

INSTITUTE FOR CHRISTIAN TEACHING
EDUCATION DEPARTMENT OF SEVENTH-DAY ADVENTISTS

RESTORATION OF THE ENVIRONMENT
AN ADVENTIST PERSPECTIVE

BY
JOHN ODHIAMBO OTEWA
DIRECTOR, EDUCATION DEPARTMENT
EAST AFRICAN UNION
P.O. BOX 42276
NAIROBI, KENYA

478-00 Institute for Christian Teaching
12501 Old Columbia Pike
Silver Spring, MD 20904 USA

PREPARED FOR THE
28TH INTERNATIONAL SEMINAR ON THE
INTERGRATION OF FAITH AND LEARNING
HELD AT
BABCOCK UNIVERSITY, IKEJA, NIGERIA
JUNE 17-29, 2001

Introduction

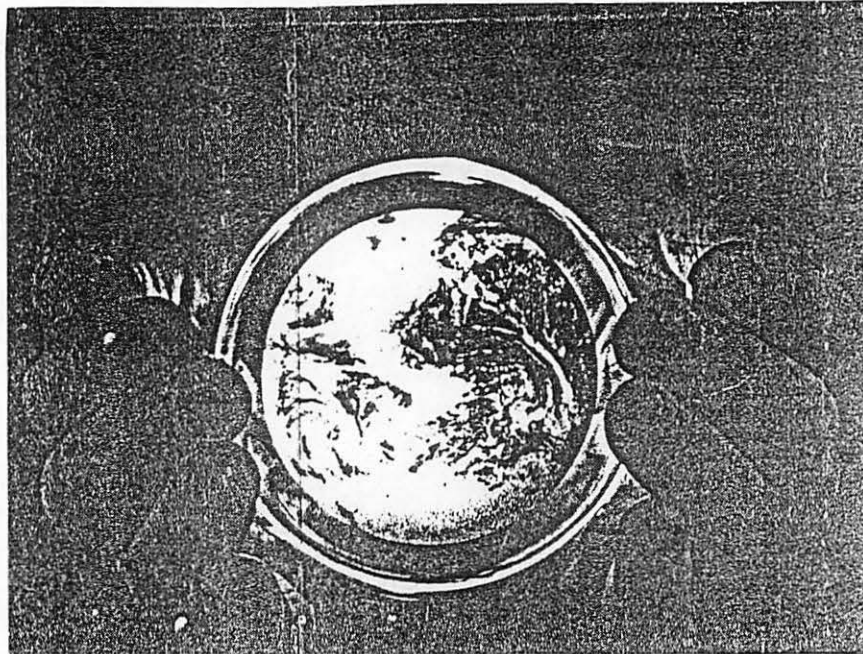


Fig.1 Humanity holding the planet Earth in the hands.

The inhabitants of the Earth have always taken, through human wisdom, that they hold the future of the physical environment as shown in figure 1 above. They believe that they are more important than other components of the environment. Although this may appear so through human destructive attitudes, humanity should be made aware that it is God who created and only God who holds and cares for the environment of which he/she is part.

At the completion of creation, God declared "... behold it was very good ..." (Gen.1:31). The total environment, humankind included, was based on God's masterplan.

-3-

The onset of sin took humanity out of this masterplan until they found themselves naked of God's power. They then extended their problem to the physical environment when they sewed fig leaves into aprons (Gen.3:17). To a Christian environmentalist, this was the beginning of desertification and hence the current deplorable state of the environment. Sin therefore is the primary cause of environmental degradation on the surface of the Earth.

As an Adventist environmentalist, although human search for truth, on environmental situation is focused on human attitudes as the source of possible solutions to the current environmental state, it is my conviction that sin is the primary cause of environmental degradation. And, the restoration of the devastated environment may not come primarily from the deliberations in the international conferences, but from the reverent submission of the human heart to the cross of Christ, that would bring the human race back to God's original masterplan. It is from this stand point that mankind will get the required divine revelation to interpret the environmental interactions aright and hence possibly devise the God directed strategies to change the current environmental situation on Earth.

The objective of this essay is to outline the fall of humanity in sin as the rootcause of the widespread environmental destruction on the surface of the Earth; review some of the biblical passages that affirm the position of Christ in the restoration of the environment; and propose ways by which adventist teachers can integrate faith in their teaching of environmental concepts in their classrooms. The paper starts by outlining the components, interactions and purpose of God's original environment: The Garden of

-4-

Eden. It goes on to describe the state of the environment after the fall of humanity. Here, it outlines the human attitudinal games that have led to the destruction of the environment. It describes the actual state of the environment in the human hands and lists human trials to restore the quality of the environment from the damage already been done. The paper brings out Christ as the bridge between the human race and the environmental restoration process and declares that humanity can only make positive contribution in this process after the restoration of humanity - God relationship. It concludes by outlining some ways in which the teaching of environmental concepts in a school curriculum may involve the integration of faith and learning.

The Original environment as created by God: The Garden of Eden

The Holy Bible opens with the following words "In the beginning God created the Heaven and the Earth (Gen.1:1). Chapter two of the book of Genesis gives the description of the components of the perfect environment - the Garden of Eden that God established. In this environment, each component was created for a purpose. Ellen G. White declares that all creatures were to follow the great law of life: the law of service where the birds of the air, the beasts of the field, the trees of the forests, the leaves, the grass, the flowers, the sun in the heavens and the stars of light all have their ministry to provide to the world's life. (Ed. 103 and Larson, 200:62)

As each component of the environment attended to the web of life, it also secured its own for the Creator instructed them "give and it shall be given unto you" (Luke 6:38). Every component in this environment relied on one another because in an environment everything depends on everything else and every effect is a cause of something else

-5-

(Bright, 1985:15). God's plan in the interactions of the creatures in this environment was based on the law of service and this established total harmony and Baldwin (1996:5) affirms that God's original creation was even a predation - free environment that was filled with creatures serving one another harmoniously.

The law of service that governed the interactions of the components of the original perfect environment led to the principle of interdependence. This is the basis on which ecological (environmental) processes depend in nature for in a natural environment every component depends on other components for survival. The original environment, the Garden of Eden, was a representation of what God planned that the whole earth would become. Humanity, as a major component of this environment, was placed to work therein as a steward. As a steward humanity was to bring out the beauty and excellency God placed in His creation and to allow creation's potential to flower (Sire, 1990:135). Man succeeded in this environment because he depended on God, before his fall.

The State of the Environment after the Fall of Man

The harmony that existed among God, Humanity and Nature was lost with the entry of sin into the Garden of Eden. This was because of the choice humanity made to obey the serpent rather than God. As a result of this, human natural gifts were corrupted, that is, soundness in the human mind and ability to work within the environment were marred and distorted and his/her supernatural gifts were withdrawn, that is, the knowledge of God and the ability to act righteously were withdrawn from the human's own power (Sire, 1990:147). The cultural mandate of tending the garden got turned

-6-

upside down and this led the humanity to be subjected to the natural conditions of life.

The humanity - Nature relationship became misinterpreted in the minds of human race and

since then Nature has been exploited unnecessarily (Sire 1990:68). The original plan of the human race of being stewards of God's resources on the surface of the Earth changed and the humanity has become an exploitive conquerer. Although the Earth is the only place in the universe known to sustain life, human activities are progressively reducing the planet's life supporting capacity (I.U.C.N.:1980:17). Tan (1986:3) argues that humanity does not seem to experience himself/herself as part of Nature but as an outside force destined to dominate and conquer it.

The exploitive skills humanity has used in managing the environment are varied, they range from culturaleal to technological practices. In Latin America, for example, the people's deep seated hostility to natural forests is reflected in their vocabulary, where natural vegetation is refered to as "monte" (untamed forests) and the term "bosque" (woodland) is reserved for man-made tree plantations (Timberlake, 1987:27). In this conetext, the Latin Americans take natural vegetation as untamed and so they are culturally allowed to tame them. No wonder, in 1960s the former Panamanian leader, General Omar Tornijos launched his "La Conquista del Atlantico" that is the Conquest of the Atlantic programme. Under this programme the forests of Atlantic slopes of the continental divide were cleared (Timberlake, 1987:27). The environmental status of this region has never been the same.

The implementation of various development strategies have also tended to ignore their effects on environmental quality. For example in 1970s the World Bank and the

-7-

Interamerican Bank loaned US\$ six billions for cattle ranching project in Central America. The project was involved in indiscriminate clearing of forests and this heavily ignored the environmental account because it squandered the ecological capital of the tropical rainforest. Some people who are concerned with agri-business, take the planet Earth purely as a source of raw materials to fuel the engine of material growth and the concern of environmental degradation in general is seen as luxury (Singer, 1987:10-11). Such people have forgotten the fact that the resources come from the "Nature Store" which is in a state of collapse. What would be the future of a business that ignores the health of its store?

In the critical years of 1980-1984 the British government gave aid to famine-torn Sudan that amounted to 154 million. 50% of this aid to the starving Sudanese was diverted to other projects that were to benefit the rich few, by constructing a power station in Khartoum (Singer, 1987:19). In certain cases some donors divert resources to projects that benefit the political and economic ambitions of the few rulers of the recipient nations and those of their homelands. Africa has had much of such contradictory donations and this has led to overdrawing much of her environmental accounts, as a result of which much of Africa is experiencing environmental bankruptcy. In Africa, in particular, forests recede day after day and the peasants walk farther and farther for water. As the land gets degraded, the lonely peasants toil only to harvest less year after year. When Nature recedes, so do the prospects for the peasants well being that depend on it. The thread that ties such peasants to Nature are so deeply rooted that their destruction leaves severe wounds on the health and collective consciousness of the people concerned

-8-

(Greig, Pike and Selby, 1987:3). Yes, the lonely peasant's state in the rural Africa is a grim reminder to the rest of humanity, of the ultimate implication of a lonely planet under destruction. Schumacher (1973:95) summarises how human activities have changed the state of the environment as follows:

"Human race has devastated the Earth by depleting its natural resources. He/she has cut down and burnt most of the usable timber from the forested hillsides and valleys. He/she has overgrazed and denuded the grasslands that fed his/her livestock. He/she has permitted erosion to rob his/her land of its productive top soil. He/she has allowed the eroded soil to clog the streams and his/her reservoirs, irrigation canals and harbours with silt.

In many cases he/she has used and wasted most of the easily mined minerals."

The increasing awareness that humanity's survival and prosperity are dependent upon the finite resources and delicate life supporting systems of the spaceship earth, which are at the brink of collapse, sent a signal to the human race in the late sixties. The United Nations reflected the global nature of this awareness and concern in 1972, when it called International Conference on Human Environment in Stockholm and charged its member states with defining precisely what should be done to maintain the earth as a place suitable for human life, not only now, but also for future generations (Ward and Dubs, 1972).

In the wake of the humanity's awareness of the deplorable state of the environment and stimulation from the Stockholm Conference, several other conferences on

-9-

environmental concern have been held. These included the International Belgrade workshop of 1975, that adopted the "Belgrade Charter: A global framework for Environmental Education." It was realized that restoration of the state of the environment needed to be approached through Education, hence the establishment of Environmental Education. The Belgrade Charter led to a solid foundation for the Tbilisi Conference of 1977, which was the starting point for the International Environmental Education Programme (I.I.E.P.). The I.I.E.P. helped to specify the nature, aims and objectives of proposed Environmental Education. It considered that Environmental Education, as an essential component of lifelong Education with a problem solving approach and provision for active involvement by public, should help to make Education systems more relevant and realistic to the current state of the environment (UNESCO, 1980 cited in Olembo, 1987:177).

It was later conceived, in some of the above conferences, that much of development practices did not take into account the effects on the quality of the environment. This led to the establishment of the World Commission on Environment and Development in the 1980s whose major term of reference was to propose long-term environmental strategies for achieving sustainable development by the year 2000 and beyond (W.C.E.D; 1987:ix). Humanity's further trials to reverse the trends in the environmental state was seen in the Rio Earth's Summit of 1992 that was held in Rio de Janeiro, Brazil. This summit came up with the Agenda 21 that summarised the strategies to be adopted so as to halt and reverse the effects of environmental degradation "in the context of increased national and international efforts to promote sustainable and environmentally sound development in all countries of the member states" (U.N. 1992:1).

-10-

The Koyoto summit, commonly referred to as A climate for change, followed and was held in December 1997 in Japan with specific terms of reference "to craft a binding agreement towards reducing greenhouse gas emission to 1990 levels by 2000" (U.C.C.I; 1997:1). Currently there is the proposed World Summit on Sustainable Development to be held in Johannesburg in 2002, to evaluate the Rio declaration commitments and implementation of Agenda 21 recommendations, after ten years.

In the eyes of humanity, he/she has tried his/her level best to reverse the environmental degradation trends through meetings and resolutions, but the speed of restoration does not seem to match that of destruction. The human race needs to consult other views, and with the environmental concern a new world view is emerging where (Greig, Pike and Selby, 1987:20):

- i) the whole is more than the sum of parts and so there is no room for compartmentalization;
- ii) things exist only in relationships with other things, hence nothing exists on isolation;
- iii) emotional and spiritual are as important as the rational and not everything in life can be explained rationally;
- iv) ability to create is valued more than the ability to destroy for much of Nature has been destroyed; and
- v) humanity is not in control of Nature but he/she is rooted in it.

-11-

The other emerging view is the Christian world view, especially the Adventist perspective, where Christ is seen as the bridge between the human race and the environmental restoration process. In this perspective, whenever one comes to a dead-lock, one should humbly ask "what would Jesus do in this situation?"

Christ and the Restoration of the Environment

In the human hands, to destroy a hectare of rainforest, lose of an inch of top soil or for a species to become extinct can take a matter of hours or days, but to replace what has been lost (if indeed it is possible), may take few or even hundreds of years. It has taken humanity long time to reverse the trends in the environment because the poor haven't the luxury and the rich haven't the inclination to think about tomorrow. Who then can think about our future on our behalf? It is only Christ that holds the future in His hands.

The humanity lost the grip of life when his/her relationship with God was weakened by sin. He/she can only come back to senses when the relationship is restored. The Bible confirms that "the fear of the lord is the beginning of wisdom" (Prov. 1:7). If humanity is to be wise or have knowledge of or have good understanding of the environment again, then the fear of the Lord must come first in his/her perception of life. The human race must restore and practise the Christian mind and the Christian mind does not begin with a world-view, not even the christian-view, but it begins with an attitude. If the human attitude is rooted in Christian world-view, then humanity would acknowledge God in all that he/she perceives, respects and takes action on. All that the human-race requires is to submit the human thoughts on to Christ and this will lead

-12-

him/her to seek first the kingdom of God and all other needs, including the required principles to restore the environment, would be provided. This is because Christ is the really real life; Alpha and Omega, the Beginning and the End and nothing else is comparable to Him.

Integration of Faith and Learning about the Environment

In Kenya's school curriculum the environmental concepts such as water conservation have been infused right from Primary to Tertiary levels of Education (Adidha, 1987:8). In both Primary and Secondary levels of Education various environmental topics are integrated in Science, Geography - History and Civics (GHC) as combined course and Agriculture. In Secondary Education the environmental concepts are infused in subjects such as Biology, Home Science, Agriculture and Chemistry. At tertiary level, environmental studies has been given a distinctive status in various names such as Environmental Science, Environmental Studies, Environmental Education and Environmental Health. It is therefore understood that one that goes through the school curriculum will always come across certain environmental concepts in various subjects of study. The teachers are equally trained to integrate environmental issues in their subjects, especially in those that have environmental concepts infused into.

The one major environmental concept that forms the basis of environmental studies at whatever level is the "interdependence of environmental components" in a given environment. This is the interrelatedness of every component with one another in an environment. The success of this interrelationship among the environmental components nsures the stability of the concerned environment. This is because the

-13-

components will have established their respective trophic levels, that is, set of services each member or a group of members should provide for the stability and continuity of the system. So long as there is no interference from the outside of the referred environment, then, the said stability will last. A stable environment is a peaceful one because the members (components) get all their needs within reach, for each member has a service to perform to the other for the continuity of life. This is a reflection of the law of service as was established by God in the Garden of Eden (Larson, 2000:62)

The principle of law of service can be integrated, for example in a Science lesson at a primary school level or in a Biology lesson at the secondary school level, using the topic of gaseous exchange between Plants and Animals as shown in figure two below:

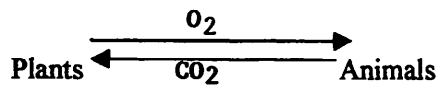


Fig.2 Interdependence between Plants and Animals

One may ask, what makes plants to produce oxygen and extract carbon dioxide to and from the atmosphere respectively, only during the day? A believer will not only rely on the scientific explanation based on osmotic pressure differences but may be guided to understand the interdependence between the plants and animals-based on the law of service. In this context the plants serve the animals with oxygen during the day because the animals' physiological activities require a lot of oxygen for energy production since the animals are very active then. The animals also provide carbon dioxide to the plants which they need for food production by photosynthesis process. The physiological needs such as energy production in animals and food production in plants make the plants and animals coexist and therefore each cannot do without the other. The law of service

-14-

makes each of them to depend on each other that none of them can do without the other and hence the application of interdependence in a natural environment.

The environmental concept of interdependence among the components of a given environment can also be applied in a school system as shown in the figure three below:

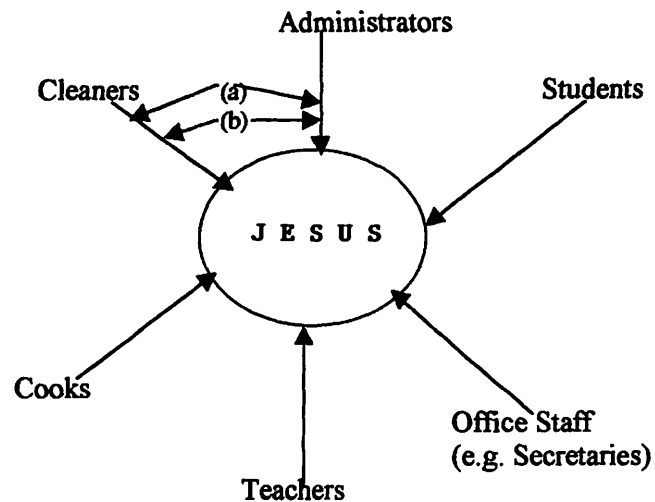


Fig.3 Interdependence in a school environment

A school environment has components such as Administrators, Teachers, Students, Cooks, Office Staff (e.g. Bursar, Secretaries, etc) and maintenance staff such as cleaners. Each of these members has specific functions to perform for the success of a school system. For example, the administrators as the executive body supervise the running of the school systems; Teachers form the lifeline in an educational institution as they guide the learners in the process of curriculum implementation; students as the immediate beneficiaries in an educational system provide for the financial needs for the institutional operations; maintenance staff (e.g. cleaners) keep the institution tidy; cooks are responsible for the preparation of the food for the students and office staff (e.g.

-15-

secretaries) provide service functions that support both the administrative and the teaching operations in the system. All these components in a school system depend on one another for both the individual survival and the total efficiency of the system. For examples the students depend on teachers for knowledge and on cooks for the nutritional services; Administrators and Teachers depend on the office staff (e.g. secretaries) for the efficient services while all other components depend on the students for their financial needs. It is the responsibility of the Administrators to make each component aware of its services to the system and the importance of the services of other components for the total peace, unity and success of the system.

The success of such a system can be improved when all the components are believers in Christ, as the case in our church maintained schols. Figure three above, shows that as each component moves closer to Jesus, he/she will move closer to a fellow believer that is also attracted to Jesus. For example, the closeness between administrators and cleaners is more as each group gets attracted to Jesus. Distance 'a' is longer than distance 'b' for the latter is between two components that are closely attracted to Jesus.

In the 2000 - 2005 quinquennium, the World church of the Seventh-day Adventists came up with a theme "Vision 2005" with yearly sub-themes as follows

- ❖ 2001 - United by the Word of God
- ❖ 2002 - United in the Worship of God
- ❖ 2003 - United in the Wonder of His grace
- ❖ 2004 - United in the Warmth of Fellowship
- ❖ 2005 - United in the Witness of Truth

-16-

All these sub-themes focus on the unity of the believers and figure three above, demonstrates that this unity can mainly be achieved when believers restore their relationship with God. Their attraction to Jesus eventually brings them closer to their fellow human beings. The unity that is founded on Christ reveals to each one of us that we are all related to each other and Christ is our common point (Romans 12:4-7). In Christ, we must remain our brothers' keepers.

As humanity appreciates his/her interdependence both in school system and on belief in God, it should equally appeal to him/her to take time to appreciate the same interdependence as it applies to the components of the physical environment. The components of the physical environment such as air, water, soil, animals and plants have the same kind of interdependence in their natural operations. Their interrelationship is normally very stable, unless interrupted by the human interference. The stability in the natural environment provides for much of the human requirements such as food and shelter. It is this stability in the physical environment that the environmental restoration, being discussed, aims at achieving.

Conclusion:

As an Adventist environmentalist, I always see the bright smiling face of the Creator through the natural flowers in the environment. Many of us, especially, the ladies, do respond to such smiles by picking the concerned flowers. The Western culture often appreciates the good done by presenting a bundle of flowers to the concerned. The culture, more importantly, presents a bundle of flowers to the sick. Such flowers brighten the sick as the Creator communes with them through the flowers. Yes, the environment has a message for humanity, we only require divine power to perceive of it.

-17-

Such an informative physical environment is almost turning into ruins in the hands of sinful humanity, through his/her broken relationship with God, fellow human beings and Nature. Since Jesus death on the cross has bridged the guilt of man's alienation with God, it is also the only way through which humanity's alienation with Nature can be bridged. This will lead the human race to see God's hands in Nature and to realize that the restoration of the environment starts with God. Who knows? It could be the remnant church that the Lord has given chance to lead others in the restoration of the dignity of the physical environment for the common good of the entire earth.

Bibliography:

- Abidha, N.O (1987) "The need for Basic Environmental Education" in G.A. Bennaars (ed) Basic Education and Environment. 16th BEREC Bulletin. Basic Education Resource Centre for Eastern and Southern Africa. Kenyatta University, Nairobi, Kenya, Page 8.
- Baldwin, J.T. (1996) God, the Sparrow, and the emerald boa. Does nature speak with a forked tongue? College and University Dialogue, International Journal of Faith, Thought and Action. General Conference of Seventh-day Adventists. Pages 5-8-
- Bible Referneces in King James Version:
 a) Genesis 1:1, 1:31 and 3:17
 b) Luke 6:38
 c) Proverbs 1:7
- Bright, I (1985) Using the Local Environment. A contribution towards Environmental Education. Conservation Trust. U.K. Page 15
- Ellen G. White (1952) Education
 Pacific Press Publishing Association
 Mountain View, California, Oshawa, Ontario, Page 103
- G.C.C.I. (1997) Global Climate Change Issues.
 Framework Convention of Climate Change (F.C.C.C.).
 Koyoto Summit, Japan, Page 1.

-18-

- Greig, S., Pike, G. and Selby, D. (1987) Earthrights. Education as if the planet really mattered. Kogen Page Ltd. London. Pages 3 and 20
- I.U.C.N.; UNEP and WWF (1980) World Conservation Strategy. Living Resource Conservation for Sustainable Development, Page 17
- Larson, T (2000) True Education an Adaptation of Education by Ellen G. White, Pacific Press Publishing Association, Nampa Idaho. Oshawa, Ontario, Canada, Page 62
- Schumacher, E.F. (1973) Small is Beautiful
Economics as if people mattered.
Haper Colophone books. Harper and Row Publishers, New York, San Francisco. London, Page 95
- Singer, A. (1987) Battle for the Planet
Pan Books Ltd., London, Pages 10, 11 and 19.
- Sire, J.W. (1990) Discipleship of the Mind
Library of Congress Cataloging in Publication data,
Illinois, Pages 68, 135 and 147.
- Tan, M.C. (1986) The Ethics and Social Responsibility related to Environment, Land, Water and Mineral resources. A paper presented at the 5th ICASE Asian Symposium: Science and Technology Education towards informed citizenship (unpublished) Page 3.
- Timberlake, L (1987) Only One Earth
Living for the future. An Earthscan Paperback. London, Page 27
- Olembo, J.R. (1987) Environmental Science and the University.
The Role of New University in a developing Country.
Proceedings of the 1st International University Seminar held on 2nd -5th December, 1985 at Moi University, Eldoret, Kenya, Page 177.
- U.N. (1992) Earth Summit.
Press Summary of AGENDA 21. United National Conference on Environment and Development, Rio de Janeiro, Brazil, 3rd-14th June 1992, Page 1
- Wards, B and Dubs, R (1972) Only One Earth
The Care and Maintenance of a small planet
W.W. Norton and Co. Inc. New York.

-19-

**W.C.E.D. (1987) Our Common Future
World Commission on Environment and Development,
Oxford University Press, Oxford, New York, Page ix**