.au)] and the International Young Professionals Foundation [[www.iypf.org](http://www.iypf.org)]. It explores the influences on the consumption behaviour of young Australians and how they can be more effectively supported to lead their communities towards more sustainable consumption.

The report arose from a growing awareness and concern about how our current over-consumption patterns are causing many environmental and social issues such as health problems, environmental degradation, third-world poverty and human rights abuses. In commissioning the report, the National Youth Affairs Research Scheme also recognised that young people are demonstrating leadership in finding more sustainable ways of living and that they are more aware and concerned about social and environmental issues than any previous generation.

The report explores in depth the motivations underpinning youth consumption, tapping into contemporary views of young Australians. It shows that there are many conflicting messages

about consumption and diverse influences on young people's behaviour, yet many know there is a need to 'do better'. The report presents many examples of good practices in Australia and around the globe where young people are at the centre of moves towards more sustainable ways of living, and are being supported to gain the knowledge, confidence, and skills necessary to be effective agents of change.

Young Australians understand the interconnectedness of our world and that what they buy, how they travel, the energy and water they use, often has a negative impact on others and the planet. They are motivated to do something about it. Increasingly they are realising that others are not going to do it for them and that they have to take the lead.

As a major contribution to the DESD, IYPF is planning to extend a capacity building programme developed as part of the report into a wider national training and grants scheme for young Australian sustainable consumption change agents.

They are seeking partners and investors for this national programme that would also include:

- Appointment and resourcing of a secretariat – that includes young people – to manage the National Youth and Sustainable Consumption Programme
- Development of an Australian version of the UNEP-UNESCO YouthXchange training guide and website on sustainable consumption
- Running a small grants programme for young people who develop sustainable consumption projects in their communities through programme participation and an annual national awards programme for sustainable consumption projects initiated by programme participants
- Forming links with other national programme on sustainable consumption (eg South Korea and Germany) and with international initiatives such as YouthXchange and the DESD.

Interested individuals and organisations can learn more about the project, the Australian working group, and how to get involved by visiting [www.iypf.org/IYPF-projects.htm#YouthSC](http://www.iypf.org/IYPF-projects.htm#YouthSC) or by contacting [youth.sc@iypf.org](mailto:youth.sc@iypf.org).



## **XI. ARIES and the DESD**

*SallyAnn Hunting, Australian Research Institute in Education for Sustainability, Macquarie University (ARIES)*

ARIES is based at Macquarie University, Sydney and is focused on making change towards sustainability in individuals and organisations over and beyond simply raising awareness. ARIES is primarily funded by the Australian Government Department of the Environment and Heritage and supports a range of projects with practical outcomes that are aligned to existing government policies and programmes, including the Australian Government's initiatives regarding the DESD.

ARIES core business is to undertake research that informs policy and practice in Education for Sustainability (ESD) across a range of sectors including business and industry, school education, community education, and further and higher education. ARIES specialises in research methodologies compatible with the critical theory paradigm underpinning ESD.

ARIES is concerned with how we inform, motivate and manage structural change towards sustainability, and adopts an innovative approach to research with a view to translating awareness of sustainability issues into action and change.

The Australian Government Department of the Environment and Heritage, in close collaboration with the National Environmental Education Council (NEEC), sets the ARIES research agenda to help ensure that the needs of ESD across Australia are being met.

The NEEC is a central element of the Australian Government's *National Action Plan – Environmental Education for a Sustainable Future* (2000) and provides advice to the Minister for the Environment and Heritage on the direction of environmental education issues nationally.

To inform the research agenda, ARIES undertook an extensive review of the status and needs of ESD in Australia in 2004, and reflected on international and national best practice across a number of sectors.

ARIES is currently planning and undertaking projects informed by the process outlined above.

These include:

- A review of whole-school approaches to sustainability: this examines international sustainable schools initiatives.
- A national review of environmental education and its contribution to sustainability in Australia: this compares current needs against international developments and identifies best practice, with concrete examples of how this can be transferred into planning and practice.
- An industry sustainability project: following a review of existing resources, this comprises an action research project using ESD concepts to facilitate ten organisations to engage more deeply in, and make practical changes towards, sustainability.
- Education for and about sustainability in Australian business schools: this involves five of Australia's leading business schools to build sustainability outcomes into MBA course curricula.
- A review of models for professional development in pre-service teacher education: the initial phase will review the effectiveness of international and national professional development ESD strategies in pre-service teacher education programme. The second phase will seek to propose a development initiative for Australian teachers.
- Government frameworks for sustainability: this will initially identify how best to build capacity and embed sustainability within the Australian Government.
- Reef Water Quality Protection Plan: this attempts to understand the realities and complexities of farmers' situations in regard to reef water quality in North Queensland.
- Air quality education: this will initially review case studies and examples of national and international programme which aim to address air quality or related issues. Critical success factors in design and management of education programme will be identified.
- Coastal management education: This aims to improve the accessibility and effectiveness of coastal management education by providing a tool for assessing current education programmes.



## 5. Towards a National Framework for the DESD in Australia

### Introduction

This section provides advice on the development of a National Framework for the DESD Australia. It was developed from the input of representatives of over seventy national and state/territory organisations who met on 7 July 2005 on the invitation of the Australian National Commission for UNESCO and with the support of the Australian Government Department of Environment and Heritage.

Participants at the National Symposium on 7 July 2005 met in stakeholder groups to contribute ideas for a draft National Framework. Following the Symposium, these ideas were collated and circulated for clarification and revision.

The draft National Framework presented below is the result of this extensive process of consultation. It is submitted to the Australian National Commission for UNESCO and the Australian Government Department of Environment and Heritage as advice from the Australian community interested in ESD to guide the development of a National Strategy for the development, implementation and evaluation of policy, programmes and activities during the DESD.

The draft advice for the development of a National Framework is organised in five sections:

- I. Goal, objectives and priorities of the Decade of ESD in Australia
- II. Key stakeholders in the Decade of ESD in Australia
- III. Strategies and activities
- IV. Coordination of activities across local/ regional, state/territory and national levels
- V. Monitoring, reporting and evaluation

### I. Goal, Objectives and Priorities

#### The goal

The global vision for DESD is that ESD is a means to achieve "a world where everyone has the opportunity to benefit from a quality education and learn the values, behaviour and lifestyles required for a sustainable future and for positive societal transformation" (UNESCO International Implementation Scheme 2005, p. 26).

Thus, the goal of the DESD in Australia is:

*To integrate sustainability into national, state/territory and institutional education using appropriate but multiple methods at all levels across all sectors by 2014 in order to enhance and transform societal capacity for sustainability in order to achieve tangible improvements in the:*

- *conservation of Australia's natural resources, biodiversity and ecosystem health;*
- *vitality and prosperity of Australian business and industry while respecting the capacity of the earth's natural systems; and*
- *active participatory involvement of citizens of all ages for harmony within Australia's social and cultural diversity.*

#### The objectives

To achieve this goal by 2014, the following objectives are recommended:

- a. To clarify a common vision for ESD and DESD in Australia
- b. To promote understanding of ESD and DESD in Australia
- c. To promote innovative practice in ESD in formal, non-formal and informal learning situations
- d. To support educators to attain the competence and will to include sustainability learning as a central theme in their work
- e. To ensure that dynamic and creative resources and materials for ESD are available to, and accessible by, learners and educators in all sectors and levels
- f. To promote monitoring, evaluation and research on ESD and DESD activities
- g. To strengthen partnerships for ESD at all levels across state/territory borders
- h. To encourage Australian participation in international DESD activities, especially in Asia and the Pacific

#### The priorities

- a. To develop a National Strategy and action plan for the Decade to guide stakeholders and catalyse change across Australia in a united approach to actions for the Decade.



- b. To develop a strongly inclusive partnership network for the Decade to facilitate the coming together of a variety of stakeholders.
- c. To establish an assistance programme for all stakeholders in order that they can develop their own objectives, outcomes and indicators within the implementation framework set by UNESCO and local contexts.
- d. To develop a framework for monitoring, reporting and evaluating DESD in Australia.
- e. To develop and implement a communications plan to accompany DESD activities and promulgate the significance of the Decade and achievements in change.
- f. To work with teacher/educator employers, curriculum authorities, study boards and education and training departments in state and federal systems to identify learning activities, promote recognition of qualifications in environmental education, and develop modules and materials to advance ESD.
- g. To work with teacher education institutions, professional associations, teacher employer groups, teacher registration authorities, and

private providers to appropriately embed ESD in their education and training courses, and standards.

- h. To encourage and support higher education institutions to include sustainability as a core component of all programmes.
- i. To engage youth and young professionals in education and action for sustainability. This should engage young people in such ways that they can develop the skills, knowledge and values to catalyse and inspire change.

## II. Key Stakeholders and Responsibilities

All sectors of society, not just formal education, are stakeholders in ESD and have important roles to play in the DESD. Government, business and industry, institutions and community groups at national, state/territory and local/regional levels have complementary roles and responsibilities. The nature of the activities each stakeholder group – and individual members of such groups – undertakes will be a reflection of their capacity and influence. The important thing is that all relevant organisations take responsibility for contributing in appropriate ways to the goal and objectives of the DESD.

### Stakeholder group

### Example of responsibilities

National government departments and agencies

- policy-making and framework-setting
- promoting public consultation and involvement
- promoting public consultation and involvement
- encouraging national partnerships and coordination
- national public campaigns
- embedding and operationalising ESD in educational systems
- monitoring and evaluation
- reporting to the United Nations

Local and state/territory government departments and agencies

- policy-making and framework-setting
- providing forums for public consultation and involvement
- encouraging local, regional and state/territory partnerships and coordination
- national public campaigns
- embedding and operationalising ESD in educational systems
- monitoring and evaluation
- reporting to national government



Stakeholder group	Example of responsibilities
Civil society - NGOs and community groups	<ul style="list-style-type: none"> <li>• public awareness-raising, advocacy, campaigns and lobbying</li> <li>• consultancy and input into policy formulation</li> <li>• developing and delivering sustainability learning programme with the community</li> <li>• mediation between government</li> </ul>
Private sector	<ul style="list-style-type: none"> <li>• workplace training for sustainability</li> <li>• encourage integration of sustainability into TAFE and private sector vocational programmes</li> <li>• consultancy and input into policy formulation</li> <li>• partnerships in ESD with government, civil society and educational systems, institutions, projects, etc.</li> <li>• development and sharing of practices of sustainable production and consumption</li> </ul>
Educational institutions	<ul style="list-style-type: none"> <li>• development and implementation of ESD policy and plans</li> <li>• professional development with all staff</li> <li>• effective sustainability operational/management practices</li> <li>• collaboration with other institutions</li> <li>• increasing learning and environmental outcomes through community partnerships and outreach</li> <li>• developing a culture of continuous cycles monitoring and evaluation for programme improvement</li> </ul>
Professional associations	<ul style="list-style-type: none"> <li>• support members through professional learning, networks, publications and resources to integrate sustainability into their programmes</li> <li>• collaboration with other associations, government, civil society and educational systems, institutions, projects, etc</li> <li>• advocacy, consultation and input into policy formulation</li> <li>• community education and outreach</li> <li>• monitoring, evaluation and research</li> </ul>
Media	<ul style="list-style-type: none"> <li>• promote understanding of the need for and strategies to achieve sustainable lifestyles</li> <li>• showcase effective and innovative examples of community-led sustainability initiatives</li> <li>• engage with ESD professionals to develop media resources</li> <li>• collaboration with government, civil society and educational systems to promote DESD activities and outcomes</li> </ul>
Individuals and households	<ul style="list-style-type: none"> <li>• participate in life-long learning for sustainability</li> <li>• practice lifestyle choices that reflect social, economic and environmental sustainability</li> <li>• support DESD activities in the local community</li> </ul>



### III. Strategies and Activities

The DESD provides opportunities for re-thinking the way we learn and work together. Some participants in the National Symposium recognised and articulated that ESD provides a common framework and language that facilitates creating new collaborations as well as rekindling old partnerships to meet the challenges of sustainability. The DESD provides positive

opportunities to learn and work together in new ways in collaboration with diverse sectors that traditionally may not have been aligned.

The following suggested strategies and activities are examples of the range of initiatives possible. Many could meet multiple objectives rather than the one nominated whilst others are dependant upon sectorial contexts and are more appropriate for different systemic levels.

Objectives	Possible strategies and activities
1. To clarify a common vision for ESD and DESD in Australia	<ul style="list-style-type: none"> <li>• conduct forums (eg face-to-face; virtual/asynchronous) to identify and develop a comprehensive framework for ESD principles that includes common concepts, values, principles of ESD and to guide DESD activities</li> <li>• conduct a snapshot of what is happening to identify gaps/opportunities to re-orient education programme towards ESD</li> </ul>
2. To promote understanding of ESD and DESD in Australia	<ul style="list-style-type: none"> <li>• provide incentives (financial and other) for various sectors/groups to take up the concept and actions of ESD and contribute concrete outcomes to the DESD</li> <li>• engage the Australian community with all the pillars of ESD (ecological, economic, socio-cultural, political) and the associated principles (eg ecological integrity; cultural diversity and harmony, peace, sustainable lifestyles, good governance)</li> <li>• assist media to communicate and promote DESD to the Australian community</li> </ul>
3. To promote innovative practice in ESD in formal, non-formal and informal learning situations	<ul style="list-style-type: none"> <li>• showcase innovative programme across diverse sectors of society and make them accessible to others to share and learn from</li> <li>• through sharing of good practice identify and facilitate complex understandings, skills and values to support all practitioners in learning for ESD</li> <li>• encourage schools, with their communities, to provide sustainability as a learning focus during the DESD</li> <li>• assist educational institutions, with their communities, to become models of sustainable lifestyles</li> <li>• identify and support the research and development needs of preschools and child care centres</li> <li>• celebrate practices that achieve both educational and environmental outcomes and showcase these practices within a sector and beyond eg through conferences, forums, seminars, publications, networks, website portal</li> <li>• conduct annual events similar to national/international World Environment Day eg Sustainability Week/Festival to provide annual national focus for learning, promoting the ESD, and giving practical ideas and provide forums for sharing effective ESD case studies in local communities</li> </ul>



## Objectives

## Possible strategies and activities

- | Objectives   | Possible strategies and activities   |
|--|--|
| 4. To support educators to achieve the competence and will to include sustainability learning as a central theme   | <ul style="list-style-type: none"> <li>• provide quality professional development in ESD to be developed and delivered with educators</li> <li>• develop multi-faceted approaches to combine educational initiatives with policy/economic/ and other related initiatives</li> <li>• embedding ESD into curriculum and assessment within tertiary sector</li> <li>• encourage the tertiary sector to engage and mobilise communities to engage and develop ESD capacity</li> <li>• identify, utilise and support community leaders to create 'community nodes' at local levels that stimulate learning, working and living for sustainability by making connections at local level so that the community connects with sustainability</li> <li>• support opportunities that develop effective mentoring programme within diverse sectors to assist ESD practitioners to improve their practices in their workplace; this could include mentoring across different workplaces</li> </ul>   |
| 5. To ensure that dynamic and creative resources and materials for ESD are available to, and accessible by, learners in all education sectors and levels | <ul style="list-style-type: none"> <li>• develop and maintain a national website portal to disseminate information on activities and resources and includes appropriate international examples and opportunities</li> <li>• ensure that indigenous and multicultural perspectives are sought and incorporated into all developed ESD resources</li> <li>• develop resources that are sectorial specific and incorporate the wider implications of ESD (ie not only ecological pillar)</li> <li>• engage under-represented groups in participating in the development of resources and materials for sustainability and ESD</li> <li>• engage relevant national professional associations (and their state/territory chapters) within sectors to assist in developing resources and providing ESD professional learning for practitioners</li> <li>• provide short and long term in-service professional learning opportunities for in-service teachers to support their learning about and teaching for sustainability</li> <li>• support ESD champions to share their experience and expertise with peers to widen the effect of ESD across diverse sectors of society</li> </ul> |
| 6. To promote monitoring, evaluation and research on ESD and DESD activities   | <ul style="list-style-type: none"> <li>• review the DESD plan annually and update it</li> <li>• monitor the engagement of diverse community groups with ESD and DESD eg relevant professional associations working with community groups to build capacity for engaging with ESD</li> <li>• monitor the level of integrated, holistic approaches that are used to make connections between strategies/activities and the pillars and principles of ESD during the DESD</li> <li>• begin longitudinal research studies that monitor effects of trans-disciplinary thinking upon societal behaviour changes</li> <li>• monitor the effects on the community of ESD outreach programme</li> <li>• ensure that each level of coordination (refer to Chapter 4) has a responsibility to identify appropriate and diverse plans for monitoring and evaluating the impacts of activities, strategies and resources and report this to the Australian government and community</li> </ul>  |



Objectives	Possible strategies and activities
6. . . . continued	<ul style="list-style-type: none"> <li>• use the vision and framework for ESD principles (objective 1) to audit ESD and DESD activities</li> <li>• resource a national research programme that focuses on monitoring and evaluation during the DESD to identify gaps and needs to inform future policy and strategies of DESD activities</li> </ul>
7. To strengthen partnerships for ESD at all levels across state/territory borders	<ul style="list-style-type: none"> <li>• develop and maintain a national website portal to disseminate information on activities and resources and includes appropriate international examples and opportunities</li> <li>• ensure that indigenous and multicultural perspectives are sought and incorporated into all developed ESD resources</li> <li>• develop resources that are sectorial specific and incorporate the wider implications of ESD (ie not only ecological pillar)</li> <li>• engage under-represented groups in participating in the development of resources and materials for sustainability and ESD</li> <li>• engage relevant national professional associations (and their state/territory chapters) within sectors to assist in developing resources and providing ESD professional learning for practitioners</li> <li>• provide short and long term in-service professional learning opportunities for in-service teachers to support their learning about and teaching for sustainability</li> <li>• support ESD champions to share their experience and expertise with peers to widen the effect of ESD across diverse sectors of society</li> </ul>
8. To encourage Australian participation in international DESD activities, especially in Asia and the Pacific	<ul style="list-style-type: none"> <li>• ensure that a national partnership or alliance is formed to strategically coordinate the DESD (see Chapter 4 of this Report) to include membership and liaison with appropriate international representatives to share and learn from</li> <li>• identify and partner with other international and Asia-Pacific groups working for Sustainability</li> <li>• support institutions that sign relevant sustainability international agreements to implement strategies (eg the Talloires Declaration for the university sector)</li> </ul>

**IV. Coordination of Activities across Local, State/Territory and National Levels**

Australia is a large country with communities spread across large distances. Coordination is therefore often difficult. This situation is affected by factors such as the diversified structure of the Australian education system (across formal and non-formal sectors, primary, secondary and tertiary levels, public, catholic and independent systems, etc) and the division of responsibilities for education and sustainable development across multiple portfolios and

levels of government (national, state and local). As a result, it is vital that processes that facilitate national, state/territory and local/ regional coordination through partnerships and alliances be established to help ensure that DESD activities are coordinated into a holistic programme. It is recommended that the National Framework for ESD in Australia reflects three systemic levels of operation: local, state/territory/ and national. Possible activities to facilitate coordination are outlined over page:



### **At the local level**

Develop a collaborative process to coordinate the DESD to bring all stakeholders together to plan and coordinate a collaborative approach.

- This should be initiated and resourced by local authorities in partnership with interested community, business and educational organisations.
- A wide range of participants from government, preschool, school education, further and higher education, business and industry, and civil society groups should be involved.
- Its roles should include:
  - Provide interested organisations with a forum for engagement in the DESD
  - Advocacy, promotion and vision building for the DESD
  - Advice to state/territory governments on local DESD priorities
  - Capacity building in ESD for local organisations
  - Planning and implementation of local/regional DESD activities
  - Networking and support for organisations undertaking DESD activities
  - Monitoring, evaluation and reporting

### **At the state/territory level**

Develop a collaborative process to coordinate the DESD to bring all stakeholders together to plan and coordinate a collaborative approach.

- This should be initiated and resourced by state/territory governments in partnership with interested community, business and educational organisations.
- A wide range of participants from government, preschool, school education, further and higher education, business and industry, and civil society groups should be involved. Its roles should include:
  - Provide interested organisations with a forum for engagement in the DESD
  - Advocacy, promotion and vision building for the DESD
  - Advice to state/territory governments and the national partnership/alliance on DESD priorities

- Coordination of strategic DESD activities in state/territory
- Networking and support for organisations undertaking DESD activities
- Monitoring, evaluation and reporting
- The partnership should be funded by the state/territory governments, community, business and educational organisations and other stakeholders.

### **At the national level**

Develop a national process to coordinate the DESD to bring all stakeholders together to plan and coordinate a collaborative approach.

- This should be initiated by the Department of Environment and Heritage as the lead agency for DESD in Australia and the National Commission for UNESCO.
- A wide range of participants from government, preschool, school education, further and higher education, business and industry, and civil society groups should be involved.
- Its roles should include:
  - Advocacy, promotion and vision building for the DESD
  - Advice to Australian Government and National Commission for UNESCO on DESD priorities in Australia
  - Coordination of strategic DESD activities in Australia
  - Support national monitoring, evaluation and reporting
  - Liaison with appropriate international representatives to provide and inform international perspectives of the DESD
- The partnership should be funded by the Australian Government, the National Commission for UNESCO, community, business and educational organisations and other stakeholders.

## **V. Monitoring, Reporting and Evaluation**

### **Monitoring and reporting**

As a member of the United Nations, Australia will be invited to report on DESD activities and outcomes across the 2005-2014 period of the Decade. This means that effective processes of monitoring and reporting from local/regional and



state/territory levels of activity to the Australian Government need to be in place.

The National Environmental Education Network (NEEN) provides a forum for this for state/territory activities, and could also play a major role in case study evaluations of activities in each state/territory. However, it may be difficult for NEEN members to monitor activities outside environmental sustainability, which it is principally concerned with; or monitor the broader ESD initiatives conducted by the many local/regional groups who may engage with the DESD.

As a result, it is recommended that the Australian National Commission for UNESCO and the Australian Government Department of Environment and Heritage establish a system for self-reporting of DESD activities. This should be web-based and invite activity coordinators to report on such factors as:

- Activity title
- Activity type (seminar, workshop, publication, etc)
- Host organisation (and type)
- Major audience types
- Number of participants
- Contact person details
- Significance of activity (eg intended outputs/ outcomes/ impacts)
- Other relevant/appropriate details

Such data can be collated and analysed for international reporting purposes, together with data on outcomes and impacts that emerge from evaluation activities against agreed indicators.

### **Evaluation**

The process of evaluation for the wide range of stakeholders and potential activities in the DESD poses a number of difficulties, not the least of which is selecting indicators that distinguish between the outputs, outcomes and impacts of DESD activities.

This issue is not uncommon in evaluation, especially when long-lasting behavioural and system-level changes are important. However, it is important that a distinction is made between outputs, outcomes and impacts of ESD. To this end, the following definitions are recommended:

- **Outputs** are the material products of an activity or programme. They normally do not have value in and of themselves but rather as tools for, or contributions to, the achievement of outcomes and impacts.
- **Outcomes** are the achievements or changes brought about by an activity or programme that, although potentially short-term, provide knowledge, values and skills, as well as a supportive context, for longer-term cumulative effects or impacts.
- **Impacts** are the longer-term cumulative effects of an activity or programme and embody lasting changes. These include both (i) positive personal and group changes in the ways in which people think and their life and work practices, and (ii) improvements in the sustainability status of an area or resource.

Educational outcomes are both people and system-focused, and support the ability of individuals and communities to analyse sustainability issues, to envision and evaluate alternative solutions and scenarios, to make action plans, and to work co-operatively with others to implement them effectively. This means that educational outcomes are rooted in present issues and contexts, but are also future oriented – towards a time when people actually act on their plans and these actions have had a chance to yield positive impacts on the sustainability status of an area or resource. This process usually develops into a cycle of continuous improvement.

This means that timing is an important consideration for an evaluation or audit. As a general rule, outputs and some outcomes can be monitored and assessed in the short term. Other outcomes and most impacts can only be achieved in the medium to long term (and require regular reinforcement over time) and thus can only be evaluated in the medium to long term. This has implications for identifying the criteria and indicators used to identify the effectiveness of a programme.

While outputs provide appropriate base data for monitoring, it is important that desired long-term outcomes and impacts, and appropriate indicators be identified for the DESD in Australia. Appropriate outcomes and impacts for the objectives of the DESD in Australia may include:



<b>Objective</b>	<b>Outcome</b>	<b>Impact</b>
1. To clarify a common vision for ESD and DESD in Australia.	An agreed conception of the nature, scope and purposes of ESD across stakeholder groups.	Increasing integration of ESD into education and sustainable development activities across all sectors.
2. To promote understanding of ESD and DESD in Australia.	The Australian community has an increased level of understanding of ESD and DESD across the DESD.	ESD is taken into account by policy developers in education and sustainable development planning at all levels.
3. To promote innovative practice in ESD in formal, non-formal and informal learning situations.	ESD and DESD activities reflect learner-centred and participatory approaches. Curricula reflect the scope of learning required for ESD eg systems thinking.	Rising levels of personal, corporate and community, support of sustainability, and principles in daily activities.
4. To support educators to achieve the competence and will to include sustainability learning as a central theme.	An increasing level of ability among Australian educators and sustainable development practitioners to include sustainability strategies in their learning activities and institutions.	Rising understanding of, and commitment to, sustainability across the community.
5. To ensure that dynamic and creative resources and materials for ESD are available to, and accessible by, learners in all education sectors and levels.	Learners in all education sectors and levels have access to an increasing level of dynamic and creative resources and materials for ESD.	Educators at all levels and all sectors are using a range of resources and materials for ESD that inspire understanding of, and commitment to, sustainability across the community.
6. To promote monitoring, evaluation and research on ESD and DESD activities.	All DESD activities are reported to appropriate bodies and evaluation strategies in place and understood by practitioners	Feedback and evaluation cycles inform planning to enhance ESD policies, programmes and activities.
7. To strengthen partnerships for ESD at all levels across state/territory borders.	An increasing level of partnerships for ESD at all levels across state/territory borders.	Reduced levels of duplication of activities and increased levels of collaborative activities across state/territory borders.
8. To encourage Australian participation in international DESD activities, especially in Asia and the Pacific.	An increasing level of Australian participation in international DESD activities, especially in Asia and the Pacific.	Australia recognised regionally and internationally as a learning partner in ESD.

Organisations undertaking DESD activities should identify the objectives, outcomes and impacts most relevant to their interests, strategic plans and spheres/scales of operation and then identify appropriate quantitative

and/or qualitative indicators to gauge their quality, success and impacts – with the resulting information integrating into cycles of continuous programme improvement.



## Appendix 1

### Organisations Represented

Architects Without Frontiers (Australia)	Department of Education and Children's Services, South Australia	Monash University
Asia Education Foundation	Department of Education and Training, Victoria	Murdoch University
Australian Association for Environmental Education	Department of Education, Science and Training, Australia	National Centre for Sustainable Development
Australian Campuses Towards Sustainability	Department of Environment and Conservation, NSW	National Commission for UNESCO
Australian Industry Group	Department of Environment and Heritage, Australia	National Environmental Education Council
Australian Institute for Research on Education for Sustainability, Macquarie University	Department of Environment and Heritage, South Australia	National Tertiary Education Union
Australian Joint Council for Professional Teaching Associations	Department of Sustainability and Environment, Victoria	Queensland Economics Teachers Association
Australian Multicultural Education Council	Earthwatch Institute	Queensland University of Technology
Australian National University Centre for UNESCO	Education Queensland	Professional Education Associations Council, Western Australia
Australian Science Teachers Association	Environmental Institute of Australia and New Zealand	RMIT University
Australian Seaford Industry Council	Environment Victoria	Sustain Ability International Pty Ltd
Australian Water Association	EPA, Victoria	Sustainable Living Foundation
Ballarat University	Future Environment Fund	Sustainable Living Project
Brotherhood of St Laurence	Grampians Regional Waste Management Group	Swinburne University of Technology
Business Educators Australia	Future Leaders	The Natural Edge Project
Cape Otway Centre for Conservation Ecology	Great Australian Cycle Expedition	Trust for Young Australians
Catholic Earthcare Australia	Griffith University	University of Canberra
Catholic Education, South Australia	Gould Group	University of Queensland
Catholic Education Office, Melbourne	Highlands Regional Waste Management Group	University of New South Wales
Catholic Education Office, Victoria	Innovation and Business Skills Australia	University of South Australia
CERES	International Young Professionals Foundation	University of Wollongong
Curriculum Corporation	Kangan Batman TAFE	Victorian Association for Environmental Education
	Manufacturing Skills Australia	Victorian Schools Innovation Commission
	Ministerial Council on Education, Employment, Training and Youth Affairs	Waterkeepers Australia
		Western Port Greenhouse Alliance



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

