

Environmental Education in Australia: Towards Sustainable Schools

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Introduction

When the Australian Academy of Science convened the first national environmental education conference -*Education and the Environmental Crisis* — in 1970 (Evans and Boyden 1970), Australia became one of the first countries to engage with the newly emerging form of environmental education. Despite the early promise, the impetus to introduce environmental education into the formal curriculum in Australia often seems to stagnate. It is hoped that the release of the *Environmental Education for a Sustainable Future: National Action Plan* (NAP) in July 2000 will underpin a resurgence of environmental education throughout Australia, particularly in the formal education sector. With the support of the initiatives and strategies that arise from the NAP, Sustainable Schools Projects in the formal sector in all states may now be able to provide broad-based and effective environmental education.

Hence, this paper begins by providing a brief overview of the development of environmental education in Australia so that the place of the National Action Plan (NAP) may be better understood. The second section outlines the initiatives and strategies of the NAP. These strategies may provide both the impetus and a viable framework to enhance the development of environmental education policy in all Australian States and Territories. Support provided through the NAP should enhance the establishment of Sustainable schools projects in most states. Sustainable Schools should be able to implement environmental education programs that provide information, enhance understanding, challenge and review values, alter attitudes and promote changes in behaviour that lead to a more sustainable lifestyle. While significant levels of non-government support for sustainable schools projects exist in many states, only New South Wales has introduced an *Environmental Education Policy for Schools*. Support documents for this policy offer some guidelines for delivering environmental education programs through a school environmental management process. Therefore, with the New South Wales curriculum support document (*Implementing the Environmental Education Policy in your school (2001)*) as a guide this paper concludes with an overview of the strategies and key elements fundamental to success of Sustainable schools.

Environmental Education in Australia — A Brief History

The field of environmental education, as we currently understand it, grew out of increasing awareness of environmental degradation and the concerns being voiced by scientists and others in the 1960s. Of course, environmental education has been with us, in one form or another, for much longer than the last thirty years. Indeed those writers who look to the 1970s as the 'beginning of environmental education' may have overlooked the indigenous perspectives in environmental education. The Aboriginal people who first settled this land

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40 000 years ago established a human ecology that was in harmony with the natural ecology. Australian Aborigines have elaborate systems for codifying their knowledge of the land, its cycles, the need to respect it, and the management practices that allowed them to use the land and its resources in a sustainable way.

However, the field now known as environmental education has its beginnings in studies such as nature study, outdoor education and conservation education (Stapp 1974, Gough 1997). Australia was one of the first countries to engage with environmental education when in April 1970 the first Australian national conference on environmental education was convened under the auspices of the Australian Academy of Science (Evans and Boyden 1970). Australian representatives were also present at the Belgrade workshops in 1975 (Fensham 1976). However, by the time of the Tbilisi conference (UNESCO 1978) two years later the impetus appeared to have been lost (Fensham 1978).

From the mid-1970s, environmental education became an educational and political priority for the national Curriculum Development Centre (CDC). With the support of CDC the Australian Association of Environmental Education (AAEE) was founded in 1979 (Gough 2001). AAEE has provided support for many initiatives in environmental education and assisted in keeping environmental education on the political agenda in Australia over the last twenty years. However, since the abolition of the CDC in 1981, environmental education has not been afforded the priority nationally that it was given previously. Environmental education has to compete, often unsuccessfully, with other adjectival educations (*e.g.* social education, Aboriginal education, gender education) for space in the curriculum.

While the Tbilisi Declaration on the role, goals and objectives and characteristics of environmental education remain as a guiding influence in Australia and internationally, several other major national and international publications and conferences have been instrumental in guiding the development of environmental education in Australia. In the early 1980s the National Conservation Strategy for Australia noted the need to educate the community about sustainable development and conservation and to strengthen and develop school environmental education programs (Gough 2001). In 1988 a National Curriculum was developed in cooperation with the states. As a partial response to *Our Common Future* (World Commission on Environment and Development), the new curriculum targeted environmental education and encouraged the development of environmental education policy in all states and territories. As a result of this *Hobart Declaration*, most states developed environmental education policy documents. While these policy documents provide useful support for environmental education in schools their implementation is not mandatory. Although these policy documents received some support from teachers, this support was patchy, restricted to primary schools and the secondary Geography and Science, and tended to focus on the natural and physical environment (Smith 2001). In many cases these policy documents have not been reviewed for over ten years.

The United Nations Conference on Environment and Development (UNCED) held in Rio in 1992, prepared a framework for international known as Agenda 21. Chapter 36 of Agenda 21 calls for the integration of environmental education throughout all levels and sectors of society. Australia was slow to respond in any coordinated way to this call (although some states produced new or revised environmental

education policy documents). The Thessaloniki Declaration (UNESCO 1997) sought to further clarify the concept of environmental education or education for sustainable development. This Declaration presented sustainability as an imperative to which education should devote itself. At the same time individuals and groups within Australia began to focus more clearly on environmental education. It was at this time that work commenced in earnest on a review of the national needs for environmental education.

The Federal Government discussion paper, *Today Shapes Tomorrow* was released in 1999. This paper noted that students should develop an understanding of and concern for the natural environment and develop knowledge and skills that allow them to contribute to ecologically sustainable development. As a result of responses to the discussion paper Environment Australia (a Federal Government Department) published *Environmental Education for a Sustainable Future: National Action Plan*. It is hoped that the strategies suggested by the National Action Plan will provide the impetus and a viable framework to enhance the development of environmental education policy in all Australian States and Territories. Support provided through the NAP can also enhance the establishment of Sustainable Schools projects in most states.

The National Action Plan.

Information received in response to the 1999 discussion paper *Today Shapes Tomorrow* provided valuable insight into environmental education requirements in Australia. Comments received from stakeholders were used in the development of the document, *Environmental Education for a Sustainable Future: A National Action, Plan* that was launched by the then Minister for the Environment and Heritage, Senator Robert Hill in July 2000. The NAP is designed to foster greater coordination and effectiveness in environmental education across Australia. To achieve this the NAP recognises three key areas for action. The NAP aims to address the current needs in environmental education in Australia; enhance leadership for different sectors in environmental education; and act as a starting point to enhance national efforts in ecologically sustainable development.

The NAP aims to deliver a national environmental education strategy that can assist all Australians in moving 'beyond environmental awareness to informed action' (Environment Australia 2002a). The NAP begins by providing a broad definition of environmental education. That is environmental education should:

. . . encompass raising awareness, acquiring new perspectives, values, knowledge and skills and informal processes leading to changed behaviour in support of an ecologically sustainable environment. (NAP 2000, p. 3)

Furthermore, the NAP (2000) outlines several principles for the conduct of environmental education. It suggests that environmental education should:

- involve everyone;
- be lifelong;
- be holistic and about connections;

- be practical; and
- be in harmony with social and economic goals and be accorded equal priority.

Through the community consultative process associated with *Today Shapes Tomorrow* a large number of proposals for future action were received. From these proposals the NAP (2000 p. 5) identifies several recurring themes and presents these as the key areas for action. These areas include:

- ❖ Development of a national framework for environmental education;
- ❖ Raising the profile of environmental education in Australia;
- ❖ Better coordination of environmental education;
- ❖ Greater access to quality materials;
- ❖ More professional development for teachers in formal education;
- ❖ More integration of environmental education principles into mainstream education;
- ❖ Better resourcing of community organisations.

The intention of the NAP is to provide a framework for environmental education in Australia and to advance the objectives of environmental education nationally. In order to address the action areas the NAP (2002a pp. 5-10) then goes on to identify nine strategies that it is hoped will increase the profile of environmental education, provide more resources for environmental education and encourage the integration of environmental education into mainstream education. These nine strategies are:

1. National Action Plan
2. Establish National Environmental Education Council (NEEC)
3. Establish Australian Environmental Education Foundation
4. Communicate importance of environmental education
5. Update Australian environmental education web site
6. Establish a national environmental education network (NEEN)
7. Environment Australia environmental education working group
8. Environment Australia grants
9. National training program

Not all of these strategies have been fully implemented. The National Action Plan has been released and adopted. The NEEC meets several times each year and has already initiated a number of activities aimed at raising the profile of environmental education. Activities of NEEC have helped raise the profile of environmental education and promoted better coordination of activities. NEEN was established in 2001 and is still developing its working arrangements. However, it has already been instrumental in providing funding to support the Sustainable Schools project (Woods 2002).

The NAP is starting point in the move from emphasising awareness of environmental issues to developing the knowledge, skills and values that are essential in promoting sustainability. While it is not meant to

replace the work done by state and territory departments and community groups involved in environmental education, it does provide strategies and funding opportunities for advancing the importance of ecologically sustainable development. In particular, the Federal Government has provided a funding package to enable a pilot programme for Sustainable schools to be extended in Victoria and New South Wales. Sustainable schools aim to develop a holistic environmental education program that can be used as a model for the development of similar programs in other states.

Towards Sustainable Schools

Environmental education seeks to enable all students to contribute to the achievement of a sustainable society. Environmental education encourages students to acquire the knowledge, skills and attitudes that assist them in embracing sustainable lifestyles. Environmental education is not just another subject area vying for a place in an already overcrowded curriculum. Environmental education should be seen as a way of teaching. The integration of the principles of environmental education and sustainability across the whole curriculum is one way to promote the transition to a sustainable society.

‘The defining feature of the Sustainable schools program is the integration of existing and fragmented approaches to environmental education into a holistic education program’ (Environment Australia 2002b). The move towards a comprehensive and successful Sustainable schools program requires reform in three areas:

1. Reform of Curriculum
2. Reform of School Management
3. Reform of Teacher Education

The first two of these areas combine to produce Sustainable schools and it is these areas that are clearly addressed in the Sustainable schools project. The area of reform to teacher education is being addressed through professional development projects and in-service support. However, at this stage there appears to be very little reform planned in the pre-service teaching area, although initiatives of the NEEC tertiary education sub-committee may begin to address this issue.

Sustainable schools have the potential to realise the transition to a sustainable society. Although Sustainable schools projects exist in several states, it is only in New South Wales that environmental education is mandated. This means that from 2001 the environmental education curriculum statement became policy with clearly enunciated minimum requirements. The curriculum support document, *Implementing the Environmental Education Policy in your School* (NSW Department of Education and Training 2001) clearly links environmental education objectives with the outcomes of syllabuses and emphasises integration of environmental education principles and objectives across the curriculum (Smith 2001). The Sustainable schools project in New South Wales as an example of what can be achieved in environmental education.

The New South Wales environmental education policy requires schools to develop a school environmental management plan that focuses on three areas. These areas are:

- ❖ Curriculum – a move from content to process, from single subject to cross curricular, from knowledge about the environment to knowledge about issues of sustainability and from activities in the environment to environmental action;
- ❖ School Resources Management – realising that institutions teach us by what they do, being aware that students need to live in a society that demonstrates a sustainable lifestyle, monitoring water, energy and waste, and ensuring sustainable and democratic management practices; and
- ❖ School Grounds Management – ecologically sustainable management of the built and natural environments.

Obviously, the development of a truly sustainable school does not happen overnight. The curriculum support document in New South Wales recognises this and provides guidelines for a step-by-step process towards becoming an ‘environmentally active school’. This framework provides a tool for evaluating and monitoring the implementation of environmental education within a school. The expected final outcome of this process is a sustainable school that exhibits the characteristics outlined in Table 1 below.

The curriculum support documents also state (NSW Department of Education and Training 2001, p.19) that the ‘most successful environmental management plans are those where the process of change’ is:

- participative: involving students, all staff, parents, local groups;
- holistic: employing an integrated approach to environmental management of the site, the school community and the curriculum; and
- sustainable: ongoing with a commitment to continuous improvement.

Table 1: Characteristics of a sustainable school (from Smith 2001, p.9)

Whole School Planning	Curriculum	Resource Management	School Grounds Management
<ul style="list-style-type: none"> • Whole school commitment to environmental management plan. • Logical and holistic plan is evident. • Effective action plans in place and regularly reviewed. • Objectives in all focus areas are met. • Progress reported in school’s annual report. 	<ul style="list-style-type: none"> • Effective environmental education is integrated into all Key Learning Areas. • Opportunities for environmental education are maximised. • Demonstrated implementation of programs that address all environmental education curriculum objectives. • Programs are based on environmental citizenship and personal action. 	<ul style="list-style-type: none"> • All resource management objectives are met. • Purchasing, resource use and waste management integrated across whole school. • “Best Practice” employed. • Learning opportunities incorporated. • Progress visible and reported. 	<ul style="list-style-type: none"> • Management is consistent with principles of ecologically sustainable development. • Grounds developed to enhance environmental education. • Progress reported. • School community demonstrates commitment to grounds. • A diverse learning environment with positive impacts on the local environment.

There is a vast range of environmental projects that can be initiated through the sustainable schools model. Successful programs can provide information, foster understanding challenge values, alter attitudes and change behaviour towards a more sustainable lifestyle for all the community. The New South Wales model provides clear guidelines that underline the importance of involving the whole school community. This model also encourages the incorporation of external programs and environmental organisations in the school environmental education programs. However, one aspect of a holistic environmental program that is only briefly addressed in the New South Wales model is the linkage of the school community to the wider community.

Environmental education must be relevant for students so it is important to provide them with the opportunity to take action that links them to the real world. Students need to be able to see that they can make a difference and that the 'Think globally, Act locally' adage has currency. Educators must be able to set up links to the wider community and other outside agencies in order to make environmental education relevant and meaningful.

Coady (2001, p.1) suggests that there are fundamental strategies for developing a successful program that moves the school community towards becoming an exemplary sustainable school and forges links with the wider community. These strategies include:

- Fostering shared vision and leadership with staff, students, parents and the community)
- Appointment of focus people
- Open communication structure
- Utilisation of experts within and outside school community
- Release time for people to manage projects
- Preparation of proposals to resource projects
- Engaging partners and maintaining partnerships

Several key elements that contribute to the ongoing success of environmental education programs in Sustainable schools are also outlined by Coady (2001, p.1). First, a successful program needs to be inclusive and collaborative with clear actions, time lines and responsibilities. An environmental education committee with representatives from staff; students and parents can be effective in encouraging the adoption of new processes and practices (Coady 2001, NSW Department of Education and Training 2001).

Second, there is always a need for funding to support time release and resources for staff to develop and implement programs. Schools must be able to identify funding opportunities outside the education system. This is one area where the National Action Plan can be of assistance. 'To date 111 schools have been funded under the Natural heritage Trust and 2300 schools have been involved in the Trust-funded Waterwatch program' (Woods 2002, p. 6).

Third, there must be an ongoing monitoring process. Such a process can ensure that time lines are met

and can measure progress against the sustainable schools framework. Fourth, review and evaluation can determine the effectiveness of the environmental education program. Review and evaluation can establish the extent to which the environmental education program is raising awareness and understanding of environmental issues, promoting the development of sustainable solutions among students and the community and providing opportunities for action.

Finally, and perhaps most importantly, there must be celebration. Celebration is essential to maintain motivation and counteract the paralysing effect that often results from concentrating on the complexity and magnitude of environmental problems. It is important for the whole community to be aware that we are not facing an ecological doomsday. Celebration of the positives can be empowering for all.

Conclusion

Since the first conference to highlight environmental education took place in 1970, environmental education in Australia *has* moved forward. Despite the perception that the introduction of environmental education into the formal curriculum has often seemed to stagnate, this review of the state of environmental education in Australia shows that much has been achieved in the last thirty years. The release of the *Environmental Education for a Sustainable Future: National Action Plan* (NAP) in July 2000 has injected new hope and prompted a resurgence of environmental education throughout Australia, particularly in the formal education sector. With the support of the initiatives and strategies that arise from the NAP, Sustainable schools pilot projects in the formal sector in Victoria and New South Wales are set to provide an exemplary model for environmental education that can be introduced in all states. Sustainable schools will implement environmental education programs that provide information, enhance understanding, challenge and review values, alter attitudes and promote changes in behaviour that lead to a more sustainable lifestyle. Sustainable schools can encourage students and the wider community to achieve a level of understanding, competence and citizenship that enables them to contribute to the achievement of a sustainable society. We should all celebrate the successes and encourage an ongoing process that will result in all schools being sustainable.

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