

**Institute for Christian Teaching
Education Department of Seventh-day Adventists**

**ENVIRONMENTAL EDUCATION
"CARING FOR GOD'S CREATURES"**

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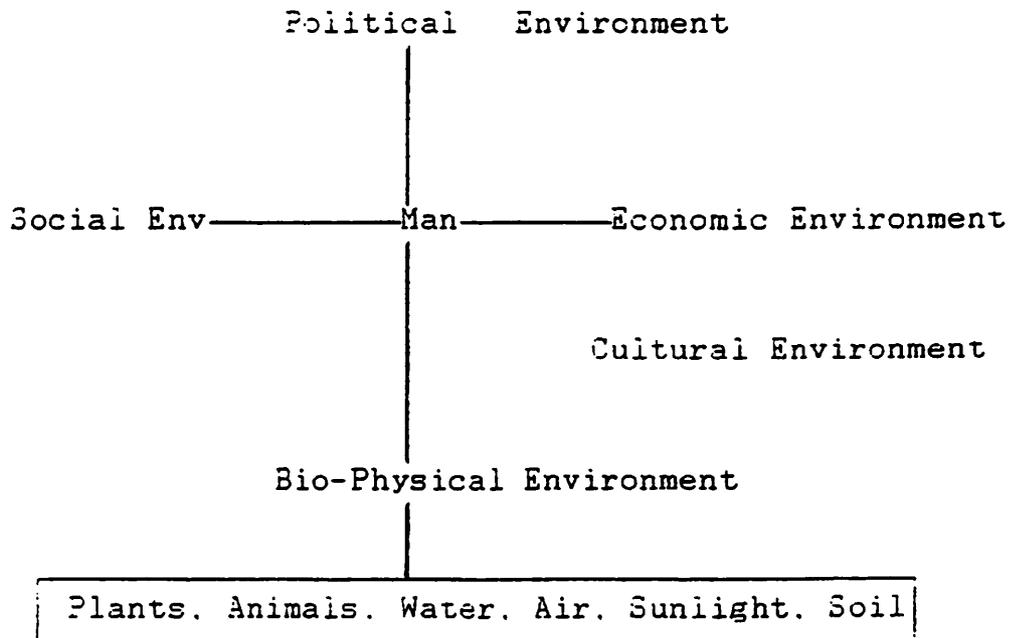
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INTRODUCTIONDEFINITION

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 God's people, their culture and their bio-physical surroundings.

Environmental education also entails practice in decision making, starting with primary in primary environmental management and heading on to the self-formulation of a code of behaviour about all issues concerning environmental quality.

Look at the Interrelatedness among the Different Components of the Environment.



My main concern in this paper will be the relationship between man and animals. What type of care should man give to God's creatures? Environmental education can either take place in the classroom or outside the classroom. It does not necessarily need sophisticated technology or equipments. Any individual is free to take part in this noble cause.

At the World Inter-governmental Conference on Environmental Education held at Tblisi, in October 1977, eleven guiding principles for effective environmental education programmes were adopted. These guidelines are still useful today.

An environmental education programme should:

- (1) consider the environment in its totality - natural and built, technological and social, political, moral, cultural and historical and aesthetic aspects;
- (2) be a continuous life long process; it should begin at pre-school level and continue through all formal and non-formal stages;
- (3) be interdisciplinary in its approach, drawing on the specific content of each discipline in making possible an holistic and balanced perspective;
- (4) emphasize active participation in preventing and solving environmental problems and working towards their solutions;
- (5) examine major environmental issues from a local,

national, regional and international point of view so that learners receive insights into environmental conditions in other geographical areas;

- (6) focus on current and future environmental situation;
- (7) emphasize the complexity of environmental problems and thus the need to develop critical thinking and problem solving skills;
- (8) Utilize diverse learning environments and a broad array of educational approaches;
- (9) focus on the learner's own community and relate being discussed state, regional, national and international issues and perspectives;
- (10) relate environmental sensitivity, knowledge, problem-solving and value clarification at every school level;
- (11) enable learners to play a role in planning their learning experiences and provide an opportunity for making decisions and accepting their consequences.

Awareness needs to be given to our students and the masses at large about the external conditions affecting animals and plants plus the physical surroundings and conditions affecting peoples' lives. Unfortunately, environmental problems are poorly understood by the general public, and the media often portray biased views of the problem.

For one to understand my explanation better, it is advisable to

answer some of the following questions:

- (1) why do 20,000 people in South Africa die because of water-born diseases every year?
- (2) why 400 million tons of top soil is lost every year in South Africa?
- (3) does the Bible condone an "Exploitative attitude towards the environment?"
- (4) can we build a biblical ethic out of the environment?
- (5) how many of you have visited a National Park this year?
- (6) have you ever tamed or saved an animal before?
- (7) have you ever taken any time to think about ways of conserving nature?
- (8) how many trees have you planted this year?
- (9) are you aware, as a Christian, that you are called to serve nature instead of exploiting nature in order to survive?

Genesis 1:22, "God blessed all the creatures he had created on the fifth day of His creation. He created everything in the highest organised order one can ever think of." In Genesis 1:26, "God gave man the responsibility of looking after the fish, the birds and all the animals. Therefore man was asked to go and act as a steward over them."

ESCHATON

Several of the philosophical presumptions of various approaches

conflict with those of a Christian world view, however a Christian teacher has an excellent opportunity to help his students better understand conflicting world views and see how their Christian faith relates to their academic pursuit. Since Christians expect Christ to return soon and establish a new order on a new Earth, why should they care about the environment on our mother Earth? This view does not permit us to destroy the environment, particularly the animals.

I feel that as God's representatives, we are mandated to reveal His love, mercy, justice and holiness.

WHAT ROLE DOES THE BIBLE PLAY?

It has been discovered that the Bible is rich in both geographical and environmental lessons. For example, in the New Testament a lot of geography appears in the accounts of Jesus' journeys as he moved across rivers, valleys and plains, as he climbed hills and great mountains.

THE IMPORTANCE OF AWARENESS

There is a need for collective responsibility from children, parents and teachers.

The church, government and media should also work hand in hand.

Books, magazines and newspapers can make students and the public at large more conscious about the environment.

Radio and television can broadcast well organised programmes about the environment. But above all, the Christian teacher has a big role to play with respect to his students, to the public and to the community at large.

The Christian educator has the ability to instil in young people a profound respect for the world God has created. They can only fulfil this if they are faithful stewards of the Creator.

Environmental education should be emphasized to both primary school pupils and university students. Students can be asked to design posters or bumper stickers bearing environmental messages, e.g., "Save mother Earth", "Be kind to animals", "Keep the city clean", "Do not litter", "Keep your water clean".

School-wide projects should be encouraged by teachers, administrators and sponsors. A number of schools have already carried out successful environmental projects. Example: A class of 40 pupils in a certain school recently went to investigate the influence of chemical waste, from a paint factory, deposited into a nearby river. The field-trip was sponsored by a private company. What did the pupils find out during their field-trip? They found out that the water had lost its natural colour. It was no longer

fit for animal and human consumption because of its smell, colour and impurities. The fish and water animals in the nearby pond had died from poisoning and suffocation. The grass along the river bank had lost its deep green colour to pale-yellow. A number of village people around the river had developed water infectious diseases. Irrigation schemes around the river were no longer recommended.

CAUSES OF ENVIRONMENTAL DETERIORATION

Three major causes of Environmental deterioration include affluence, population growth and concentration and technology. Technology is a two-edged sword. It is the cause of much pollution, but it is also a possible solution to the pollution problems.

The Environmental Protective Agency has a sweeping mission aimed at protecting human and animal health. Under the EPA's protective umbrella are programmes for improving air and water quality, and monitoring pesticides, hazardous substances, industrial waste and chemical dumps.

In recent years the most serious problems have pesticides and toxic waste disposal. The EPA expects that as many as 27 of the 50 states will run out of room to dump their garbage by the year 2000 in the USA. The reasons for the garbage crisis include the rapidly growing volume of solid waste, shortage of land for dumps, and cities no

longer wanting trash dumped near them. Other problems include the soaring costs of disposal and slow start of new technology necessary for waste disposal and recycling.

THE ILLEGAL TRADE

In Genesis 1: 26, God gave man the responsibility of looking after the fish, birds and all the animals, domestic and wild, large and small. God did not command man to kill and eat animals but to act as a steward over them. Genesis 1:29, " I have provided all kinds of grain and all kinds of fruit for you to eat." A shameful, illegal trade threatens the kingdom. God's creatures are available somewhere for a price. It is the third biggest contraband after drugs and arms. It is indeed an ecological disaster. Trapping, selling and buying of endangered animals is forbidden in the World today, but when you happen to take a visit to Bombay's Crawford Market, in India, you can purchase virtually any creature that slithers, flies or walks the planet, no matter how protected by international law. You can buy any animal from Cobras to Tiger cubs.

If you happen to land in Sharjah in the United Emirates you would see the African fauna assembled there and paraded before illegal and cruel buyers, whose sole aim is to become rich overnight at the expense of God's innocent and harmless creatures.

How are these animals priced?

Flamingos (a pair)	\$550] — from Tanzania
Dik-diks	\$550	
Africa's \blue Monkey	\$400	
Dorkas Gazelle	\$1 300	

Tigers have all but vanished from China and fast disappearing from India and Siberia. Who is responsible? Each year millions of creatures are wrenched from their natural habits by peasants, folk healers in Asia, and desperate people who want to make quick money. This is indeed a story of environmental devastation and enormous cruelty. Some animals are disappearing even before they are identified.

Since some Christians expect Christ to establish a new order on a new Earth, why should they care about the environment on our mother Earth? This view does not give us any licence to kill and destroy the environment - particularly the animals. Neither does it allow us to mistreat, hate or sell the most endangered species in order to obtain quick money.

Revelation 11:18 reminds us that time will come to destroy those who destroy the Earth. The biblical view of nature gives nature or the total environment a value to itself, not to be misused, but of value in itself because God made it. Isaiah 44:24 states

"I am the Lord.

Who has made all things,

Who spread out this earth by myself."

God made the world. He sustains and takes care of it. However, contrast is seen in man's behaviour, which is reflected in the following words that man does not experience himself as part of nature but as an outside force destined to dominate and conquer it.

We are killing the Masterpiece of life on the planet. Crude methods of trapping add to the destruction. e.g. in Africa poachers slaughter mother apes to get at their young ones. Tropical bird trappers lure their prey using wing clipped birds as a decoy, resulting in many of the unwanted birds, many of them injured, being left to die.

Let us take a glance at the Philippine (Tropical fish) poachers. They spray a sublethal dose of cyanide in coral waters and scoop up the stunned creatures. As a result the cyanide remains, poisoning the fragile reefs.

Trappers in Argentina have hacked down 100 000 que-blancho trees since 1976 to reach fledgling Macaws in their high nests. The loss of habitat is even more devastating than the trapping.

WHAT IS THE DIFFERENCE BETWEEN HUMANS AND ANIMALS?

In God's blessing to Adam and Eve. He made it clear that there is

a distinction between humans and other animals. And God said unto them, "Have dominion over the fish of the sea, and over the fowls of the air, and over every living creature that moveth upon the earth." Following Adam and Eve's sin, an animal died to make them clothes; it was God who took the life of that animal. The sacrificial system was established at the same time.

In regard to killing animals for sacrifice, God gave Moses detailed instructions concerning how animals should be offered. The emphasis was on what each offering was for, and the way each of the various parts were to be used, rather than on methods avoiding suffering to the animal (Leviticus 1-4). So, how do we feel about this as Christians? It is true that there is abundant evidence from the instruction of the Bible as well as Jesus' example on this earth that there are differences between humans and other animals. These differences will lead us to treat animals with respect and care, while accepting the idea that animals may be used by humans in certain ways.

CAN WE USE ANIMALS FOR FOOD?

Originally God provided all kinds of grain and fruit for man to eat. For all the wild animals and for all the birds He provided grass and leafy plants for food, Genesis 1:29-30.

The fruit and grains contained all necessary substances for our bodies. They have carbohydrates, essential vitamins, proteins,

fats, water and mineral salts. Man used to live longer and had a healthier and more resistant body than he has today.

The people who lived before the flood ate animal food and gratified their lusts until their cup of iniquity was full and God cleansed the earth of its moral pollution by a flood. Upon their settlement in Canaan, the Israelites were permitted the use of animal food, but under careful restrictions. Of the meats permitted the eating of the fat and the blood was strictly forbidden. By departing from the plan divinely appointed for their diet, the Israelites suffered great loss. They desired a flesh diet, and they reaped its results.

After the end of the Flood. God blessed Noah and his sons and said "All animals, birds and fish will live in fear of you. They are all placed under your power. Now you can eat them, as well as green plants: I give them to you for food but one thing you must not eat is meat with blood." Legumes, grains, fruits, nuts and vegetables constitute the diet chosen for us by our Creator. God gave our first parents the food He designed for the race to eat. It was contrary to His plan to have the life of His creature taken. There was to be no death in Eden. I wonder as to how many people obeyed the command of eating meat without blood. God had a very good reason for warning man. It is because life is in the blood. Leviticus 3:17 clearly condemns the eating of the fat and blood of the animal.

WHAT IS THE PURPOSE OF THIS WARNING?

The question of whether humans should use animals for food is a question that affects a lot of people. But we need to consider it nonetheless. The question has two aspects. Should anyone eat meat? Should I personally eat meat? There are moral problems with eating meat according to Ellen White. My personal choice regarding meat eating should be based on moral and health reasons.

Meat transmits certain diseases. Consumption of animal products is the potential exposure to zoonoses. Definition of zoonoses. "those diseases and infections which are naturally transmitted between vertebrate animals and man". E. Coli bacteria from lack of cleanliness during the slaughter of cattle is very common and very dangerous. Trichinosis is caused by trichinellae parasites in infested pork. Salmonellosis is the result of eating poultry carcasses that contain this bacteria.

Cholesterol is a fatty alcohol that occurs in almost all animals (meat). If much of this cholesterol accumulates in the walls of human arteries, it forms bulky plaques which inhibit the flow of blood, until a clot eventually forms, obstructing an artery and causing a heart attack or a stroke.

A healthy vegetarian life-style which was introduced at Eden helps us to better understand and obey the Spirit's leading. I believe

that we as Christians shall experience the fruits of eternal life now, if we exclude animals from our diet.

LABORATORY EXPERIMENTS AND RESEARCH WITH ANIMALS

I feel that animals should be used in experiments only with a purpose. Animals used during experiments and testing should not be hurt or dissected without first treating them with chloroform.

Captured animals meant for observational experiments should be properly treated and fed and they should be released to their natural habitats after the experiment. We should remember that the use of animals in experiments and research accounts for only about 1.5% of all animals used by humans.

David Ekkens emphasizes that, by research we mean an original study that has possible benefit for human or animal health which allows us to better understand the animal.

Contrast-testing is a study where some chemical or process is applied to an animal, the result of which are of rather minor benefits. E.g. when four hundred monkeys were transported from Entebbe International Airport to Europe for the purpose of AIDS research, I had no objection in my mind. Testing drugs on animals that may be effective against such diseases as AIDS is quite acceptable.

Under research, we could also include educational uses of animals. Here, the use of animals benefits humans by assisting in the training of doctors, nurses, health workers and researchers. Many students will learn valuable lessons from experimenting, observing and studying real animals.

It is true that models and computer simulations could be used in such cases, but students do not learn the "feel" for the real thing from a model.

Let us compare two doctors who are getting ready for bypass surgery. Dr X has never done an operation on a living human being, but he has done a number of operations using a computer simulation. Dr Y has never done any operation on living people, but has done them successfully on several living monkeys and other primates (the majority of which survived). Who would you prefer to do the procedure on you, Dr X or Dr Y? A laboratory needs to be a place where students learn what actually happens, not what is supposed to happen.

Another very important reason for using real animals is that students need to learn the tools and methods that are used for original research. If the experiment is "canned" and all the results are programmed in, what benefit will the student derive from it?

Let us look at a brief survey of how animals are used by humans today.

Purpose	Number in millions	Percent
Meat (cattle, sheep, chickens, hog and turkeys)	4 285	97,8
Experiments (research, testing and education)	60	1,5
Euthanised in pounds	10	0,2
Pelts	25	0.6
Hunting and fishing	?	
TOTAL	4 380	

Note: About 90% of animals used in experiment and research are rats and mice.

SHOULD ANIMALS BE USED IN MEDICAL RESEARCH?

Animal rights activists demand more computer simulation and tissue culture studies. They are concerned that tens of millions of animals die in laboratories. They feel that experiments force animals to ingest or absorb through the skin products such as nail polish and oven cleaner, torment them in devastating psychological experiments, infect them with human diseases, surgically impair them, addict them to alcohol or drugs, and shock, bur, drown.

starve and mutilate them.

Ronald G. Calhoun feels that, for the human good, experimentation on animals is required, but in a humane environment. He further advocates that for heart disease, cancer, cystic fibrosis, polio and many other diseases, treatment has come from animal based biomedical research, and that without animals, we will have little hope of a cure for AIDS.

KILLING ANIMALS FOR LEATHER AND DECORATIONS

Is it proper to kill animals for leather? It is necessary to keep and protect our feet from hookworms, thorns, heat and cold. In this case we can use a combination of plastic, sisal and cotton fibres instead of leather. It is also not a legitimate purpose to kill animals for decorations. It is not a good purpose to kill elephants for tusks or killing rhinoceroses and antelopes for teeth and horns.

There are many ways of saving these animals. These decorating collections can be improvised from wood, clay and plastics. Killing animals for decorations is not a noble job and it is a speedy way of destroying nature.

How does a Christian control animal pests with poison/ This method is very cruel because it kills animals in that environment other

than those the poison is intended for. It is an ecological disaster. In this case it is better to use biological control. If God feeds His animals then we should care for the animals. Matthew 6:26.

ANIMAL USE AND CARE GUIDELINES

In accordance with David Ekkens, I feel that the following guidelines may be appropriate for use in SDA colleges and universities:

- (1) animals for dissection will be procured from reputable supply houses which, to the best of our knowledge, kill the animals as humanely as possible and use pound animals if possible.
- (2) all animals dead or alive, will be treated with respect. When we are finished with them, all animal parts will be disposed of in a proper manner.
- (3) animals to be killed for collections will be killed as quickly as possible and in a humane manner.
- (4) live animals will be housed in adequate cages and provided with abundant clean bedding, food and water.
- (5) unnecessary stress will be eliminated by appropriate use of anaesthetics.
- (6) human care-givers and experimenters will be protected from disease of injury by appropriate safety equipment and clothing.

- (7) all students involved in caring for, or using animals in experiments will be instructed in proper care and management of animals.

CONCLUSION

According to the different world views, it seems that we are surrounded by a complex system of environmental, approaches, biological, cultural and value-loaded exercises. In this context it is difficult to decide which world view and value-perceptions should be adopted.

The need to conserve the environment does not balance the need to satisfy basic requirements. Often this is only because the community has never been taught the importance of their environment, and how to meet their needs without harming it. These societies would benefit most from an educational approach which established a balance between need, satisfaction and the conservation of their environment. This balanced view is well brought out in the goals of the world conservation strategy. "The integration of conservation and development so that we may all have a way of life that is sustainable", (synthesized by John Hanks).

However, there is a middle ground where man can learn to develop in harmony with nature, without destroying and overusing her

resources. I feel that it is also partly the task of a Christian teacher to search for this balanced approach from the biblical point of view.

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