

THE ROLE OF ENVIRONMENTAL ETHICS AND EDUCATIONAL APPROACHES

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ABSTRACT

This paper addresses the challenges facing environmental ethics education with particular reference to Malaysia. Best practices of instructional design for environmental ethics courses in Higher Education are explored based on personal experiences, surveys and research. Among others, they include problem-based learning and project-based learning assignments, which are also a good way to involve male students, who nowadays tend to underachieve and form a minority. Also, “hidden curriculum” issues will be addressed.

Another objective is to determine the scope of environmental ethics education and its role in the creation of a more sustainable relationship between humans and the natural world. Both philosophical and religious ethics will be examined and a holistic approach is pursued that transcends the narrow scope of traditional environmental issues and also addresses widespread unsustainable patterns like overconsumption and overpopulation as well as the role of active citizenship on local, national and global levels. The role of environmental ethics in character education, moral education and citizenship education will be explored.

Finally, the paper tries to determine the responsibility of universities and points out practical options that I have come across at recent Greening Education events.

Key words : environmental ethics, education

Introduction: Why do we Need Environmental Ethics?

Environmental ethics has emerged as a special type of philosophical and religious ethics that tries to specify the correct way of human acting in relation to nature. Environmental ethics is used to refer to the natural environment and therefore can also be called ethics for nature, or if we think of nature as a big ecosystem, ecological ethics. The main role of such ethics must be no less than to maintain the survival of nature and mankind which requires living *with* nature rather than against it. Unlike other species we do not instinctively live with nature in a sustainable manner; we need to make a conscious effort. However, one day our environmental ethics might become habitualized and function as a collective instinct.

We live in a situation where nature has become something we have grown out from, something that we can evaluate and transform as we like. With the worldwide industrial development and rapid population growth, the environment is in urgent need of ethical consideration. Without environmental ethics we will not survive. Environmental ethics can also be seen as part of bioethics, the study of ethical issues and decision-making associated with the use of living organisms and medicine. It includes both medical ethics and environmental ethics. Rather than defining a correct decision it is about the process of decision-making balancing different benefits, risks and duties.

“Until recently our effects upon the natural environment were regarded as morally neutral since nature, we assumed, was both impersonal and too vast to be injured by our interventions, or else, at the very least, we were quite unable to foresee the harm resulting from our dealings with nature. Now, of course, we know better. We know that we can cause massive and permanent damage to natural landscapes, resources and ecosystems. Not only do we know that we can cause these insults, we also know how we can cause them, and how we can prevent or remedy them. Knowing all this exacts a moral obligation to act with care, foresight and, at times, with forbearance and constraint” (Partridge 1980).

‘Saving’ the environment requires that we understand it, our place within it, and our responsibilities toward it. The environment’s unprecedented exploitation now becomes a threat even to future economic and social development. With environmental disasters having become an almost everyday occurrence, it is no surprise that there has been an increase in environmental concern since the late 1960s and the first Earth Day in April 22, 1970, often considered the beginning of the modern environmental movement, initially in the West and recently also in the economically and democratically emerging countries, especially in Asia.

The creation of more sustainable relationships between humans and the natural world is one of the most urgent challenges of our time. It requires the transformation of the culture of consumption and the generation of sustainable lifestyles and communities based on needs rather than wants. This goes against the tendency of capitalist consumer society which constantly stimulates wants through marketing, especially advertising activities. Environmental ethics involves the study of principles concerning obligations to current human beings AND towards future generations and non-human species. Parts of environmental ethics usually become included in the system of laws.

The ethical conflicts are not so much about whether we should protect the environment or not, (nobody really likes the destruction of the environment), but they are about how far we should go to protect the environment, especially when it comes to changing life styles or sacrificing some of those wants. People tend to avoid these consequences through diffusion of responsibility in a similar way as we can observe in bystander passivity regarding other issues where this phenomenon has been widely researched. Some argue against such inconveniences that still not enough is known about the long-term environmental effects of many human activities e.g. on global warming. The complexity of these issues keeps many people confused. Obviously, a comprehensive gathering of scientific facts is also necessary in order to answer such questions: How real and dangerous is global warming? How important is biodiversity,

the maintenance of an ecosystem, the rainforest etc.? And then these issues have to be related to the deeper philosophical and religious questions regarding man's place in the natural world (often seen as nature's place in man's world!) which leads to decisions about maintaining/adjusting/overcoming the prevalent man-centred view of nature and ultimately to practical choices in our lives. We have to combine the scientific rigour of biological data, with the values of religion and philosophy to develop a new sustainable world-view. Environmental issues are so deeply interlinked with other global issues, that the resolution of these problems requires a fundamental rethinking of our way of life. Not only have these threats led to what German sociologist Ulrich Beck (1998) called "Global Risk Society", but as human activities had an increasingly uncertain and possibly irreversible impact on the environment there is also a risk to misjudge the situations in the above scenarios, e.g. due to a lack of data or inappropriate interpretation of data. Therefore a "precautionary principle" has been proposed and included in COMEST's Precautionary Principle Report in March 2005. The Precautionary Principle is defined as follows: When human activities may lead to morally unacceptable harm that is scientifically plausible but uncertain, actions shall be taken to avoid or diminish that harm. Morally unacceptable harm refers to harm to humans or the environment that is

1. threatening to human life or health, or
2. serious and effectively irreversible, or
3. inequitable to present or future generations, or
4. imposed without adequate consideration of the human rights of those affected.

Environmental Ethics Education and its Role in Society: From "The More the Better" to "Less is More"

The Environment in Socialization and Education

As Partridge (1995) points out, morality is social in nature and develops within the socialization process: growing best in stable and loving homes, rich social contacts in well-ordered communities and together with a conscientious mind and a personal sense of integrity which can also be fostered by religious, moral and other school based education. Environmental values are evoked by personal appreciation of nature, for example, the aesthetic value of the natural environment, utility value, intrinsic value, etc. and by an acquisition at all levels of education of an ecological point of view, which features an understanding of the complexity of natural systems, and of humanity's place in them.

Ecofeminists have claimed that the domination of nature by men is wrong and that it is similar to and related to the domination of women by men. Based on this and sometimes the claim of a particular relationship with nature, ecofeminists believe they have a moral/political calling to renew the world or heal the wounds of an ecologically destructive socio-economic order (cf. recently Mellor 2006).

Generally, ethics is the basis of society and desired social behaviour. Ethics is also the basis of law. Laws move with the culture and the prevalent moral principles.¹ Therefore, rather than environmental education, environmental ethics education aimed at behavioural concerns must take the lead.

Many people still think that environmental education means creating awareness about pollution and that mostly industries are responsible. But the much more serious truth is that we are not only polluting the earth, but we are also consuming and overpopulating it. In fact, all environmental problems can be traced back to these two issues: overconsumption and overpopulation. This is why we need, first of all, an ethics of consumption and an ethics of family planning as major educational objectives.

Ethics of Consumption

People should reflect upon the life cycles of their consumer products. To meet the growing needs and wants of an equally growing population (another major problem for the environment), we obviously need to develop industries. These industries are bound to release their waste which ultimately causes pollution. Also, products have to be transported, often long ways etc. In short, the impact of our lifestyle on pollution goes beyond the waste we directly throw away. Global consumption expenditures have quadrupled over the past 40 years and patterns of consumption have become increasingly unfriendly to the environment. "How much we need" is often constructed in relation to others in our society and influenced by advertising. Measures like the 3R (Reduce, Reuse, Recycle) are important. But they will only really work, if they become deeply engrained in people's minds and their construction of identity. And that is why campaigns are not enough, but educational initiatives are needed at all levels.

One of the most obvious issues in SE Asia is the ubiquity of waste: on streets, public places, along country roads, in rivers... Discarded by individuals, small businesses, even industries. This is so prevalent that taxis and busses often have a sticker inside, telling their passengers: "Do not throw trash out of this car!" One might think at least those transportation companies are concerned about the environment. But in reality they might be only concerned about those things hitting other cars - which could get them into trouble. This throw away mentality appears to be based on old habits formed at times when consumption patterns were more simple and natural like: eating a fruit, throwing the seed on the ground and it grows beautifully into a new tree. Industrialization and modern consumer culture did not have the time to evolve slowly and gradually, resulting in traditional throw away habits being transferred into modern consumer culture. This applies also to wrapping materials, which used to be made of decomposable leaves and now is paper and plastic.

Also the agricultural sector, to provide food abundantly and cheaply, intensive agricultural practices and high yielding varieties have been introduced which in turn require very high quantities of fertilizers and pesticides. These pesticides and fertilizers can enter the water supply in either a dissolved state or remain in the soil thereby polluting both water and the soil. Consumer alternatives are buying organic products or growing fruits and vegetables by oneself with no or minimal use of fertilizers or use of bio-fertilisers. Also, excessive meat consumption should be avoided, as meat production is inefficient and detrimental for the environment (not to mention issues of animal welfare and human health). Generally, the concept of sustainable development has to be integrated into environmental ethics.

Ethics of Family Planning

Also, there is a need to develop an ethics of family planning to address overpopulation. This requires quite a moral turn around from traditional cultures and religions that suggested “the more children the better” which made sense in an empty world where untamed forces of nature threatened human existence and survival. In today’s world of improved life chances and extended life spans the human species has reached overpopulation, i.e. it exceeds the carrying capacity of the earth, especially in combination with high consumption levels which are targeted globally, also by the huge populations of China, India, Indonesia which so far have been on a low consumption level. “There is a growing imbalance between the demands of human populations and the resources that support human life. Fresh water, land, finite resources like fossil energy are depleting very fast because of increased pressure to meet the growing demand of an expanding population”. Also, in terms of birth rates, less is more: more in terms of quality for the families, for society and the environment (cf. the successful development of China, with its regulated birth rates) and it also is the more ethical choice. Traditionally rooted people in the third world tend to disagree on this and respond with statements like “Children are a gift of God” insinuating that contraception and family planning would be sinful or at least selfish ways to interfere with God’s order. However, we do not live in an empty world anymore, simply enjoying God’s blessings. We have greatly transformed, exploited and overpopulated the world. Arnold J. Toynbee made a comparison between the breeding of our animals and the breeding of ourselves: „We have been God-like in our planned breeding of our domesticated plants and animals, but we have been rabbit-like in our unplanned breeding of ourselves.“ Besides, we have also been God-like in other regards, the control of nature and recently the control of human nature through biotechnology which has led Francis Fukuyama to develop his view of a „posthuman future“ possibly lying ahead of us, posing new challenges to human dignity.

The Importance of Citizenship and Civil Society

Another factor is the development of civil society and the democratisation of moral authority. This is more or less a global phenomenon. Traditionally, people used to leave it to accepted authorities to determine what is right and what is wrong. However, modern citizens realize that this is the task of all citizens. Citizens should not be objects of manipulation, but subjects of deliberation and public debate source of collectively binding norms and values. Still in Asia authoritarian cultures are prevalent. Also, on a local level, mayors and city councils are not elected and people feel rather removed from decision making, even in regard to their immediate environment. However, with rising levels of education, information and communication change is under way. Where the authorities used to call the ordinary citizens to account for their doings, in a democracy the trend is the reverse: those in power have to answer for their doings to the citizens.

Public opinion also plays a role in shaping corporate behaviour. Especially the revolution in information and communication technologies (“digital democracy”) and the rise of consumer organizations has contributed to the empowerment of the consumer in the new economy. Responding to enhanced consumer information and

consumers' increasing ability to react, companies may be expected to develop stronger cultures of responsibility and honour their moral obligations to society (rise of the CSR phenomenon).

For both, businesses and politicians, it is much easier to get away with environmentally harmful practices when people are ignorant and passive. In this regard the role of education can not be overestimated, cf. the "Warga" project, basically a competition in problem solving (social, environmental) for high school students, organized by USM and UPSI. Also, environmental ethics components have to be integrated into citizenship education and consumer education.

Universities and the Environment

Universities are increasingly examining their own responsibilities to help societies towards a more sustainable development. At Talloires, France in 1990, a conference of university presidents from every continent issued a declaration of environmental commitment that has attracted the support of more than 100 universities from dozens of countries including Malaysia. This was followed up by a conference at Halifax, Canada, in 1991, where the specific challenge of environmentally sustainable development was addressed. A commitment has been made to teach and practice sustainable development principles, to increase environmental literacy, and to enhance the understanding of environmental ethics among faculty, students, and the public at large. In Malaysian universities there are now numerous environmental studies courses in science and engineering contexts and there are currently five environmental ethics courses including Universiti Teknologi MARA (two), Universiti Pendidikan Sultan Idris², Universiti Putra Malaysia and Universiti Malaysia Sabah. All these courses are offered in different contexts and with different approaches. Most Malaysian universities have green campus initiatives, recycling initiatives etc. and there is an environment related community service project run by Universiti Kebangsaan Malaysia. Such initiatives can build on the "gotong royong" spirit, a form of cooperation and solidarity that has both social and economic aspects. It is traditionally practiced during harvesting, house-building, celebrating weddings, where one is expected to help another.

The UN Decade of Education for Sustainable Development (DESD) 2005 - 2014

In December 2002, the United Nations General Assembly adopted a resolution to put in place a United Nations Decade of Education for Sustainable Development (DESD), spanning from 2005 to 2014, and designated UNESCO to lead the Decade. The founding value of ESD is respect: respect for others, respect in the present and for future generations, respect for the planet and what it provides to us (resources, fauna and flora). ESD wants to challenge us all to adopt new behaviors and practices to secure our future. The DESD breaks down the traditional educational scheme and promotes:

1. interdisciplinary and holistic learning rather than subject-based learning;
2. values-based learning;
3. critical thinking rather than memorizing;
4. multi-method approaches word, art, drama, debate, etc;
5. participatory decision-making;
6. locally relevant information, rather than national;

7. the DESD aims at changing the approach to education so that it integrates the principles, values and practices of sustainable development.

According to UNESCO, the overall goal of the Decade is to “*integrate the principles, values, and practices of sustainable development into all aspects of education and learning.*” The idea is to “encourage changes in behavior that allow for a more sustainable and just society for all.” The new way of thinking which Einstein was talking about was to see the all inclusive nature of our relationship with each other and with the environment.

In the words of the Declaration: “The concept of sustainability encompasses not only environment but also poverty, population, health, food security, democracy, human rights and peace.” For example the danger of natural-resource-based conflicts, especially over water, has been pointed out by various authors, like recently by Friedman (2008, 313f.). Because environmental issues are so deeply interlinked with these global issues, their resolution requires a fundamental rethinking of our way of life - as individuals, as societies and in terms of human civilization itself. In this sense I think the decade of education for sustainable development should be promoted with the following three goals in mind:

- To **learn** and deepen awareness of environmental issues and realities.
- To **reflect** on our modes of living, renewing these toward sustainability.
- To **empower** people to take concrete action to resolve the issues we face.

Environmental Ethics in Malaysian Universities

Teaching entire environmental ethics courses depend first of all on the target group:

1. A general audience
2. Specialists, scientists and professional groups (professional ethics)

Specialist target groups are more common; what they need is professional environmental ethics. However, I consider my moral education students falling under the general category. The fact that they become teachers can be more or less neglected for the instructional design of this course regarding the scope of environmental issues.

While other courses face the task of integrating ethics into rather science based environmental courses, the task here is to integrate environmental issues into a moral education framework. A basic question is: philosophical or religious ethics? In Malaysia philosophy does not exist as an academic discipline. Nearly everything is based on religion (Islam) which permeates all aspects of academic life. However, Moral Education is (at least in theory) based on philosophy. Only Islamic Education is taught in schools, all other students attend Moral Education and we educate those teachers.

Students in national universities are 80-85% Muslims, however moral education graduates will be teaching adherents to the other religions: Buddhism, Daoism, Christianity, Hinduism, Animism... which ones concretely cannot be predicted.

As the religious situation is that complex one should think that philosophy comes as a blessing. However, I realized that Malaysian students are not accustomed to philosophical thinking and it is not easy to guide and motivate them in this direction. Also, the usual textbooks which I tried to use, especially Pojman (2006), turned out to be too difficult and too voluminous. Therefore I reduced the philosophical approach

to the very basics and began to focus on a practical “Going Green” approach based on Riley (2007)³ and documentaries, especially Al Gore’s “An Inconvenient Truth”. I have also included religious approaches, covering the concepts of nature and the relationship between humans and the environment in all those religions. Religions also have important roles to play in influencing people to consider their lifestyle choices carefully and to conserve the environment. Religions influence individuals’ attitudes and behaviours, which can then lead to societal transformation: away from the prevalent modern beliefs and attitudes that highly value the significance of only the human species, affirming the right of this species to impose its will upon the remainder of the community of life.

The Environment in Religious Education

That pious people can easily be motivated to behave in environmental friendly ways through religious leaders has also been recognized by environmental organizations. For example, In Malaysia the WWF has set up a coordinated programme with mosques for the protection of animals and the prevention of poaching (tigers, turtles...).

If we look at the big picture and see the current ecological crisis connected with a moral crisis or even a spiritual crisis in human beings, the solution to the ecological crisis ultimately rests with the moral or spiritual regeneration of human beings. And it is people who must cultivate their moral sensibility.

The Asian religions – Hinduism, Buddhism and various forms of Animism for example - have a reverence of life firmly based on the belief that we as humans are an integral part of nature closely interconnected as one reality. For Christians and Muslims humans have a special responsibility; the teaching of stewardship/khalifah instead of other forms of domination becomes important in order to foster care and reverence for the environment. The destruction of nature, but also the destruction of nature based cultures and religions (cf. Gunn and Walker 2003, 32f.) through mindless “missionary” activities and other disrespectful and discriminating behaviours towards those who live in harmony with nature have to stop. For those who have gone through the civilizational processes of despiritizing and devaluing nature and developing monotheism, capitalism etc. there is no way back. There is only a way forward towards the development of environmental ethics both within (mostly secular) anthropocentric perspectives on the one hand, and within theocentric religious perspectives on the other hand. In the latter, animals, plants etc. have value to God, apart from their value to humans. However, monotheists still warn people to be careful not to worship the Earth or anything on it, for that would be close to idolatry. Such people just fail to realize that idolatry has long ago shifted into the world of our artifacts, especially the consumer world. Many are worshipping brands today, but very few have spiritual connections to trees.

Today’s challenge for religions is to help mankind to unlearn the man-centered view of nature: to deeply embed the natural environment and its intrinsic value into their religious teachings and to connect this with the promotion of living simply with low levels of consumption in the interests of individual spiritual development on the one hand and for the welfare of society and harmony with nature on the other hand, where individual wants are reduced and supplemented with concern for the natural environment and concern for the needs of others and sharing of the products of development. But as I said before, unlearning the man-centered view of nature cannot mean going back to the

physiocentrism of our ancestors and our dominance of nature cannot be abandoned, it can only be controlled or domesticated through environmental ethics. From a theocentric perspective Pope Paul VI said already 1970 addressing the United Nations Food and Agriculture Organization:

“It took millennia for man to learn to dominate, to subdue the Earth, according to the inspired word of the first book of the bible. The hour has now come for him to dominate his domination; this essential undertaking requires no less courage and dauntlessness than the conquest of nature itself.”

Philosophical and Critical Thinking, Multiple Perspectives Learning

But besides religion students also have to learn to reflect philosophically and critically on basic ethical assumptions underlying various actions: Is it a concern for human well-being? For animals? For all life? Or, even more broadly, for ecosystems? Which things count ethically?

A comprehensive review of the various philosophical positions regarding these and other issues can be found in Krebs (1997). Students should learn to understand and to critically evaluate various ethical perspectives on human beings' interactions with nature and to weigh various sides of an environmental issue. I am not advocating a particular viewpoint or course of action in class. This might look like relativism or cause some confusion but I believe it is better than indoctrination. Ethics inquiry in an educational context can also be conceived as a means to explore controversy, unconventional ideas, and to imagine new possibilities. According to Judy Rogers and Jane Shepherd from RMIT University (Australia), the

“desire for consensus and agreement leads to the imposition of a particular moral and ethical agenda based on defining ‘right’ and ‘wrong’ behaviours and ideas. Values, life experiences and concerns about sustainability and environmental ethics are lost in the quest for a common, shared vision which potentially has more to do with the teacher imposing a particular viewpoint than with the student. This effectively closes down debate and inhibits student’s potential for transformative learning experiences (...) We argue that contestation, debate and divergent opinions should be actively encouraged to create a learning environment that values differences rather than seeks similarities. This sets up the circumstances not only for potential transformations in individual thinking but importantly an ethic of openness to diverse points of view and experiences.” (Rogers, 2009, 225).

This openness can also help teachers to be sensitive to the cultures of their students and to practice culturally responsive pedagogy. But of course if students have misperceptions, for example lack of awareness regarding modern throw away culture, like confusing going green with going clean (e.g. McDonalds), they have to be guided into the right direction.

Desired learning objectives have to be abilities in various domains of learning: not only content learning, i.e. mastery of a body of knowledge, but also practical or psychomotor skills, e.g. in investigating and documenting environmental problems, critical thinking and problem solving, communication skills and team work, information management and life long learning skills (in-formation mining, communication,

reflection and evaluation), multiple perspectives learning (multi-disciplines and multi-ways of knowing) and social responsibility and accountability.

The Learning of Values

Regarding inculcation of values I would like to comment on the work of Malaysian researchers (Universiti Teknologi MARA) Mohd. Nor Mamat and Fattawi Mokhtar (2009), who advocate a holistic approach covering all cognitive, psychomotor and affective domains. They deplore that education today seems to be keener on producing graduates with knowledge and skill, than with values and claim that ethics or moral courses are among value-dominant courses that should prioritize value or attitude effects as main objectives. This needs to be reflected in the instructional design in which value becomes major objectives in learning outcomes, activities, evaluation and etc. Their study selected environmental ethics courses in Malaysian universities as a case study. They criticize that lecture and discussion are still main activities in all these courses, even though they are suited most for knowledge-dominant courses. Their findings as of best practices include religious elements, practical contents and environment related activities which have positively affected students' attitudes towards the environment. Regarding my course they comment:

“UPSI group has proven that learning through real dos and don'ts in daily life (based on Go Living Green! Content) and real problem-based discussion via documentary watching could make them aware and value good behaviours towards environment.” (Mohd. Nor Mamat & Fattawi Mokhtar (2009), 8).

This was actually a class with nearly 100 students; even more interesting activities are possible with smaller classes, both inside and outside the class room.

The authors also build on Smith and Ragan (1999) who have identified three key instructional approaches:

1. demonstration of the desired behavior by a respected role model
2. practice of the desired behavior, often through role playing
3. reinforcement of the desired behavior.

Suggestions by our Malaysian colleagues to implement these approaches are:

“Lecturers must apply in themselves as models to be practiced or followed. It may be supported with other co-curricular activities to enhance inculcation process better and faster. The philosophy of co-curricular activities must not be separated or isolated from academic objectives, especially for affective domain. These activities may also be utilized as part of tools in teaching and assessing students as additional tools.” (Mohd. Nor Mamat & Fattawi Mokhtar, 2009, 2)

I also believe that the lecturer can serve as a role model: by practising and demonstrating green living in his/her personal and professional life. In my case students see me coming to class by bicycle and I share my ways of green living and ethical decision making. I also point out how we can go green in the class room, e.g. energy efficient use of the air conditioner, skipping the plastic wrap when submitting assignments etc. And I also think that co-curricular activities and study trips can be good opportunities for practice and reinforcement.

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- 1 Usually, laws lag behind because they are written and set. Also, laws do not ensure or even promote ethical behavior; often laws and ethics are in conflict.
 - 2 This course is not taught anymore as an independent course in Moral Education, UPSI. Some contents are being integrated into another course. - Other potential locations for an environmental ethics course would be the Jabatan Geografi dan Alam Sekitar or the Pusat Pendidikan Global.
 - 3 This has been a relatively random choice; there are numerous practical books that can serve that purpose.

Environmental ethics is a branch of ethics that studies the relation of human beings and the environment and how ethics play a role in this. Environmental ethics believe that humans are a part of society as well as other living creatures, which includes plants and animals. Environmental ethics are a key feature of environmental studies that establishes the relationship between humans and the earth. With environmental ethics, you can ensure that you are doing your part to keep the environment safe and protected.

Environmental Ethics and Its Principles. There are several approaches or principles to determine how we are to value our environment. It is such a huge field, and it is so vast that it is difficult for one principle to cover all the ground.

Yukon College Environmental Ethics and Education Students Moderators and Rapporteurs. We would also like to thank the many additional people who helped with billeting and other important tasks. Colloquium Sponsors and Supporters. The organizing committee would like to thank the many sponsors, supporters and providers of in-kind services who made this Colloquium on Environment, Ethics, and Education possible.

The Role of Socially Evolved Ideals in Environmental Ethics Education in Canada and the Yukon: A Historical Approach Involving the Humanities Eugene C. Hargrove, University of North Texas. First Nations Perspectives. What is a good way to teach children and young adults to respect the land? Education about environment: Environment and Ecological factors

- climate;
- Ecosystem
- Structure and functions
- Major ecosystems
- aquatic and terrestrial system
- Energy and its flow in ecosystem.

Unit II: Environmental problems and protection

- Environmental pollution and its consequences
- Air pollution, water pollution, land pollution, nuclear pollution, Ozone depletions
- Urbanization and its impacts on environment
- Deforestation and its impacts on environment
- Ways of protecting, Management of Environment, Preserving and Restoring of environment.

7. The study exposes the problems of over population, health, hygiene, etc. and the role of arts, science and technology in eliminating/ minimizing the evils from the society. Related: Importance of Environmental Education for Saving Environment. Environmental Education is not just a part of the school curriculum that is taught to students, but it also includes generating public awareness by the use of print media, media campaigns, websites, and others. Many zoos, aquariums, parks, and observatories include information about the environment and their impacts on the life forms that is imparted to the visitors.

The modern environmental education stems from the conservation education and the nature study from the early 1900s. It gained significant recognition and importance in the 1960s and the 1970s. There was a growing awareness of the harm caused by pesticides and radiation and the rise in the air and water pollution. Environmental ethics is the discipline in philosophy that studies the moral relationship of human beings to, and also the value and moral status of, the environment and its non-human contents. This entry covers: (1) the challenge of environmental ethics to the virtue ethics, to support contemporary environmental concerns; (5) the preservation of biodiversity as an ethical goal; (6) the broader concerns of some thinkers with wilderness, the built environment and the politics of poverty; (7) the ethics of sustainability and climate change, and (8) some directions for possible future developments of the discipline.

1. Introduction: The Challenge of Environmental Ethics.
2. The Early Development of Environmental Ethics.
3. Environmental Ethics and Politics.
- 3.1 Deep Ecology.