



The Handbook of Environmental Education

Joy Palmer and Philip Neal



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The handbook of environmental education

The 1990s have seen a tremendous increase in environmental concern in all sections of the population. Young people in particular want to know more about how they can contribute to the conservation of the planet, and formal education is beginning to reflect this. The National Curriculum in England and Wales, for instance, includes environmental education as a compulsory cross-curricular theme and in Australia and the USA there are similar moves to ensure that all students are given an opportunity to learn in this area. Joy Palmer and Philip Neal, experienced teachers and teacher educators in primary and secondary classrooms, here explain what environmental education is and how it can best be implemented at school and classroom level. In this handbook, school heads and curriculum coordinators will find advice on establishing a whole-school policy and motivating the staff who need to implement it. Class teachers will find practical ideas for planning and assessing environmental education in the whole curriculum context. Throughout the book, case studies drawn from a variety of settings allow teachers to see how environmental education can work for them, while the final section directs teachers who want to explore certain issues further with annotated lists of organizations in the UK, USA, Canada, Australia and New Zealand which can provide information, class materials and further help.

Joy Palmer is Senior Lecturer in Education at the University of Durham and a past chairman of the National Association for Environmental Education. Recent publications include *Environmental Education in the Primary School* (also with Philip Neal). **Philip Neal** is a former secondary school head, and until the recent past General Secretary of the National Association for Environmental Education. He is editor of the journal *Environmental Education* and has published widely in the area of environmental education and environmental issues.

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Foreword

Environmental education is now well recognized in schools and colleges world wide and firmly established in some of them. Many national and international exchanges of views have taken place. During 1992 each of us was privileged to attend a world conference where environmental education was highlighted. Joy Palmer was at Rio de Janeiro for the Earth Summit in June of that year, attending the Global Forum. Philip Neal represented the National Association for Environmental Education (NAEE) at the World Congress for Environment and Development (Eco-Ed) in Toronto in October, a follow-up to the Earth Summit. Both were able to present papers to international delegates and to listen to other opinions. Although different views on, and approaches to, environmental education are apparent, it is evident that global views have much in common.

Colleagues, both local and overseas, are eager to find out more about environmental education and to develop worthwhile curricula. Surprisingly, few texts exist where an attempt has been made to encompass just what is meant by environmental education in the school system and what needs to be done to implement it in the whole curriculum. It is against this background that this handbook has been written.

We have drawn on our long experience in English schools and colleges and on our involvement with the UK's NAEE and the Council for Environmental Education. At the same time we have tried to use our contacts with other parts of the UK and overseas to exemplify and further the debate. *Any readers outside the English system are asked to transpose the implications of any part of the text which is English orientated to their own situation.*

One of the conclusions drawn from global meetings is how similar are the aims, objectives and methods of approaching environmental education in various countries. Only the specifics of organization for learning and opportunity are different. The handbook has tried to cover as much ground as is possible within the limitations of reasonable size. It

follows that some readers may not find any comment on the particular aspect in which their interest lies. For instance one problem throughout the world is lack of coherent programmes in teacher training for environmental education. It has not been possible to concentrate on this here and reference to initial teacher training and in-service training are only made in passing. Providers of resources for environmental education are numerous and any that have been omitted are the victims of restricted space; no other implication is intended.

Whatever the stage of development of environmental education in any school, wherever located, we hope that this handbook will be of some use to its teachers in furthering this vital area of the curriculum.

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Joy Palmer
Philip Neal

Setting the scene

The purpose of this Part is twofold: firstly to provide an overview of the development of the cross-curricular theme of environmental education—its aims, definition and content; and secondly to focus on the implementation of the subject in the formal education service today—its objectives, place in the curriculum, student entitlement, and key issues which arise from these. In short, it will be concerned with national and international policy developments in environmental education and what these mean in practice for teaching and learning in schools. Key issues arising will be outlined, and will be carried forward for illumination and discussion in subsequent pages.

Concern for the environment

A reflection on the conjunction of the two words 'environment' and 'education' raises the key questions of why, when and for what purpose they have been linked. Presumably answers to these questions range from the feelings and concerns of individuals through to events of international and global significance. In the belief that no educational programme of work in this area can be successful without individual commitment and personal concern, we begin with a glimpse at the preliminary findings of a research study in progress at the University of Durham (Palmer 1992) on the development of personal concern for the environment.¹ The first phase of this research is an investigation into formative life experiences of environmental educators who presumably are persons already environmentally aware. They are not to be classed as the general public in this context, with whom it is likely that any increase in environmental concern has been triggered in the main by TV programmes and international disasters such as Bhopal and Chernobyl. The research is based on the assumption that if the ultimate aim of environmental education is to sustain our planet and its resources for future generations, then a related aim must be to provide an education which encourages people to strive towards that goal. Presumably, if environmental education is about producing well informed and environmentally active adults, then those responsible for it should have some idea of the kinds of learning experiences which help to influence the development of environmental care and concern.

The research technique involves retrospective analysis of the experiences of environmental educators who currently demonstrate their personal care and concern for the world in their everyday lives. Participants in the study were invited to supply details of their approximate age, gender and of their present activities which demonstrate an informed and responsible approach to environmental matters (e.g. practical conservation, recycling, belonging to organizations active in environmental affairs, enjoyment of the outdoors, living a 'green' lifestyle and reading books and journals about environmental issues). The

purpose of seeking this latter information was to ensure a sample of subjects who demonstrate genuine and practical concern for the world, rather than paying lip service to the essence of environmental education. Participants were then asked to provide an autobiographical statement of life experiences and formative influences which have contributed to their present concern for the environment and interest in environmental education, indicating if they consider there to be any single most important influence or life stage. Details sent to participants included the purposes and requirements of the study, but did not give any examples of suggested experiences or influences. Thus the responses were original and free from bias.

A total of 232 usable responses was received, comprising 102 from males and 130 from females. Full details of the breakdown of ages of subjects and analysis of data are provided elsewhere (Palmer 1992), but an overview of the findings raises some key issues relevant to subsequent discussion in this present volume. The autobiographical statements were subject to content analysis, and all experiences/influences mentioned explicitly or prominently by subjects were coded into one of 30 preliminary categories of response. These were then refined and results expressed in 13 final categories, which included a number of subcategories from the original list of 30. The response frequency for the final categories is shown in Table 1.1.

Table 1.1 Number of subjects responding in each category
N=232

Outdoors	211
Education/Courses	136
Parents/Close relatives	88
Organizations	83
TV/Media	53
Friends/Other individuals	49
Travel abroad	44
Disasters/Negative issues	41
Books	35
Becoming a parent	20
Keeping pets/Animals	14
Religion	13
Others	35

The category ‘Outdoors’ comprised three subcategories: ‘Childhood outdoors’ (97 responses), ‘Outdoor activities’ (90 responses) and ‘Solitude/Wilderness’ (24 responses). A large number of people make explicit and detailed reference to memorable experiences outdoors as a child, perhaps as a result of being brought up in the countryside, going on holidays or being encouraged to play in the open air:

From an early age I was taken to watch fish in the stream and to see the different flowers as the seasons passed. My walks to school took me along country roads where scabious and orchids grew. I was encouraged to appreciate the beauty of the common flowers...to marvel at the swallows as they flew at speed through narrow gaps to their nests....

Very strong images persist—swinging on farm gates, rolling down steep fields until dizzy, the smell of new mown hay and the cattle byre, the shade of a huge sycamore, lots of walks to 'secret' places, sitting on large boulders in fast flowing rivers, laughter and sunshine...the grey ness of the city on return.

I particularly remember feeling the beauty and wonder of nature, bathing in a freshwater pool, walking in woodlands and hills.

For many, such experiences developed into a great enjoyment of the outdoors later in life and numerous outdoor activities are mentioned which have contributed to environmental care and concern: walking, hostelling, canoeing, camping, sailing, mountaineering, backpacking and birdwatching to name but a small selection. Twenty-four subjects specifically mention the significance of solitude and feeling 'at one' with nature through remote or wilderness experiences.

The category 'Education courses' (136 responses) comprised two subcategories, 'School courses' (51 responses) and 'Higher education/Adult courses' (85 responses). Many subjects talk enthusiastically about experiences at school, particularly relating to 'A' Level courses:

My concern for the environment stems from my increased knowledge about global issues four years ago, when I started my 'A' Levels.

The single most important influence was my 'A' Level ecology field course, which was the only part of my 'A' Levels I enjoyed.

For others, environmental concern was most strongly influenced by courses in higher education:

I believe the single most important influence has been my education. Having degree level input in geography...studying developing countries...this has heightened my concerns for the future of the planet.

The influence of other people on the development of young people's attitudes, knowledge and concern cannot be overestimated as the research data shows. 'Parents and close relatives' are cited by 88 individuals as a major influence, and another 49 are in the category 'Friends and other individuals'. Many nostalgic accounts detail happy memories of the influence of others:

6 Setting the scene

My granny was a herbalist and taught me in-depth understanding of the countryside, how animals and plants react together; and respect for the environment.

I was brought up by intelligent, caring lovers of the countryside (my parents) who believed that the greatest and longest lasting influences were to be found outside.

Probably the most important influence was my mother, who has brought me up in the belief that any unnecessary waste is wrong.

My parents loved the country. Uncles and aunts were bright green before green existed, growing vegetables and tobacco, making elderberry and cowslip wine, eating all sorts of wild plants and loving birds. My grandparents grew tomatoes, kept pigeons, taught me to milk cows and tickle trout.

My interest and concern was born from the enthusiasm of one particular teacher.

The category 'Organizations' includes subcategories of 'Childhood/Youth organizations' (28 responses) including Brownies, Guides, Cubs, Scouts and Duke of Edinburgh Award programmes, and 'Adult organizations' (55 responses) ranging from natural history clubs and environmental education associations, through to 'green' political parties and active campaigning bodies. The Scout and Guide organizations can take credit for a great deal of influence on the youth of yesterday and citizens of today:

One of the earliest influences on my environmentalism was my scout training. We were taught how to live in and off the environment without damaging it.... When we left a site, all trace of our visit would soon disappear.

Subjects speak very positively of the TV and Media influence (53 responses):

I have always enjoyed watching nature and scientific programmes on television, and I think that David Attenborough's 'Life on Earth' series, which I followed avidly with my family in my early teens, was vastly responsible for my interest and enjoyment in the environment from an early age.

I suppose that my concern was born primarily of intellectual stimulation by the media.

and another 35 speak of the great influence that reading books has had on their lives. By far the most commonly mentioned book is Rachel

Carson's *Silent Spring*, which clearly made a huge impact on individual thinking.

For some, it was 'Travel abroad' (44 responses) that made a major impact:

There is no question of what influenced me, and that was travel, going to new environments that gave me a 'buzz', a wanting to learn as much about the world around me as possible. The outstanding event was at 16 when we went to the Sahara Desert. The beauty of this desert contrasted with the stereotype wasteland that I had been taught about.

and for others, 'Keeping pets/Animals' (14 responses), 'Religion' and the presence of God the Creator in the natural world (13 responses) and 'Becoming a parent' (20 responses):

When my daughter was born was the most influential factor, I want her to see and remember green countrysides. Most of all, I want her to see 'a safe planet', not a nuclear desert or a war-torn world.

I think having my first child made me first question the environment around me. It was the fear that my son might be harmed by atmospheric pollution from lead emissions from cars that brought out a certain anger in me.

While the majority of subjects write extensively of positive influences, a gloomy shadow is cast by 41 who refer to environmental 'Disasters/Negative issues' including catastrophes, nuclear dangers, pollution, planning issues, animal cruelty, and factors particularly affecting developing nations:

The single most important influence to me was the famine in Africa. It made me realize that our climate is changing not just because of natural change but because of pollution and deforestation. What we do in our own back yard affects us all.

...soot-covered buildings, polluted rivers, traffic...

I was surrounded by whole, dead, bloody pigs hanging from hooks.

I grew up in Teesside and saw pollution pumped into the air from industry.

A real shock to me was seeing my childhood village transformed to suburban dormitory...characterless...shaved lawns, cars, design-accommodating patios and pavement.

The final category of 'Others' (35 responses) includes 9 responses from subjects who describe their bad experiences of living in a town/concrete

jungle; 7 who have a particular awareness of health issues as a result of being ill or witnessing ill health in others as a result of environmental factors; 5 who have been inspired to concern by music/poetry; 4 who claim that working with the disabled or homeless has been influential; 3 who cite death of another individual (2 tell the tragic tale of death of a close relative as a result of environmentally related diseases); 2 who have been influenced by living in an ‘environmentally aware’ community; 2 who cite modern technology as a major impact on thinking; one who is influenced by an awareness of a lack of environmental education in her own life; one who describes the influence of personal heritage, and one who claims that personal networking, ‘being’ with others, has been a major source of inspiration for concern.

A second phase of data analysis involved coding of references to single most significant life experiences. As shown in Table 1.2, 80 individuals identify a single most important influence. The same 13 final categories are used to record the analysis.

Table 1.2 Single most important life influences
N=80

Outdoors	23^a
Education/Courses	7^b
Parents/Close relatives	21
Organizations	5
TV/Media	2
Friends/Other individuals	4
Travel abroad	5
Disasters/Negative issues	4
Books	3
Becoming a parent	1
Keeping pets/Animals	0
Religion	1
Others	4

Notes

^a Childhood outdoors (16), Outdoor activities (4), Solitude/Wilderness (3)

^b School courses (2), Higher education (5)

While present space does not allow for a lengthy discussion of the results of this autobiographical data analysis, a number of trends may be identified and issues raised which are of great significance to anyone who is concerned with the development of environmental education programmes in the formal education service. As mentioned at the outset, if environmental education is about ‘producing’ informed and environmentally active citizens of tomorrow, then presumably those

responsible for it should have some idea of the kinds of learning experiences which help to influence the development of environmental care and concern.

Without doubt, the single most important category of response at all levels of data analysis in the present project is experience outdoors, and particularly at a young age. The influence of parents, other close relatives, individual teachers and adults is also of paramount importance. For many readers, this will no doubt seem a statement of common sense alone, for which elaborate data analysis is hardly necessary, yet it should be stressed that all subjects' statements are of original, unbiased thought, and so represent a remarkable affirmation of these influences. Furthermore, they have far-reaching implications for schools and teachers. If the data achieve nothing but a little persuasion of those who are responsible for budgets for field centres and environmental programmes to the effect that outdoor activities are essential at all levels of schooling, then the project will have achieved a tremendous amount for the planet. Responses concerned with education courses per se also lead to some interesting, if worrying conclusions. At a positive level, readers can be pleased at the apparent impact of higher education, hopefully a reflection of the proliferation of degree level courses in environmental matters in recent years. Of the 7 respondents who single out education as the most important influence on their lives, 5 refer to higher education courses and 2 to 'A' Level courses. But what of schools? Those who speak enthusiastically of school as an influence refer in the main to 'A' Levels and related field work. Not one subject singles out a school course below sixth form level as single most important influence, and few refer at all to lessons or activities in primary education (including the 55 subjects under 30 years of age and thus educated in the fairly recent past).

For some, the development of concern for the environment was 'sparked' by a single memorable person or event. For many, it was a process of gradually becoming aware:

There wasn't a single important influence, but rather a gradual dawning of the mess the world was in. I cannot pinpoint an experience similar to St Paul's, just a spark that grew into a fire.

One common trend seems to be for individuals to have a childhood rich in outdoor experiences and sensory awareness of the natural world, followed by more 'latent' teenage years, and then a reawakening of enthusiasm for the quality of the environment in early adult life. This may be fuelled by higher education courses, reading, the media, or becoming a parent. The role of organizations, books and the media has been crucial to many in channelling this enthusiasm into positive action. Surely it is essential for environmental educators to consider all of these possible influences, including disasters and negative issues, and take account of

them when planning school programmes? Further key issues arising from this research which have relevance for forthcoming sections are of course the tremendous significance of the impact of outdoor experiences, and the apparent need to make far more impact in general on the lives of the young with school based environmental education programmes. Hopefully ideas and discussion in subsequent pages will go some way towards preventing adults of the future sharing a view of a number of research respondents expressed along the following lines:

I cannot remember any school experiences that fostered an interest in the environment.... School most certainly was NOT an influence.

It is hoped that reference to this research will encourage readers to reflect upon their own lives and experiences, and that the more positive words of another respondent will be echoed by many:

Constant interaction with the outdoors has facilitated a monitoring of the inexorable dominance of human impacts upon this countryside.... Often a feeling of helplessness at the march of this ecological dominance, leading to a belief in the 'stewardship' role. Feedback from reflection and concern has led me to the conviction that the best way I can make any effective contribution is through my teaching skills to highlight the issues and possible strategies for young people.

NOTE

This chapter relates to Phase 1 of the Durham study. Further phases use autobiographical methodology to investigate the acquisition of pre-school children's environmental subject knowledge and concern, and the development of children's environmental knowledge and concern during the first three years in school. The overall project is funded by the ESRC.

Environmental education: international development and progress

The 232 individuals referred to in Chapter 1 are all enthusiasts for the environment, and for the provision of 'environmental education', whatever that might mean. If we were to write again to the members of the research sample, this time requesting a description of what the movement of 'environmental education' means in practice, we predict the responses would entail widely differing interpretations of its key ideas and principles, and of how its aims are perceived and understood. For some its essence lies in aesthetic awareness, 'being at one' with nature, appreciating the beauties and fascination of natural life on our planet. For others, it has close association with key events which have raised awareness and the need to take action to preserve our Earth and its resources: perhaps the publication of Rachel Carson's *Silent Spring* in 1962, of Paul Ehrlich's *The Population Bomb* in 1968 or Schumacher's *Small is Beautiful* in 1973...perhaps the near-meltdown of Three Mile Island Nuclear Power Plant in Pennsylvania, USA in 1979; the catastrophic failure of a Soviet nuclear power plant at Chernobyl in 1986 which contaminated large areas of northern Europe; the tales of the Mobro, a Long Island 'garbage barge' that travelled 6000 miles in 1987 to dump its load, becoming a symbol of the USA's waste problems; the running aground of the oil tanker *Exxon Valdez* in Prince William Sound, Alaska in 1989, spilling millions of gallons of oil into ecosystems; or the 1991 war in Kuwait, drawing world attention to the environmental damage of war...the origins of the need for environmental education, and the nature of its aims, are interpreted in many and various ways by individuals around the globe.

For some, the name of Sir Patrick Geddes, a Scottish botanist (1854–1933) is associated with the earliest links between education and the quality of the environment. His pioneer work included the extensive use of the outdoors as a resource for active learning. Also, the thinking of some of the world's 'great' educationists undoubtedly made a substantial contribution to philosophical deliberations on the interaction between people and their environment: The difference between the aesthetic and

the intellectual is thus one of the place where emphasis falls in the constant rhythm that marks the interaction of the live creature with his surroundings' (Dewey 1934).

The first recorded use of the term 'environmental education' in Britain may be traced to a conference held in 1965 at Keele University, Staffordshire, with the purpose of investigating conservation of the countryside and its implications for education. At an international level, it is claimed that the term 'environmental education' was first used in Paris in 1948, at a meeting of the International Union for Conservation of Nature and Natural Resources (Disinger 1983).

Many attempts have been made to define the term, particularly during the past 25 years when many critical problems facing our planet have been acknowledged and publicized. Worldwide concern after the publication of Carson's *Silent Spring* (1962) intensified and in 1970 the International Union for the Conservation of Nature and Natural Resources (IUCN) held a working meeting on 'Environmental Education in the School Curriculum' in Nevada, USA. The deliberations of that conference continue to be a major influence on the development of environmental education. The definition drawn up at the conference is accepted by Britain's National Association for Environmental Education and by many other organizations both in the UK and elsewhere:

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.

(IUCN 1970)

The support of key international institutions continued to raise the profile of environmental education during the 1970s, leading to a great deal of common understanding of the aims, objectives and approaches to the subject. Principle 19 enunciated at the United Nations Conference on the Human Environment, held in Stockholm in 1972, stated:

Education in environmental matters for the younger generation as well as adults, giving due consideration to the underprivileged, is essential....

Subsequently the United Nations Environment Program (UNEP) was established, which together with UNESCO founded the UNESCO/UNEP International Environmental Education Programme (IEEP) in 1975.

THE INTERNATIONAL ENVIRONMENTAL EDUCATION PROGRAMME

The IEEP was launched in 1975 at an International Workshop on Environmental Education held in Belgrade. This produced the first intergovernmental statement on environmental education. It listed the aims, objectives, key concepts and guiding principles of the programme, in a document prepared at the meeting known as 'The Belgrade Charter—a Global Framework for Environmental Education'. The brief, but comprehensive set of objectives for environmental education prepared at Belgrade are summarized as follows (UNESCO 1975):

- 1 To foster clear awareness of and concern about economic, social, political and ecological interdependence in urban and rural areas.
- 2 To provide every person with opportunities to acquire the knowledge, values, attitudes, commitment and skills needed to protect and improve the environment.
- 3 To create new patterns of behaviour of individuals, groups and society as a whole towards the environment.

Belgrade was followed in 1977 by the first intergovernmental Conference on Environmental Education, held in Tbilisi, USSR, organized by UNESCO and attended by 66 member states. The conference prepared recommendations for the wider application of environmental education in formal and non-formal education. This significant event, and subsequent publications based on it, continue to provide the framework for the development of environmental education in the world today.

THE WORLD CONSERVATION STRATEGY

In 1980, the World Conservation Strategy was launched (IUCN 1980), one of the most significant documents concerning conservation and environmental education at a global level ever to be published. This key document stressed the importance of resource conservation through 'sustainable development', and the idea that conservation and development are mutually interdependent. The World Conservation Strategy included a chapter on environmental education, containing the message:

Ultimately the behaviour of entire societies towards the biosphere must be transformed if the achievement of conservation objectives is to be assured...the long term task of environmental education [is] to foster or reinforce attitudes and behaviour, compatible with a new ethic.

(IUCN 1980)

Since 1986 work at an international level has continued on preparing supplements to the World Conservation Strategy, dealing with issues such as environmental education, ethics and culture.

TBILISI

1987 marked the tenth anniversary of the first Tbilisi conference and a 'Tbilisi Plus Ten' conference, jointly organized by UNESCO and UNEP, was held in Moscow. A number of major themes emerged from the deliberations of this event, including the vital importance of environmental education, as summed up in the opening address:

In the long run nothing significant will happen to reduce local and international threats to the environment unless widespread public awareness is aroused concerning the essential links between environmental quality and the continued satisfaction of human needs. Human action depends upon motivation, which depends upon widespread understanding. This is why we feel it is so important that everyone becomes environmentally conscious through proper environmental education.

(UNESCO 1987)

OUR COMMON FUTURE

In that same year, 1987, the World Commission on Environment and Development produced the report *Our Common Future* (WCED 1987). This presented a major statement on a 'global agenda' to reconcile environment with development, thus reinforcing and extending the essence of the 1980 World Conservation Strategy. Education was seen as a focal point in this agenda: The changes in human attitude that we call for depend on a vast campaign of education, debate and public participation' (WCED 1987). Debate arising from this report led to the second major conference of the United Nations, two decades after Stockholm: the United Nations Conference on Environment and Development—the Earth Summit, Brazil, 1992.

THE EARTH SUMMIT

The Earth Summit (UNCED) Conference took place in Rio de Janeiro, 3–4 June 1992. It was attended by some 120 heads of state and government, together with delegates from over 170 countries. Parallel to this was the Global Forum, involving representatives from several hundred special interest groups and non-governmental organizations in a series of presentations, displays, seminars and workshops on a wide range of

environmental issues and topics. Several important documents were signed at the summit, representing the beginning of a long process of interpreting, responding to and implementing recommendations and agreements designed to change the future of planet Earth. The centrepiece of the Rio agreements is known as Agenda 21, a major action programme setting out what nations should do to achieve sustainable development in the 21st century. The 40 chapters of Agenda 21 cover topics ranging from poverty, toxic waste and desertification to youth, education and free trade. There are implications for environmental education throughout this document, but of particular significance are Chapters 25 (Children and Youth in Sustainable Development) and 36 (Promoting Education, Public Awareness and Training). Further details of these are provided in Appendix A, page 217. A second crucial document produced and signed at the Summit is the Rio Declaration, a statement of 27 principles for sustainability which provide the basis for the programmes of international cooperation in Agenda 21. In other words, the Rio Declaration sets out a blueprint for a sustainable future, while Agenda 21 provides a guiding programme for its interpretation. The UNCED also agreed: The Climatic Change Convention, the first international treaty to acknowledge the threat of global warming; The Biodiversity Convention, the first treaty to deal with ownership of genetic resources (signed by 153 governments excluding the US) and Forest Principles, a non-legally binding text on principles for sustainable forest management. One of the key outcomes of the conference for educators is the recommendation that environmental and development education should be incorporated as an essential part of learning, within both formal and non-formal education sectors. A proposal is made that 'Governments should strive to update or prepare strategies aimed at integrating environment and development as a cross-cutting issue into education at all levels within the next three years' (Agenda 21, Ch. 36).

THE EUROPEAN COMMUNITY

The European Community has also been active in the environmental education debate. A most important motivation to a more positive attitude of the UK government to the topic was the May 1988 meeting of the Council of the European Community when they agreed on 'The need to take concrete steps for the promotion of environmental education so that this can be intensified in a comprehensive way throughout the Community'. A Resolution on Environmental Education was adopted to that end with the following objective and guiding principles:

The objective of environmental education is to increase the public awareness of the problems in this field, as well as possible solutions, and

to lay the foundations for a fully informed and active participation of the individual in the protection of the environment and the prudent and rational use of natural resources. For the achievement of the objectives environmental education should take into account particularly the following guiding principles:

- the environment as a common heritage of mankind
- the common duty of maintaining, protecting and improving the quality of the environment, as a contribution to the protection of human health and the safeguarding of the ecological balance
- the need for a prudent and rational utilization of natural resources
- the way in which each individual can, by his own behaviour, particularly as a consumer, contribute to the protection of the environment.

(Journal of the European Communities, 6 July 1988)

It was resolved that member states would make every effort to implement certain measures, including:

The promotion of environmental education in all sectors of education ...giving consideration to the basic aims of environmental education when drawing up curricula...taking appropriate measures to develop teachers' knowledge of environmental matters in the context of their initial and in-service training....

(Journal of the European Communities, 6 July 1988)

ENVIRONMENTAL EDUCATION IN THE UK

This significant international endorsement of environmental education over the past 20 years or so has inevitably helped shape the aims, objectives and planning of this curriculum area within schools and local education authorities in the United Kingdom. Environmental education has been well established on the curriculum map of schools for some three decades. Local authorities, national organizations and individual schools and teachers have done a tremendous amount to promote its importance and to develop effective teaching and learning strategies. In 1967 the Plowden Report confirmed the value of using the environment for learning. During the following years, 'environment' became a widely discussed word in education, and environmental education evolved rapidly as a curriculum area. In 1968 the Council for Environmental Education (CEE) was established as a focus for organizations concerned with the environment, having three broad goals:

Development: CEE aims to facilitate the development of the theory and practice of environmental education.

Promotion: CEE aims to promote the concept of environmental

education and facilitate its application in all spheres of education.

Review: CEE aims to monitor the progress of environmental education and assess its effectiveness.

The National Association for Environmental Education, the UK professional association for all educationists interested and involved in this area, has been influential through its meetings, journals and publications, including its *Statement of Aims* (NAEE 1975, 1982, 1992).

Undoubtedly the May 1988 Resolution of the Council of Ministers of the European Community played a significant role in the inclusion of environmental education as an officially recognized cross-curricular theme of the National Curriculum for schools (see pp. 23–33) and government individuals and initiatives have continued to reinforce its importance:

Good environmental education, like any good education, must lead pupils and students out and on from their immediate perceptions and experience to a wider understanding. It must develop their capacity to go beyond the anecdotal and the particular. None of that happens by chance. A number of subjects and aspects of the school curriculum deal with matters to do with the interplay between man and his environment.... I am convinced that pupils must first learn about natural phenomena in order to understand complex environmental matters.... The importance of environmental education is that it sensitises us to the causes and effects of problems of which, for too long, we have been only dimly aware. The environment is our children's future and many already know that we must encourage them to think positively about it...what needs to be done to reduce the damage we do to it, what opportunities there are for improving the quality of our surroundings—and to come up with practical solutions. *They should draw on what they learn at school*

(Speech by Angela Rumbold, UK Minister of State
for Education and Science, 27 July 1989,
London International Science Fortnight [emphasis added])