

ENVIRONMENTAL EDUCATION - A CASE STUDY OF NATIONAL  
CURRICULUM ACTION<sup>1</sup>

Annette E. Greenall

Curriculum Development Centre

'There is nothing more difficult to carry out, nor more doubtful of success,  
nor more dangerous to handle, than to initiate a new order of things.'  
(Machiavelli, 1513)

Environmental education, as a distinct entity with its own set of aims, received its first formal recognition in Australia through the 'Education and the Environmental Crisis' conference convened by the Australian Academy of Science in April 1970 (Evans and Boyden, 1970). At this conference, O'Neill (1970) reported that the treatment of environmental education in Australian schools was quite incidental and totally inadequate. Despite these and other criticisms and challenges put forward at the 1970 conference there appears to have been no immediate response by State education departments or teachers' colleges.<sup>2</sup>

Notwithstanding this lack of systemic action, 'environmental' became the catchcry adjective of the early seventies. However, much of what was put forward as part of environmental education at this time could not be called environmental education by the criteria accepted later in the decade. Many of the moves towards the environment were related more to making education more relevant than to the aims of environmental education, although most grew out of the concerns of the environmental crisis.

Federal Government Involvement

During the next few years certain forces for change in education in Australia were gathered under the banner of environmental education, which received increasing amounts of attention from Federal and State authorities as well as community groups. Hazlett (1979) has argued that

'The nation tends to reduce political, social, and economic problems to educational ones and claims to expect schools to cure present ills and provide for a brighter tomorrow for individuals and the collectivity.'

This was certainly the approach adopted by proponents of environmental education in Australia as they sought to persuade the Commonwealth Government to become involved in environmental education. They were part of a movement which sought to encourage students to anticipate a new social order and promote those values which might hasten it (Lawton and Prescott, 1976). At the classroom level there was a growth of composite studies, such as environmental studies, which were thought to be of more interest to students (Barcan, 1979) and towards more social relevance in subjects, such as increasing awareness of the problems of ecological imbalance as a result of our present economic system (Musgrave, 1973).

The election of a federal Labor Government in December 1972 gave increased impetus to the environmental education movement. The 1973 ALP Platform included the policy statement 'Develop and encourage education programs aimed at increasing awareness of, and concern for the environment' and this provided additional justification and support for developments in the environmental education area at the federal level. The Labor Government's expressed interest in the area was used by ACER as a basis for their proposal for an Australian Environmental Education Program (AEEP) which they submitted to the federal government in March 1973 (ACER, 1973). This document stemmed from widespread concern for the quality of the environment and the need for environmental education within the community, and was based on the assumption that such education is an effective way to improve the environment. The proposal saw an

environmental education program as building on the environmental approach of the Australian Science Education Project (ASEP), but spanning Years 1-12 and a wide range of disciplines.

At the same time as this proposal was being considered by the government moves were being made towards the establishment of a national curriculum development centre. The formation of such a centre was announced in June 1973 and, according to Spring<sup>3</sup>, important in the rationale behind the establishing of CDC were five areas for which curriculum materials seemed to be needed. One of these areas was environmental education.

#### Curriculum Development Centre Action 1973-1975

The AEEP proposal was one of a number forwarded for consideration at the first meeting of the interim CDC Council in December 1973. It was grouped with science education proposals for examination and recommendation by a Council Sub-Committee. This action exemplified the Council's concept of environmental education as being related to science - a belief which predominated at that time - despite the specific statement in the AEEP proposal that it was concerned with 'integrated interdisciplinary studies'. An alternative explanation for the proposal being treated as science education was that it came from ACER which was associated with ASEP. Whatever the reason, the grouping of environmental education with science persisted within Council for some time.

The Council's Science Review Sub-Committee, as it was called, deferred discussion of the AEEP proposal until more was known about environmental education needs in Australia. Instead it recommended to the Council that a national survey to investigate the needs of teachers and schools in relation to environmental education, the establishment of a CDC Sub-Committee to prepare a set of recommendations for CDC action, and that the IUCN definition of environmental education<sup>4</sup> be adopted as the basis for CDC work in the area (Dale, 1974; Greenall, 1974). These recommendations were accepted by the October 1974 meeting of Council, but not without some problems.

Some Council members looked on environmental education with a jaundiced eye because they saw it as being associated with ACER and as an ASEP idea and, at that time, there was, in some States - who happened to be represented on the CDC Interim Council - considerable feelings against ASEP. They also felt that environmental education was not an educational priority in the way that it was a political priority, nor in the way that many academics felt it was a cultural priority for Australia. They saw the curriculum as already overcrowded and environmental education as being able to be catered for within existing areas; it therefore was not a priority compared with literacy and numeracy.

An Environmental Education Committee was established, and the national survey conducted, in late 1974. The Committee had a very secondary science education/academic orientation which probably reflected to limits of the thinking, and the concept, of environmental education at that time.<sup>5</sup> The national survey, to determine the perceived needs for the development of environmental education in Australian schools, involved interviews with people - from primary, secondary and tertiary education and environmental groups - who were known to have a special interest, or thought to have some expertise, in environmental education.

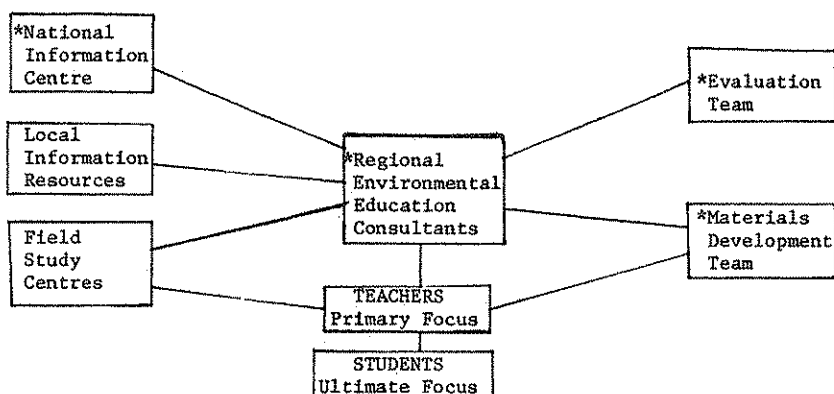
The major area of perceived need emerging from the survey was 'teacher education'. By this the interviewees meant developing teachers' awareness and understanding of environmental education, changing attitudes, developing skills, and increasing communication and the exchange of ideas among teachers. The Committee accepted this priority as the focal point for CDC involvement (Interim Report, February 1975). It saw teacher education 'as the most effective means by which it could contribute (in the initial stage) to student development' and believed that

'substantial support could be provided for teachers by means within the scope of CDC operations, and through cooperation with other bodies'.

It also believed that the other areas of need could be satisfied through its coordinated plan, with the exception of community involvement outside that directly related to schools, as this was 'beyond the CDC terms of reference'.

The other areas of need were materials, resource/information centres, field study centres, coordination and evaluation and community involvement.

The ultimate focus of the Action Plan was students; 'teacher education' was for the education of students through teachers. The Plan was 'people-centred'. It was believed that materials would be successful if there were people to help teachers to use them.



\* Major areas involving CDC support

Figure 1 The CDC Environmental Education Committee's Action Plan for Environmental Education

The Committee envisaged that CDC would have a coordinating role in the Plan as well as contributing to the financing of the proposals. The strong case for coordination argued by ACER (1973) and Linke (1974b) was assimilated into the Plan, which was nevertheless intended to be cooperative and decentralised in its operation.

The major weakness in the whole Plan was not so much its form but the lack of consideration given to the political implications of its implementation. In many ways the Action Plan was putting forward a new model of curriculum development in an attempt to meet the needs and characteristics of environmental education. It took the view that materials were not enough, instead there was a need for a multi-faceted comprehensive program if there was to be an effect on schools. The Plan was designed to get a number of activities in operation at once as a total package which would reinforce itself, and it took cognisance of the experience of ASEP that direct support for teachers was essential if the implementation was to be successful. It was based very strongly in the research, development and diffusion paradigm, but it was bestride both the technological and political perspectives to innovation: there were elements of a centre-periphery approach but there was also recognition of the value of personal face-to-face interaction (House, 1979).

In spite of criticism of its centre-periphery approach it was to be expected that the Committee would persist with this direction. The Plan was definitely seen as a means of enhancing the infant CDC's image and giving it an on-going national role in curriculum development. Environmental education was to provide the large scale project to succeed SEMP, which had succeeded ASEP. Major cooperative projects, like that proposed for environmental education, were seen as enhancing CDC's credibility and giving it a national coordinating role. However CDC has had no project since SEMP where the States have really been involved and working together towards a common goal under CDC coordination rather than 'doing their own thing' under a national project banner.

Reactions to the Committee's Interim Report were sought from a wide audience, including the participants in the 1975 Australian Unesco Seminar on Education and the Human Environment (Linke, 1977). An analysis of the comments received, and changes made to the Interim Report in response, is given in Greenall (1981). In the light of the reactions received the Committee made a number of modifications to the Plan before submitting its Final Report to the CDC Council in September 1975. According to this Report,

'The major changes have been the inclusion of greater flexibility of operation for the regional environmental education consultants and their various specialist support services, greater emphasis on individual and local initiatives, and a more detailed specification of possible roles for other community groups and other government departments or agencies.'

More important than these acknowledged changes was the reduced emphasis on CDC's coordinating role and an increased emphasis on the activities States already had underway in the name of environmental education and the role of the States in funding and supporting various components of the Action Plan.

The Council reaffirmed environmental education as a priority area but deferred any developmental action by recommending that a study group be established to revise the Report as a general report, omitting the specific recommendations for funding (published as Greenall and Womersley, 1977). There are a number of reasons for this deferment of action. The 1975 Federal budget, which was to have been an expansionist one for CDC, instead cut back CDC funds so all new developments were deferred, including environmental education. Another reason was that the Australian Education Council representatives on the Council thought that the proposal was too ambitious. Some still held their prejudices associating environmental education with ASEP and, as they were now disenchanted with both SEMP and ASEP, they reacted against another large comprehensive curriculum project. Also, this proposal was so large that it would have closed off the options for other curriculum projects, even if CDC had had the funds for this one. Fourthly, there was the difficulty that the proposal would have overwhelmed the States' funds, even if they had been supportive.

Thus at the end of 1975 environmental education was still a priority area for CDC. Although two years has passed since the first submission on environmental education had been considered, the CDC had not yet funded any project in the 'priority area'. And the federal Labor Government was about to be removed from office.

#### Environmental Education Program 1977-1980

The Study Group was established in late 1976, and this time there was a concerted effort to ensure that the group was not science-biased and that classroom teachers and community interests were represented.<sup>6</sup> Its brief was limited to recommending on curriculum programs in which CDC could cooperate with the States. The approach was to be low-key - assisting school based curriculum development - but this also lessened CDC's coordinating role. The Group made recommendations in five areas: developing general acceptance of environmental education; providing support for diffusion and teacher awareness, materials development; expanding the CDC information service; and facilitating the formation of a National Environmental Education Council.

The Group seemed to recognise that many activities conducted in the name of environmental education did not necessarily meet the criteria it accepted - environmental education was 'in a state of emergence within the curriculum rather than being an established component of it'. Given this, it seems incongruous that it recommended that case studies of existing practices be produced rather than new materials which exemplified the emerging nature of environmental education. However this action is consistent with the emphasis on school based activities.

After presentation of its Report to Council in June 1977, copies were sent to various organisations, including State education authorities, for comment. Despite the Group's urging that the sequence of its recommendations be maintained, the strongest support was for those concerned with teacher education. The priority determined by the 1974 survey was confirmed. The recommendation for a National Council was generally overlooked - direct support for teachers was seen as more important than coordination.

The Study Group's recommendations were the foundation of the Centre's environmental education program from 1977 to 1980. Because the strongest support from the States was for teachers' and students' materials, these formed the basis for a proposal for an Environmental Education Project, the major project initiated in the area. The proposal was approved by Council in February 1978 and the Project commenced immediately. This Project was decentralised in its structure and relied on cooperation with the States. In contrast, the two other projects from the Study Group recommendations which started around this time, but with the majority of their funds coming from outside CDC, were more centralised. All three aimed to provide non-prescriptive materials that assisted teachers in their classrooms.

The Environmental Education Project operated through offering small grants to teachers for them to describe their programs or their position on a particular topic. The submissions received met neither the expectations nor priorities of the Project. They revealed that much of the environmental education that was happening in Australia, that was believed to be such or was put forward, was mainly nature study and field studies. Environmental education as a process has cognitive, affective, psycho-motor and conative (action) objectives as well as in interdisciplinary nature. Very few of the submissions had either action or overt 'for the environment' (affective) components, nor involved more than one or two disciplines. This phenomenon is reinforced by Lucas (1980) who remarked on the preponderance of 'in' and 'about' the environment programs, many of which are science-based, which pose as environmental education in schools. The Project attempted to overcome deficiencies in the submissions by commissioning appropriate papers for inclusion in its publications.

In spite of the shortcomings in the Project's outcomes, it did foster the formation of the Australian Association for Environmental Education as well as developing a successful liaison officer network - involving each State and Territory education authority - for the exchange of information and ideas and for a certain degree of coordination. However the National Estate Project (1980) - a joint project between CDC and the Australian Heritage Commission - was more successful in involving groups outside formal education. This Project was a centralised development, but as it was seen as an experiment in a new style of curriculum development, deliberately involving teachers with persons outside formal education, it was probably advantageous to be centrally located to both funding organisations. It certainly meant that the aims for environmental education, rather than remaining pious hopes, could readily be incorporated into the materials.

The third element of the program was a joint project between CDC and the Department of Environment, Housing and Community Development entitled 'Environmental Education for Schools' (Greenall, 1980). Like the Environmental Education Project these materials were directed towards a political-cultural perspective on innovation, whereas the National Estate materials were more concerned with stimulating students to develop their own culture of innovation in the classroom (House, 1979).

The final phase in CDC's environmental education program is within the context of the CDC core curriculum statement (1980), where 'environmental studies' is given as one of the nine essential areas of knowledge and experience, as in late 1979 the Council drew the current program to a conclusion. This action came without explanation however,

in view of the attitudes of the States to environmental education, and the growing importance of other, competing, areas for resources within CDC the end was to be expected.

### The Future

Until the end of April this year this section would have been concerned with the further development of the 'environmental studies' area of the core curriculum within CDC, and its implications. With the abolition of the Curriculum Development Centre likely within the next twelve months such a discussion would be purely theoretical and quite futile as there is to be no action in this area. Instead, the reception and uptake of the national curriculum development action in environmental education will be discussed.

Environmental education, in common with other recent innovations, has placed emphasis on the central role of the school as curriculum maker. However this presupposes that the school has the capacity and willingness to respond. It poses a continuous challenge to the commitment and creativity of the staff and the assumptions are probably unrealistic in many schools. Moves to consider the problems of our society and issues of broad responsibility in school programs can therefore meet with opposition in some circumstances. According to Musgrave (1979),

'Those in power do not wish the present distribution of knowledge to be changed or even challenged ... Radical changes in the distribution of knowledge rarely go unchallenged.'

Gramsci's notion of hegemony is similar (Entwistle, 1979), and in this regard Australian schools could hardly be regarded as counter-hegemonic. He acknowledges that it is possible for the existing hegemony to accommodate alternative and counter-hegemonic forces 'neutralising, changing or actually incorporating them'.

Environmental education is concerned with counter-hegemony or social reconstruction and it is argued that it has been subjected to incorporation within the existing hegemony in a neutralised form - the radical 'action' components having been deleted and the less controversial cognitive and skill ones retained, together with the name environmental education. It is then claimed that the program is environmental education, although only some of the characteristic objectives of environmental education are included in the program. Whilst it cannot be denied that many subjects in the traditional curriculum of Australian schools have increased their environmental content, there is little evidence that such courses are considering the more controversial political and moral aspects and collective responsibility inherent in environmental education. In the future, commitment to curricula which wholly incorporate these changes are even less likely. As long as such action is countenanced, as it certainly is at present by the education authorities who, although professing a strong belief in environmental education, are loathe to stress its moral and political components, then the introduction of environmental education in its full meaning into schools will be negligible. As Giacquinta and Kazlow (1980) have noted

'As long as educators continue to insist upon using the same term to refer to different ... and sometimes even contradictory underlying conceptions of promising innovations, the prospect for long-term reform in education remain weak.'

They could well have been writing about the future of environmental education in Australia.

In addition to this confusion, incorporating environmental education into the curriculum in whatever form under whatever name will involve radical changes in the teaching methods, styles and organisation of most schools. To facilitate these changes there needs to be a large network of support structures - such as in-service courses, resource personnel and materials - to give teachers the confidence to enter the new area, as well as to define it. In this era of increasing financial and personnel constraints in schools and education authorities such support structures are unlikely to be forthcoming. Therefore environmental education is unlikely to be supported as it

needs to be. The Curriculum Development Centre has always been limited in its provision of physical support for innovation and restrained to providing material support. However it is unlikely that its publications will be implemented as intended without physical support and consultation assistance being available.

In this context environmental education has been a phenomenon of the affluent seventies in Australia. In order to instigate the radical changes required in school programs a large injection of funds was required, but the proposals for funding which had well supported arguments were put together too long after the funds disappeared, and the final support has been only piecemeal. Environmental education as an example of national curriculum action has products but very little evidence of change towards the achievement of its full set of objectives in school programs.

#### Footnotes

1. This paper is based on the author's Master of Education thesis entitled 'Environmental Education in Australia : Phenomenon of the Seventies - A case Study in National Curriculum Development' for the University of Melbourne. The thesis has been published as Curriculum Occasional Paper No.7 by the Curriculum Development Centre, Canberra.
2. Sibly (1973) and Reid (1973) documented the slow development of environmental education in Australia in the early seventies, and Linke (1974a) surveyed the nature and extent of environmental education in Australia.
3. From interview record with G.J. Spring, July 1979. Spring was Principal Executive Officer of the Interim Curriculum Development Centre Council.
4. The IUCN definition is the one which was put forward by the International Union for Conservation of Nature and Natural Resources Commission on Education in 1970. It states that:  
'Environmental education is the process of recognising values and clarifying concepts in order to develop skills and attitudes necessary to understand and appreciate the interrelatedness among man, his culture and his biophysical surroundings. Environmental education also entails practice in decision-making and self-formulation of a code of behaviour about issues concerning environmental quality.'
5. The Committee consisted of representatives from the Australian Academy of Science, the Australian Conservation Foundation, the Department of the Environment and Conservation, the Australian Geography Teachers Association, the Australian Science Teachers Association, the National Committee on Social Science Teaching, the Primary Schools Division of the Victorian Education Department, the Schools Commission and Unesco.
6. The Study Group contained a primary and two secondary science teachers, a pre-service and an in-service teacher educator, a conservation group and an industry representative, an architect, a secondary social studies consultant, a student/community education organiser and a federal government community education officer.

#### References

- AUSTRALIA. Curriculum Development Centre. Core Curriculum for Australian Schools: What it is and why it is needed.
- -- Curriculum Development Centre. Environmental Education Committee. A Proposal for the Support of Environmental Education in Australia. Interim Report. Canberra, February 1975.
- -- Curriculum Development Centre. Environmental Education Committee. A Proposal for the Support of Environmental Education in Australia. Final Report. Canberra, August 1975. (unpublished)
- -- Curriculum Development Centre. Report of the Curriculum Development Centre Study Group on Environmental Education. Canberra, June 1977.
- AUSTRALIAN COUNCIL FOR EDUCATIONAL RESEARCH (ACER). A Proposal for an Australian Environmental Education Program (AEEP). Hawthorn March 1973.
- Australian Labor Party Platform, Constitution and Rules as approved by the 30th Federal Conference, Surfers Paradise 1973. ALP Federal Secretariat, Canberra, 1973.
- BARCAN, A. "Juggling the Curriculum: Thirteen Years of Change". Education News 16(11): 20-25, 1979.
- DALE, L.G. A Case for CDC Support of an Environmental Education Program. A paper prepared for the Curriculum Development Centre Interim Council. Seventh Meeting. 24-25 July 1974.
- ENTWISTLE, H. Antonio Gramsci: Conservative Schooling for Radical Politics. Routledge & Kegan Paul, London, 1979.
- ENVIRONMENTAL EDUCATION PROJECT. Environmental Education: A Sourcebook for Primary Education. Environmental Education: A Sourcebook for Secondary Education. Exploring Outdoors. Streets. Walmit Divided. Curriculum Development Centre, Canberra, 1980-81.

- EVANS, J. & BOYDEN, S. (edd.) Education and the Environmental Crisis. Australian Academy of Science, Canberra, 1970. (Academy Report No.13)
- GIACQUINTA, J.B. & KAZLOW, C. 'The Growth and Decline of Public School innovations: a National Study of the Open Classroom in the United States'. Journal of Curriculum Studies 12(1): 61-73, 1980.
- GREENALL, A.E. Needs for Environmental Education in Australia. A paper prepared for the Curriculum Development Centre Interim Council. Ninth Meeting. 28-30 October 1974.
- -- Environmental Education for Schools. Curriculum Development Centre, Canberra, 1980.
- -- Environmental Education in Australia: Phenomenon of the Seventies - A Case Study in National Curriculum Development. Curriculum Development Centre, Canberra, 1981. (Curriculum Occasional Paper No.7)
- GREENALL, A.E. & WOMERSLEY, J.C. Development of Environmental Education in Australia - Key Issues. Curriculum Development Centre, Canberra, 1977.
- HOUSE, E.R. 'Technology versus Craft: a Ten Year Perspective on Innovation'. Journal of Curriculum Studies 11(1): 1-15, 1979.
- Investigating the National Estate. Curriculum Development Centre, Canberra 1980.
- LAWTON, D. & PRESCOTT, W. 'Unit 5: Curriculum Change and Social Change'. In The Child, the School and Society. The Open University Press, Milton Keynes, 1976. (E203 Units 5, 6 7 and 8)
- LINKE, R.D. Environmental Education in Australia Part I: Final Report on a National Survey of Environmental Education in Australia 1973/74. Australian Advisory Committee on Research and Development in Education, Canberra, 1974a.
- -- A Case for Coordination and DEvelopment of Environmental Education in Australia. Report submitted to The Australian Curriculum Development Council (sic), July 11, 1974b.
- -- (ed.) Education and the Human Environment. Curriculum Development Centre, Canberra, 1977.
- LUCAS, A.M. 'Science and Environmental Education: Pious Hopes, Self Praise and Disciplinary Chauvinism'. Studies in Science Education 7: 1-26, 1980.
- MUSGRAVE, P.W. Knowledge, Curriculum and Change. Melbourne University Press, Parkville, 1973.
- -- Society and the Curriculum in Australia. George Allen & Unwin, Sydney, 1979.
- O'NEILL, B. 'Environmental Education in Australian Schools'. In Education and the Environmental Crisis, ed. by J. Evans & S. Boyden. Australian Academy of Science, Canberra, 1970, pp. 38-48.
- REID, A.J. Problems of the Development of Environmental Education in Australia. Australian Conservation Foundation, Melbourne, 1973. (Based on paper delivered to the 45th ANZAAS Congress, Perth 1973)
- SIBLY, J. Educational Response to the Environmental Crisis. A paper presented to the 45th ANZAAS Congress on Science, Development and the Environment Symposia on Education and Environment, Perth, 1973.